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## The Effects of Social Capital and Community Resources on the Cost of Child Rearing

*The purpose of this study is to compare the economic burden and cost of child rearing, mainly between families with job-holding mothers and job-exit mothers. The sample consisted of 665 mothers with at least one child aged one year or less from the 2009 Panel Study on Korean Children. We found social capital reduced the child rearing costs for both job-holding and job-exit mothers, while community resources significantly reduced the costs of child rearing only for job-holding mothers. Based on these results, implications for family policy for families with young children are suggested.*

The total fertility rate in Korea has declined significantly from 1.54 in 1997 to 1.23 in 2010 (Statistics Korea, 2011). Experts have pointed out that the heavy financial burden of child rearing and the increasing number of women participating in the labor force are closely related to the decline in the fertility rate (Bang, 2010; Chosunilbo, 2011; Lee, 2010; Seo, 2010). With respect to women in the workforce, 49.7% of women participated in the workforce in 2011 (Statistics Korea, 2012). The overall rate of women's participation in the workforce has

not changed substantially from 2002 when it was 49.8%. In addition, the women's workforce participation rate by age group still shows an M-curve, indicating that many women tend to drop out of the workforce due to childbirth and child rearing. Therefore, increasing attention has been given to the low rate of women's participation in the workforce and their career disruption due to child rearing.

Household production theory presumes that the birth of a child demands a mother's time for child care and increases a woman's time value at home as the time spent with her babies at home produces the valuable outcomes of child rearing and therefore increases the productivity of her time at home (Becker, 1965). Furthermore, although more women are now participating in the workforce, childrearing is still considered as a woman's responsibility, so many mothers experience a lack of sleep and physical fatigue due to childrearing and household chores after childbirth (Sohn, 2012). Thus, many employed women leave the labor force with the birth of a new baby. However, without the mother's income, it could make the financial situation in a household more difficult. On the other hand, from an economic perspective, employed mothers with infants also face a difficult financial situation because of the need for child care services usually at a substantial monetary cost. In addition, we would expect families with an employed mother to need more income and resources to pay for goods and services that can be a substitute for the time needed

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for housework. Mothers who lack enough income or resources to pay for both child care and other costs of working may choose to leave the labor market.

The Korean government has expanded child care policies extensively to increase the fertility rate and help employed mothers. The child care policies targeting children ages 0-2 years old, however, are very controversial in Korea. The Korean government announced that the free daycare program would be overhauled seven months after its implementation (Dongailbo, 2012, September 25). The Korean government has provided a free daycare program for all children under 24 months of age regardless of family income and assets. Under the upcoming new plan, however, a child-rearing allowance will be introduced to provide financial support for families only in the bottom 70% of the income bracket. In addition to the child-rearing allowance, the government will provide vouchers to families who send their children to daycare. The amount of the vouchers will be different depending on the employment status of parents. If both parents work, the vouchers will cover a full-day service, but if one parent works, it will only cover partial costs of daycare. Considering that many Korean parents with young children experience the heavy burden of child rearing expenses regardless of the mother's employment status (Korea Institute of Child Care and Education, 2012), it is important to know how much it costs to raise children depending on mothers' employment status before implementing different child care policies for one-income families and two-income families.

Numerous recent studies regarding the costs of raising children have been conducted since the low fertility rate has become serious (Lee, 2007, 2010; Park, 2006). These studies have examined the costs of child rearing based on socio-demographic characteristics (i.e., the number of young children, the age of the youngest child, the mother's employment status) and economic resources within families using household income and assets (Lee, 2007; Park, 2006; Seo, 2011b). Recently, however more research has concluded that noneconomic resources are also important including social capital and community resources that can contribute to a

family's economic status and economic resources (Seo, 2008, 2011a; Shin, Lee, Yoon, Nam, & Kim, 2007; Son, Dyk, Bauer, & Katras, 2011). However, it is still unclear whether or not these noneconomic resources could contribute to reducing actual household expenditures on child rearing since they have not yet been examined. Therefore, the relationships between the noneconomic resources and the actual costs for child rearing should be investigated.

The first purpose of this research is to compare the monetary cost of child rearing between job-holding mothers and job-exit mothers. The second purpose of this research is to investigate how the economic and noneconomic resources associated with child rearing expenditures differ by the mother's employment status. Specifically, we examine the effects of noneconomic resources such as social capital and community resources as well as economic resources such as family income and net worth on the economic burden of child rearing. This research uses available data from the 2009 Panel Study on Korean Children to compare the costs of child rearing between job-holding and job-exit mothers. As the terms "job-holding mothers and job-exit mothers" indicate, we compared the mothers who had been working before marriage and childbirth and then either remained in or exited the labor force mainly due to marriage and the birth of a child. The specific research questions of the present study were as follows: (1) Are there group differences in the household incomes, expenditures, social capital, and community resources between families with job-holding mothers and job-exit mothers? (2) What resources are significantly associated with the household financial burden of child rearing expenses? Understanding how much of the family's income is spent on the children depending on the mothers' employment status and the factors related to reducing child care expenses would be helpful to implement family policies to assist families with young children. In addition, we could expand our discussion to include the implications for public policies to prevent mothers' career disruption by comparing the available resources other than family income to reduce the costs of child rearing between job-holding and job-exit mothers.

## BACKGROUND

### *Costs of Child Rearing*

Mothers with young children experience various difficulties including lack of parental efficacy, difficulty finding information on child care, and stress from child care expenses (Korea Institute of Child Care and Education, 2012). Of these difficulties, stress from child care expenses was the highest level for mothers. In a comparison between employed mothers and unemployed mothers, unemployed mothers were more likely to experience parenting stress including child care expenses compared to employed mothers (Korea Institute of Child Care and Education, 2012). Considering that the child care policy focuses relatively more on employed mothers with young children, more attention should be paid to unemployed mothers.

Previous research has examined costs for child rearing based on families' socio-economic characteristics including the number of preschool children in a household, the age of the youngest child, mother's employment status, and household income (Park, 2006; Seo, 2011b). Specifically, the research indicated that child rearing expenses varied depending on the number of young children. For a single child, monthly expenses were around KRW 850,000, KRW 660,000 per child in a two-child family, and KRW 530,000 per child in a three-child family (Seo, 2011b). That is, like economies of scale, families with more young children spent less money on child rearing per child. Expenditures on children also increased with age of the child (Lee, 2007; Park, 2006; Seo, 2011b). Families with children ages 4 and above spent more money on early childhood education than families with children ages 0-3 years old regardless of household income and the mothers' employment status (Seo, 2011b). Lee (2007) also reported that educational expenditures were the largest for families with children ages 3 and above compared to other expenditures on child rearing and suggested that the government expanded educational support for children ages 3 and above instead of supporting expenditures related to basic livelihood. The mother's employment status was also related to the child rearing expenditures. Families with

employed mothers spent more money on child rearing compared to families with unemployed mothers. Considering the different household incomes between one-income families and two-income families, however, the proportion of child rearing expenditure was not very different between the two groups (Seo, 2011b). Predictably, families with higher incomes spent more money on child rearing than families with lower incomes. However, child rearing expenditures as a proportion of the household income decreased as family income increased (Lee, 2007; Park, 2006; Seo, 2011b). Regarding relationships between household income and the age of the children, low-income families with children ages 1 and under were more likely to experience financial difficulty from bearing the costs of child rearing (Seo, 2011b).

### *Noneconomic Resources and Costs of Child Rearing*

Utilization of noneconomic resources available from inside and outside of families could contribute to a family's economic status and well-being. In this study, social capital and community resources are discussed as noneconomic resources. Several studies have argued that social capital could help increase the economic well-being of families (Seiling, Mannogian, & Son, 2011; Seo, 2008; Simmons, Braun, Wright, & Miller, 2007; Weaber & Habibov, 2012). Social capital, reflected in relationships among people, is an important potential resource for assisting individuals and families to achieve their interests (Coleman, 1988). Social capital inside households includes the time parents spend with their children and social capital outside households includes assistance from extended family members, friends, neighbors, and the community such as social support, trust, and norms of reciprocity. Families with young children often establish close relationships with people who are outside of their families, but the level of social capital each family has might be different. Social capital in a context outside the family might be related to the burden of child care. Lee and Chin (2011) reported that mobilized social capital was different depending on mothers' employment status even though they found that social capital was not different. Specifically, employed

mothers were more likely to utilize social capital in terms of economic resources and child care assistance compared to unemployed mothers.

The concept of social capital have frequently been used in various studies on families with young children in relation to child development (Kim, 2010), parenting stress (Kwon & Rah, 2010; Ok & Cheon, 2010; Sohn, 2010), and intention to have an additional child (Chung & Chin, 2008; Seo, 2010). However, few studies have assessed if social capital is necessary to achieve the goal of child care (Lee & Chin, 2011). In addition, previous research has concluded that social capital could contribute to improving the economic well-being of families (Seo, 2008, 2011a; Weaber & Habibov, 2012). Considering the results that have indicated that social capital is related to the subjective satisfaction of a family's economic status, it would be interesting to examine whether social capital is related to actual spending on child rearing in a household.

Little research on community resources has been conducted even though there is increasing interest in communities that create family friendly environments for child care (Noh & Chin, 2012; Shin et al., 2007). The concept of community resources has not been consistently defined, but community resources could be considered the available resources in a community that satisfy the families' needs (Shin et al., 2007). Likewise, knowledge of the family service infrastructure in a community was related to the perception of the family-friendliness of a community (Noh & Chin, 2004). According to Swisher and colleagues (2004), dual-earner families with younger children perceived their communities as more family friendly when they had families with children in their neighborhoods. However, there is significant evidence of mothers' unmet needs related to child care in communities. In terms of child care facilities, Shin and colleagues (2007) reported that the community resources for child care did not satisfy the mothers' needs. They also found that there were several issues including cost, quality, and accessibility of child care. Considering that perceptions of a family-friendly community were positively related to parenting efficacy and parenting stress (Noh & Chin, 2012), utilization of community resources could reduce the

child care burden of families and increase the efficiency of implementing the child care policy.

## METHODS

### *Data*

The data used in this study comes from the 2009 Panel Study on Korean Children (PSKC). The purpose of the survey of the PSKC is to provide nationwide longitudinal data on the characteristics of children's growth and development, requirements and status of child care, functions and effects of child care support services, and impact of local communities and child care policies (The Panel Study on Korean Children, n.d.). The first year of the survey was in 2008 with a sample of 2078 babies born in medical institutes nationwide from April to July 2008. Surveys will continue annually until 2015 when these babies enter elementary school. The second year survey data in 2009 used in this study included a sample of 1905 babies aged one year old or less.

### *Participants*

We selected families with employed mothers or mothers exiting the labor market mainly due to marriage and child rearing. Excluding the cases with an extremely high monthly disposable income above KRW 30 million and dropping the cases with missing values in the variables, the sample for the analysis consisted of 655 families with about one-year-old infants. The descriptive statistics of the sample are presented on Table 1 and Table 2.

As Table 1 shows, the mothers averaged 32 years in age. Of the 655 mothers, approximately 58% of the mothers dropped out the work force and became full-time mothers after child birth while about 42% of the mothers remained in the work force. In terms of mothers' education, 47.63% received college degrees or graduate school degrees. Compared to the job-exit mothers, the job-holding mothers were more likely to have higher levels of education ( $\chi^2=43.63$ ,  $p<.001$ ). Likewise, the husbands of the job-holding mothers had higher education levels than the husbands of the job-exit mothers ( $\chi^2=21.00$ ,  $p<.001$ ). The fathers' occupations were 25% managerial/

Table 1. Descriptive Statistics of the Sample

	Total ( <i>n</i> =655)		Job-exit Mothers ( <i>n</i> =378)		Job-holding Mothers ( <i>n</i> =277)		$\chi^2$
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Mother's Employment Status	655	100.00	378	57.71	277	42.29	
Mother's Education							
Less than high school	176	26.87	130	34.39	46	16.61	43.63***
Some college	167	25.50	89	23.54	78	28.16	
College degree	275	41.98	152	40.21	123	44.40	
Graduate school	37	5.65	7	1.85	30	10.83	
Child's Gender							
Male	328	50.08	196	51.85	132	47.65	1.13
Female	327	49.92	182	48.15	145	52.35	
Child's Birth Order							
1 <sup>st</sup>	323	49.31	181	47.88	142	51.26	1.13
2 <sup>nd</sup>	270	41.22	158	41.80	112	40.43	
3 <sup>rd</sup> or more	62	9.47	39	10.32	23	8.30	
Father's Education							
Less than high school	160	24.43	113	29.89	47	16.97	21.00***
Some college	127	19.39	68	17.99	59	21.30	
College degree	300	45.80	170	44.97	130	46.93	
Graduate school	68	10.38	27	7.14	41	14.80	
Father's Occupation							
Managerial/Professional	189	28.85	94	24.87	95	34.30	34.44***
Clerical	173	26.41	84	22.22	89	32.13	
Services/Sales	84	12.82	52	13.76	32	11.55	
Manufacturing/Farming etc.	92	14.05	63	16.67	29	10.47	
Operator/Labor	74	11.30	61	16.14	13	4.69	
Others	43	6.56	24	6.35	19	6.86	
Housing Tenure							
Owning	294	44.89	163	43.12	131	47.29	4.01
<i>Jensei</i>	275	41.98	159	42.06	116	41.88	
Rent	48	7.33	34	8.99	14	5.05	
Others	38	5.80	22	5.82	16	5.78	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i> -value
Mother's Age	32.21	3.52	32.15	3.52	32.28	3.52	0.65
Father's Age	34.60	3.93	34.75	4.06	34.40	3.74	0.26
Family Size	2.77	0.87	2.75	0.87	2.80	0.89	-0.67
Disposable Income <sup>‡</sup>	386	282	323	307	473	216	-7.36***
Net worth <sup>‡</sup>	22,260	60,968	21,710	65,066	23,011	54,992	-0.28

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ <sup>‡</sup> Currency Unit: 10 thousand KRW

professional, 22% clerical, 17% manufacturing/farming etc, and 16% operator/labor, respectively, for the job-exit mothers' households but 34% managerial/

professional, 32% clerical, 12% services/sales, and 10% manufacturing/labor for the job-holding mothers' households ( $\chi^2=34.44$ ,  $p<.001$ ). The total monthly

Table 2. Descriptive Statistics of Noneconomic Resources for Child Care

	Total (n=655)		Job-exit Mothers (n=277)		Job-holding Mothers (n=378)		t-value
	M	SD	M	SD	M	SD	
Father's Involvement	3.68	0.86	3.60	0.87	3.80	0.84	-2.92**
Social Support- Emotional	3.90	0.73	3.88	0.75	3.92	0.72	-0.70
Social Support- Instrumental	4.21	0.63	4.17	0.63	4.27	0.62	-2.04*
Social Support- Informational	3.85	0.77	3.77	0.81	3.95	0.71	-3.05**
Social Support- Interpersonal	3.92	0.73	3.86	0.77	4.00	0.67	-2.38*
Community Resources	3.07	4.76	3.04	0.71	3.11	0.64	-1.43

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

disposable household income was KRW 3,860,000 and their average net worth was KRW 222,600,000. While the job-holding mothers' average monthly household disposable income (KRW 4,730,000) was higher than the job-exit mothers (KRW 3,230,000) ( $t = -7.36$ ,  $p < .001$ ), their net worth was not significantly different between the two groups. In addition, there were no differences in the target child's gender, birth order, housing types, and family size between the two groups.

#### Variables and Measurement

The dependent variables were the cost of child rearing, and we employed two types of child rearing cost measures: (1) the monthly expenditures for child rearing and (2) the proportion of disposable income utilized for child rearing. We used the sum of the respondents' answers to two questions about consumption and non-consumption expenditures for the babies in the sample as the measurement of the cost of child rearing as follows: "How much did you spend in consumption (or non-consumption expenditures) for (the name of the baby in question) during the last 12 months?" Among the cost of child rearing, the child care cost was measured by summing the monthly payments paid to daycare centers or individuals who provided child care services. Other costs were calculated by subtracting the cost of child care from the cost of child rearing.

The independent variables included the variables representing social capital, community resources, and socio-demographic control covariates. The variables for social capital included the father's involvement in parenting and the social support. The father's involvement in parenting was measured

with four items and averaged scores ranged from 1 to 5, with higher scores indicating more involvement in parenting. The specific items for the father's involvement in parenting and the Cronbach's  $\alpha$  are presented in the Appendix, Table A1. Social support included emotional, instrumental, informational, and interpersonal support from the extended family, relatives, neighbors, and friends. Each type of social support was calculated by averaging items (ranging from 1 to 5) and higher scores indicated receiving more social support. The variable of community resources was measured with seven items. Sample items are as follows: "Are there sufficient childcare facilities for your child in your neighborhood?"; "Is using public recreational space or facilities such as playgrounds, park, walkways, etc., convenient in your neighborhood?"; and "Is your neighborhood safe for your child?" The score for community resources was calculated by averaging the scores of the seven items with a range of 1 to 5 with higher scores indicating having more community resources.

The socio-demographic variables included mother's age, mother's employment status, mother's education, child's gender, child's birth order, father's education, father's occupation, family size, housing tenure, disposable income, and net worth. Of the families' demographics variables, mother's age, father's age, family size, disposable income, and net worth were the continuous variables, and mother's employment status and education, child's gender and birth order, father's education and occupation, and housing tenure were the categorical variables as shown in Table 1. The baby in question was not counted in the family size. The net worth was the total value of financial and non-financial assets minus total debts.

### Analysis

To identify the differences in socio-demographic characteristics and in the major variables between the families with job-holding mothers and job-exit mothers, chi-square and t-test analyses were conducted. To investigate factors that were significantly related to the costs of child rearing, ordinary least square regression analyses were conducted on the share of disposable income for the cost of child rearing and the monthly expenditure for child rearing as the dependent variables and on the social capital, community resources, and socio-demographic variables as the independent variables. The presence of multicollinearity was tested by examining a correlation matrix and VIF scores. Among the four types of social support variables, only instrumental social support was included as the independent variable in the regression analysis for two reasons. First, these four types of social support were highly correlated and caused a multicollinearity problem, and second, only the instrumental support variable was significantly associated with the cost of child rearing.

## RESULTS

### Noneconomic Resources for Child Care

Table 2 shows noneconomic resources that can be utilized for child care. Regarding social capital, father's participation in parenting was above the

medium level ( $M=3.68$ ), but the fathers of the job-holding mothers were more likely to participate in parenting than the fathers of the job-exit mothers ( $t=-2.92, p<.01$ ). Mothers with young children received relatively high levels of social support. Of the four types of social support, the level of instrumental social support ( $M=4.21$ ) was the highest among the other types of social support regardless of the mothers' employment status. Comparing the mothers' employment status, the job-holding mothers received more social support including instrumental ( $t=-2.04, p<.05$ ), informational ( $t=-3.05, p<.01$ ), and interpersonal ( $t=-2.38, p<.05$ ) than the job-exit mothers except for emotional social support. With respect to community resources, the mothers reported that they had a medium level of community resources ( $M=3.07$ ), and there was no difference in community resources between the two groups.

### Cost of Child Rearing

Table 3 presents the descriptive statistics of household income and expenditures. The average monthly disposable household income was KRW 3,860,000. Not surprisingly, the job-holding mothers' household disposable income (KRW 4,730,000) was higher than the job-exit mothers' disposable income (KRW 3,230,000) ( $t=-7.36, p<.001$ ). Likewise, the job-holding mothers' total expenditures were also higher than the job-exit mothers' one ( $t=-7.93, p<.001$ ). In terms of costs for raising a child, on average, the families with job-holding mothers spent more income on child rearing than the families with job-

Table 3. Descriptive Statistics of Household Income and Expenditures (10 thousand KRW)

	Total ( <i>n</i> =655)		Job-exit Mothers ( <i>n</i> =378)		Job-holding Mothers ( <i>n</i> =277)		<i>t</i> -value
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Disposable Income	386	82	323	307	473	216	-7.36***
Total Expenditures	285	174	240	157	346	178	-7.93***
Costs for Child	53	43	37	36	76	40	-13.28***
Child Care	19	32	1	4	45	36	-20.50***
Other Costs	34	32	36	36	31	25	1.99*
Other Expenditures	232	151	204	134	270	163	-5.53***
% Cost for Child	0.15	0.10	0.14	0.10	0.17	0.09	-4.56***

\*  $p<.05$ , \*\*  $p<.01$ , \*\*\*  $p<.001$

Table 4. Regression Analysis of the Share of Income in Child Rearing Expenses (10 thousand KRW)

Variables	Total (n=655)			Job-exit Mothers (n=378)			Job-holding Mothers (n=277)		
	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$
Constant	66.10***	6.56	-	50.15***	8.17	-	72.91***	10.93	-
Job-exit Mother	-7.03	0.80	-0.35***						
Mother's Age	-0.04	0.11	-0.02	-0.07	0.14	-0.03	-0.02	0.17	-0.01
Mother's Education (vs.<High School)									
Some college	-0.63	1.11	-0.03	0.41	1.39	0.02	-2.34	2.01	-0.12
College degree & more	0.78	1.15	0.04	2.23	1.43	0.11	-1.92	2.09	-0.11
Child's Gender-Male	0.78	0.69	0.04	-0.06	0.93	-2.91-E3	1.49	1.05	0.08
Child's Birth Order-First	4.93	0.96	0.25***	7.39	1.33	0.37***	2.38	1.47	0.13
Father's Education (vs.<High School)									
Some college	0.28	1.18	0.01	1.02	1.49	0.04	0.08	2.07	3.47-E3
College degree	-0.46	1.16	-0.02	-1.43	1.48	-0.07	0.99	2.01	0.05
Graduate school	2.04	1.63	0.06	0.34	2.25	0.01	3.58	2.59	0.14
Father's Occupation (vs. Other)									
Managerial/Professional	1.82	1.54	0.08	4.16	2.17	0.18	0.87	2.29	0.05
Clerical	1.87	1.53	0.08	3.93	2.17	0.16	0.54	2.22	0.03
Services/Sales	1.98	1.65	0.07	4.05	2.23	0.14	-0.22	2.56	-0.01
Manufacturing/Farming etc.	1.44	1.63	0.05	3.49	2.18	0.13	-0.13	2.60	-4.45-E3
Operator/Labor	2.43	1.70	0.08	4.53	2.18	0.16*	-0.46	3.14	-0.01
Family Size	0.21	0.55	0.02	1.65	0.78	0.14*	-1.21	0.81	-0.12
Log Disposable Income	-7.82	0.82	-0.41***	-7.91	0.98	-0.40***	-7.06	1.55	-0.30***
Log Net worth	0.23	0.17	0.05	0.05	0.23	0.01	0.46	0.26	0.11
Housing Tenure (vs. Rent/other)									
Owning	-1.79	1.16	-0.09	-1.63	1.53	-0.08	-1.55	1.87	-0.09
Jensei	-1.00	1.15	-0.05	-1.19	1.50	-0.06	-0.98	1.89	-0.05
Father's Involvement	0.45	0.41	0.04	0.45	0.56	0.04	0.48	0.63	0.05
Social Support- Instrumental	-1.79	0.56	-0.11**	-1.39	0.76	-0.09	-2.34	0.88	-0.16**
Community Resources	-0.09	0.52	-0.01	0.96	0.68	0.07	-1.64	0.86	-0.12
F-value		9.97***			7.13***			3.20***	
R <sup>2</sup>		0.26			0.30			0.21	
Adjusted R <sup>2</sup>		0.24			0.26			0.15	

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ 

exit mothers by KRW 390,000 a month ( $t = -13.28$ ,  $p < .001$ ). As a proportion of the total child-rearing expenses, child care accounted for the largest share for the job-holding mothers comprising KRW 450,000 while other expenses (KRW 360,000) were the largest average expense for a child of the job-exit mothers. That is, the difference in the cost of child

rearing mainly came from the difference in the child care cost since the job-exit mothers cared for their children by themselves and had little need to use outside child care services. On the other hand, the job-exit mothers spent more income than the job-holding mothers on other child rearing expenses by about KRW 50,000 monthly. The proportion of



Table 5. Regression Analysis of the Child Rearing Expenditures (10 thousand KRW)

Variables	Total (n=655)			Job-exit Mothers (n=378)			Job-holding Mothers (n=277)		
	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$
Constant	-0.72**	0.26	-	-0.85**	0.31	-	-1.32**	0.46	-
Job-exit Mother	-0.25	0.03	-0.29***						
Mother's Age	-3.64-E3	4.29-E3	-0.03	-0.01	0.01	-0.06	1.17-E3	0.01	0.01
Mother's Education (vs.<High School)									
Some college	-0.05	0.04	-0.05	-0.02	0.05	-0.02	-0.09	0.08	-0.10
College degree & more	2.61-E3	0.05	3.04-E3	0.03	0.06	0.05	-0.07	0.09	-0.09
Child's Gender-Male	0.01	0.03	0.01	-0.03	0.04	-0.04	0.04	0.04	0.05
Child's Birth Order-First	0.14	0.04	0.16**	0.19	0.05	0.26**	0.09	0.06	0.11
Father's Education (vs.<High School)									
Some college	-0.03	0.05	-0.02	-0.03	0.06	-0.03	02.57-E3	0.09	2.58-E3
College degree	-0.06	0.05	-0.07	-0.10	0.06	-0.14	0.02	0.08	0.03
Graduate school	0.04	0.07	0.03	-0.14	0.09	-0.10	0.18	0.11	0.16
Father's Occupation (vs. Other)									
Managerial/Professional	0.04	0.06	0.04	0.10	0.08	0.11	0.06	0.10	0.08
Clerical	0.06	0.06	0.06	0.16	0.08	0.18	0.02	0.09	0.02
Services/Sales	0.03	0.07	0.02	0.10	0.09	0.10	-0.01	0.11	-0.01
Manufacturing/Farming etc.	-0.02	0.07	-0.01	0.04	0.08	0.04	-0.01	0.11	-0.01
Operator/Labor	0.03	0.07	0.02	0.08	0.08	0.08	-1.79-E3	0.13	-9.55-E4
Family Size	-0.01	0.02	-0.03	0.03	0.03	0.06	-0.07	0.03	-0.15
Log Disposable Income	0.31	0.03	0.37***	0.26	0.04	0.36***	0.43	0.06	0.42***
Log Net worth	0.01	0.01	0.05	1.80-E3	0.01	0.01	0.01	0.01	0.08
Housing Tenure (vs. Rent/other)									
Owning	-0.04	0.05	-0.05	-0.02	0.06	-0.02	-0.04	0.08	-0.05
Jensei	8.84-E4	0.05	1.02-E3	0.02	0.06	0.02	-0.03	0.08	-0.03
Father's Involvement	0.02	0.02	0.05	0.02	0.02	0.06	0.03	0.03	0.07
Social Support- Instrumental	-0.09	0.02	-0.13***	-0.09	0.03	-0.16**	-0.10	0.04	-0.15**
Community Resources	-0.02	0.02	0.03	0.02	0.03	0.03	-0.09	0.04	-0.14*
F-value		17.11***			4.40***			5.16***	
R <sup>2</sup>		0.38			0.21			0.31	
Adjusted R <sup>2</sup>		0.36			0.16			0.25	

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

income shared for child rearing was about 17% for the families with job-holding mothers and 14% for the families with job-exit mothers.

#### Factors Related to the Cost of Child Rearing

Table 4 presents the results of the regression analysis of the proportion of disposable income shared for

child rearing expenditures. As expected, the share was significantly less for the job-exit mothers than the job-holding mothers, other variables being equal ( $\beta = -0.35$ ,  $p < .001$ ). This result indicates that the economic burden of child rearing was greater for the job-holding mothers than the job-exit mothers. For the families with job-exit mothers, it was positively

associated with the first-born child variable ( $\beta=0.37$ ,  $p<.001$ ), father's operator/laborer occupations ( $\beta=0.16$ ,  $p<.05$ ), and family size ( $\beta=0.14$ ,  $p<.05$ ) and negatively associated with the log disposable income ( $\beta=-0.40$ ,  $p<.001$ ). This model accounted for 30% of the variance in the share of income in child rearing expenses. For the families with job-holding mothers, the share of income spent on child rearing was negatively associated with the log disposable income ( $\beta=-0.30$ ,  $p<.001$ ) and instrumental social support ( $\beta=-0.16$ ,  $p<.01$ ). This model accounted for 21% of the variance in the share of income used for child rearing expenses. That is, for the families with job-exit mothers, the share was mainly related to the families' demographic characteristics and their family income, while for the families with job-holding mothers, the share was related to family income and instrumental social support.

Table 5 presents the results of the regression analysis of the level of child rearing expenses. The job-holding mothers spent significantly more income on child rearing than the job-exit mothers, other variables being equal ( $\beta=-0.29$ ,  $p<.001$ ). For the families with job-exit mothers, the first child ( $\beta=0.26$ ,  $p<.01$ ) and the log of disposable income ( $\beta=0.36$ ,  $p<.001$ ) had a positive effect, but instrumental social support ( $\beta=-0.16$ ,  $p<.01$ ) had a negative effect on the expenses for the child. This model accounted for 21% of the variance in the child rearing expenses. For the families with job-holding mothers, the level of child rearing expenditures were positively related to the log of disposable income ( $\beta=0.42$ ,  $p<.001$ ), but negatively related to the instrumental social support ( $\beta=-0.15$ ,  $p<.01$ ) and community resources ( $\beta=-0.14$ ,  $p<.05$ ). This model accounted for 31% of the variance in the child rearing expenses.

## DISCUSSION

The objectives of this research were to compare child rearing expenditures between job-exit mothers and job-holding mothers and to identify the factors related to the burden of child care expenses. Of the factors, we particularly focused on the relationships

between child rearing costs and noneconomic resources including social capital and community resources as well as family economic resources.

The results from this research indicated that the amount of social capital was different depending on a mother's employment status. This finding was consistent with Lee and Chin's (2011) study. The level of social capital that the families with job-holding mothers had was significantly higher than the level of social capital that the families with job-exit mothers had. This result can be interpreted in two ways. On the one hand, families with job-holding mothers might seek more resources to maintain their jobs. According to Lee and Chin (2011), employed mothers are less likely to have time and energy to take care of their young children, so they are likely to increase the social capital from which they can draw, as needed. However, unemployed mothers are less likely to need others' help with child care or to have an opportunity to build social capital. On the other hand, families with job-holding mothers might be able to remain in the workforce because they have more social capital compared to families with job-exit mothers. For future research, it is important to identify the direction of relationships with longitudinal data. Furthermore, previous research has claimed that unemployed mothers experience more parenting stress compared to employed mothers (Sohn, 2012). According to Noh and Chin (2012), the family-friendliness of a community consists of community social capital and the family service infrastructure and parents who perceived their community as family-friendly were less likely to experience parenting stress. Considering these results, it is important to provide programs to expand the type of social capital that unemployed mothers can utilize.

In terms of the relationship between disposable income and costs of child rearing, the families spent more income on child rearing as they had more disposable income regardless of the mothers' employment status while the proportion of disposable income utilized for child rearing expenses decreased. In other words, the families with less disposable income spent a large share of their income on the costs of child rearing compared to the families with

more disposable income, as previous research has reported (Lee, 2007; Park, 2006; Seo, 2011b). Thus, families with less disposable income might experience a greater financial burden of child rearing.

The families with job-holding mothers spent more money on child rearing than the families with job-exit mothers. Although the families with job-holding mothers had more disposable income compared to the families with job-exit mothers, they spent more money on child rearing. That is, the economic burden of child rearing was greater for the families with job-holding mothers. When employed mothers consistently experience a financial burden of child rearing despite their employment, more women may be inclined to give up their work or may be less likely to consider having another child. Therefore, more support should be considered for job-holding mothers to reduce their financial burden of child rearing. In addition, the proportion of child rearing expenditures was different depending on the mothers' employment status. As we expected, the job-holding mothers spent approximately 59% of the total child-rearing expenditures on child care while the job-exit mothers spent about 97% of the total costs of child rearing on expenditures other than child care. This result indicates that job-exit mothers provided a richer set of offerings to their children compared to job-holding mothers who provided their children with purchased care services. The results suggest that filling the gap between children of employed and unemployed mothers in terms of the quality of child rearing is very important to retain employed mothers in the labor force.

The factors related to the share of income in child rearing expenditures and the level of child rearing expenditures were different depending on the mothers' employment status. For the families with job-exit mothers, their demographic characteristics including the child's birth order, father's occupation, and family size were significantly associated with the proportion of disposable income utilized for child rearing expenditures and the level of child rearing expenses. However, demographic characteristics were not related to the costs of child rearing for the families with job-holding mothers. Instrumental

social support and community resources were more relevant factors for the job-holding mothers to reduce the costs of child rearing instead of their demographic characteristics.

Instrumental social support played an important role in reducing the economic burden of child rearing for both the job-holding and the job-exit mothers. In addition, the job-holding mothers tended to take advantage of the benefits of community resources in raising their infants. The findings of this study suggest that instrumental social support and community resources would be helpful for employed mothers with young children. However, community resources were not significantly related to child rearing expenses for the job-exit mothers. This result could be interpreted in two ways: either the job-exit mothers did not use available community resources for raising their children or there was a lack of community resources. The mean score of the community resources for the job-exit mothers was about 3 points indicating "not good and not bad," and the t-test result revealed no significant difference between the scores of job-holding and job-exit mothers. The facilities for child rearing might be available in the community but the job-exit mothers might not perceive them as adequate. If this was the reality that the job-exit mothers faced for their child rearing needs in the community, that could also lead to employed mothers quitting their jobs to care for their children by themselves. Further study is necessary to investigate whether the community resources for child rearing affects the mother's labor force participation decision. In addition, to provide appropriate support for job-exit mothers, we should examine whether community resources meet the different needs of job-exit mothers and what kinds of community resources can satisfy their needs.

According to the findings of this study, each mother's need for child rearing resources is different depending upon her employment status and household income. Therefore, child care policies should be designed to meet specific and different needs of parents to reduce the burden of child care. Our results also shed light on the importance of social capital to reduce the expenditures of child rearing for both employed and unemployed mothers.

The results of this study imply that we should pay more attention to implementing successful public policies to reduce a family's financial burden of child rearing. We should also pay attention to the role of social capital and the community resources for child rearing. Policies are strongly needed to develop programs that facilitate intimate interactions among mothers living in the same community, to build up good quality community resources. These new policies can become effective measures for helping families with young children and help reduce overall social costs for child rearing.

One limitation of the present study is that since this study used one wave of longitudinal data, we were unable to examine the long-term effect of the mothers' career disruption. Future researchers should study the effect of career disruption on household economic status and child rearing expenditures. Despite the limitations, this research used national representative panel data to identify the expenditures of child rearing and the factors that are related to the burden of child rearing expenses. In addition, this study expands the knowledge of child rearing expenses by examining the importance of social capital on the burden of child rearing.

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Table A1. *Summary of Scales*

Variables	Cronbach's $\alpha$	Items <sup>d)</sup>
Father's involvement	0.81	<ul style="list-style-type: none"> <li>- My husband buys toys and stuff for our baby.</li> <li>- My husband takes an interest in the habits or behaviors of our baby and guides him/her.</li> <li>- My husband feeds or bathes our baby.</li> <li>- My husband plays with our baby.</li> </ul>
Social Support- Emotional	0.82	<ul style="list-style-type: none"> <li>- When my family gets lonely, we can tell them honestly and rely on them.</li> <li>- They always care about my family.</li> </ul>
Social Support- Instrumental	0.83	<ul style="list-style-type: none"> <li>- When we urgently need money, they lend us the money.</li> <li>- When my family suddenly needs things, they lend them to us.</li> <li>- When my family needs help with big family events as <i>Gimjang</i> or a family feast, they help us.</li> </ul>
Social Support- Informational	0.87	<ul style="list-style-type: none"> <li>- When my family has to decide important matters such as buying a house, they provide advice.</li> <li>- They provide advice on child rearing.</li> <li>- They provide advice on living or hobbies.</li> </ul>
Social Support- Interpersonal	0.82	<ul style="list-style-type: none"> <li>- We often visit or call each other even when there is no special occasion.</li> <li>- My family buys things for or dines out with them.</li> <li>- We visit each other on family occasions such as wedding or funerals.</li> <li>- We do recreational activities or spend holiday together.</li> </ul>
Community Resources	0.85	<ul style="list-style-type: none"> <li>- Are there sufficient childcare facilities for your child in your neighborhood?</li> <li>- Are there sufficient preschools for your child (excluding English kindergartens, play school) in your neighborhood?</li> <li>- Are there sufficient private education institutions for your child in your neighborhood?</li> <li>- Is using public recreational space or facilities such as playgrounds, park, walkways, etc., convenient in your neighborhood?</li> <li>- Is using cultural facilities such as museums, art galleries, theaters, libraries, etc., convenient in your neighborhood?</li> <li>- Is your neighborhood safe for your child?</li> <li>- Is your neighborhood safe for your child regarding accident such as traffic accidents, fires, falls, etc.?</li> </ul>

Source: 2009 PSKC Questionnaires. Retrieved from [http://kicce.re.kr/panel/eng/bbs\\_board/board\\_list.jsp?menu\\_id=0304&board\\_no=0502](http://kicce.re.kr/panel/eng/bbs_board/board_list.jsp?menu_id=0304&board_no=0502)