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## **A study on the reduction of economic burden after the expansion of childcare support**

Yoon-Jeong Shin

A study on the reduction of economic  
burden after the expansion of childcare  
support

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## Abstract <<

The study examines how much childcare support policies, aimed at increasing birth rate by reducing the economic burden related to childcare, have relieved the economic burden of child rearing families, with the focus on the cash grant policies as well as childcare and education subsidy policies. Under the cash grant policies, the authors compared cash benefits provided by the government for child rearing households and child-related tax reduction, including personal exemption and special exemption. Concerning childcare service policy, the amount of government subsidy for childcare and education services was compared with the actual expenses of each family. For the study, the Korea Welfare Panel Study's data for 2007 to 2011 was utilized.

The results of the study show that while the amount of cash allowance that child rearing families receive increased due to the expansion of the government's cash grant program, tax benefits have not substantially risen. The 4th quintile income group appeared to receive less tax reduction benefits than the high-income groups and the lowest amount of cash allowance. The amount of cash benefit per child was not higher in the case of households with two or more young children than in those with one child. Although the government expanded the

childcare and education subsidy for children aged between 0 and 5, the total amount of actual spending on the care and education of young children by households has not decreased significantly. This is seen to be because their additional spending on childcare and education has grown, although their payment to childcare institutions has dropped. The increase in the amount of the government subsidy on childcare and education helped close the disparity in household spending of different income groups, but such reduction in the gap appears to be attributed not only to the expansion of the government subsidy but also to the net increase in household spending.

Recent childcare support policies, which are being expanded under the purpose of strengthening universality, require detailed examination on whether they effectively reduce the childcare burden on middle- or upper- income households. As long as the current system that demands high investment on childcare and education as well as excessive childcare burden on parents persists in Korea, it seems that government policies are destined to have limitations in effectively reducing parents' economic burden related to childcare. In addition, to promote the support for households with multiple children, social policies need to be changed to give preference to these families. It is necessary to introduce cash allowance for children and a graded approach to social allowances in general according to the number of children. It is also necessary to consider the de-



velopment of policy measure of wage differentiation based on the number of children under the social insurance system that includes pension insurance, employment insurance, and occupational health and safety insurance.





# Chapter 1

## Introduction



# 1

## Introduction <<

Korea's total fertility rate in 2012 was 1.30, which is the lowest among the OECD member countries. To deal with the serious issue of low birth rate, the Korean government has implemented the Basic Plan for Low Fertility and Aging Society since 2005, and has gradually expanded childcare support. In spite of these efforts, the country's birth rate has stopped rising beyond 1.3, which belongs to the lowest-low fertility level. Women's participation in economic activities drastically decreases in the age groups when they commonly go through marriage and childbirth, showing the M-curve. The most important reason for Koreans not to have many children is that a majority of them feel a heavy burden concerning childcare and education. Korea is known to be a country in which parents do not hesitate to make considerable investment in their children's education (OECD, 2011). They face a large burden in relation to education because they spend much more on private education including private cram schools than on public education. In 2012, 69.45% of Korean students who attend elementary, middle or high schools had private education, on which they spent an average of 236,000 won per month (Statistics Korea, 2012).

Korea's childcare support policy focuses on "developing an

environment favorable for childcare" to reduce the parental burden and promote childbirth. In the most notable example, the government started to provide universal support for young children between 0 and 5 in 2013 by paying institutional childcare fees for infants (0-2) and offering the Nuri program to young children between 3 and 5. Households with infants and young children who do not attend childcare facilities are paid home childcare allowance in amounts that vary according to the child's age. In addition, the parental leave benefit program was changed from the fixed amount system to fixed rate system in 2011 to better support working women who give birth. These policy changes can be viewed positively in terms of the universal expansion of childcare support policies, but they are still insufficient in terms of provision of more benefits for families with relatively larger burden. Also, it can be pointed out that the strong investment needs of Korean parents regarding their children's education are likely to prevent them from being satisfied with the government's childcare support no matter how much it steps up its assistance. Meanwhile, the private childcare and education market seems to be taking advantage of parental desires and encouraging them to spend more on children's education.

The study analyzes how much the Korean government's childcare support policies have lessened the economic burden of child rearing households and how the degree of decreased

burden differs according to their income level and number of children. Based on the results of the analysis, the study examines whether the childcare support policies, which are being extended universally, are being implemented properly in light of the policy goal of reduction of economic burden related to childcare, and attempts to present policy suggestions for the future.







## Chapter 2

# Current status of support policies for childcare expenses in Korea

1. Cash grant policies
2. Childcare and education subsidy



# 2

## Current status of support policies for childcare expenses in Korea <<

### 1. Cash grant policies

#### A. Tax reduction program

The government has continuously made efforts to give tax benefits to households with children to reduce the economic burden related to childcare. Korean tax benefits for childcare have been provided with the focus on personal exemption based on the existence and number of dependent children and special exemption that reduces taxable income in expenses related to education, medical services and insurance below specific limits. These exemptions are personal income deductions applied separately on individual spouses in the case of double-income households. Income deductions related to children are considered along with income deductions under other categories and reflected on determining taxable income. Based on the determined amount of taxable income, if they are determined to have paid more than required at the time of composite income tax report, taxpayers get part of their paid income tax returned. As they get their extra income tax returned in a lump sum at the time of the year-end tax adjustment, it is difficult for individual taxpayers to know how much they bene-

fit in tax exemption due to childcare.

In an effort to overcome the low fertility problem, the Korean government expanded tax benefits for households with two or more children as follows. The basic exemption, which corresponds to the personal exemption, was applied to dependent children under 20 in the amount of 1,000,000 won per child in 2008 and the exemption amount increased to 1,500,000 per child in 2009. Also, additional exemption is provided in the amount of 1,000,000 yearly per child for children aged 6 or below. As part of extra exemption for multiple children, additional exemption was made in the amount of 500,000 won for households with two children and 1,000,000 won per child in the case of three or more children, and the amounts rose to 1,000,000 won for households with two children plus 2,000,000 won per child for those with three or more children in 2011. In addition, households with three or more children aged less than 18 are fully exempted from paying acquisition and registration taxes for a single car starting July 5, 2010.

The Korean government announced the 2013 Draft Revision for Tax Laws on August 8, 2013, with the focus on the introduction of the Child Tax Credit and the conversion of income tax exemption to tax credit. The draft revision was developed with the aims of promotion of equity of taxation and reinforcement of tax revenue sources. According to the draft revision, households with dependent children that earn less than

40,000,000 won in total income will be paid child subsidy in graded amounts from 2015. In relation to child subsidy, personal exemption and special exemption concerned with children are set to be converted to tax credit. To prevent excessive assistance, however, beneficiaries of child subsidy will not get child-related tax deduction.

〈Table 1〉 Current status of tax benefits for child-rearing households (As of July 2013)

Program title	Program details	Targets and amounts of support
Tax benefits (income tax exemption)	Basic exemption	· 1,500,000 won per child
	Additional exemption	· 1,000,000 won a year per child 6 or below · 2,000,000 won a year for the year of child birth or adoption for relevant child
	Extra exemption for multiple children	· Two children: 1,000,000 won a year · More than 2 children: 1,000,000 won a year + 2,000,000 won a year per one extra child
	Education expense deduction (limit)	· Young children: 3,000,000 won per child · Elementary, middle and high school children: 3,000,000 won per child · University student: 9,000,000 won per child · Special education cost for the disabled: Full amount
	Medical expense deduction (limit)	· Medical expenses for children that exceeds 3% of gross salary (maximum 7,000,000 won)
	Insurance expense deduction	· Coverage insurance expense for children that exceeds 1,000,000 won a year
Tax benefits (tax-free)		· Limited to 100,000 won in childcare allowance per month <sup>1)</sup>

Note: 1) Payment made by employers in relation to child birth by workers or their spouses or childcare for children 6 or below, within the amount of 100,000 won per month

Source: Korea Law Service Center (2013), 『Income Tax Act』

〈Table 2〉 Plan for conversion of child-related income tax deduction program

Deduction type	Income tax exemption (current)	Conversion to tax credit
Child-related personal exemption	<ul style="list-style-type: none"> <li>- Basic exemption: 1,500,000 won per child aged less than 20</li> <li>- Additional exemption: 1,000,000 won per child aged 6 or below</li> <li>- Child birth/adoption exemption: 2,000,000 won per child</li> <li>- Extra exemption for multiple children               <ul style="list-style-type: none"> <li>* Two children: 1,000,000 won</li> <li>* More than 2 children: 1,000,000 won</li> </ul> </li> </ul> + 2,000,000 won per child exceeding 2	<ul style="list-style-type: none"> <li>- 1~2 children: 150,000 won per child</li> <li>- More than 2 children: 300,000 won + 200,000 won per child exceeding 2</li> </ul>
Child-related special exemption	Medical and education expenses	15% of medical and education expenses

Source: Ministry of Strategy and Finance, 『2013 Draft Revision for Tax Laws』

## B. Cash allowance program

Cash grant policies for families in Korea, such as childcare allowance for adopted children, childcare allowance for single parent families and allowance for children with disabilities, are mostly intended for low-income groups. The Korean government started to offer childcare allowance to young children in low-income households who did not attend childcare facilities or kindergarten in July 2007. At first, a monthly childcare allowance of 100,000 won was provided for infants between 0 and 1 living in poor or near-poor households, and the coverage was extended to young children between 0 and 2 in 2011. The allowance amount was also raised to 200,000 won for infants aged 0, 150,000 won for those aged 1 and 100,000 won for

Current status of support policies for childcare expenses in Korea 17

those aged 2 per month. In 2013, the allowance title was changed to "home childcare allowance," and it is being given to all young children between 0 and 5 who do not attend childcare facilities. The home childcare allowance is universal considering the fact that it is given to all young children regardless of their income levels, but it is selective in that it targets only the children who do not attend childcare facilities.

〈Table 3〉 Current status of cash grant for families in Korea (2013)

Policy	Childcare allowance for adopted children	Childcare allowance for single parent families	Allowance for children with disabilities
Target	Adopted children -General children (~less than 13) -Disabled children (~less than 18)	Children in single parent families with income 130% or less of the minimum cost of living (less than 12)	Poor or near-poor households Disabled children at home
Grant amount	-General: 100,000 won a month -Disabled children: Severely disabled (627,000 won/ month), moderately disabled (551,000 won/month)	-50,000 won/month -Additional 50,000 won for children less than 5 living with unmarried single mother/father or custodial grand parents	-Severely disabled children: Poor households (200,000 won), Near-poor households (150,000 won) -Moderately disabled children: 100,000 won

Source: Ministry for Health, Welfare and Family Affairs, inside data.

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<Table 4> Expansion of targets and amounts of home childcare allowance

Year	Target ages	Support targets	Allowance amounts
July 2009 ~2010	0~1	- Near-poor group: Income 120% or less than the minimum cost of living	- 100,000 won/month
2011	0~2	- Near-poor group: Monthly household income (4 persons) of 1,730,000 won or less	- Age 0 (200,000 won/month) - Age 1 (150,000 won/month) - Age 2 (100,000 won/month)
2012	0~2 (0~5 for children with disabilities)	- Near-poor group: Monthly household income (4 persons) of 1,800,000 won or less - Children in rural areas: Farm land less than 50,000m <sup>2</sup> / less than 40,000,000 won yearly income outside farming or fishing (1 child) - All disabled children regardless of income	- Poor and near-poor groups: Age 0 (200,000 won/month), age 1 (150,000 won/month), age 2 (100,000 won/month) - Childcare allowance for farming and fishing villages: 45% of childcare subsidy amount for relevant age - Childcare allowance for children with disabilities: Age 0~2 (200,000 won/month), Age 3~5 (100,000 won/month)
2013	0~5	- All	- Age 0 (200,000 won/month) - Age 1 (150,000 won/month) *Childcare allowance for farming and fishing villages (177,000 won/month) *Childcare allowance for children with disabilities (200,000 won/month) - Age 2 (100,000 won/month) *Childcare allowance for farming and fishing villages (156,000 won/month) *Childcare allowance for children with disabilities (200,000 won/month) - Age 3~before school (100,000 won/month)

Source: Ministry of Health and Welfare, yearly notices on childcare programs.



## 2. Childcare and education subsidy

Subsidy for the use of services at childcare facilities started to be provided for the legal poor in 1999, and its target has gradually increased since 2005. The government paid all childcare service fees for households with young children between 0 and 5 for the lower 70% group in terms of income in 2011, and all children between 0 and 2 received full childcare fees in 2012. In 2013, the Nuri program was offered for children between 3 and 5, with free childcare being provided for all children between 0 and 5.

<Table 5> Expansion of full support for institutional childcare (1999~2013)

Age	1999	2000	2004	2005	2006	2007	2009	2011	2012	2013
0~1	Legal poor				Legal poor + those with 120% or less of the minimum cost of living		Lower 50% income households with young children	Lower 70% income households with young children	All	All
1~2									Lower 70% income households with young children	
3~4									Lower 70% income households with young children	
5	Legal poor + other low income groups (targets of childcare subsidy for children aged 0~4)	Those with 80% or less of the average income of urban working households	Those with 90% or less of the average income of urban working households (cities) or 100% of the average income (rural areas)	Those with 100% of the average of the urban working households	Lower 70% income households with young children		All	All		

Source: Ministry of Health and Welfare, yearly notices on childcare programs.

Due to the expansion of the government subsidy for childcare and education, the total budget for childcare has gradually grown. The childcare budget, which took 2.75% of the overall budget of the Ministry of Health and Welfare in 2000, rose to 16.26% in 2013 (Korea Development Institute, 2012/ Ministry of Health and Welfare, 2013). Public spending on childcare services in Korea has been focused on the support for consumers' spendings rather than the support for the providers' facilities. Concerning the allocation of the Ministry of Health and Welfare's childcare budget for 2013, the support for consumers takes 84.2% of the total childcare budget, including the childcare subsidy for young children (62.9%) and home childcare allowance (21.3%), whereas only around 15% of the budget is appropriated for the support for providers, such as the subsidy for personnel expenses of childcare teachers and expansion of national and public day care centers (Ministry of Health and Welfare, 2013).

The ratio of public spending on childcare and education of young children in GDP also increased, moving from 0.1% in the early 2000s to 0.7% in 2009, reaching the average level of the OECD member countries. In terms of the spending on childcare services for young children excluding the spending on the education of young children, the ratio of Korean public spending on childcare services compared to GDP was 0.6% in 2009, which is relatively high among the OECD countries, following

Iceland (0.9%), Sweden (0.9%), Norway (0.9%), Finland (0.8%) and Denmark (0.7%) (OECD Family database, 2013). As the Korean government's public spending on childcare and education services for young children grew, the number of children who attend childcare facilities or kindergartens rose rapidly. Notably, the percentage of infants between 0 and 2 who attend childcare facilities increased markedly from 18.3% in 2004 to 62.0% in 2012. This percentage is much higher than the average rate of 32.6% of the OECD member countries in 2010 and is only lower than Denmark (67.5%), the Netherlands (60.6%), Iceland (55.7%) and Norway (54.0%). Countries with high percentages of public spending on childcare facilities and childcare service usage by infants between 0 and 2 tend to have high women's employment rates. Employment rates of women between 25 and 54 in 2009 were 82.9% in Denmark, 79.3% in the Netherlands and 85.7% in Iceland, which are far higher than 53.9% of Korean women's employment rate between 15 and 64 in 2013 (OECD Family database; KOSIS 2014).





# Chapter 3

## Analysis methodology



# 3

## Analysis methodology <<

Analysis indices have been developed to examine how much the government's childcare support policies are reducing the economic burden of households with young children in terms of their income and expenses. Indices on the cash grant policies are the amounts of cash grant per child given to households with children between 0 and 5 (index 1: cash grant amount per young child) and the percentage of the cash grant in household equivalent income (index 2: percentage of cash grant in income). The study included the amounts of child-related tax reduction as well as the amounts of cash allowances in the cash grant. The amounts of tax reduction correspond to the amounts of increase in the income after tax that occur by applying income tax deduction related to children between 0 and 5. Thus, this increase can be seen as tax benefit that comes from child rearing. The amounts of tax reduction related to children between 0 and 5 were estimated based on the data from the Korea Welfare Panel Study (For the methodology of the estimation, please refer to <Appendix: Methodology of the estimation on the tax reduction amounts related to childcare>). The estimation was made separately on child-related personal

exemption and special exemption on childcare and education expenses. The amounts of personal and special exemption were regarded as tax reduction amounts and included in the amounts of cash grant for households with children aged between 0 and 5 along with the cash allowance amounts. Cash allowance provided to households with young children incorporated allowances seen to be economically helpful for childcare among items listed under "Other government subsidies," which were classified by the Korea Welfare Panel Study as public transfer income<sup>1)</sup>.

Indices for the analysis of childcare service support policies are the childcare and education expenses per young child before and after government subsidy (index 3) and the percentage of childcare and education expenses per child in income before and after government subsidy (index 4). To analyze the indices, calculation was made on the actual childcare and education expenses spent by households for children between 0 and 5, amounts of government allowance for childcare and education that they received and amounts of tax reduction given as part of special exemption for household spendings on childcare and education. The actual expenses refer to the total amount of expenses that relevant households actually spent for

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1) Allowance for childcare included disability allowance, childcare allowance for children with disabilities, allowance for single mother/father families, placing-out allowance and school expense subsidy in 2007. In 2009, voucher subsidy and earned income tax credit were added on top of these. In 2011, childcare allowance and meal subsidy were added once again.



childcare and education of children aged between 0 and 5 excluding the government subsidy for childcare and education<sup>2</sup>). The government subsidy for childcare and education combines the subsidy for the use of childcare and education facilities and the tax reduction amounts based on special exemption. Therefore, the sum of the actual expenses of households on childcare and education and the government subsidy for childcare and education can be seen as the total "investment" for childcare and education per young child. In the study, researchers considered the amount that excludes government subsidy for childcare and education as well as tax reduction according to special exemption from the total childcare and education expenses was "net childcare and education expenses" covered by households<sup>3</sup>). By comparing the percentage of "total childcare and education expenses" in income and that of "net childcare and education expenses," the degree of reduction of economic burden of childcare and education expenses based on government subsidy was examined (index 4: "percentage of

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2) Actual expenses are defined to incorporate all personal childcare expenses such as fees for childcare institutions, kindergartens, private institutes and private education, childcare services at the healthy family support centers and by relatives, neighbors and private babysitters based on the criteria of the Korea Welfare Panel Study. These expenses include out-of-pocket payments made additionally at relevant institutions excluding government subsidy as well as extra expenses such as those for textbooks, learning materials and snacks (Yearly research guidelines by the Korea Welfare Panel Study, each year).

3) It can also be considered as the amount that excludes the amount of special exemption on childcare and education expenses from the actual expenses that relevant households spent.

childcare and education expenses per child in income before and after government subsidy").

〈Table 6〉 Evaluation indices for childcare support policy used in the study

Policy classification	Index
Cash grant	Index 1: Cash grant amount per young child
	Index 2: Percentage of cash grant in income
Support for childcare and education services	Index 3: Childcare and education expenses per young child before and after government subsidy
	Index 4: Percentage of childcare and education expenses per child in income before and after government subsidy

Source: Shin Yoon-jeong, Ko Je-yi, Lee Ji-hye and Yoon Ja-yeong (영문성명 확인요망), 「Evaluation and Policy Implications of Child Care Policy (2013)」

To compare households with different income levels and disparate numbers of children aged between 0 and 5 on an equal ground, standardization was made using coherent criteria on their income and expenses. Household income was converted into household equivalent income by dividing it with the square root of the number of household members. The amount of cash grant received by households with children aged between 0 and 5 were divided by the number of relevant children to obtain the amount of grant per young child. To make equal comparison of different years, all monetary amounts including income were converted into the 2010 real price.

To make stratified analysis of the degree of reduction of economic burden based on cash grant policies and childcare serv-

ice support policies, all indices were analyzed by dividing households according to income levels and number of children between 0 and 5. For the analysis based on income groups, quintile classification was made according to household equivalent income, with equal number of households made to belong to each quintile group. For the comparison based on the number of children between 0 and 5, households were divided into two groups, one consisted with households with one child and the other with those with two or more children.





## **Chapter 4**

### Characteristics of analysis data and sample



# 4

## Characteristics of analysis data and sample <<

The data used for the analysis was from the Korea Welfare Panel Study (KOWEPS) that the Korea Institute of Health and Social Affairs first built up in 2006. KOWEPS became the most representative survey in Korea as it took the sample from households throughout Korea based on the 2005 Population and Housing Survey. The panel study is carried out on various fields including not only the economic conditions of households but also children and family status. In particular, it contains details on welfare programs that each household benefits from, and thus has the advantage of being able to generate useful implications related to the development of domestic social policies (Kim Mi-gon et al., 2010). Building of the KOWEPS database started in 2006, around the time the Basic Plan for Low Fertility and Aging Society was developed and implemented, and it enables the analysis of the changes in economic conditions and welfare status of households in line with the expansion of low fertility policies.

The size and characteristics of the KOWEPS sample targeted for the analysis of the study are as follows. First, the target households are those with children aged between 0 and 5 with

0 won or more ordinary income<sup>4</sup>). In the sample, the number of households raising children between 0 and 5 was 902 in 2007, 825 in 2009 and 706 in 2011 (Table 6). Among them, the percentage of those that received cash allowances gradually increased from 241 (26.7%) in 2007 to 257 (31.2%) in 2009 and 279 (39.5%) in 2011. The number of households that received childcare or education subsidy for young children was 338 (37.5%) in 2007, 420 (50.9%) in 2009 and 390 (55.2%) in 2011, also showing steady growth (Table 6). The yearly status of households that received childcare or education subsidy or cash allowance in relation to their income levels and number of children is also seen below. Overall, the percentage of households that received childcare subsidy increased more in the 2nd to 5th quintile income groups than in the low income group that had already been receiving childcare subsidy. This reflects the fact that the government has loosened the income standards for its childcare and education subsidy programs since 2005 (Table 7).

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<sup>4</sup>) There were only two households with negative ordinary income in the 2007 sample and they were excluded from the target of analysis.



## Characteristics of analysis data and sample 35

〈Table 7〉 Characteristics of KOWEPS sample used for the analysis

(Unit: Number of households, %)

Classification	2007		2009		2011	
	Household	Percentage	Household	Percentage	Household	Percentage
No. of households with children aged between 0 and 5	902	100.0	825	100.0	706	100.0
1 child between 0 and 5	660	73.2	615	74.5	541	76.6
2 children between 0 and 5	234	25.9	199	24.1	154	21.8
3 children between 0 and 5	8	0.9	10	1.2	10	1.4
No. of households receiving childcare/ education subsidy	338	37.5	420	50.9	390	55.2
No. of households receiving allowance	241	26.7	257	31.2	279	39.5
Disability/children with disabilities	8	0.9	9	1.1	6	0.8
Single parent families	3	0.3	3	0.4	5	0.7
Home trust allowance/protection for child breadwinners	2	0.2	2	0.2	2	0.3
Childcare allowance	-	-	-	-	49	6.9
School expense subsidy	13	1.4	11	1.3	25	3.5
Other voucher subsidies	-	-	133	16.1	120	17.0
Earned income tax credit	-	-	26	3.2	25	3.5
Meal subsidy	-	-	-	-	33	4.7
Energy reduction/subsidy	-	-	-	-	112	15.9
Telecommunication reduction/ subsidy	-	-	-	-	59	8.4
Other subsidy	239	26.5	146	17.7	104	14.7

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

〈Table 8〉 Status of beneficiaries of childcare/education subsidy and cash allowance according to income and number of children

(Unit: No. of households, %)

Classification	Income quintile	2007	2009	2011	
Childcare/ education subsidy	All	338 (37.5)	420 (51.0)	390 (55.2)	
	Income level	1st quintile	118 (65.6)	110 (66.7)	103 (72.5)
		2nd quintile	85 (47.2)	113 (68.5)	99 (70.7)
		3rd quintile	75 (41.7)	96 (57.8)	90 (64.3)
		4th quintile	42 (23.2)	64 (38.8)	67 (46.5)
		5th quintile	18 (10.0)	38 (23.0)	31 (22.0)
	No. of young children	1	212 (32.1)	285 (46.3)	279 (51.6)
2 or more		126 (52.1)	136 (64.8)	111 (67.3)	
Cash allowance	All	242 (26.8)	257 (31.1)	279 (39.5)	
	Income level	1st quintile	93 (51.7)	75 (45.5)	84 (59.6)
		2nd quintile	60 (33.1)	57 (34.5)	74 (52.9)
		3rd quintile	49 (27.2)	64 (38.8)	47 (33.8)
		4th quintile	24 (13.3)	31 (18.8)	39 (27.1)
		5th quintile	16 ( 8.9)	30 (18.1)	35 (24.8)
	No. of young children	1	162 (24.5)	185 (30.1)	213 (39.4)
2 or more		80 (33.1)	72 (34.3)	66 (40.0)	

Note: 1) Concerning the background of the table, the number of households receiving childcare and education subsidy in 2007 is 338, which corresponds to 37.5% of the whole sample. In the 1st quintile income group, the number of households receiving childcare and education subsidy is 118, which takes up 65.6% of the income group.

2) Overlapped allowance benefits for one household are treated as one allowance benefit.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

Amounts of childcare and education subsidy and cash allowance received by target households are shown in the following table. To make yearly comparison, relevant monetary amounts were converted into the 2010 real price. With the expansion of the support for childcare and education expenses, the amounts of support that each household receives has also increased. The annual average amount of childcare and education subsidy per household increased from 2,370,000 won in 2007 to

2,730,000 won in 2009 and 3,040,000 won in 2011. The annual average amount of cash allowance per household also grew from 890,000 won in 2007 to 820,000 won in 2009 and 1,320,000 won in 2011. The reasons for the increase in the average cash allowance in 2011 were the addition of childcare allowance, which had not been included previously, and the overall increase in allowances in other categories<sup>5)</sup>. In general, the annual amounts of childcare and education subsidy per young child have continued to rise in all income groups over the years (Table 8).

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5) Results of the analysis of cash allowance amounts in different income groups show that the percentage of beneficiaries in the 4th and 5th quintile groups is relatively low at around 10% in 2007 and around 20% in 2009 and 2011. It should be noted that the average annual amounts of cash allowance in these groups appear to be unstable due to the small number of beneficiaries.

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〈Table 9〉 Amounts of childcare subsidy and cash allowance for households with children aged 0~5

(Unit: %, 10,000 won)

Classification	2007			2009			2011		
	Average	Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum
Childcare subsidy amount	236.88	9.97	1,209.28	273.46	10.30	971.90	304.32	37.50	886.54
Allowance amount	88.80	4.43	931.32	82.18	1.03	998.67	132.31	2.88	1,334.62
Disability/children with disabilities	144.35	29.90	425.24	173.59	37.06	395.35	123.76	34.62	208.65
Single parent families	65.42	39.87	91.91	89.67	46.33	135.90	133.72	57.69	173.08
Home trust allowance/protection for child breadwinners	43.19	43.19	43.19	111.19	111.19	111.19	115.38	115.38	115.38
Childcare allowance	-	-	-	-	-	-	154.21	19.23	534.62
School expense subsidy	292.12	19.93	620.14	89.90	18.53	370.64	156.26	6.73	644.23
Other voucher subsidy	-	-	-	43.33	2.06	728.93	69.89	3.85	869.23
Earned income tax credit	-	-	-	82.88	9.27	123.55	100.19	19.23	115.38
Meal subsidy	-	-	-	-	-	-	74.24	19.23	253.85
Energy reduction/subsidy	-	-	-	-	-	-	12.83	2.88	44.23
Telecommunication reduction/subsidy	-	-	-	-	-	-	27.99	0.96	110.58
Other subsidy	68.14	2.21	522.69	70.36	1.03	590.97	73.36	0.96	329.81

Note: 1) Average amounts of childcare subsidy and allowance were calculated with households that actually receive the support.

2) Total annual amounts in the 2010 real price

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

(Table 10) Amounts of childcare subsidy and cash allowance per young child according to income and number of children

(Unit: 10,000 won)

Classification	Income quintile		2007	2009	2011
Childcare/ education subsidy	All		178.47	213.67	245.14
	Income level	1st quintile	177.67	218.19	215.14
		2nd quintile	174.24	209.47	263.13
		3rd quintile	163.75	225.15	265.64
		4th quintile	226.20	222.99	222.30
		5th quintile	153.82	168.68	276.56
	No. of young children	1	195.52	232.71	262.66
		2 or more	149.93	173.65	200.98
Cash allowance	All		73.55	74.24	116.64
	Income level	1st quintile	90.18	98.84	144.83
		2nd quintile	48.83	55.92	149.52
		3rd quintile	43.46	54.39	93.21
		4th quintile	153.94	125.73	37.80
		5th quintile	41.18	37.17	100.13
	No. of young children	1	88.83	92.08	134.70
		2 or more	42.58	28.05	58.01

Note: 1) Total annual amounts per young child in households that receive support in the 2010 real price

2) Overlapped allowance benefits for one household are treated as one allowance benefit.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).





# Chapter 5

## Key analysis results

1. Cash grant policies
2. Childcare and education service support policies





# 5

## Key analysis results <<

### 1. Cash grant policies

#### ① Index 1: Cash grant amount per young child

The total annual amount of cash grant given by the government per child aged 0 and 5 was 560,000 won in 2007, 540,000 won in 2009 and 790,000 won in 2011. This shows that the amount of cash grant from the government did not significantly change between 2007 and 2009 and then increased about 46% in 2011 after the introduction of childcare allowance. When the amounts of tax benefits and cash allowance that belong to this category are compared, the amount of tax benefits was 360,000 won in 2007, which was about 1.8 times higher than the cash allowance amount of 200,000 won. This gap gradually declined, with average annual cash grant per young child reaching 460,000 won in 2011 to surpass average annual tax benefits per young child at 330,000 won. Concerning the changes in average annual amount of tax benefits between 2007 and 2011, it was 360,000 won per young child in 2007, 310,000 won in 2009 and 330,000 won in 2011, not showing much change<sup>6)</sup>.

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6) The reason for the slight decrease in the amount of tax reduction benefits

However, the amount of cash grant more than doubled in 2011 to reach 460,000 won compared to around 200,000 won in 2007 and 2009 before the introduction of childcare allowance (Figure 1).

The results of the comparative analysis of total cash grant amounts among different income groups are also shown below. The amount of tax reduction was higher in higher income groups throughout the relevant period, indicating that tax benefits have regressive characteristic. Regarding the allowance support, the 1st income quintile appeared to receive the highest amount of support in 2007 and 2009, before the implementation of childcare allowance, with the 5th quintile group receiving the lowest support. After the expansion of allowance program to all child rearing households, the allowance amounts increased in all income groups. In 2011, after the introduction of childcare allowance, the average annual allowance amounts for the 1st and 2nd quintile income groups grew significantly to 860,000 won and 790,000 won, respectively. The cash allowance amount increased somewhat in the 3rd quintile group, too. As of 2011, the 2nd quintile income group received the highest cash grant benefits, which combine tax reduction benefits and cash allowance, followed by the 1st, 5th, 3rd and 4th quintile groups. The 4th quintile income group re-

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seems to be the decline in the actual amount of income tax payment due to changes in income amounts.

ceived the lowest amount of cash grant, and it is considered to be due to the group's relatively low tax benefits compared to the 5th quintile group and smaller cash allowance than the 1st to 3rd quintile groups.

〈Table 11〉 Amounts of cash grant for households with children aged 0~5 according to income levels (2007~2011)

(Unit: 10,000 won)

Classification	① Tax reduction			② Allowance support	Total cash grant (①+②)	
	Child exemption	Special exemption	Sum			
2007	All	29	6	36	20	56
	1st quintile	7	0	8	47	55
	2nd quintile	23	3	25	16	41
	3rd quintile	32	5	37	12	49
	4th quintile	37	8	45	20	65
	5th quintile	49	14	63	4	67
2009	All	25	7	31	23	54
	1st quintile	6	0	7	45	52
	2nd quintile	17	2	19	19	38
	3rd quintile	28	6	34	21	55
	4th quintile	30	8	37	23	60
	5th quintile	43	17	60	7	67
2011	All	26	8	33	46	79
	1st quintile	10	1	10	86	96
	2nd quintile	22	3	25	79	104
	3rd quintile	29	6	35	32	67
	4th quintile	27	11	38	10	48
	5th quintile	41	18	59	25	84

Note: 1) Grant amounts are based on the 2010 real prices.

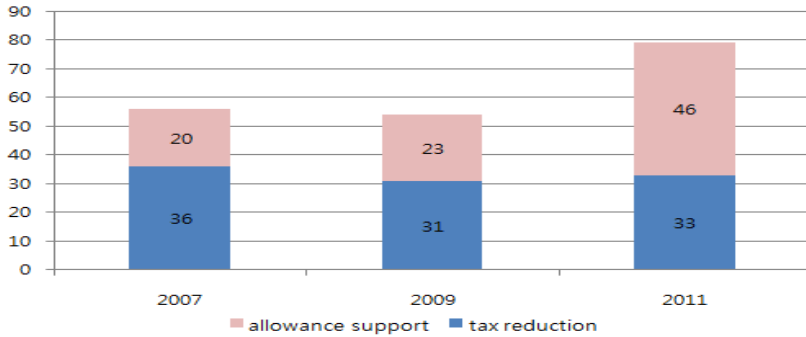
2) Amounts of tax reduction were obtained through simulation based on the KOWEPS data, and amounts of allowance support were obtained by analyzing the original KOWEPS data.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

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[Figure 1] Overall status of cash grant support for households with children aged 0~5 (2007~2011)

(Unit: 10,000 won)

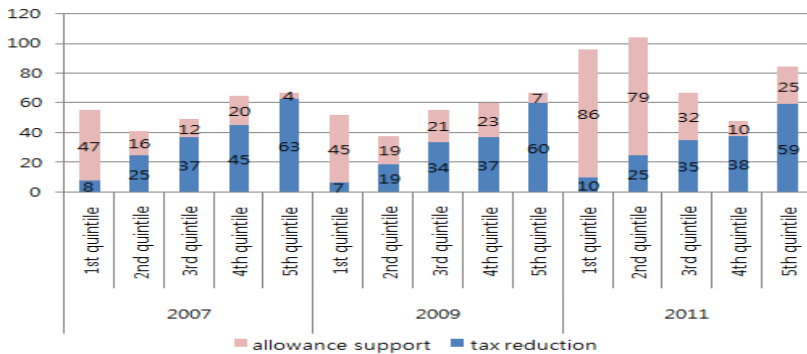


Note: Grant amounts are based on the 2010 real prices.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

[Figure 2] Cash grant support for households with children aged 0~5 according to income levels (2007~2011)

(Unit: 10,000 won)



Note: Grant amounts are based on the 2010 real prices.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

The results of the analysis of cash grant amount comparing households with one young child and those with two or more young children showed that cash grant amount per child was higher among households with one child than among those with two or more children. This phenomenon became more prominent in 2009 and 2011 than in 2007. In 2007, households with one child received 100,000 won more per child than those with two or more children. They received 160,000 won and 330,000 won more per child in 2009 and 2011, respectively<sup>7)</sup>.

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7) The analysis does not include the congratulatory birth subsidy for households with multiple children. However, most local governments provide subsidy to those with three or more children, and under the circumstance in which there are not many families with three or more children, cash grant that households with two or more children receive is not likely to rise considerably even if the local government subsidy is added.

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<Table 12> Cash grant support for households with children aged 0~5 according to number of children (2007~2011)

(Unit: 10,000 won)

Classification		① Tax reduction			② Allowance support	Total cash grant (①+②)
		Child exemption	Special exemption	Sum		
2007	All	29	6	36	20	56
	1 child	30	6	36	22	58
	2 or more children	28	5	34	14	48
2009	All	25	7	31	23	54
	1 child	24	7	31	28	59
	2 or more children	26	7	33	10	43
2011	All	26	8	33	46	79
	1 child	26	8	34	53	87
	2 or more children	25	7	31	23	54

Note: 1) Number of children refers to that of children aged 0~5.

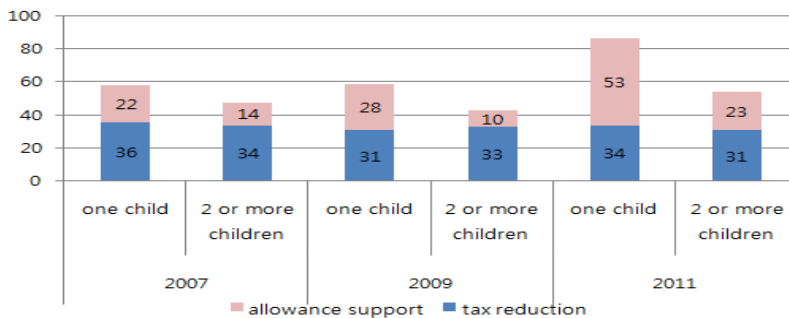
2) Grant amounts are based on the 2010 real prices.

3) Amounts of tax reduction were obtained through simulation based on the KOWEPS data, and amounts of allowance support were obtained by analyzing the original KOWEPS data.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

[Figure 3] Cash grant support for households with children aged 0~5 according to number of young children (2007~2011)

(Unit: 10,000 won)



Note: Grant amounts are based on the 2010 real prices.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

## ② Index 2: Percentage of cash grant in income

The percentage of cash grant per young child in the household equivalent income was seen to be about 2% to 3% throughout the relevant period, at 2.25% in 2007, 2.19% in 2009 and 3.05% in 2011. Concerning the changes in the percentage of different income groups, there was no noticeable change throughout different groups between 2007 and 2009. The group with the highest percentage of cash grant in income was the 1st quintile income group, which is the lowest income group with high amount of cash grant. The 2nd, 3rd and 4th quintile groups appeared to maintain cash grant amounts of around 2% of the total income during the period, which is similar to the overall average ratio. However, the percentage of cash grant in income rapidly increased in the 1st and 2nd quintile groups after the provision of childcare allowance. In the 3rd through 5th quintile groups, in which most households were unlikely to be the targets of childcare allowance in 2011, the percentage of cash grant took 1~2%, which is similar to the 2007 level (Figure 4).

The comparison of percentage of cash grant amount per child aged 0~5 in household equivalent income is also shown below. In 2007, the percentage was around 2% both in the households with one young child and in those with two or more children. However, in 2011, it increased less in households with

two or more young children to 2.31% than in those with one child at 3.27% (Figure 5).

〈Table 13〉 Percentage of cash grant in income of households with children aged 0~5 according to income levels (2007~2011)

(Unit: 10,000 won, %)

Classification	① Household equivalent income	② Total cash grant			Percentage of total cash grant (②/①)×100	
		Tax reduction	Allowance support	Sum		
2007	All	2,487	36	20	56	2.25
	1st quintile	1,092	8	47	55	5.04
	2nd quintile	1,670	25	16	41	2.46
	3rd quintile	2,127	37	12	49	2.30
	4th quintile	2,797	45	20	65	2.32
	5th quintile	4,741	63	4	67	1.41
2009	All	2,464	31	23	54	2.19
	1st quintile	1,191	7	45	52	4.37
	2nd quintile	1,781	19	19	38	2.13
	3rd quintile	2,214	34	21	55	2.48
	4th quintile	2,750	37	23	60	2.18
	5th quintile	4,375	60	7	67	1.53
2011	All	2,586	33	46	79	3.05
	1st quintile	1,267	10	86	96	7.58
	2nd quintile	1,924	25	79	104	5.41
	3rd quintile	2,277	35	32	67	2.94
	4th quintile	2,792	38	10	48	1.72
	5th quintile	4,565	59	25	84	1.84

Note: 1) Grant amounts are based on the 2010 real prices.

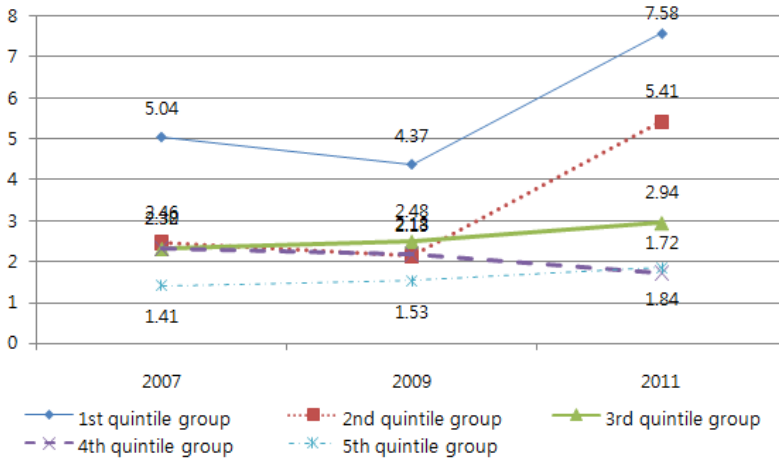
2) Amounts of tax reduction were obtained through simulation based on the KOWEPS data, and amounts of allowance support were obtained by analyzing the original KOWEPS data.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).



[Figure 4] Percentage of cash grant in income of households with children aged 0~5 according to income levels (2007~2011)

(Unit: %)



Note: Grant amounts are based on the 2010 real prices.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

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〈Table 14〉 Percentage of cash grant in income of households with children aged 0~5 according to number of young children (2007~2011)

(Unit: 10,000 won, %)

Classification	① Household equivalent income	② Total cash grant			Percentage of total cash grant (②/①) × 100	
		Tax reduction	Allowance support	Sum		
2007	All	2,487	36	20	56	2.25
	1 child	2,587	36	22	58	2.24
	2 or more children	2,216	34	14	48	2.17
2009	All	2,464	31	23	54	2.19
	1 child	2,462	31	28	59	2.40
	2 or more children	2,470	33	10	43	1.74
2011	All	2,586	33	46	79	3.05
	1 child	2,662	34	53	87	3.27
	2 or more children	2,338	31	23	54	2.31

Note: 1) Number of children refers to that of children aged 0~5.

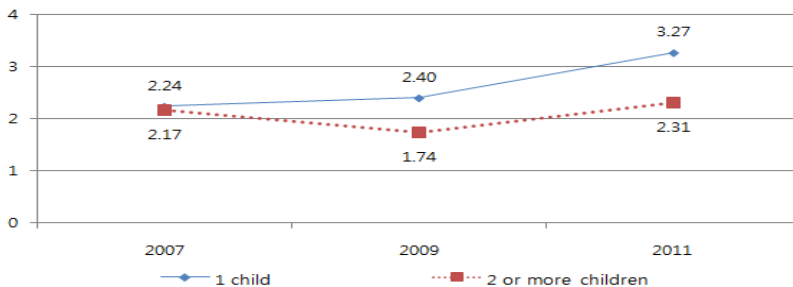
2) Grant amounts are based on the 2010 real prices.

3) Amounts of tax reduction were obtained through simulation based on the KOWEPS data, and amounts of allowance support were obtained by analyzing the original KOWEPS data.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

[Figure 5] Percentage of cash grant in income of households with children aged 0~5 according to number of young children (2007~2011)

(Unit: %)



Note: Grant amounts are based on the 2010 real prices.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

## 2. Childcare and education service support policies

### ① Index 3: Childcare and education expenses per young child before and after government subsidy

With the expansion of the government's childcare and education subsidy, the amount of support in this area per child aged 0~5 combining the amounts of subsidy for the usage of childcare facilities and special exemption increased by two folds from 730,000 won in 2007 to 1,160,000 won in 2009 and 1,430,000 won in 2011. With the exception of the subsidy for the usage of childcare facilities, actual expenses of households per child aged 0~5 did not decrease much, at 2,06,000 won in 2007, 2,150,000 won in 2009 and 2,080,000 won in 2011. "Net childcare and education expenses" that excludes the amount of special exemption from the actual expenses paid by households for childcare and education did not change much either, at 2,000,000 won in 2007, 2,080,000 won in 2009 and 2,000,000 won in 2011. Meanwhile, "total childcare and education expenses" that combine the government subsidy and actual expenses paid by households per child appeared to have risen considerably, from 2,730,000 won in 2007 to 3,240,000 won in 2009 and 3,430,000 won in 2011.

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〈Table 15〉 Childcare and education expenses per child aged 0~5 according to income levels (2007~2011)

(Unit: 10,000 won)

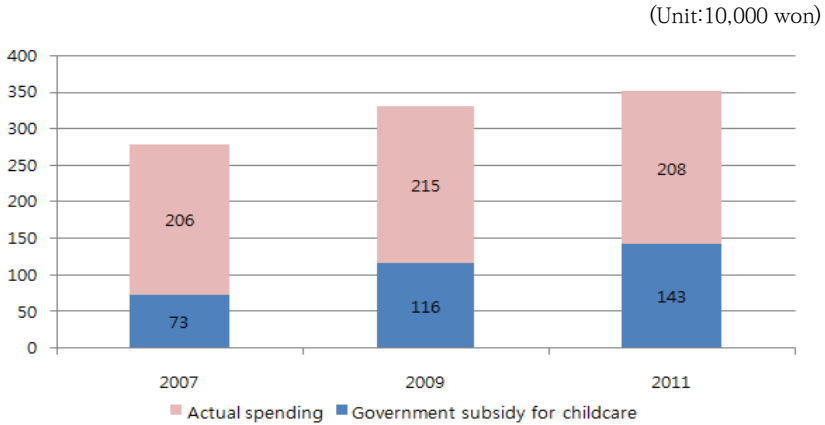
Classification	Actual spending ①	Government subsidy for childcare and education			Total childcare and education expenses ④=①+②	Net childcare and education expenses ⑤=①-③	
		Usage of facilities ②	Special exemption ③	Sum ②+③			
2007	All	206	67	6	73	273	200
	1st quintile group	85	116	0	116	201	85
	2nd quintile group	102	82	3	85	184	99
	3rd quintile group	175	68	5	73	243	170
	4th quintile group	256	53	8	61	309	248
	5th quintile group	411	16	14	30	427	397
2009	All	215	109	7	116	324	208
	1st quintile group	115	145	0	145	260	115
	2nd quintile group	151	144	2	146	295	149
	3rd quintile group	149	130	6	136	279	143
	4th quintile group	254	87	8	95	341	246
	5th quintile group	405	39	17	56	444	388
2011	All	208	135	8	143	343	200
	1st quintile group	93	156	1	157	249	92
	2nd quintile group	123	187	3	190	310	120
	3rd quintile group	199	171	6	177	370	193
	4th quintile group	281	103	11	114	384	270
	5th quintile group	341	61	18	79	402	323

Note: 1) Monetary amounts were converted into the 2010 real prices.

2) Amounts of special exemption were obtained through simulation based on the KOWEPS data, and amounts of actual spending and subsidy for usage of facilities were obtained by analyzing the original KOWEPS data.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

[Figure 6] Overall status of childcare and education expenses per child aged 0~5 (2007~2011)



Note: Monetary amounts were converted into the 2010 real prices.

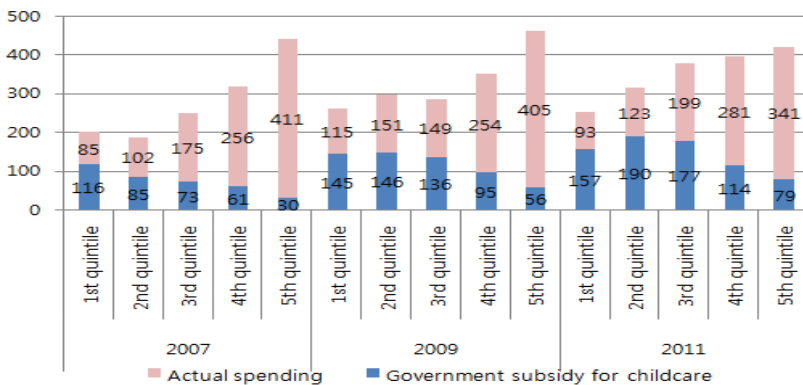
Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

Analysis of childcare and education expenses per young child according to income levels showed that the amounts of government's childcare and education subsidy increased in all income groups during 2007~2011. In spite of such governmental support, childcare and education expenses actually spent by households grew in all income groups except for the 5th quintile income group with the highest income. The total childcare and education expenses per young child, which combines the government subsidy and actual expenses spent by households, did not show much difference among the 3rd, 4th and 5th quintile groups in 2011, although there had been large gaps in the total childcare and education expenses among the three

groups in 2007 and 2009. This indicates that the disparity in childcare and education expenses invested per young child among different income groups has recently been alleviated. However, it is necessary to pay attention to the fact that this decrease in disparity has resulted from the growth in government subsidy and net spending by households in the 3rd and 4th quintile groups which form the middle class. It appears that the economic burden of individual households related to childcare and education expenses has not declined significantly, although the gap in the expenses invested per child aged 0~5 among different income groups is being diminished.

[Figure 7] Childcare and education expenses per child aged 0~5 according to income levels (2007~2011)

(Unit: 10,000 won)



Note: Monetary amounts were converted into the 2010 real prices.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

The results of the comparison of childcare and education expenses between households with one child aged 0~5 and those with two or more children show that the actual childcare and education expenses spent per child aged 0~5 was 1,910,000 won in households with two or more children, which is lower than 2,130,000 won in those with one child of the same age group. The fact that the expense per child is relatively low in families with multiple children suggests that the economy of scale is applied to child rearing. Concerning the changes from 2007 to 2011, households with two or more children aged 0~5 spent 1,650,000 won in 2007, 2,07,000 won in 2009 and 1,910,000 won in 2011 in annual childcare and education expenses per child, indicating an overall increase. This draws contrast with the fact that the same expenses in households with one child decreased slightly during the same period, at 2,210,000 won in 2007, 2,180,000 won in 2009 and 2,130,000 won in 2011.

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<Table 16> Childcare and education expenses per child aged 0~5 according to number of young children (2007~2011)

(Unit: 10,000 won)

Classification	Actual spending ①	Government subsidy for childcare and education			Total childcare and education expenses ④=①+②	Net childcare and education expenses ⑤=①-③	
		Usage of facilities ②	Special exemption ③	Sum ②+③			
2007	All	206	67	6	73	273	200
	1 child	221	63	6	69	284	215
	2 or more children	165	78	5	83	243	160
2009	All	215	109	7	116	324	208
	1 child	218	108	7	115	326	211
	2 or more children	207	112	7	119	319	200
2011	All	208	135	8	143	343	200
	1 child	213	135	8	143	348	205
	2 or more children	191	135	7	142	326	184

Note: 1) Number of children refers to that of children aged 0~5.

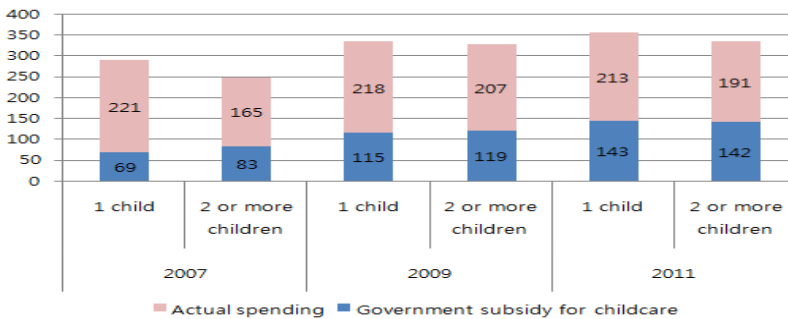
2) Monetary amounts were converted into the 2010 real prices.

3) Amounts of special exemption were obtained through simulation based on the KOWEPS data, and amounts of actual spending and subsidy for usage of facilities were obtained by analyzing the original KOWEPS data.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

[Figure 8] Childcare and education expenses per child aged 0~5 according to number of young children (2007~2011)

(Unit: 10,000 won)



Note: Monetary amounts were converted into the 2010 real prices.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).



**② Index 4: Percentage of childcare and education expenses per child in income before and after government subsidy**

The sum of the government subsidy for childcare and education and actual spending by households can be seen as the "total childcare and education expenses" invested per child aged 0~5. "Net childcare and education expenses" refer to the amount that excludes government subsidy for childcare and education and tax reduction based on special exemption from the total childcare and education expenses. Therefore, the net childcare and education expenses can be considered as the amount that households really pay for childcare and education. The difference in the percentages of total childcare and education expenses and net childcare and education expenses in the household equivalent income was 2.9%p in 2007, 4.7%p in 2009 and 5.5%p in 2011, implying that the economic burden of childcare and education for households decreased due to government support. However, the percentage of net childcare and education expenses in household equivalent income didn't appear to decrease significantly, at 8.0% in 2007, 8.4% in 2009 and 7.7% in 2011 (Figure 9).

The results of the comparison between the percentage of total childcare and education expenses in income and the percentage of net childcare and education expenses in income are presented in the table below. The disparity between the two

percentages appeared to have widened in all income groups. Therefore, in objective terms, the economic burden of households seems to have decreased in all groups. However, the percentage of net childcare and education expenses in income seems to have gradually increased especially in the 4th quintile income group, suggesting that the economic burden actually felt by households have risen in the middle income group (Figure 10).

〈Table 17〉 Percentage of childcare and education expenses for young children in income according to income groups (2007~2011)

(Unit: 10,000 won, %, %p)

Classification	Household equivalent income ①	Total childcare/education expenses ②	Net childcare/education expenses ③	Percentage of childcare/education expenses			
				Percentage of total childcare/education expenses ④=②/①	Percentage of total childcare/education expenses ⑤=③/①	Decrease ④-⑤	
2007	All	2,487	273	200	11.0	8.0	2.9
	1st quintile group	1,092	201	85	18.4	7.8	10.6
	2nd quintile group	1,670	184	99	11.0	5.9	5.1
	3rd quintile group	2,127	243	170	11.4	8.0	3.4
	4th quintile group	2,797	309	248	11.0	8.9	2.2
	5th quintile group	4,741	427	397	9.0	8.4	0.6
2009	All	2,464	324	208	13.1	8.4	4.7
	1st quintile group	1,191	260	115	21.8	9.7	12.2
	2nd quintile group	1,781	295	149	16.6	8.4	8.2
	3rd quintile group	2,214	279	143	12.6	6.5	6.1
	4th quintile group	2,750	341	246	12.4	8.9	3.5
	5th quintile group	4,375	444	388	10.1	8.9	1.3
2011	All	2,586	343	200	13.3	7.7	5.5
	1st quintile group	1,267	249	92	19.7	7.3	12.4
	2nd quintile group	1,924	310	120	16.1	6.2	9.9

Classification	Household equivalent income ①	Total childcare/education expenses ②	Net childcare/education expenses ③	Percentage of childcare/education expenses		
				Percentage of total childcare/education expenses ④=②/①	Percentage of total childcare/education expenses ⑤=③/①	Decrease ④-⑤
3rd quintile group	2,277	370	193	16.2	8.5	7.8
4th quintile group	2,792	384	270	13.8	9.7	4.1
5th quintile group	4,565	402	323	8.8	7.1	1.7

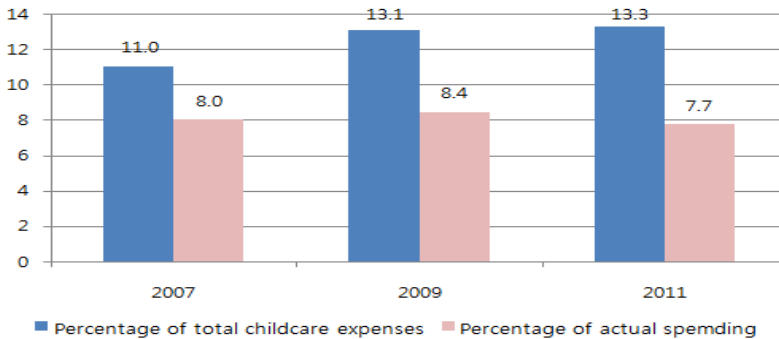
Note: 1) Monetary amounts were converted into the 2010 real prices.

2) The total childcare and education expenses are the amounts combining actual spending and subsidy for the usage of facilities, and the net childcare and education expenses are those excluding tax reduction due to special exemption from the actual spending.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

[Figure 9] Overall status of the percentage of childcare and education expenses for young children in income(2007~2011)

(Unit: %)

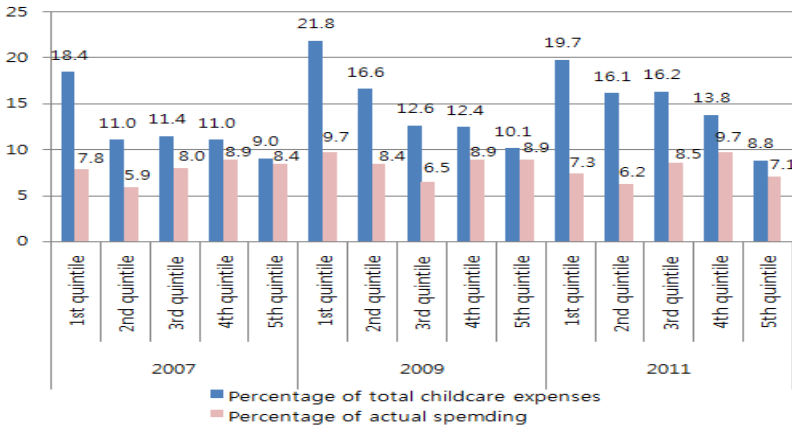


Note: Monetary amounts were converted into the 2010 real prices.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

[Figure 10] Percentage of childcare and education expenses for young children in income according to income levels (2007~2011)

(Unit: %)



Note: Monetary amounts were converted into the 2010 real prices.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

Comparison between the percentages of total childcare and education expenses in income and net childcare and education expenses in income was made on households with one young child and those with two or more young children is provided below. In both types of households, the disparity between two percentages appears to have grown, indicating that economic burden for childcare and education has diminished in households regardless of the number of young children. The percentage of net childcare and education expenses per young child in income was lower in households with two or more children at 7.2% and 8.1% in 2007 and 2009, respectively, which was lower

than that of those with one child at 8.3% and 8.6% in relevant years. However, the percentage of net childcare and education expenses per young child was 7.7% in households with one child and 7.9% in those with two or more children, which is similar and even a little higher in the case of households with two or more children. This suggests that the economic burden of childcare and education actually perceived by households has not decreased more in households with two or more children than in those with one child.

<Table 18> Percentage of childcare and education expenses for young children in income according to number of children (2007-2011)

(Unit: 10,000 won, %, %p)

Classification	Household equivalent income ①	Total childcare/education expenses ②	Net childcare/education expenses ③	Percentage of childcare/education expenses			
				Percentage of total childcare/education expenses ④=②/①	Percentage of net childcare/education expenses ⑤=③/①	Decrease ④-⑤	
2007	All	2,487	273	200	11.0	8.0	2.9
	1 child	2,587	284	215	11.0	8.3	2.7
	2 or more children	2,216	243	160	11.0	7.2	3.7
2009	All	2,464	324	208	13.1	8.4	4.7
	1 child	2,462	326	211	13.2	8.6	4.7
	2 or more children	2,470	319	200	12.9	8.1	4.8
2011	All	2,586	343	200	13.3	7.7	5.5
	1 child	2,662	348	205	13.1	7.7	5.4
	2 or more children	2,338	326	184	13.9	7.9	6.1

Note: 1) Number of children refers to that of children aged 0~5.

2) Monetary amounts were converted into the 2010 real prices.

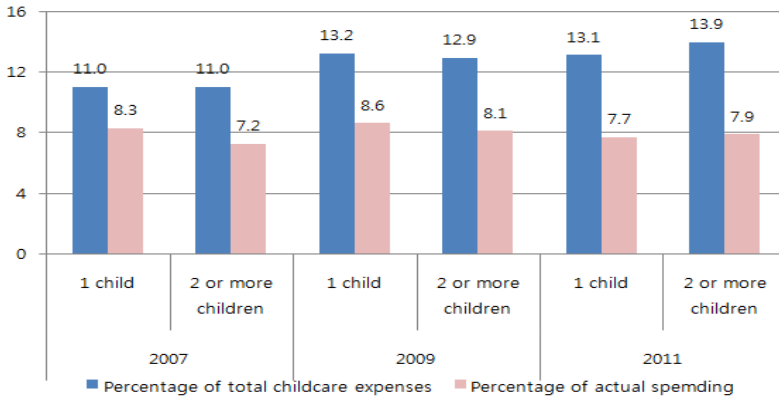
3) The total childcare and education expenses are the amounts combining actual spending and subsidy for the usage of facilities, and the net childcare and education expenses are those excluding tax reduction due to special exemption from the actual spending.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).

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[Figure 11] Percentage of childcare and education expenses for young children in income according to number of children (2007~2011)

(Unit: %)



Note: Monetary amounts were converted into the 2010 real prices.

Source: 3rd yearly KOWEPS (2007), 5th yearly KOWEPS (2009) and 7th yearly KOWEPS (2011).



## **Chapter 6**

### Implications and future tasks





# 6

## Implications and future tasks <<

The results of the study showed that with the expansion of the government's cash grant for households with young children, the actual amounts of cash grant that these households receive have increased. The increase in cash grant is seen to be based on the newly introduced childcare allowance and various voucher programs, and not based on tax reduction benefits. Until recently, tax benefits related to child rearing have been provided in the form of income deduction, and thus, the amounts of tax exemption varied according to the amounts of annual income and income tax of individual households. With the 2013 Draft Revision for Tax Laws, the existing income tax exemption method will be replaced by the tax deduction method. This change in taxation is likely to bring change in the tax reduction benefits offered to households with children. In this regard, it is necessary to study in detail what kinds of discriminatory benefits will be given to child-rearing households as compared to the conventional income deduction method.

Comparison of cash grant for different income groups showed that more tax reduction benefits were given to those with higher incomes, due to the regressive characteristic of tax

reduction, while benefits from cash allowance were more widely enjoyed by those with lower incomes. The 4th quintile income group, which gets less tax benefits than the highest income group and less cash allowance than low income groups, appeared to receive the least cash grant. In 2013, the childcare allowance program was expanded to all households with children aged 0~5 regardless of income levels. Thus, it is likely that the amounts of cash grant that the 4th quintile income group receive will also change. It is believed that this change depends on how many of the households in the 4th quintile group choose to receive childcare allowance by taking care of their children at home rather than sending them to childcare institutions.

The results of comparative analysis of the status of cash grant support according to the number of children aged 0~5 suggest that cash grant amounts per young child were higher among households with one child than among those with two or more young children. The government's special support policy for multiple children has been focused on tax support, childcare credit in national pension and in-kind support<sup>8)</sup>. Most cash grants offer the same amount of grant to all children and do not consider the number of children of individual households

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8) In-kind support for families with multiple children includes school expense subsidy for second-born or younger children, preferential national scholarship for university students who are second-born or younger children, special housing provision and housing loan, electricity bill reduction, etc. ("2nd Basic Plan for Low Fertility and Aging Society (2011~2015)").

in setting grant amounts. Concerning child allowance, it doesn't consider the number of children either, and instead, offer higher grant to younger children. To improve the benefits of households with multiple children, social allowance policies implemented by the government should be changed to give more benefits to families with multiple children.

Although the government has expanded the support for childcare and education expenses of children aged 0~5, the actual spending by households with relevant children on childcare and education has not significantly dropped. This seems to be due to the increase in expenses for childcare and education other than the fees for using facilities. Therefore, if individual households do not decide to reduce their spending on childcare, their economic burden related to childcare and education is not likely to decrease in spite of the government support. As long as the high investment needs of Korean parents stay at the current level, the government's economic support policy has limitations in reducing the economic burden of parents related to childcare and education.

Recent Korean policies related to childcare are being expanded to the middle or higher class under the purpose of enhancing universality. For efficient policy implementation, it is necessary to carefully examine whether these universal policies are effectively reducing the burden of childcare in households that belong to the middle or higher class. Despite the gov-

ernment's subsidy for childcare and education, relevant expenses spent by individual households are not decreasing but even somewhat increasing, due to high investment needs of parents towards their children. This phenomenon is more notable in the middle class than in lower income groups. As long as parents continue to maintain strong desire for childcare and education, and as long as the childcare system that demands this trend exists in the Korean society, the government's childcare support policies aimed at reducing the burden of childcare is not likely to have concrete effect.

In terms of the effectiveness of policies, cash grant or service subsidy need to be focused on groups that keenly need the policy support including the lower income groups or two-earner couples to improve policy implementation and the overall social equity. Concerning households that belong to middle or higher class in which large investment is already being made in childcare and education, it is necessary to move the policy focus from the economic support to the support of parenthood, such as provision of various personalized childcare services and promotion of the balance between work and family.

To reduce the burden of childcare in households with multiple children, social support policies should be improved to give preference to these families. The amounts of childcare allowance or allowance for children with disabilities should be graded according to the number of children. It seems that

graded payment of insurance benefits according to the number of children under the social insurance system can be helpful in this regard. It is necessary to introduce an overall reform of social support policy system in preference of families with multiple children by offering graded benefits under the public pension, employment insurance including allowance related to childcare leave and unemployment, occupational health and social insurance, etc.



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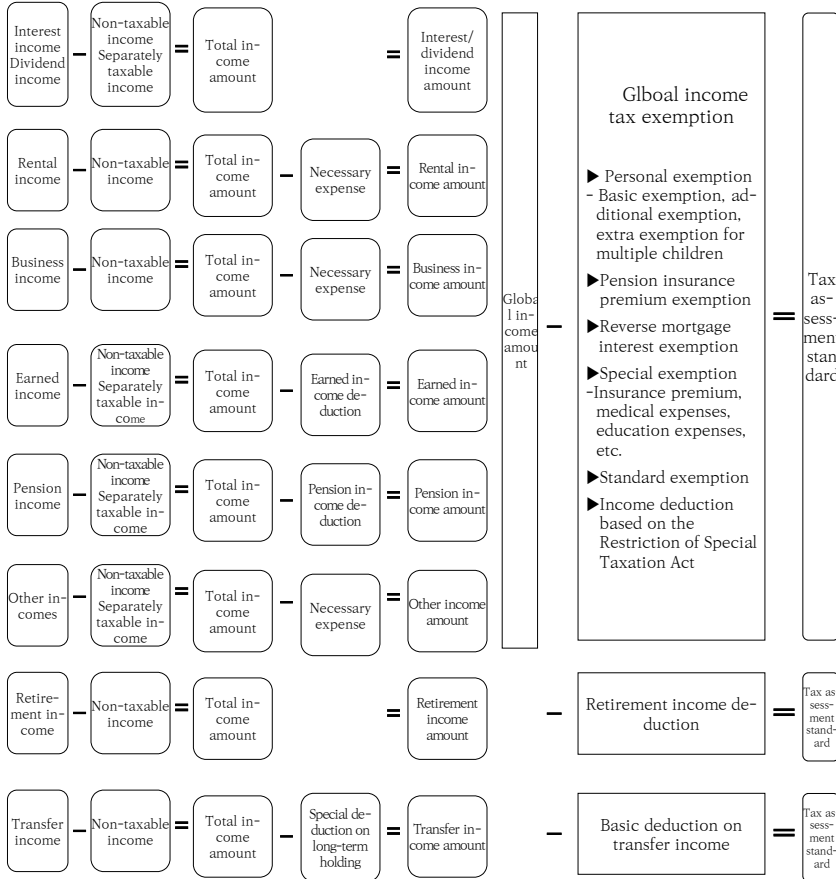




## **〈Appendix〉 Methodology of the estimation on the tax reduction amounts related to childcare**

The appendix provides an explanation on the method of estimation of the tax reduction amounts related to children aged 0~5 based on the Korea Welfare Panel Study (KOWEPS) data. The current taxation system in Korea adopts the positive system, and is categorized based on taxation methods into the global taxation that applies progressive tax rates after aggregation per individual, separate taxation that applies withholding tax rates separately, and separated taxation that applies separate tax rate on classified income aside from global income. The amounts of income tax to be paid by individuals are basically obtained by calculating the income amount by deducting necessary expenses from taxable income and then applying income tax exemption (See [Appendix figure 1]). Here, the tax reduction related to children aged 0~5, the target of our analysis, is an item that is applied in the calculation of global income tax, and thus, the estimation of global income tax reduction effect was made using the KOWEPS data in the study.

[Appendix figure 1] Process of determination of income tax assessment standard



For the estimation of global income tax per individual, earned income, individual proprietor's business income, agricultural/forestry/livestock/fishery income, by-job income and real estate rental income were considered as taxable income

for global tax. Individual income information provided by KOWEPS includes earned income, individual proprietor's business income (excluding proprietors in the fields of agriculture, forestry, livestock and fishery), proprietor income in agriculture, forestry, livestock and fishery, and by-job income. Here, income in agriculture/forestry/livestock/fishery constitutes part of business income under the Income Tax Act and combines non-taxable income and taxable income. According to Article 12 and Article 19 of the current Income Tax Act, by-job income of farmhouses generated from crop production is excluded from business income and by-job income of farmhouses of 18,000,000 won or less per year as well as forestry income of 6,000,000 won or less per year are non-taxable incomes. Other types of forestry income and fishery income are taxable as business incomes. To classify taxable incomes, proprietor income in agriculture/forestry/livestock/fishery given in total sum was divided into net personal fishery income and agricultural/fishery/livestock income by comparing the information on net income in these fields and information on economic activity status per individual provided by the original data. In addition, the following process was applied in estimating taxable income in agriculture/forestry/livestock/fishery to compensate for the problem of underestimation of taxable income, although there was somewhat insufficient information for accurate calculation of taxable income in the agricul-

tural/forestry/livestock/fishery income provided in total sum. First, information on the household ownership of cultivators was used in classifying the income of agricultural/forestry/livestock proprietors who are cultivating fields as non-taxable income. On the contrary, in the case of households with income in agriculture/forest/livestock and more than 30 cows, more than 500 pigs or more than 1,500 chickens that do not cultivate fields, the income was recognized as normal business income.

Meanwhile, real estate rental income provided as household aggregate was equally divided and converted into individual income under the assumption that rental properties are shared by the heads of households and their spouses.

Details of tax-free exemption and tax reduction considered in estimation of global income tax are shown in the table below. Concerning tax-free exemption, earned income deduction shown in <Appendix table 1-1> was made on the total annual salary of the income earners. Necessary expense reduction was not made on business income (including income in agriculture/forestry/livestock/fishery) for which net income data was used.

〈Appendix table 1-1〉 Earned income deduction by year

	2007	2009	2011
Salary group	Amount of deduction	Amount of deduction	Amount of deduction
5,000,000 won or below	All	80% of total salary	80% of total salary
15,000,000 won or below	5,000,000 won + 50% of amount exceeding 5,000,000 won	4,000,000 won + 50% of amount exceeding 5,000,000 won	4,000,000 won + 50% of amount exceeding 5,000,000 won
30,000,000 won or below	10,000,000 won + 15% of amount exceeding 15,000,000 won	9,000,000 won + 15% of amount exceeding 15,000,000 won	9,000,000 won + 15% of amount exceeding 15,000,000 won
45,000,000 won or below	12,250,000 won + 10% of amount exceeding 30,000,000 won	11,250,000 won + 10% of amount exceeding 30,000,000 won	11,250,000 won + 10% of amount exceeding 30,000,000 won
45,000,000 won or below	13,750,000 won + 5% of amount exceeding 45,000,000 won	12,750,000 won + 5% of amount exceeding 45,000,000 won	12,750,000 won + 5% of amount exceeding 45,000,000 won

Note: The table was written based on the tax income act of each tax year.

In estimating global income tax estimation, in the personal exemption category, exemption was made on taxpayer, spouse and dependent family members for basic exemption; on the elderly, women, childcare of children 6 or under, child birth or adoption (newly introduced in 2008) and multiple children for additional exemption. In the pension insurance premium exemption category, calculation of premium amounts paid for national pension, or special occupational pension was made based on yearly premium rate formula using information on personal employment status and public pension status. Concerning special exemption of earned income earners, all

exemption categories excluding housing fund exemption, which can't be calculated due to insufficient information, were applied. More concretely, expense deduction items -- pre-miums for health insurance and employment insurance, coverage insurance premium and medical expenses in the case of taxpayers representing households, and education expenses (expenses for dependents included in the case of representative taxpayers and one's own education expense in other cases) -- calculated based on yearly premium rate formula according to information on insurance membership status and employment status and maximum amounts presented in 〈Appendix table 1-2〉 were applied. Also, according to the conditions of tax laws, standard deduction was applied instead of special exemption, for global income earners without earned income and earned income earners whose total special exemption amount is less than the standard deduction amount. In addition, income deduction items applied under the Restriction of Special Taxation Act were completely excluded due to limited information. Therefore, the amounts of global income tax estimation and relevant tax reduction effect of income deduction presented in the study may be somewhat overestimated and it is necessary to be careful in interpreting them.

〈Appendix table 1-2〉 Items applied for yearly global income deduction  
(Unit: 10,000 won)

Classification		2007	2009	2011	
Personal exemption	Taxpayer exemption	100	150	150	
	Spouse exemption	100	150	150	
	Basic exemption (parents, children, siblings, people with disabilities, basic livelihood security support recipients)		100	150	150
		Elderly	100(65 or above) 150(75 or above)	100(70 or above)	100(70 or above)
	Additional exemption	Women's deduction	50	50	50
		Deduction for children aged 6 or below	100	100	100
		Child birth/adoption exemption	None	200	200
	Extra exemption for multiple children		50+(no. of children-2)*50	50+(no. of children-2)*50	100+(no. of children-2)*200
		Total amount	Total amount	Total amount	Total amount
	Pension insurance premium exemption	National pension			
Special occupational pension (military/teachers/government employees pension)					
Total amount		Total amount	Total amount	Total amount	
Special deduction for wage earners	Insurance premium	National health insurance	Total amount	Total amount	
		Long-term care insurance	None	Total amount (newly introduced in 2008)	
		Employment insurance	Total amount	Total amount	
		Coverage insurance	Maximum 100	Maximum 100	

Classification		2007	2009	2011
Medical expenses	Taxpayer	Total amount over 3% of wage	Total amount over 3% of wage	Total amount over 3% of wage
	Dependent family members	Maximum 300 in the amount over 3% of wage	Maximum 700 in the amount over 3% of wage	Maximum 700 in the amount over 3% of wage
	Taxpayer	Total amount	Total amount	Total amount
Education expenses	Children under schooling	Maximum 200	Maximum 300	Maximum 300
	Elementary/middle/high school education	Maximum 200	Maximum 300	Maximum 300
	University education	Maximum 700	Maximum 900	Maximum 900
Moving/marriage/funeral		Maximum 100 per case	None (abolished in 2008)	None
	Standard exemption			
	Earned income earner	100	100	100
	Global income earner	60	100	100

Note: The table was written based on the tax income act of each tax year.



Tax amount was obtained by applying yearly tax rates presented in <Appendix table 1-3> to the standard amount for income tax assessment - which was obtained by deducting the amount of global income tax exemption from the global income - and then, earned income tax deduction was made in the case of earned income earners as shown in <Appendix table 1-4>.

<Appendix table 1-3> Yearly tax rates

Year	Income tax assessment standard	Calculated tax amount
2007	10,000,000 won or below	Assessment standard x8/100
	10,000,000 ~ 40,000,000 won	800,000 won + amount exceeding 10,000,000 won x17/100
	40,000,000 ~ 80,000,000 won	5,900,000 won + amount exceeding 40,000,000 won x26/100
	Above 80,000,000 won	16,300,000 won + amount exceeding 80,000,000 won x30/100
2009	12,000,000 won or below	Assessment standard x6/100
	12,000,000 ~ 46,000,000 won	720,000 won + amount exceeding 12,000,000 won x16/100
	46,000,000 ~ 88,000,000 won	6,160,000 won + amount exceeding 40,000,000 won x25/100
	Above 88,000,000 won	16,660,000 won + amount exceeding 80,000,000 won x35/100
2011	12,000,000 won or below	Assessment standard x6/100
	12,000,000 ~ 46,000,000 won	720,000 won + amount exceeding 10,000,000 won x16/100
	46,000,000 ~ 88,000,000 won	5,820,000 won + amount exceeding 40,000,000 won x24/100
	Above 88,000,000 won	15,900,000 won + amount exceeding 80,000,000 won x35/100

Note: The table was written based on the tax income act of each tax year.

〈Appendix table 1-4〉 Earned income tax deduction

Year	Tax amount	Deduction amount
2007-2011	Calculated tax amount of 500,000 won or below	Calculated tax amount x 55/100
	Calculated tax amount exceeding 500,000 won	275,000 won + calculated tax amount exceeding 500,000 won x 30/100
	Limit of deduction	500,000 won

Note: The table was written based on the tax income act of each tax year.

When the global income tax amount of a person calculated according to this process is postulated as  $t$ , the amount of tax reduction related to children aged 0-5, which is the indirect childcare subsidy  $s$ , can be obtained by calculating the difference from  $\tilde{t}$ , the hypothetical global income tax amount when the person has no child aged 0-5.

$$1) s = \tilde{t} - t$$

The derivation process of the tax reduction amount of  $s$  related to children aged 0-5 is shown below in more detail. First, income tax  $t$  depends on the pre-tax income  $x$ , taxpayer's characteristics including job and the structure of his/her household, and can be presented in the following general formula for income tax.

$$2) t = r(x - a - d) - c$$

$r$  is the marginal tax rate corresponding to each assessment standard group, while  $a$ ,  $d$  and  $c$  represent adjustment cost such as tax-free items and reduction, income tax deduction and tax credit respectively, all of which also depends on pre-tax income and taxation conditions. Here, income tax deduction  $d$  can be divided into  $d^b$  which stands for deduction related to care of children aged 0-5 and other income tax deduction  $d^p$ .

$$3) t = r(x - a - (d^b + d^p)) - c$$

Therefore, hypothetical income tax  $\tilde{t}$  for the case there is no child aged 0-5 ( $d^b = 0$ ) can be calculated using the following formula 4).

$$4) \tilde{t} = \tilde{r}(x - a - d^p) - \tilde{c}$$

Meanwhile,  $d^b$  is divided into personal exemption for support of children and special exemption for childcare and education expenses.

$$5) d^b = d_p^b + d_e^b$$

Therefore, by multiplying the percentage of each exemption by the amount of tax deduction, the contribution portions of personal exemption and special exemption in tax deduction can be calculated.

$$6) s = \underbrace{s \cdot \frac{d_p^b}{d^b}}_{s_p} + \underbrace{s \cdot \frac{d_e^b}{d^b}}_{s_e}$$

By adding up  $s_p, s_e$  of different household members according to the above process, the tax reduction amount related to childcare of children aged 0-5 in each household was obtained.