

# Study on the Status of Informatization among Children of Low-income Households and Related Support Programs at the National Level

Kyung-Soon Lee, Researcher, Policy Research Team, KERIS, ksoon@keris.or.kr

The rapid advent of the knowledge-based society has been accompanied by some adverse effects. Key among these is the digital divide, which has emerged as a serious social problem. Policy makers are seeking solutions to this problem in terms of access opportunity by providing PCs and improving the Internet penetration rates. They are also addressing the problem from the perspective of the gap in capacity for using information among different sectors of society. Despite the continuous expansion of government programs in this area, progress in narrowing the gap in capacity falls well short of expectations. Discussions regarding the improvement of ICT skills among children of low-income households are still in a nascent stage.

This paper will address the following: First, it will examine documents and records related to the digital divide and recommend a direction for future policies to narrow the digital divide. The research will also examine a beneficiary satisfaction survey of recipients of the government's informatization policies regarding children of low-income households which was conducted in 2000. Finally, in order to understand the demographics of children of low-income households, the research will set out conceptual and realistic criteria to properly define the phrase, 'children of low-income households', and confirm the number of such children through an on-line survey.

This research is concerned with the concept of information literacy. The concept of the digital divide goes beyond the divide in information access and the gap in the capacity for utilization. It is related to the learning gap. In addition, this paper will introduce some opportunities to do with information access as it relates to the digital divide and the concept of participation in informatization as well as overseas trends concerning the concept of the digital divide.

Based on the analysis of related documents, this paper has created criteria for classifying children of low-income households who are the target of the government's policies to resolve the digital divide. Low-income households are usually classified by economic factors related to the cost of living. However physical factors such as disability, and social factors such as single-parent households, and households led by those in their teens can also greatly influence a family. Thus, in classifying low-income households, economic factors as well as social factors must be taken into consideration.

In this research, low-income groups were first divided into two categories, beneficiaries of the National Basic Livelihood Security System (NBLSS) and the second lowest income bracket, which is economically marginalized. The two categories can be further divided according to social factors. For example, those in the second lowest income bracket can be categorized into beneficiaries of the tuition exemption system due to poverty, recipients of tuition support for children of the disabled, and households that receive medical benefits and government grain purchased at discounted prices. While the NBLSS beneficiaries and those in the second lowest income bracket can be easily and clearly classified since they are part of a low-income group as recognized by law, creating objective criteria for other low-income families that also have difficulty in making a living is impossible. Thus I defined the 'children of low-income households' by including teenagers who are household heads, and children who receive social welfare facility benefits, single-parent households, NBLSS beneficiaries, the second lowest income bracket and the disabled. The criteria for and definition of each category are stated in <Table 1>.

According to the criteria outlined in <Table 1>, the category of children of low-income households

Table 1. Criteria for low-income groups

| Classification                         | Content  | Other  |
|--|--|--|
| Households headed by teens             | NBLSS beneficiaries. Households composed exclusively of children under the age of 18, or when a child under the age of 18 lives with parents who cannot support the family. In the case of elementary school students, children in foster care or children who are protected by and entrusted to other homes also fall under this category.  | NBLSS beneficiaries  |
| Social Security facility beneficiaries | Those in this group do not have a house and live in a social welfare facility (facilities that were commissioned of the allowance payment work according to the Social Welfare Service Act) by their own wish to live in a facility that provides lodging and boarding.  | NBLSS beneficiaries  |
| NBLSS beneficiaries                    | NBLSS beneficiaries refer to children who are not heads of households or those not accommodated in social security facilities, but are still NBLSS beneficiaries according to the National Basic Livelihood Guarantee Law. In order to be selected as a beneficiary, one must meet both the income criteria, and the number of dependents criteria.  | NBLSS beneficiaries  |
| Single-parent household                | Households that fall under the criteria of 2004 low-income, single-parent household selection criteria among households composed of a single parent and children under the age of 18 (20 if the child is in school)  | -NBLSS beneficiaries<br>-Second lowest income brackets<br>-Other low-income brackets |
| Second lowest income brackets          | Those in the second lowest income brackets are defined as those who are not NBLSS beneficiaries, but whose real income is less than 120% of the minimum living cost.<br>※ Children who benefit from tuition exemption due to poverty, recipients of tuition support for children of the disabled, beneficiary households of medical allowances and discounted, government-purchased grain. | -Second lowest income brackets   |
| Disabled                               | As beneficiaries of NBLSS, these beneficiaries receive allowances for disability, and those in the second lowest income brackets receive tuition support for children of the disabled.<br>The disabled are defined as those who receive disability tuition support for the children of the disabled.   | -NBLSS beneficiaries<br>-Second lowest income brackets<br>-Other low-income brackets |
| Other low-income brackets              | Those who do not come under the above mentioned categories, but children of households who absolutely need PC support at the recommendation of their homeroom teacher.   | Other low-income brackets  |

\* NBLSS = National Basic Livelihood Security System

includes NBLSS beneficiaries, those in the second lowest income brackets, and other low-income brackets as stated in <Figure 1>. Among the three categories, the NBLSS beneficiaries and those in the second lowest income brackets are low-income groups as recognized by law.

See <Figure 1> Definition/concept of children of low-income households

In order to determine the number of students nationwide who fall into this category, a survey was carried out at all schools based on an online-input method with the cooperation of the 16 Metropolitan and Provincial Offices of Education (MPOEs). According to the results of this survey, the number of students in the low-income household category stands at about 460,000, in

about 350,000 households nationwide. See <Table 2>.

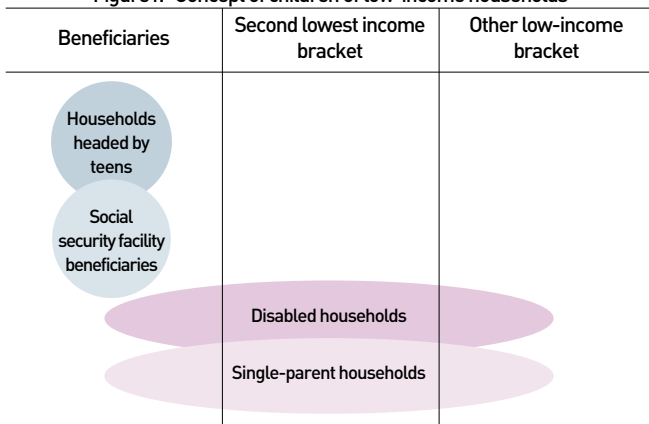
These results show that 5.9% of all students attending school are children of low-income households, and that 6 out of 100 students face economic difficulties. Of particular interest is the fact that this number is nearly twice the previous estimate of 240,000 children (as of March 2004). This shows that progress is required in establishing policies for children of low-income households.

<Table 3> shows the results of a survey that examined the ratio of children of low-income households to the total number of students by city and province. Compared to other regions, the ratio of children of low-income households in metropolitan areas

and large cities was relatively low. Among large cities, the ratio was exceptionally high in Gwangju (7.3%), and among provinces, South Gyeongsang Province recorded a relatively low ratio of 6.16%. The results show that the income gap between cities and rural areas is considerable. Thus, the government must devise differentiated low-income family support plans for large cities and rural regions.

The informatization support project for children of low-income

Figure 1. Concept of children of low-income households



households has been in operation since 2000. After analyzing the results of this project, I determined that it has contributed considerably to resolving the gap in access to information and in enhancing the capacity to use information. Nevertheless, there was difficulty in managing the project systematically. This was also reflected in the results of an opinion survey conducted in each city and province by the MPOEs. The results of this survey highlights the urgency of establishing a rational support and management system. <Table 4> shows the beneficiary satisfaction survey for the informatization support project aimed at children of low-income households. The survey was conducted on a sample of 3000 beneficiaries drawn proportionally from each city and

<Table 4> Summary of research results: Situation concerning beneficiaries of the informatization support project for children of

Table 2. Number of children of low-income households and number of households nationwide

| Section         | Beneficiaries | Second-lowest income bracket | Other low-income groups | Total   |
|-----------------|---------------|------------------------------|-------------------------|---------|
| # of students   | 234,940       | 37,114                       | 191,919                 | 463,973 |
| # of households | 173,891       | 26,214                       | 145,186                 | 345,291 |

Table 3. Ratio of children of low-income households by city and province

| Ratio    | MPOEs with under 7% of low-income household children | MPOEs with more than 7% of low-income household children   |
|----------|--|--|
| City     | Ulsan, Seoul, Daejeon, Incheon, Busan, Daegu         | Gwangju  |
| Province | Gyeonggi, South Gyeongsang                           | Cheju, North Chungcheong, South Chungcheong, North Gyeongsang, Gangwon, South Jeolla, North Jeolla |

low-income households

Based on the results of the survey to determine the number of low-income household children and the beneficiary satisfaction survey, this research proposes the following policies to support informatization among children of low-income households:

First, the vision and objectives of the policies regarding the informatization support project for children of low-income households must be clarified. Also, the policy must create a pan-departmental implementation system that encompasses the central government level, large city-unit local autonomous entities and to village-unit local autonomous entities. The policies involved fall in the realm of both resolving the digital divide and investment in education welfare. Under such a role-sharing system, the central government should carry out regular surveys to keep track of the actual circumstances and the total number of children of low-income households. This will help us to understand the scope of the situation, and will aid in the creation of more practical operational/management guidelines. Next, large city-unit and village-unit local autonomous entities should connect institutions related to education, welfare, and informatization forming a consultative body to pursue more efficient policies. Through such connections, each institution can use its own specialty to carry out the informatization support project. Through these efforts, the digital divide can be resolved not just by improving access to information, but by enhancing the capacity to use information.

Various programs are also needed to improve the capacity to use information in addition to the current policies to resolve the gap in information access. In large, small and medium-sized cities where public information facilities are readily accessible, public facilities that provide opportunities to use information should be expanded and complemented with programs at public institutions such as schools. In more remote communities where such

infrastructure and facilities are insufficient, the existing system that provides support to individual households should be maintained.

Also, the government should consider devising ways to practically resolve the gap in information use. It can achieve this

by establishing a system to connect informatization education with cyber mentors. To resolve the digital divide, programs are needed at the household/regional level and which take the approach of lifelong education. Finally, proper promotion and management in implementing these policies must also follow. **KERIS**

**Table 4. Summary of research results: Situation concerning beneficiaries of the informatization support project for children of low-income households**

| Section               | Category                       | Sub-category  | Summary of Survey Results   |
|-----------------------|--------------------------------|---|---|
| Accessibility         | Use/non-use                    | Possess/Non-possess   | <ul style="list-style-type: none"> <li>■ Possess (90.8%)<br/>Installed in room used by oneself only(23.9%)<br/>Do not use (13.8%) : reason - out of order (53.0%)<br/>Reasons other than computer being out of order : Old machine (40.6%)</li> <li>■ Do not possess (9.2%)<br/>Threw out the computer when it broke down (63.3%)</li> </ul>  |
| Computer use capacity | Current Status of computer use | General use   | <ul style="list-style-type: none"> <li>■ Time of use<br/>More than 1 hour a day (51.7%)<br/>Use until 10 p.m. after school (68.6%)</li> <li>■ Use by family members<br/>All family members use (19.8%)<br/>Reasons for non-use : Not knowing how (50.2%)</li> <li>■ Use capacity level<br/>Intermediate level: (Make documents, search Internet) (58.7%)<br/>Advanced level: large city (31.7%) vs. town and village (24.3%)</li> </ul> |
|                       |                                | Internet  | <ul style="list-style-type: none"> <li>■ Utilization (95.3%)<br/>Used for more than 1 hour (59.9%)</li> <li>■ Not used (4.7%)<br/>Reason : Unpaid ISP charges, parent's disapproval, not needed</li> <li>■ Main use<br/>document/information search, homework, on-line games, chatting/messaging</li> </ul>   |
| Satisfaction level    | Academics                      | School life   | <ul style="list-style-type: none"> <li>■ Helps academic work (91.9%)<br/>Greatly helps: elementary school (52%), middle school (39.4%), high school (30.7%)</li> </ul>  |
|                       | PC                             | Utilization Capacity  | <ul style="list-style-type: none"> <li>■ Improvement in computer skills (85.7%)<br/>Greatly improved : High school (18.8%), Middle school (13.2%), elementary school (11.3%)</li> </ul>   |
|                       |                                | Recollection obligation   | <ul style="list-style-type: none"> <li>■ Awareness of the recollection obligation<br/>Did not know at all (54.7%)</li> <li>■ Need to recollect<br/>Agree (39%)<br/>*Approval rate increased the more one knew about the recollection obligation (54.7%)</li> </ul>  |
| Others                | Demand                         | <ul style="list-style-type: none"> <li>■ Demand for improvement<br/>High performance computer (37.9%), continuous A/S (35.7%)</li> <li>■ Need to provide training on computer use (67.1%)<br/>SW training (35.2%), HW training (17.4%)</li> </ul> |   |