# WOMEN'S WORK AND FERTILITY: IS THERE A NEGATIVE RELATIONSHIP?\*

Han In-Sook

This study investigates the relationship between women's work and fertility in a developing country. Using data from the 1974 Korean National Fertility Survey, fertility differentials between workers and nonworkers are examined by means of multiple classification analysis techniques.

The results of multiple classification analyses indicate that the fertility differentials between workers and nonworkers were not substantial: workers, in fact, displayed somewhat higher actual and expected fertility behavior. When attention is paid to two factors, however, strong and significant differentials emerge. Women who worked at jobs in the modern sector displayed lower fertility than nonworkers, while those who worked in the traditional sector were intermediate. In contrast, women who worked in farm sector had much higher fertility than nonworkers even after statistical adjustment for marital duration and education.

The initial results from these analyses seem to support the hypothesis that a negative relationship existed between women's work and fertility only for types of work that were role incompatible with caring for children. Introducing additional indices of role incompatibility, however, there are indications of little direct confirmation for the role incompatibility hypothesis or, at a minimum, indications that the role incompatibility hypothesis does not offer a full explanation.

One theme of this study is that the relationship between women's work and fertility must be viewed in the proper sociocultural and historical context. The long history of partriarchal norms in Korea is one such important contextual element. The need to study women's status in this sociocultural context to find the relationship between women's work and fertility seems crucial.

The majority of the empirical research done on the relationship between female labor force participation and fertility makes no distinction among types of market work, instead simply looking at fertility differences between workers and nonworkers. This paper begins by considering fertility differentials where no distinctions are made by type of women's work and then goes beyond this to comparisons of various types of female labor force participation and their possible effects on fertility differentials.

The first female labor force participation variable to be considered is "ever worked since marriage." This is a dichotomous variable coded 1 if a woman has ever worked since marriage and 0 otherwise. This is the crudest measure of female labor force participation and may well gloss over important distinctions, particularly as they relate to the female labor force participation and fertility relationship. Nevertheless, it and similar measures are frequently found in the literature.

### Women Who Worked Compared to Those Who Never Worked

Table 1 shows differences in fertility and family planning indicators between women

<sup>\*</sup> This study has been done as a part of the author's Ph.D. dissertation. A special acknowledgement goes to Dr. James A. Palmore under whose chairmanship this study has been conducted.

Table 1. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Seven Fertility and Family Planning Indicators for the Worked vs. the Never Worked Dichotomy

	N*	Unadjusted Mean	Adjusted Mean
Children Ever Born			
Never Worked	2,080	2.79	3.43
Worked	2,845	4.09	3.64
Expected Number of Children			
Never Worked	2,059	3.33	3.88
Worked	2,820	4.39	3.98
Desired Number of Children			
Never Worked	2,063	2.93	3.10
Worked	2,812	3.42	3.29
Coombs Index of Sex Preference			
Never Worked	2,076	6.24	6.33
Worked	2,843	6.42	6.34
Coombs Index of Number Preference			
Never Worked	2,075	4.53	4.80
Worked	2,838	5.29	5.10
Ever Use of Induced Abortion			
Never Worked	2,080	.67	.69
Worked	2,845	.57	.55
Ever Use of Contraception			
Never Worked	2,078	.38	.44
Worked	2,844	.50	.45

<sup>\*</sup>Note: The number of cases do not add to the same total in each panel due to the different numbers of cases missing information for each panel.

who have worked (at any type of job, at any location, for whatever length of time) since marriage and those who have not. Seven fertility indicators are used: children ever born, expected number of children, desired number of children, the Coombs index of number preference, the Coombs index of sex preference, ever use of induced abortion, and ever use of contraception.

Column 2 shows the average indicators for workers and nonworkers, and column 3 shows the average indicator after adjustments have been made for differences in marital duration and education by means of Multiple Classification Analysis (MCA). A consistent pattern emerges from this table. The unadjusted fertility means show workers to have more children ever born, expected numbers of children, and desired numbers of children and a lower propensity to have used contraception or induced abortion. Even when adjustments are made for differences in age and education, the workers are higher on all five measures. These differences are, however, quite small, ranging from .01 for ever used contraception to .21 for actual fertility (CEB). For desired number of children the difference is .19, a small number when compared to the overall mean of 3.54 children ever born.

What assertions can be made from this table? If one used only children ever born as a fertility measure and made no adjustments for any background variables, one could argue that a clear positive relationship exists between female labor force participation and fertility: women who had worked since marriage had born an average of 1.30

more children than women who hadn't, and workers were 10 percentagé points less likely to have used induced abortion. Looking at ever use of contraception, workers had 12 percentage points less contraception use than nonworkers. This may be due to the higher fertility of the workers.

An overall view of the table leads to the conclusion that workers appear to have higher fertility when no adjustments for sociodemographic background variables are made. After adjustment for background variables, one could either argue that an insignificant positive relationship exists between employment and fertility or that there is no significant relation between female employment and fertility in Korea—as many previous studies on this topic have concluded. These previous studies have left no clear conclusions on the relationship between female employment and fertility. The categorization of women's occupation has usually been so crude and control variables so limited that the observed variations in fertility were jumbled together with underlying socioeconomic factors as well as an occupation's compatibility with childcare. Exceptions are Han (Park), 1978 and Han and Hong, 1981.

# Role Incompatibility and Types of Occupation

No significant fertility differentials are found from a comparison of workers and nonworkers. This not jibing with theory, it seemed sensible to next make fertility comparisons among various indices of working that might reflect role incompatibility. Table 2 shows the average number of children ever born by intensity of work, duration of work, percent of marital duration worked, income from work, employment status and place of work. The intensity of work distinguishes part time workers from full time workers. The location of work is described as on family farms, being primarily at home, or primarily away from home. Employment status divides working women into those employed by family, self employed (most are own account workers with a few employers included), and employees.

The results reveal that some role incompatibility indices do not reflect fertility differentials: the duration of work index, for example, shows that the more women have worked the higher their fertility even after controlling for marital duration and education. The employment status variable, on the other hand, shows lower fertility for the employed or self-employed, statuses likely to be less role compatible than family employment. A good summary of these simple results is that those who work away from home, those who are employed and those with income have lower fertility. These results suggest further study of the farm/nonfarm comparison.

# Comparing Work on Farms, Nonfarm Work, and Nonworkers.

Table 3 shows the fertility and family planning indicators for female workers divided into two groups: the farm workers and then nonfarm workers.

No clear-cut pattern emerges in the unadjusted fertility differentials. The unadjusted means show that farm workers had much higher fertility than their nonworking counterparts based on all four fertility measures. Even the nonfarm working women had more children ever born, expected numbers of children, desired numbers of children as well as a higher Coombs index of number preference. The nonfarm working women did, however, have a greater propensity to use contraception and induced abortion than nonworking women. The differences between these two groups of women were, however, small, ranging from .12 children in desired number of children to .43 children in children ever born.

Table 2. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Children Ever Born by Selected Female Labor Force Participation Measures

	N*	Unadjusted Means	Adjusted Means
Intensity of Work			
Never Worked	2,077	2.79	3.52
Part Time	781	3.88	3.67
Full Time	2,267	4.20	3.60
Duration of Work	•		2.00
Never Worked	2,076	2.79	3.46
0 —5 years	1,251	2.72	3.33
6 —10 years	562	3.91	3.57
11—20 Years	797	5.09	4.04
20 years	466	6.44	3.98
% of Married Life Worked			
Never Worked	2,076	2.79	2.51
33%	870	3.33	3.51 3.28
33%	2,199	4.42	3.28 3.77
Income			
Never Worked	2,080	2.79	3.46
No Income	1,595	4.57	3.92
With Income	1,278	3.47	3.20
Employment Status			
Never Worked	2,079	2.79	3.50
Family Employed	1,595	4.58	3.97
Self-Employed	856	3.91	3.34
Employed	628	3.21	3.17
Place of Work			
Never Worked	2,080	2.80	3.49
Family Farm	1,434	4.87	4.06
Home	681	3.36	3.32
Away from Home	649	3.50	3.25

<sup>\*</sup>Refer to the note for table 1.

When adjustment are made for wife's education and marital duration, however, nonfarm workers reveal lower prefereed, actual, and expected numbers of children than nonworkers and a higher adoption rate of contraceptive methods and induced abortion.

#### Sector of Work

Although the breakdown in work by farm and nonfarm is self-explanatory, the division of work by sector requires explanation. The KNFS data set contains a detailed occupational coding for every woman who worked. These occupations have been divided into two groups according to several criteria. The occupations involving family business, flexible hours and location of work, an informal relationship between employers and employees, minimal income, and the possibility of carrying out other activities simultaneously with work duties are listed as "traditional" sector jobs. On the other hand, those jobs for which hours and locations tend to be fixed, relationships

Table 3. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Seven Fertility and Family Planning Indices for Women Never Worked, Women Who Worked on Farms, and Women Who Engaged in Nonfarm Work: KNFS, 1974

	N*	Unadjusted Means	Adjusted Means
Children Ever Born			
Never Worked	2,080	2.79	3.43
Farm Work	1,536	4.82	4.03
Nonfarm Work	1,309	3.22	3.14
Expected Number of Children			
Never Worked	2,059	3.33	3.83
Farm Work	1,524	5.13	4.48
Nonfarm Work	1,296	3.51	3.47
Desired Number of Children			2117
Never Worked	2,063	2.93	3.08
Farm Work	1,515	3.74	3.52
Nonfarm Work	1,297	3.05	3.06
Coombs Index of Sex Preference	,		5.00
Never Worked	2,076	6.24	6.32
Farm Work	1,535	6.58	6.32 6.44
Nonfarm Work	1,308	6.22	6.25
Coombs Index of Number Preference	1,000	0.22	0.23
Never Worked	2,075	4.53	4.54
Farm Work	1,532	5.80	4.76
Nonfarm Work	1,306	4.70	5.47 4.72
Ever Use of Induced Abortion	1,500	4.70	4.72
Never Worked	2.000	<b></b>	
Farm Work	2,080	.67	.71
Nonfarm Work	1,536 1,309	.34 .83	.34 .77
Ever Use of Contraception	1,507	.03	.//
Never Work	2.079	10	4
Farm Work	2,078 1,535	.38	.45
Nonfarm Worked	1,309	.48 .52	.41 .50

<sup>\*</sup>Refer to the note for Table 1.

more formal, and work duties require full time attention are labeled "modern" sector jobs. The categorization of each occupation by sector is given in Appendix B.

Even though most educated women work in the modern sector and most uneducated women work in the traditional sector, Table 4 shows that education and occupational sector are by no means perfectly correlated. Forty one percent of the women with seven or more years of education worked in the traditional sector, while 28% of the women with less than seven years of education worked in the modern sector. In fact, 45% of all modern sector workers had less than seven years of education. Hence, female labor force participation by sector of work did not simply reflect educational or socio-economic differences.

Table 5 shows the work sector variable and the seven fertility and family planning indicators. A pattern immediately emerges that is quite different from the worked vs. the never-worked dichotomy or the trichotomy dividing those who worked into farm and

	Educ	cation	
Sector	6 or less years Number (Row) (Percent)	7 or more years Number (Row) (Percent)	Total
Informal Sector	607 ( 72)	191 ( 41)	798
(Column Percent)	(76)	( 24)	(100)
Formal Sector	231 ( 28)	280 ( 59)	511
(Column Percent)	(45)	(55)	(100)
Total	838 (100)	471 (100)	1309
(Column Percent)	( 64)	(64)	(100)

Table 4. Cross Tabulation of Wife's Education by Sector of Work for Nonfarm Workers: KNFS, 1974

nonfarm categories. Some types of workers reveal considerably higher fertility than non-workers and some show considerably lower fertility. Farmers had over half a child more than non-workers, while modern sector workers had almost half a child less, with the traditional sector workers falling in between, after adjustments are made for marital duration and education. The difference in expected family size by work sector shows virtually the same pattern exists as for children ever born. The farmers had considerably higher expected numbers of children than non-workers and modern sector workers had somewhat lower expected fertility.

The same pattern is found for desired number of children and the Coombs index of the prefered number of children but, given the clear work sector differences for actual and expected fertility, it is quite interesting that smaller differences exist for desired number of children or Coombs indices of number preference among workers in different sectors. The desired number of children for women in the traditional sector shows slightly higher ideal fertility than nonworkers but they had lower actual and future expected numbers of children. The Coombs index of number preference also indicates the same pattern as desired fertility. The Coombs number preference index for traditional sector workers shows a higher fertility ideal than nonworkers after education and marital duration of women are controlled. The desired number of children and Coombs number preference index for traditional workers were 3.12 and 4.83 whereas those for nonworkers were 3.08 and 4.75 respectively after the adjustment for socioeconomic background.

Differences in the Coombs number preference and desired number of children by work sector are smaller than the difference in actual number of children. The difference in future expected number of children by work sector is the widest. This implies that the difference in preferences for the number of children are not large among workers compared to nonworkers or farm workers compared to nonworkers. The actual number of children born, however, shows that workers have born slightly more than their desired number of children while nonworkers have one third of a child more children ever born than their desired number of children on the average after their education and marital duration have been controlled. In addition, the women who never worked expect .4 children more than they have while modern sector workers anticipate about .3 children more on the average. In sum, the nonfarm sector workers have born fewer children and also expect fewer children than nonworkers.

The contraceptive usage measured by ever use of induced abortion or ever use contraceptive methods also shows a consistent pattern. Modern sector workers, compared to nonworkers, are almost 10 percentage points more likely to have used induced

Table 5. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Seven Fertility and Family Planning Indicators by Sector of Work: KNFS, 1974

		Unadjusted	Adjusted
	N*	Means	Means
Children Ever Born			
Never Worked	2,080	2.79	3.43
Farm Work	1,536	4.82	4.03
Traditional	798	3.52	3.22
Modern	511	2.76	3.00
Expected Number of Children			
Never Worked	2,059	3.33	3.83
Farm Work	1,524	5.13	4.49
Traditional	788	3.80	3.56
Modern	508	3.07	3.32
Desired Number of Children			
Never Worked	2,063	2.93	3.08
Farm Work	1,515	3.74	3.53
Traditional	789	3.18	3.12
Modern	508	2.85	2.96
Coombs Index of Sex Preference			
Never Worked	2,076	6.24	6.32
Farm Work	1,535	6.58	6.44
Traditional	797	6.31	6.28
Modern	511	6.07	6.20
Coombs Index of Number Preference			
Never Worked	2,075	4.53	4.75
Farm Work	1,532	5.80	5.47
Traditional	797	4.93	4.83
Modern	509	4.33	4.53
Ever Use of Induced Abortion			
Never Worked	2,080	.67	.71
Farm Work	1,536	.34	.34
Traditional	798	.78	.75
Modern	511	.92	.81
Ever Use of Contraception			
Never Worked	2,078	.38	.45
Farm Work	1,535	.48	.41
Traditional	798	.51	.48
Modern	511	.53	.52

<sup>\*</sup>Refer to the note for Table 1.

abortion and to have practiced contraception at one time or another.

Thus, the information in Table 5 tells a consistent story: that a negative relationship between female labor force participation and fertility is present for some types of workers and a positive relationship is found for another type of worker. Modern sector workers show somewhat lower fertility than nonworkers and farm workers show considerably higher fertility. Modern sector workers appear to have slightly lower family size ideals and are somewhat more apt to have practiced contraception and show lower achieved and expected fertility than nonworkers.

The fact that some consistent fertility differentials have emerged from a comparison of workers by working sectors suggests making fertility comparisons within each sector by the measures that indicate possible role incompatibility. Tables 6 and 7 show the distributions of children ever born or expected number of children across the categories of a number of female labor force participation variables, the same ones as those in Table 2, but also controlling work sector. If women working in the more role compatible jobs reveal higher fertility then the hypothesis that the degree of incompatibility between working and mothering is an important determinant of the female employment and fertility relationship will be upheld.

The adjusted means in Table 6 and Table 7 reveal that some role incompatibility indices do little to clarify the women's employment and fertility relationship, while others do. The second panel of Table 6 shows that women who worked at home had more children than those who worked away from home within each work sector. The last panel shows that family workers had higher fertility than other employed workers or nonworkers.

The first panel of Table 7 shows that the percentage of married life that had been spent working is not related to fertility in the expected way. Those who had spent more than 33% of their married life in working in the traditional sector had an almost identical number of children ever born as those who had spent less than 33% after education and marital duration are controlled. Those who had worked more than 33% of their married life in the modern or farm sector had a higher number of children ever born. In each sector, those with income had fewer children born than those without income. The last panels reveal that the longer the duration of work in the modern or traditional sectors, the lower the actual number of children born.

The occupational classifications in Table 8 distinguish six categories of employment (white-collar, sales, service, blue-collar, farm, and nonfarm laboring occupations). Table 8 indicates that there is a relationship between the class of work and fertility. White collar workers and nonfarm laborers had lower fertility than other classes of workers. Tables 9 and 10 also show that the breakdown of working sector, (by modern, traditional and farm sector), consistently results in large fertility differences by place of residence and income. In rural areas as well as in urban areas, modern sector workers display lower fertility than nonworkers, while those who had worked in the farm sector show fertility levels higher than nonworkers. In all working sectors, those women who worked for income reveal lower fertility than those who did not.

Much of the confusion in the relationship between role incompatibility indices and fertility (Table 2) is caused by the opposite direction of the relationship between women's work and fertility in different work sectors. The higher fertility of farm workers disguises the negative relationship between other sector employment and fertility. The higher fertility of farm workers also glosses over the relationship between role incompatibility variables and fertility. After controlling for both work sector and the role incompatibility indices, a clearer relationship between work and fertility emerges that is quite different from the workers vs. nonworkers distinction with which

Table 6. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Expected Number of Children for Four Female Labor Force Measures by Sector of Work: KNFS, 1974

	N*	Unadjusted Means	Adjusted Means
Never Worked	2,057	3.34	3.84
Farm Work			
Part Time	447	4.75	4.39
Full Time	1,077	5.30	4.55
Traditional			
Part Time	182	3.75	3.70
Full Time	606	3.82	3.53
Modern			
Part Time	86	2.83	3.36
Full Time	422	3.13	3.32
Never Worked	2.050		
	2,059	3.33	3.83
Farm Work			
Home	1,381	5.17	4.53
Away	137	4.80	4.14
Traditional			
Home	380	3.59	3.53
Away	404	3.99	3.58
Modern			
Home	175	3.05	3.28
Away	332	3.08	3.34
Never Worked	2,059	3.33	3.83
Farm Work			•
Family Employed	1,306	5.17	4.55
Self-Employed	111	5.09	4.25
Employed	107	4.66	3.93
Traditional			
Family Employed	253	3.69	3.74
Self-Employed	297	3.94	3.50
Employed	238	3.72	3.44
Modern			
Family Employed	12	a——	a——
Self-Employed	261	3.34	3.30
Employed	235	2.80	3.35

<sup>\*</sup>Refer to the note for Table 1.

a--- omitted due to the small number of cases.

Table 7. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Children Ever Born for Four Female Labor Force Participation Measures by Sector of Work: KNFS, 1974

	N*	Unadjusted Means	Adjusted Means
% of Marital Duration Worked			
Never Worked	2,078	2.80	3.43
Farm Work			
33%	189	3.72	3.58
33%	1,340	4.98	4.11
Traditional Sector			
33%	374	3.45	3.22
33%	424	3.58	3.22
Modern Sector			
33%	224	2.62	2.92
33%	287	2.87	3.06
Income of Work			
Never Worked	2,080	2.79	3.43
Farm Work		4.04	4.07
No Income	1,316 220	4.84 4.72	4.07 3.79
With Income	220	4.72	3.19
Traditional Sector	267	3.29 <sup>-</sup>	3.40
No Income	531	3.60	3.13
With Income	331	3.00	3.13
Modern			_
No Income	11 490	a—— 2.77	a—— 3.00
With Income	490	2.77	3.00
Duration of Work			
Never Worked	2,078	2.79	3.41
Farm Work			
10 years	619	3.25	3.69
10 years	917	5.88	4.31
Traditional Sector	<b></b>	2.20	2.26
10 years	632	3.20	3.26 3.10
10 years	166	4.70	3.10
Modern Sector	400	2.52	2.07
10 years	430	2.52	3.07 2.59
10 years	81	4.04	2.59

<sup>\*</sup>Refer to the note for Table 1.

a--- omitted due to the small number of cases.

Table 8. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Children Ever Born for Six Classes of Work: KNFS, 1974

	N*	Unadjusted Means	Adjusted Means
Never Worked	2,080	2.79	3.43
Class of Work	,		
White Collar Workers	114	1.92	2.94
Sales Workers	546	3.48	3.29
Service Workers	145	3.10	3.11
Production Workers	368	3.07	3.23
Nonfarm Laborers	136	3.78	2.93
Farmers	1,536	4.82	4.07

<sup>\*</sup>Refer to the note for Table 1.

Table 9. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Expected Number of Children for Four Female Labor Force Participation Measures by Place of Residence: KNFS, 1974

	N*	Unadjusted Means	Adjusted Means
Rural			
Never Worked	661	3.71	4.07
Farm Work	1,334	5.23	4.60
Traditional	222	4.12	3.83
Modern	106	3.26	3.44
Urban			
Never Worked	1,398	3.15	3.70
Farm Work	190	4.43	3.90
Traditional	566	3.67	3.46
Modern	402	3.02	3.25

<sup>\*</sup>Refer to the note for Table 1.

### this study started.

One possibility for the relationships found thus far may be the self-selection of sub-fecund or divorced women into nonfarm labor force participation and high fecundity or low divorce rates for women in the farm sector. If divorced women or subfecund women with low fertility tend to work more, then the lower fertility of working women may reflect the higher prevalence of subfecundity or the breakdown of marriages among nonfarm working women compared to nonworkers or nonworkers as compared to farmers.

This hypothesis has been tested frequently in developed countries. Most of the results indicate that although working wives tend to have a higher incidence of subfecund or divorced women than nonworking wives, a negative relation between employment and fertility exists for both fecund and subfecund women. For developing countries, differ-

Table 10. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Children Ever Born for Female Labor Force Participation Measures by Income: KNFS, 1974

	N*	Unadjusted Means	Adjusted Means
Never Worked	2,080	2.79	3.43
Worked With No Income With Income	1,583 1,262	4.58 3.47	3.93 3.19
Farm Work With No Income	1,316	4.84	4.07
With Income Traditional Sector With No Income	220 257	4.72 3.34	3.79
With Income	541	3.60	3.33
Modern Sector With No Income .	9	a	a——
With Income	501	. 2.77	3.00

<sup>\*</sup>Refer to the note for Table 1.

ences in marital status or fecundity have seldom been considered as a possible cause of the women's work and fertility relationship (Freedman and Coombs, 1966; Smith, 1977; Mason, 1981).

This hypothesis is tested for the present data by examining the relation between work and fertility for currently married fecund women only. If the above explanation is correct, then removing from the analysis women subfecund or not currently married from her first marriage should cause the inverse employment-fertility relationship among Korean nonfarm working women to disappear. This is not, however, the case. The results of this analysis, shown in Tables 1 to 6 (in Appendix A) indicate that the same women's work and fertility relationship holds for currently married fecund women as held for the total sample. It seems, then, that greater prevalence of subfecundity or broken marriages among working women than nonworking women does not explain why nonfarm working women display lower fertility than those who have never worked since marriage.

#### **Summary and Conclusions**

The results presented in this study indicate, first, that fertility differentials between workers and nonworkers are not very substantial. Contrary to the Western pattern, workers display somewhat higher actual and expected fertility behavior. When attention is paid to the types of work women have done, however, strong and significant differentials emerge. Women who have worked in the modern sector display lower fertility than nonworkers, while those who have worked in the traditional sector have intermediate fertility levels. In contrast, women who have worked in the farm sector show much higher fertility than nonworkers. The results for nonfarm sector work seem initially to support the hypothesis that a negative relationship will exist between female

a- omitted due to the small number of cases.

work and fertility only for types of work that are role incompatible with caring for children. There is, however, little direct confirmation for the role incompatibility hypothesis. At least the role incompatibility hypothesis does not offer a complete explanation. The role compatibility hypothesis can not explain why work in the farm sector is associated with higher fertility in these settings than never working. The same question has been raised by a sociologist when she reconsidered the role incompatibility hypothesis in a study of Malaysia (Mason, 1981). Contrary to expectations from the role incompatibility hypothesis, there also is no significant negative employmentfertility relationship by spaciotemporal conflict. The percent of married life worked does not yield the expected fertility differentials. Location of work and the intensity of work do not indicate significant fertility differentials although the direction is consistent with expectations in most cases. Finally urban areas did not have a more negative employment-fertility relationship than rural areas. The urban-rural distinction, which certainly taps spaciotemporal role incompatibility, does not indicate any difference in fertility by working sectors. Regardless of place of residence, women in the modern sector or the traditional sector reveal lower fertility than nonworkers and farm sector workers show higher fertility. Fertility differentials between work and fertility are, however, more marked in rural areas than in urban areas.

One theme of this study is that the relationship between women's work and fertility must be viewed in the proper sociocultural and historical context. First, it is necessary to disentangle the reciprocal causal direction between work and fertility. Also the need

# **Appendix:**

#### A.

Table 1. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Five Fertility and Family Planning Indicators for the Worked vs. the Never Worked Dichotomy for Currently Married Fecund Women: KNFS, 1974

	N*	Unadjusted Mean	Adjusted Mean
Children Ever Born			
Never Worked	1,880	2.60	3.20
Worked	2,218	3.87	3.37
Expected Number of Children			
Never Worked	1,859	3.20	3.65
Worked	2,193	4.22	3.84
Desired Number of Children			
Never Worked	1,880	3.34	3.61
Worked	2,218	4.03	3.79
Ever Use of Induced Abortion			
Never Worked	1,880	.66	.72
Worked	2,218	.59	.54
Ever Use of Contraception			
Never Worked	1,869	.57	.60
Worked	2,211	.63	.60

<sup>\*</sup>Refer to the note for Table 1.

to study women's status in this sociocultural context to find out the relationship between women's work and fertility seems crucial. Traditional Confucian norms for sex role attitudes are a potential cause of work and fertility behavior and also a potential consequence of having engaged in these activities to varying degrees. A plausible suggestion is that a better understanding of the status of women may be needed to supplement existing theories and ideas explaining the relationship between women's work and fertility.

Table 2. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Five Fertility and Family Planning inficators for the Never Worked, Farm Work, and Nonfarm Work Trichotomy for Currently Married Fecund Women: KNFS, 1974

	N*	Unadjusted Means	Adjusted Means
Children Ever Born			
Never Worked	1,880	2.60	3.17
Farm Work	1,225	4.55	3.69
Nonfarm Work	993	3.04	3.02
Expected Number of Children			2.62
Never Worked	1,859	3.20	3.62
Farm Work	1,213	4.96	4.22
Nonfarm Work	980	3.42	. 3.42
Desired Number of Children		2.24	2.50
Never Worked	1,880	3.34	3.59
Farm Work	1,225	4.45	4.06
Nonfarm Work	993	3.50	3.51
Ever Use of Induced Abortion			.74
Never Worked	1,880	.66	
Farm Work	1,225	.35	.25
Nonfarm Work	993	.88	.84
Ever Use of Contraception		57	.60
Never Worked	1,869	.57	
Farm Work	1,221	.61	.57
Nonfarm Work	990	.65	.64

<sup>\*</sup>Refer to the note for Table 1.

Table 3. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Five Fertility and Family Planning Indicators for Women by Work Sector for Currently Married Fecund Women: KNFS, 1974

	N*	Unadjusted Mean	Adjusted Mean
Children Ever Born			
Never Worked	1,880	2.60	3.17
Farm Work	1,225	4.55	3.70
Traditional	604	3.35	3.08
Modern	389	2.55	2.92
Expected Number of Children			
Never Worked	1,859	3.20	3.61
Farm Work	1,213	4.96	4.23
Traditional	594	3.72	3.51
Modern	384	2.98	3.27
Desired Number of Children			
Never Worked	1,880	3.34	3.59
Farm Work	1,225	4.45	4.06
Traditional	604	3.73	3.60
Modern	389	3.15	3.37
Ever Use of Induced Abortion			
Never Worked	1,880	.66	.74
Farm Work	1,225	.35	.25
Traditional	604	.85	.82
Modern .	389	.92	.88
Ever Use of Contraception			
Never Worked	1,869	.57	.60
Farm Work	1,221	.61	.57
Traditional	602	.65	.64
Modern	388	.66	164

<sup>\*</sup>Refer to the note for Table 1.

Table 4. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Expected Number of Children for Four Measures by Work Sector for Currently Married Fecund Women: KNFS, 1974

		Unadjusted Means	Adjusted Means
	N*		
Never Worked	1,859	3.20	3.65
Farm Work			
Part Time	32	4.60	4.19
Full Time	841	5.10	4.26
Traditional			
Part Time	148	3.67	3.59
Full Time	446	3.75	3.51
Modern			
Part Time	71	2.80	3.34
Full Time	315	3.01	3.34
Never Worked	1,859	3.21	3.66
Farm Work			
Home	1,106	4.97	4.18
Away	104	4.84	3.98
Traditional			
Home	304	3.61	3.52
Away	286	3.85	3.53
Modern			
Home	136	2.97	3.29
Away	250	2.98	3.37
Never Worked	1,859	3.20	3.66
Farm Work			
Family Employed	1,056	4.95	4.27
Self-Employed	79	5.20	4.24
Employed	78	4.59	3.80
Tradition			
Family Employed	216	3.64	3.56
Self-Employed	210	3.92	3.56
Employed	168	3.62	3.44
Modern			
Family Employed	10	a——	a——
Selî-Employed	185	3.22	3.34
Employed	191	2.74	3.33

<sup>\*</sup>Refer to the note for Table 1.

a- omitted due to the small number of cases.

Table 5. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Children Ever Born for Four Female Labor Force Participation Measures by Work Sector for Currently Married Fecund Women: KNFS, 1974

	N*	Unadjusted Means	Adjusted Means
Never Worked	1,880	2.60	3.19
Farm Work			
Part Time	380	4.03	3.18
Full Time	845	4.78	3.56
Traditional Sector			2.2.2
Part Time	152	3.26	3.70
Full Time	452	3.38	3.70
Modern Sector		3.30	3.17
Part Time	72	2.40	3.03
Full Time	317	2.58	2.93
1	317	2.30	2.93
Never Worked	1,880	2.61	3.17
Farm Work			
Home	1,117	4.56	3.66
Away	105	4.48	3.53
Traditional Sector			
Home	307	3.25	3.13
Away	293	3.43	3.05
Modern			
Home	136	2.60	3.04
Away	253	2.48	2.90
Never Worked	1,880	2.60	3.19
Farm Work	1,000	2.00	3.17
Family Employed	1,064	4.54	3.67
Self-Employed	80	4.94	3.72
Employed	81	4.32	3.37
Traditional Sector			
Family Employed	219	3.23	3.13
Self-Employed	170	3.62	3.17
Employed	215	3.16	2.95
Modern Sector			
Family Employed	10	a——	a
Self-Employed	193	2.97	3.04
Employed	186	2.16	2.87

<sup>\*</sup>Refer to the note for Table 1.

a--- omitted due to the small number of cases.

Table 6. Means and Adjusted Means (Adjusted for Wife's Marital Duration and Wife's Education) of Expected Number of Children and Place of Residence by Work Sector for Currently Married Fecund Women: KNFS, 1974<sup>1</sup>

	N*	Unadjusted Means	Adjusted Means
Rural			
Never Worked	602	3.59	3.87
Farm Work	1,073	4.92	4.30
Traditional	165	4.14	3.80
Modern	79	3.15	3.52
Urban			
Never Worked	1,257	3.02	3.53
Farm Work	140	4.38	3.94
Traditional	429	3.57	3.43
Modern	307	2.92	3.26

<sup>\*</sup>Refer to the note for Table 1.

<sup>1.</sup> The number of cases included across tables is different because some tables include the maximum number of cases possible (1) based on information being available for work sector, (2) based on information being available for various role compatibility measures but not necessarily for work sector, (3) based on having data available for both of the preceding types of information (4) based on (1) above but adding the criteria that only currently married, fecund women are included. And (5) based on (3) above but adding the criteria that only currently married, fecund women are included. The tables with comparable total sample sizes are: (1) Tables 1,3,4, and 5; (2) Table 2; (3) Tables 6 through 10; (4) Appendix Tables 1, 2, 3, and 6; and (5) Appendix Tables 4 and 5.

### Women's Occupations by Working Sectors

1. Modern Sector	
Doctors	5
Chemists	1
Pharmacists	6
Nurses	12
Teachers	50
Artists and musicians	6
Other Professionals	7
Office Workers	35
Self-employed store owners	106*
Sales workers	58*
Restaurant or boarding house owners	48*
Hairdressing shop owners	18*
Tailors	26*
Production workers	123*
Other service workers	11*
Total	512
2. Traditional Sector	209**
Street vendors	176
Restaurant or lodge family workers	43
Cook or bartenders	30
Maid and launderers	39
Hairdressors	24**
Other service workers	9**
Cottage industry workers or part time	-
production workers	185**
Laborers	82
Unclassified laborers	4
Total	801
3. Farm Sector	
Farmers or farm related workers	1,608

Note: \*workers who worked more than 40 hours a week with an income of 20,000 Won or more and not a family worker.

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