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Child Care Subsidy Policy: Evaluation and Ways to Improve

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Child care policy in Korea revolves around financial support for all households with young children. However, the effectiveness of the approach varies among households. For example, high-income, highly educated families are less likely to use the subsidies to place their children in child care centers. In order to enhance the effectiveness of the child care policy and raise the employment of highly educated women, more attention should be placed on improving the quality of child care services rather than on universal financial support.

I. Issues

The universal child care program is an ongoing topic of discussion in Korea. In 2012, the Korean government began providing full subsidies for center-based care to all families with children aged 0-2 and 5, regardless of parents' employment status and income; expanding it to all households with children aged 0-5 in 2013. The introduction of the universal child

* This article summarizes "Women's Time Allocation and Its Implications for Childcare Policy" KDI Policy Study 2014-11, Korea Development Institute, 2014 (in Korean).

<Table 1> Policy Changes for the Child Care Subsidy

	Children aged 0-2	Children aged 3-4	Children aged 5
2003	Means-tested subsidy; for households whose recognized income is equal to or less than 1.25 million won per month		Full subsidy to households whose recognized income is equal to or less than 2.15 million won per month
2004	Means-tested subsidy; for households whose recognized income is equal to or less than 1.59 million won per month		Full subsidy to households whose recognized income is equal to or less than 2.23 million won per month
2005	Means-tested subsidy; for households whose income is or less than 60% of urban worker's average monthly income		Full subsidy to households whose income is and less than 80% of an urban worker's average monthly income
2006	Means-tested subsidy; for households whose income is or less than 70% of an urban worker's average monthly income		Full subsidy to households whose income is or less than 90% of an urban worker's average monthly income
2007	Means-tested subsidy; for households whose income is or less than the urban worker's monthly average		Full subsidy to households whose income is or less than an urban worker's monthly average
2010	Full subsidy to households whose income is in the lowest 70%		Full subsidy to households whose income is in the lowest 70%
2012	Full subsidy to all households	Full subsidy to households whose income is in the lowest 70%	Full subsidy to all households
2013	Full subsidy to all households		

Note: Recognized income is equal to the sum of households' monthly income plus converted monthly income from its holdings such as land, housing, financial assets, vehicle, and so on.

Source: Guideline for Child Care Policy, Ministry of Health and Welfare, each year.

care program has triggered disputes on a fiscal shortfall between the central government and local governments. Instead of infants and toddlers continuing to be cared for at home, parents have used government subsidies to place them in child care centers alongside older pre-school children, which has caused excessive demand on the centers. Most recently, a video of a child care teacher abusing a child sparked outrage over the quality of free child care services.

Child care support mainly revolves around financial support for all households with young children. But shouldn't policy support recognize the varying needs of individuals and households? That is the question being posed in relation to the effectiveness and fiscal efficiency of the child care policy.

This paper evaluates the effects of the current free child care policy, and offers policy suggestions. To that end, it empirically analyzes the impact of expanded government child care subsidies on the decision-making of households with children. By closely observing the heterogeneous impact on women and households, this paper attempts to recommend policies that could enhance the policy impact for respective target groups.

Child care support needs to be evaluated and explored to improve measures, taking into account the effectiveness and fiscal efficiency of the relevant child care policy.

<Table 2> Changes in Costs for Center-based Care

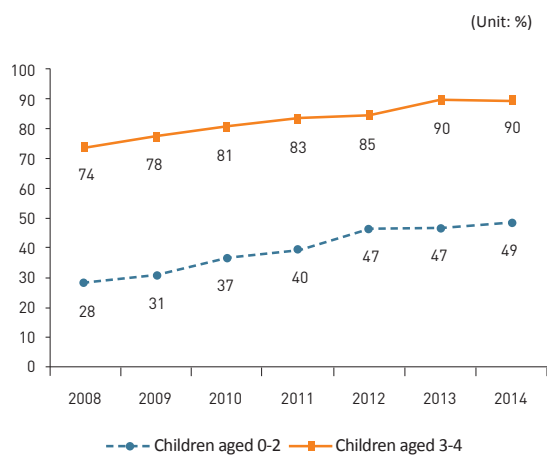
(Unit: 10 thousand won)

	Total costs for use of child care centers	Monthly tuition fee	Other expenses (extra activities, learning materials, meals)
Aged 0-2			
2009	19.5	15.3	3.8
2012	4.8	0.3	4.3
Aged 3-4			
2009	25.0	16.7	7.7
2012	20.1	10.2	9.5

Note: Real amount as of 2012.

Source: National Childcare Survey, Ministry of Health and Welfare, 2009, 2012.

[Figure 1] Use of Child Care Centers



Source: Childcare Statistics, Ministry of Health and Welfare, annual publication; Vital Statistics Survey, Statistics Korea, annual publication.

II . Background: Child Care Subsidy

As shown in Table 1, the government subsidy for child care has expanded gradually from covering low income households to all income classes. In 2009, the subsidy to households was means-tested according to income level. In 2012, the government began to provide a subsidy to cover the full cost of child care center usage. Households with children aged 0-2 and 5 years old were eligible, regardless of income level or wealth. Then, starting in 2013, children aged 3-4 were also entitled to the full subsidy, meaning that, as of now, all households with young children aged 0-5 are eligible for the full child care subsidy.

The direct consequence of the expanded subsidy coverage is the rapid decrease in the cost spent on child care centers by households. Table 2 presents the changes involving children aged 0-2 and 3-4 from 2009 to 2012. Monthly child care costs fell sharply from 153,000 won in 2009 to 3,000 won in 2012 when the full subsidy for children aged 0-2 was initiated. Additionally, total child care costs with other expenses plummeted from 195,000 won to 48,000 won. Meanwhile, the child care costs of preschoolers aged 3-4 did not fall as sharply as those for children aged 0-2 since the universal subsidy did not cover them until 2012.

With subsidy coverage expanding, the use of centers has increased steadily (Figure 1), particularly for infants and toddlers (aged 0-2) who were previously cared for at home. However, unexpected consequences have accompanied the expansion of the universal child care subsidy; the continuous placement of children by non-working mothers has caused more problems for dual-income families who desperately need child care centers. Moreover, the escalation in use has intensified concerns over the management of child care facilities and their quality.

<Table 3> Impact of the Universal Child Care Subsidy for Children Aged 0-2

	(1) Costs for child care center	(2) Use of child care center	(3) Labor force participation	(4) Working hours	(5) Parental care hours	(6) Informal care hours by caregivers other than parent
Full subsidy	↓	↑	—	—	↓	—

Note: 1) ↑ denotes an increase, ↓ denotes a decrease, and — denotes statistical insignificance.

2) This table presents difference-in-difference estimates of the change in behavioral patterns between households with children aged 0-2 and those with children aged 3-4 before and after the policy change in 2012.

Source: National Childcare Survey, Ministry of Health and Welfare, 2009, 2012.

III . Effects of the Full Subsidy for Children Aged 0-2

1. Overall effect of the expanded subsidy policy for child care

The universal child care subsidy to households with children up to aged 2 contributed to an increase in the use of child care centers and decrease in the direct parental care of children, but little change was observed in women's labor supply.

To estimate the effects of universal child care, this paper uses the 2012 policy reform providing full child care subsidies for children aged 0-2. It applies a difference-in-difference approach by comparing children aged 0-2 (treatment group) and those aged 3-4 (comparison group) before and after the introduction of the universal child care subsidy in 2012. The data used in the analysis are from the National Childcare Survey¹⁾ which covers from 2009 to 2012. The estimation results show that in 2012, the monthly cost for the use of child care centers for children aged 0-2 was 106,000 won lower than that for preschoolers aged 3-4 compared to 2009. The decline in costs is a direct result of the universal child care subsidy, which confirms that the policy change lowered households' spending on center-based care.

As expected, the reduced cost increased the use of child care centers while decreasing parental care for children aged 0-2. However, it should be noted that the labor supply of women, i.e. mothers, does not exhibit any statistically significant increases neither in labor force participation nor working hours.

2. Respective effects of the expanded subsidy policy on different child groups

The full subsidy boosts the use of center-based care and diminishes direct parental care of young children. The effect of the subsidy, however, may vary among individuals and households; the analysis subjects are categorized in Table 4 and 5, according to women's employment status, education level and household income.

The rise in the use of center-based care for children aged 0-2 does not seem to have

1) Pursuant to the Infant Care Act, the National Childcare Survey is conducted every three years on households with young children and child care facilities to collect information on child care conditions and opinions. This paper uses the 'Household Survey,' which contains information on characteristics of households and its members, in connection with the 'Children Survey,' which gathers information on the use of child care services by children group.

<Table 4> Effects of the Full Subsidy by Mothers' Employment Status

	(1) Costs for child care center	(2) Working hours	(3) Parents' direct care hours	(4) Informal care hours by caregivers other than parents
Working mother	↑	—	—	↓
Non-working mother	↑	—	↓	—

Note: Ibid. Table 3.
Source: Ibid. Table 3.

<Table 5> Effects of Full Subsidy by Mothers' Education Level and Household Income

	(1) Costs for child care center	(2) Labor force participation	(3) Parent's direct care hours
I . Women's education level			
(1) Higher than high-school graduate	↑	—	—
(2) High school graduate or less	↑	—	↓
II . Household income			
(1) High-income	↑	—	—
(2) Low income	↑	—	↓

Note: Ibid. Table 3.
Source: Ibid. Table 3.

increased mothers' working hours, however, the care hours are clearly affected by the employment status of mothers. In the case of working mothers, center-based care has replaced the use of informal care (relatives, nannies, etc.). On the other hand, stay-at-home mothers appear to have substituted parental care during the daytime with child care centers. In other words, the free child care system helps working mothers, who can use formal center-based care during working hours while increasing leisure time for non-working mothers.

In terms of women's education level and household income, the effect of the child care subsidy differs between highly educated, high-income households and less-educated, low income households. Above all, the free child care policy leads to an increase in the use of child care centers by all households with children aged 0-2 regardless of their education level and income, but no significant changes were observed in women's labor supply. Besides, in the case of less-educated, low income households, their direct care hours have reduced for children aged 0-2 compared to children aged 3-4, but such changes were not observed among highly educated, high-income households.

Such a tendency seems to be more evident, particularly in the limited scope of non-working mothers. As for less-educated, low income households with unemployed mothers, the expanded subsidy has substantially increased the use of child care centers and lowered

For working mothers, the child care subsidy serves to replace informal care by caregivers (other than parents) with center-based care.

For less-educated, low income households, the use of child care centers has become a substitute for parental care, in contrast to highly educated, high-income households.

direct parental care hours. In contrast, among highly educated, high-income households, the use of child care centers for children aged 0-2 has not particularly risen compared to that for children aged 3-4, and no statistically significant changes in parents' direct care hours were found. Additionally, their use of child care centers was found to be lower than that of less-educated, low income households.

3. Child care service price and quality

To sum up, the increase in the use of child care centers for children aged 0-2 from 2009 to 2012, in general, has led to fewer hours of parental child care compared to the hours spent caring for preschoolers aged 3-4. Contrarily, this tendency was not found among highly educated women and high-income households. To interpret the analysis results, which show the different effects of the child care subsidy according to individual and household characteristics, it is worth considering parents' decision-making on investments to enhance their children's capabilities. For this, parents spend time and money to care for their children which includes paying for child care centers. However, their decision is affected by the quality of care service as well as the price.

If the quality of parental care is far superior than that of center-based care and the marginal utility gained from the children's quality improvement is high, the degree of substitution between parental care and center-based care would be low. In other words, the time spent on parental care is unlikely to be replaced by center-based care if children's capacities can be better enhanced through parents' time investment. Besides, if parents find it hard to trust the quality of center care service or to receive accurate information on the level of quality, the substitution effect would not be high or would not occur at all, even if costs are slashed.

It would be difficult to substantiate the difference in demand for care quality among different types of individuals and households, but it is possible to examine it indirectly. The National Childcare Survey (2009, 2012) contains questions on how willingly and how much more people would pay for higher quality center-based care. The answer to the question

<Table 6> Analysis on the Willingness to Pay for Quality of Child Care (marginal effect of Tobit analysis)

	Total willingness to pay (natural logarithm)
Household income (natural logarithm)	0.146**
Level of women's education: higher than high-school graduate	0.312*
Level of husbands' education: higher than high-school graduate	0.283*
Number of children	4,035

Note: **, * represents statistical significance of 1%, 5% respectively.
Source: National Childcare Survey, Ministry of Health and Welfare, 2009, 2012.

can be used to calculate parents' willingness to pay, referring to the maximum amount parents would be willing to pay for the quality of their children's care. The results found that women with higher education and households with higher incomes are more inclined to pay more, with other variables for individual, household and regional characteristics being controlled. For instance, as household income rises by 100%, the willingness to pay increases by 15%, and as women become more educated, the willingness to pay increases by 31%. This finding implies that the demand for quality care service may vary significantly, depending on individual and household heterogeneity. In other words, unless the quality of center-based care is assured, a simple reduction in the cost would bring only a limited effect on women's time allocation.

Highly educated, high-income households are found to have a higher demand for quality care service.

IV . Improvement of the Child Care Support Policy

The above analysis outcome can be interpreted to deliver the following implications for the improvement of future child care policies, taking into account recent debates over the free child care policy.

First, the current support policy needs to be reexamined to determine if its focus on the child care subsidy has been effective; at present, all households with young children can use the free full-day center-based care. This policy is highly likely to be inconsistent with the actual demand. As such, it would be appropriate for the subsidy to be tailored to mothers' employment status and household income. Above all, to support working mothers in more urgent need for center-based care, benefits need to vary, which would also be dependent on women's employment status. In addition, the existing financial support system should be adjusted to place more focus on meeting actual needs than on containing high-income households—no significant effects from the subsidy are expected from them. If the support system can assure a certain amount of time, based on children's development, for care services and the costs for prolonging care service are partially paid for by the households concerned in proportion to their income, the excessive demand for child care centers could be alleviated.

Child care support needs to be adjusted to meet actual needs that vary according to a mother's employment status and household income.

In other countries, the amount of child care support, benefits and self-pay vary depending on women's employment status and household income. In Sweden, the support was initially given to working women only, and then expanded to also cover unemployed women. The amount of support depends on women's working status; working women are allowed to use center-based care for up to 40 hours per week, while non-working women get 15 hours per week. Additionally, the care service costs paid by parents vary according to household income and number of children.

Financial resources saved by the adjustment of the subsidy system should be first used to improve the quality of center-based care.

Second, savings from subsidy adjustments should first be used to improve the quality of center-based care, which is of great importance to children's development. In particular,

The child care subsidy alone will not ease the stagnant employment rate of highly educated women; quality care service should be ensured.

providing children from less-educated, low income households with quality care service and educational programs could be conducive to providing them with an equal opportunity at the start of their development. Moreover, the focus on the quality of care would help sufficiently ease parents' concerns and enhance women's participation in the labor market. Financial support for child care alone is inadequate to raise the currently stagnant employment rate of highly educated women. Thus, it is necessary to ensure quality service and provide accurate information on the level of quality.

Strengthening the quality of care should be the basic goal of any child care policy in this regard. To that end, direct investment and training programs need to be provided to streamline the teacher qualification system and improve the quality of teachers. Furthermore, it is also necessary to establish an underlying framework for thorough management and evaluation of the care service quality to allay parents' concerns and provide information on child care centers to help parents make the right decision. ■

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