



Statistics Korea

# Press Release

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Contact Division	Welfare Statistics Division Social Statistics Bureau	Contact Person	Director Kyung-eunIm (042-481-2458)

## **Results of Income Statistics Produced With Social Transfers In-Kind Included (Experimental Statistics)**

## Note

- The statistics in this press release are **experimental rather than nationally approved statistics\*** (No. 2021-2). They are being introduced by Statistics Korea to facilitate the creation and use of statistics using different data sources such as big data.

\* Experimental statistics refer to statistics created as a test with new types of data or the application of new methods, with further confirmation and verification of reliability and validity required after creation.

### □ Overview of Production

- **(Purpose)** To understand the effects of the government's transfers in-kind policy on household income and income distribution index
- **(Target)** Sample households from the Survey of Household Finances and Living Conditions (SFLC) (approximately 20,000)
- **(Items)** Household income, public transfers received, and income distribution index including social transfers in-kind
- **(Production System)** Statistics are produced using the budget and settlement data for each social in-kind transfer sector and separate administrative data based on the SFLC, without conducting additional surveys
- **(Frequency of Production and Publication)** Annual
- **(Dissemination Method)** Press release

### □ Definition of Key Terms

- **(Social Transfers In-kind)** Goods and services provided by the government to households or individuals, including free education, free childcare, and medical subsidies (health insurance)
  - The statistics consist of four categories of social transfers in-kind; medical care, education, childcare, and other vouchers. Refer to the attached documents for production methods and data sources.
- **(Household Income)** The sum of household wages and salaries, income from self-employment, property income, and public and private transfers received, excluding non-recurring income
- **(Adjusted Household Income)** Adjusted household income = Household income + Social transfers in-kind received
- **(Public Transfers Received)** Social security benefits paid by the state or local government according to different laws, including public pensions, the basic pension, childcare allowances, disability allowances, and tailored basic living security subsidies

- **(Equalized Income)** Household income divided by  $\sqrt{\text{the number of household members}}$  to compare well-being (welfare) levels between households with a different number of members. This serves as a source for producing an income distribution index.
  - **(Equalized Market Income)** Employment income + Self-employment income + Property income + Private transfers received - Private transfers paid
  - **(Equalized Disposable Income)** Market income + Public transfers received - Public transfers paid
  - **(Equalized Adjusted Disposable Income)** Adjusted disposable income + Social transfers in-kind received
- \* Income and expenditure for each source are equalized.

□ **Limitations of data (Notes for interpreting statistics)**

- Social transfers in-kind are not currently covered by any concept of measuring international income statistics (by the OECD, etc.) because policy details and valuation may differ from country to country.
  - Accordingly, the official income distribution index for each country presented by the OECD is not comparable to an income distribution index that includes social transfers in-kind.
- It is possible to estimate the value of services from social transfers in-kind, which comes from policies that cover all citizens or specific groups as recipients. Accordingly, the social transfers in-kind covered in this data may differ from the total amount of such transfers in Korea.
- The production cost approach was applied to estimate the value of public services such as education services, which may differ from the value of public services perceived by each individual.
- Social transfers in-kind is the concept of government payments to help cover the cost of goods or services, such as free meals and health insurance contributions, as opposed to direct cash payments to households or individuals.
  - From the perspective of households, disposable income does not increase because income and expenditure occur together for social transfers in-kind. However, such transfers do have an effect on preserving the disposable income of households, so we use the term 'adjusted income'.

□ **Plan to incorporate user opinions and approve national statistics**

- Statistics Korea plans to collect opinions from users on the production method and statistics results through expert advisory meetings and public platforms and to convert income statistics, including social transfers in-kind, to national statistics after confirmation and verification of reliability and validity of it.

# Contents

<input type="checkbox"/> Household Income Including Social Transfers In-kind ..	1
1. Changes in household income .....	1
2. Household income by quintile .....	2
3. Household income by age of household head .....	3
4. Household income by number of household members .....	4
5. Composition ratio by social transfers in-kind sector .....	5
6. Public transfers received including social transfers in-kind ...	6
<input type="checkbox"/> Income Distribution Index Including Social Transfers	
In-kind .....	7
1. Gini coefficient .....	7
2. Income quintile share ratio .....	8
3. Relative poverty rate .....	9
4. Changes in the Gini coefficient by social transfers in-kind for each sector .....	10
<input type="checkbox"/> Attachment	
1. Overview of income statistics including social transfers in-kind .....	11

## 1. Changes in household income

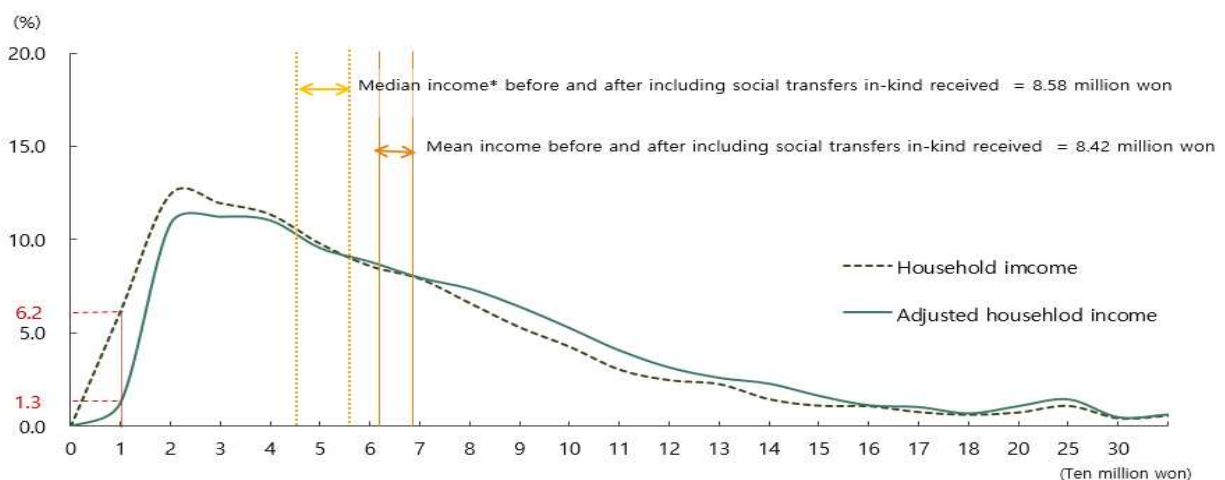
In 2020, the average amount of social transfers in-kind received was 8.42 million won, which is 13.7% of household income.

- In 2020, the average amount of social transfers in-kind received was 8.42 million won, which is 13.7% of household income.
  - The effect is that the government spends about 13.7% of household income on behalf of households.
- In 2020, social transfers in-kind received increased by 0.9% from the previous year, and adjusted household income including social transfers in-kind climbed 3.1% over 2019.
  - When household income includes social transfers in-kind, the proportion of households earning less than 10 million won decreases from 6.2% to 1.3%.

< Average amount and growth rate of household income including social transfers in-kind >  
(Unit: 10,000 won, %)

	Average					YoY increase			
	'16	'17	'18	'19	'20	'17/'16	'18/'17	'19/'18	'20/'19
Household income(A)	5,478	5,705	5,828	5,924	6,125	4.1	2.1	1.7	3.4
Social transfers in-kind(B)	693	728	767	834	842	5.1	5.3	8.8	0.9
Adjusted household income(A+B)	6,171	6,433	6,595	6,758	6,967	4.3	2.5	2.5	3.1
Relative to household income(B/A*100)	12.6	12.8	13.2	14.1	13.7	-	-	-	-

< 2020 household income distribution before and after including social transfers in-kind >



\* Average household income in 2020: 48.36 million won, Median household adjusted income: 56.94 million won

## 2. Household income by quintile

In 2020, the average amount of social transfers in-kind received was 6.24 million won among the first income quintile group (48.2% of household income). Higher income quintiles represent higher income.

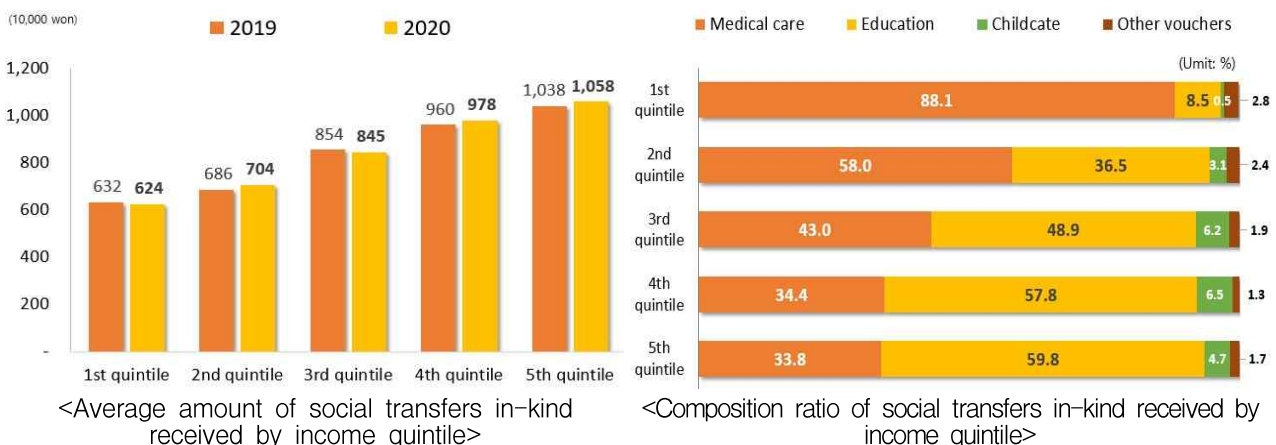
- In 2020, the average social transfers in-kind received was 6.24 million won among the first income quintile and 10.58 million among the fifth income quintile. The higher the income quintile, the higher the income.
  - In terms of proportions, social transfers in-kind accounted for 48.2% among the first quintile and 7.4% for the fifth income quintile. The higher the income quintile, the lower the proportion.
  - For the first and second income decile groups, the composition ratio of transfers in-kind for the medical and education sectors were high, at 88.1% and 58.0%, respectively. The higher the income decile, the higher the proportion taken up by education.
  - The higher the income quintile group, the higher the average number of household members\*. Accordingly, more benefits, including medical care, education, and childcare, go to higher income quintile groups.
- \* Number of household members by income quintile(persons, in 2020): 1st quintile (1.42), 2nd quintile (2.12), 3rd quintile (2.75), 4th quintile (3.22), 5th quintile (3.57)

<Average amount of social transfers in-kind received by income quintile>

(Unit: 10,000 won, %)

	1st quintile		2nd quintile		3rd quintile		4th quintile		5th quintile	
	'19	'20	'19	'20	'19	'20	'19	'20	'19	'20
Household income(A)	1,155	1,294	2,763	2,950	4,671	4,844	7,126	7,325	13,903	14,208
Social transfers in-kind(B)	632	624	686	704	854	845	960	978	1,038	1,058
Adjusted household income(A+B)	1,788	1,918	3,449	3,655	5,524	5,690	8,086	8,303	14,942	15,266
Relative to household income(B/A*100)	54.7	48.2	24.8	23.9	18.3	17.4	13.5	13.3	7.5	7.4

<Average amount and composition ratio of social transfers in-kind received by income quintile >



### 3. Household income by age of household head

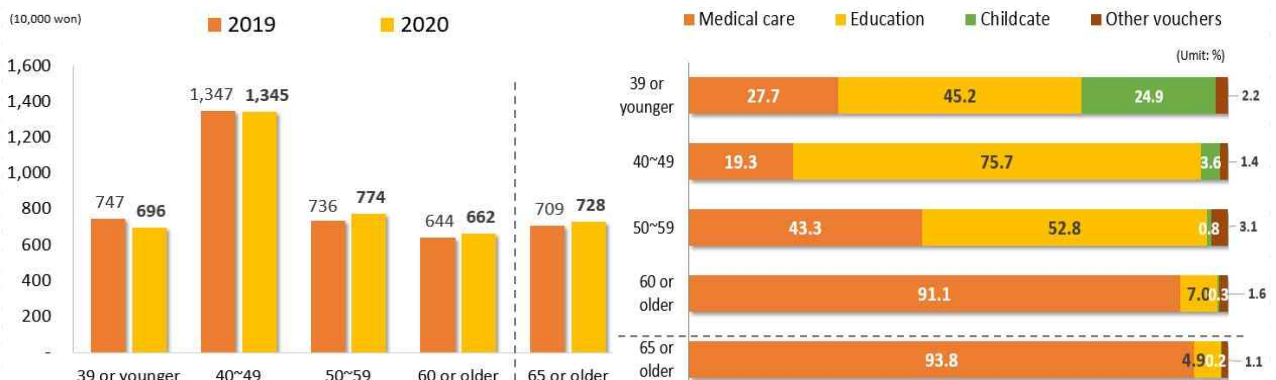
Households headed by a person in their 40s received the most social transfers in-kind(13.45 million won), while those headed by a person aged 60 or older received the least(6.62 million won).

- Households headed by a person in their 40s received the most social transfers in-kind (13.45 million won), followed by those in their 50s (774 million won), those aged 39 or younger (6.96 million won), and those aged 60 or older (6.62 million won).
- The proportion of social transfers in-kind among total household income was the greatest for those in their 40s, with 17.6%, followed by 15.4% for those aged 60 or older, 11.3% for those aged 39 or younger, and 10.1% for those in their 50s.
- There is a difference in the composition ratio of social transfers in-kind among different household head age groups.
  - The social transfers in-kind sector with the highest proportion was childcare for households with heads aged 39 or younger, education for households with heads in their 40s, medical care and education for households with heads in their 50s, and medical care for households headed by those aged 60 or older.

< Average amount of social transfers in-kind received by the age of household head >  
(Unit: 10,000 won, %)

	39 or younger		40~49		50~59		60 or older		65 or older	
	'19	'20	'19	'20	'19	'20	'19	'20	'19	'20
Household income(A)	5,935	6,177	7,648	7,643	7,549	7,703	3,989	4,299	3,180	3,492
Social transfers in-kind(B)	747	696	1,347	1,345	736	774	644	662	709	728
Adjusted household income(A+B)	6,682	6,873	8,995	8,988	8,285	8,477	4,633	4,960	3,889	4,220
Relative to household income(B/A*100)	12.6	11.3	17.6	17.6	9.7	10.1	16.1	15.4	22.3	20.9

< Average amount of social transfers in-kind received by household head age group >



<Average amount of social transfers in-kind received by the age of household head for each year>

<Composition ratio of social transfers in-kind received by the age of household head in 2020>

## 4. Household income by number of household members

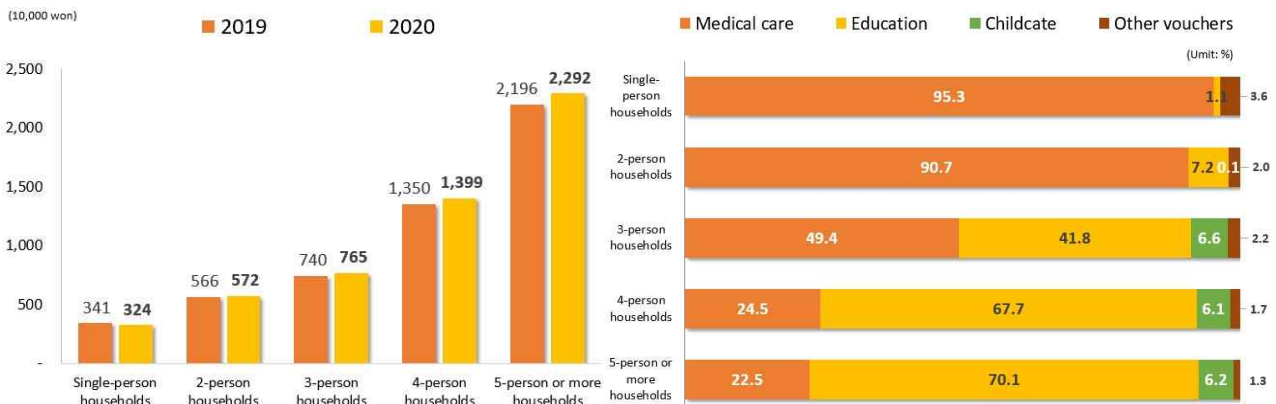
In 2020, the average amount of social transfers in-kind received was 3.24 million won among single-person households, and 13.99 million won among four-person households. This indicates higher figures for households with more members.

- In 2020, the average amount of social transfers in-kind received was 3.24 million won among single-person households, 5.72 million won among two-person households, 7.65 million won among three-person households, 13.99 million won among four-person households, and 22.92 million won among households with five or more members.
  - The larger the number of household members, the greater the social transfers in-kind received, with a significant jump among four-person households.
- The larger the number of household members, the higher the proportion of children-related social transfers in-kind, such as education and childcare. The proportion of medical care for single-person and two-person households was more than 90%.
  - For three-person households, the proportion of medical care was 49.4%, with education and childcare recording a similar figure of 48.4%. For four-person households, the proportion of education and childcare was high, at more than 70%.

< Average amount of social transfers in-kind received by number of household members >  
(Unit: 10,000 won, %)

	Single-person households		2-person households		3-person households		4-person households		5-person or more households	
	'19	'20	'19	'20	'19	'20	'19	'20	'19	'20
Household income(A)	2,162	2,409	4,503	4,802	7,339	7,558	8,951	9,162	9,786	10,309
Social transfers in-kind(B)	341	324	566	572	740	765	1,350	1,399	2,196	2,292
Adjusted household income(A+B)	2,503	2,733	5,069	5,375	8,078	8,323	10,301	10,561	11,982	12,601
Relative to household income(B/A*100)	15.8	13.5	12.6	11.9	10.1	10.1	15.1	15.3	22.4	22.2

< Average amount and composition ratio of social transfers in-kind received by the number of household members >



<Average amount of social transfers in-kind received by the number of household members for each year>

<Composition ratio of social transfers in-kind received by the number of household members in 2020>



## 5. Composition ratio by social transfers in-kind sector

In 2020, the average amount of social transfers in-kind received in the medical care and education sectors was 4.03 million won and 3.84 million won, respectively, accounting for 93.5% of total social transfers in-kind.

- In 2020, the average amount of social transfers in-kind received in the medical care and education sectors was 4.03 million won and 3.84 million won, down 1.9% and up 3.3% from 2019, respectively.
  - In 2020, the average amount of social transfers in-kind for childcare and other vouchers was 380,000 won and 160,000 won, up 5.0% and 11.4% from the previous year, respectively.
- Overall, the proportion of social transfers in-kind for medical, childcare, and other voucher sectors increased, while the figure for education decreased.
  - Until 2017, the proportion of social transfers in-kind for the education sector was the highest, but since 2018, the medical care sector has accounted for the largest proportion.
  - In 2020, the proportion of social transfers in-kind for the medical care and education sectors was 93.5%.

< Average amount and composition ratio of social transfers in-kind by sector >

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

	Average					Composition ratio				
	'16	'17	'18	'19	'20	'16	'17	'18	'19	'20
Medical care	315 (5.3)	338 (7.2)	374 (10.7)	411 (9.9)	403 (-1.9)	45.5 (-0.2)	46.4 (0.9)	48.8 (2.4)	49.3 (0.5)	47.9 (-1.4)
Education	345 (5.0)	354 (2.8)	354 (0.1)	372 (5.0)	384 (3.3)	49.7 (-0.3)	48.6 (-1.1)	46.2 (-2.4)	44.6 (-1.6)	45.7 (1.0)
Childcare	23 (10.4)	26 (13.4)	27 (0.9)	36 (36.6)	38 (5.0)	3.4 (0.1)	3.6 (0.3)	3.5 (-0.2)	4.4 (0.9)	4.5 (0.2)
Other vouchers	10 (39.5)	10 (0.8)	12 (22.8)	15 (22.8)	16 (11.3)	1.4 (0.3)	1.3 (-0.1)	1.6 (0.2)	1.8 (0.2)	1.9 (0.2)
Total	693 (5.7)	728 (5.1)	767 (5.3)	834 (8.8)	842 (0.9)	100.0 -	100.0 -	100.0 -	100.0 -	100.0 -

※ The figures in parentheses ( ) indicate growth rates (%) and changes (%p) compared to the previous year.

## 6. Public transfers received, including social transfers in-kind

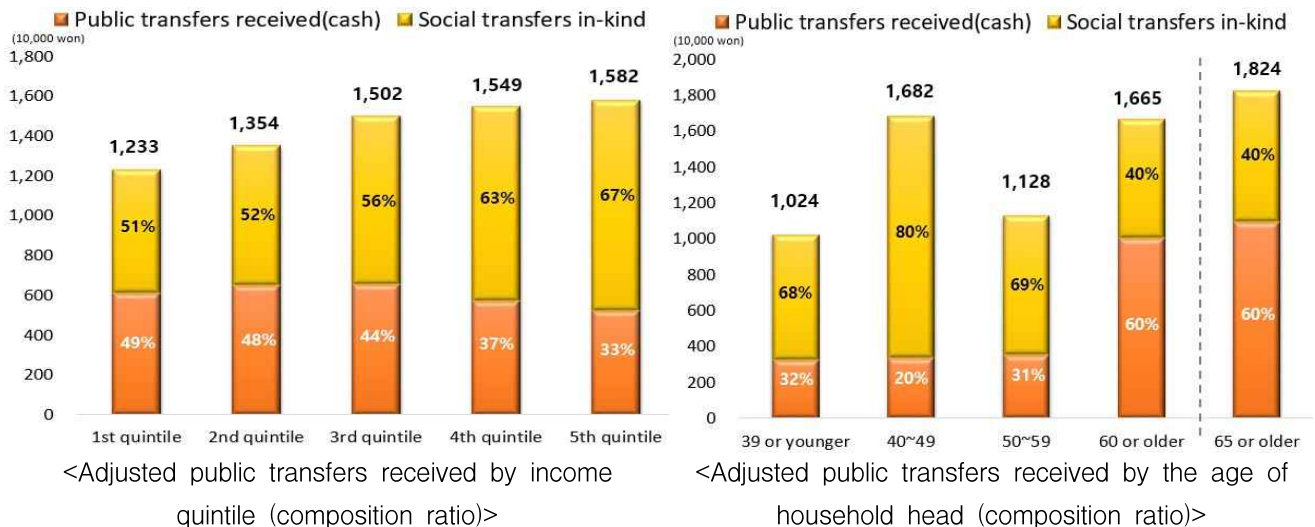
In 2020, the amount of adjusted public transfers received, including social transfers in-kind, was 14.44 million won, up 11.8% from 2019.

- In 2020, the amount of adjusted public transfers received, including social transfers in-kind, was 14.44 million won, up 11.8% from 12.91 million won in 2019.
  - Both public transfers received\* and social transfers in-kind received, including public pensions, increased, but the growth rate was higher for public transfers.
    - \* Cash transfers received such as public pension, basic pension, childcare allowances, pension for the disabled, earned income tax credit(EITC), and child tax credit (CTC)
- Adjusted public transfers received were higher among the 4th and 5th income quintile groups, households with heads in their 40s and households with heads aged 60 or older.
  - Public transfers received(cash) were higher among the 1th and 3th income quintile groups and households with heads aged 60 or older.

< Average amount and growth rate of public transfers received including social transfers in-kind >  
(Unit: 10,000 won, %)

	Average					Growth rate			
	'16	'17	'18	'19	'20	'17/'16	'18/'17	'19/'18	'20/'19
Public transfer received(cash)(A)	328	351	387	457	602	7.1	10.1	18.3	31.7
Social transfers in-kind(B)	693	728	767	834	842	5.1	5.3	8.8	0.9
Adjusted public transfer received(A+B)	1,021	1,079	1,153	1,291	1,444	5.8	6.9	12.0	11.8

< Public transfers received including social transfers in-kind in 2020 >



## 1. Gini coefficient

In 2020, Korea's Gini coefficient based on adjusted disposable income was 0.282, 0.049 lower than the Gini coefficient based on disposable income.

- In 2020, Korea's Gini coefficient based on equitable adjusted disposable income including social transfers in-kind was 0.282, 0.049 lower than the figure excluding such transfers.
- The improvement in the Gini coefficient by including social transfers in-kind is greater among the retirement age group than the working age group.

< Comparison of Gini coefficient<sup>1)</sup> before and after incorporating social transfers in-kind received >

		'15	'16	'17	'18	'19	'20
Total	Disposable income <sup>2)</sup>	0.352	0.355	0.354	0.345	0.339	0.331
	Adjusted disposable income <sup>3)</sup>	0.305	0.305	0.304	0.294	0.287	0.282
	Improvement effect <sup>4)</sup>	0.047	0.050	0.050	0.051	0.052	0.049
Working age group (18~65)	Disposable income	0.337	0.338	0.337	0.325	0.317	0.312
	Adjusted disposable income	0.299	0.299	0.298	0.287	0.279	0.275
	Improvement effect	0.038	0.039	0.039	0.038	0.038	0.037
Retirement age group (66 or older)	Disposable income	0.427	0.425	0.419	0.406	0.389	0.376
	Adjusted disposable income	0.342	0.337	0.330	0.315	0.296	0.291
	Improvement effect	0.085	0.088	0.089	0.091	0.093	0.085
Children group (17 or younger)	Disposable income	0.323	0.329	0.327	0.319	0.317	0.310
	Adjusted disposable income	0.264	0.268	0.266	0.258	0.253	0.247
	Improvement effect	0.059	0.061	0.061	0.061	0.064	0.063

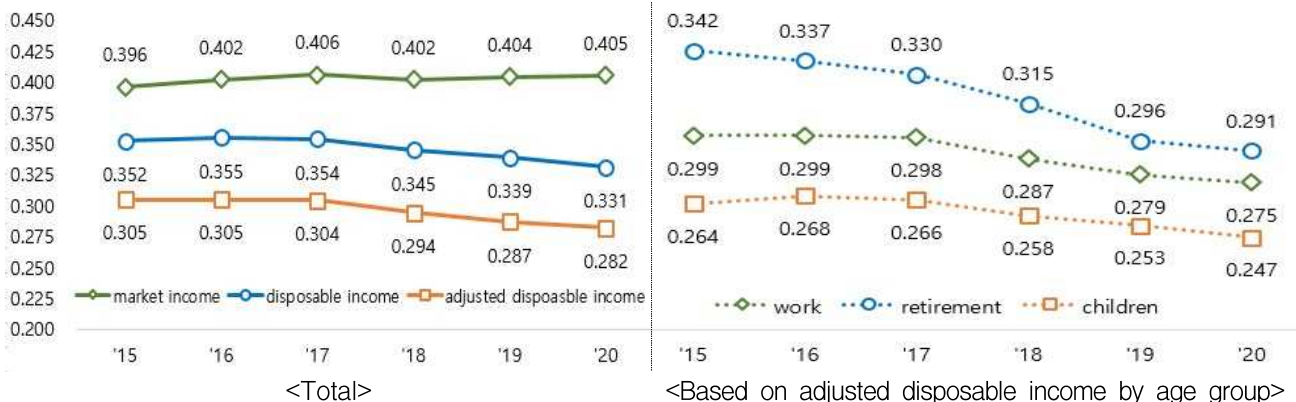
Note: 1) Gini coefficient: A representative measurement of income inequality. A Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.

2) Disposable income = Market income + Public transfers received - Public transfers spent (equalization)

3) Adjusted disposable income = Disposable income + Social transfers in-kind (equalization)

4) Improvement effect = Disposable income - Adjusted disposable income

< Gini coefficient trends >



## 2. Income quintile share ratio

In 2020, the income quintile share ratio based on adjusted disposable income improved to 4.25, a 1.60 p decrease.

- In 2020, the income quintile share ratio based on equivalized adjusted disposable income, including social transfers in-kind, was 4.25, lower by 1.6p than the figure excluding such transfers.
- The income quintile share ratio trends downward when social transfers in-kind are included. The improvement is higher among the retirement age group, followed by the children group and the working age group.

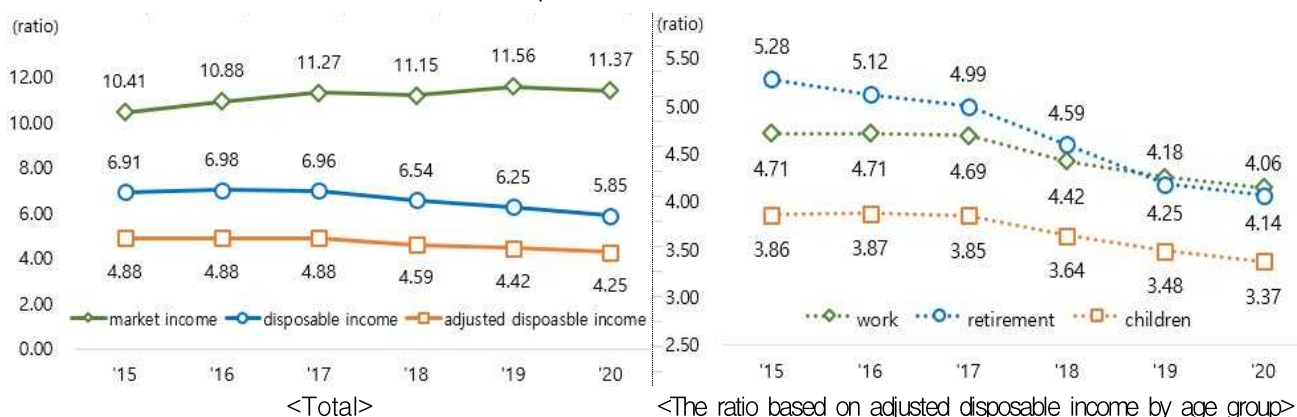
< Comparison of income quintile share ratio <sup>1)</sup> before and after including social transfers in-kind received >  
(Unit: ratio, ratio p)

		'15	'16	'17	'18	'19	'20
Total	Disposable income	6.91	6.98	6.96	6.54	6.25	5.85
	Adjusted disposable income	4.88	4.88	4.88	4.59	4.42	4.25
	Improvement effect <sup>2)</sup>	2.03	2.10	2.08	1.95	1.83	1.60
Working age group (18~65)	Disposable income	6.09	6.12	6.09	5.67	5.40	5.19
	Adjusted disposable income	4.71	4.71	4.69	4.42	4.25	4.14
	Improvement effect	1.38	1.41	1.40	1.25	1.15	1.05
Retirement age group (66 or older)	Disposable income	9.27	9.05	8.82	7.94	7.21	6.62
	Adjusted disposable income	5.28	5.12	4.99	4.59	4.18	4.06
	Improvement effect	3.99	3.93	3.83	3.35	3.03	2.56
Children group (17 or younger)	Disposable income	5.75	5.78	5.69	5.33	5.09	4.82
	Adjusted disposable income	3.86	3.87	3.85	3.64	3.48	3.37
	Improvement effect	1.89	1.91	1.84	1.69	1.61	1.45

Note: 1) Income quintile share ratio: The ratio of total income received by the 20 % of the population with the highest income to that received by the 20 % of the population with the lowest income.

2) Improvement effect = Disposable income - Adjusted disposable income

< Income quintile share ratio trends >



### 3. Relative poverty rate

In 2020, the relative poverty rate based on Equalized adjusted disposable income including social transfers in-kind received was 9.6%, 5.7%p lower than the figure excluding such transfers.

- In 2020, the relative poverty rate based on Equalized adjusted disposable income including social transfers in-kind received was 9.6%, 5.7%p lower than the figure excluding such transfers
  - The improvement in the relative poverty rate by including social transfers in-kind was highest among the retirement age group due to the influence of the medical sector.

< Comparison of relative poverty rates<sup>1)</sup> before and after including social transfers in-kind received >  
(Unit: %, %p)

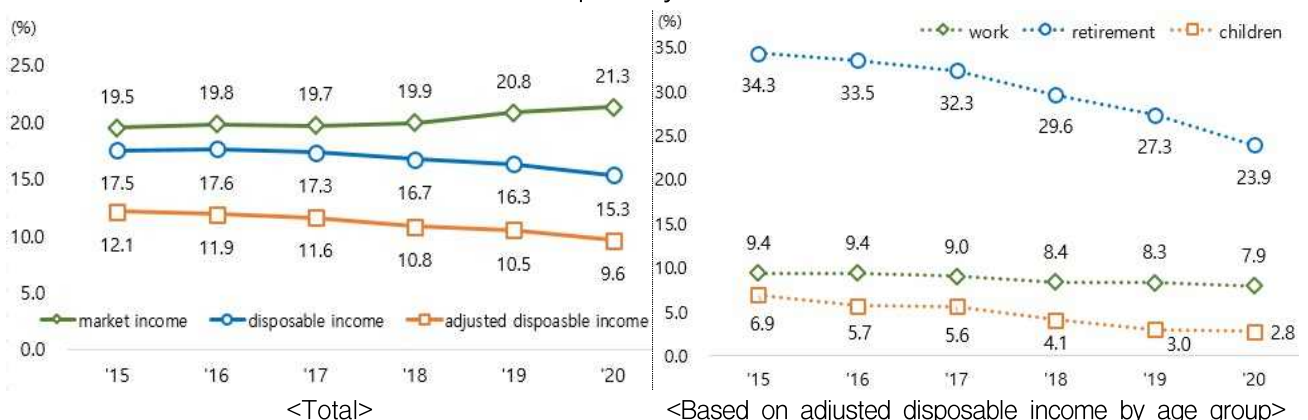
		'15	'16	'17	'18	'19	'20
Total	Disposable income	17.5	17.6	17.3	16.7	16.3	15.3
	Adjusted disposable income	12.1	11.9	11.6	10.8	10.5	9.6
	Improvement effect <sup>2)</sup>	5.4	5.7	5.7	5.9	5.8	5.7
Working age group (18~65)	Disposable income	12.9	12.9	12.6	11.8	11.1	10.6
	Adjusted disposable income	9.4	9.4	9.0	8.4	8.3	7.9
	Improvement effect	3.5	3.5	3.6	3.4	2.8	2.7
Retirement age group (66 or older)	Disposable income	44.3	45.0	44.0	43.4	43.2	40.4
	Adjusted disposable income	34.3	33.5	32.3	29.6	27.3	23.9
	Improvement effect	10.0	11.5	11.7	13.8	15.9	16.5
Children group (17 or younger)	Disposable income	16.0	15.2	14.2	12.3	10.6	9.8
	Adjusted disposable income	6.9	5.7	5.6	4.1	3.0	2.8
	Improvement effect	9.1	9.5	8.6	8.2	7.6	7.0

Note 1) Relative poverty rate: The proportion of people with 50% or less of the median income\* of equalized (adjusted) disposable income

\* Poverty line based on adjusted disposable income: (2015) 14.41 million won, (2017) 15.65 million won, (2019) 17.37 million won, (2020) 18 million won

2) Improvement effect = Disposable income - Adjusted disposable income

< Relative poverty rate trends >



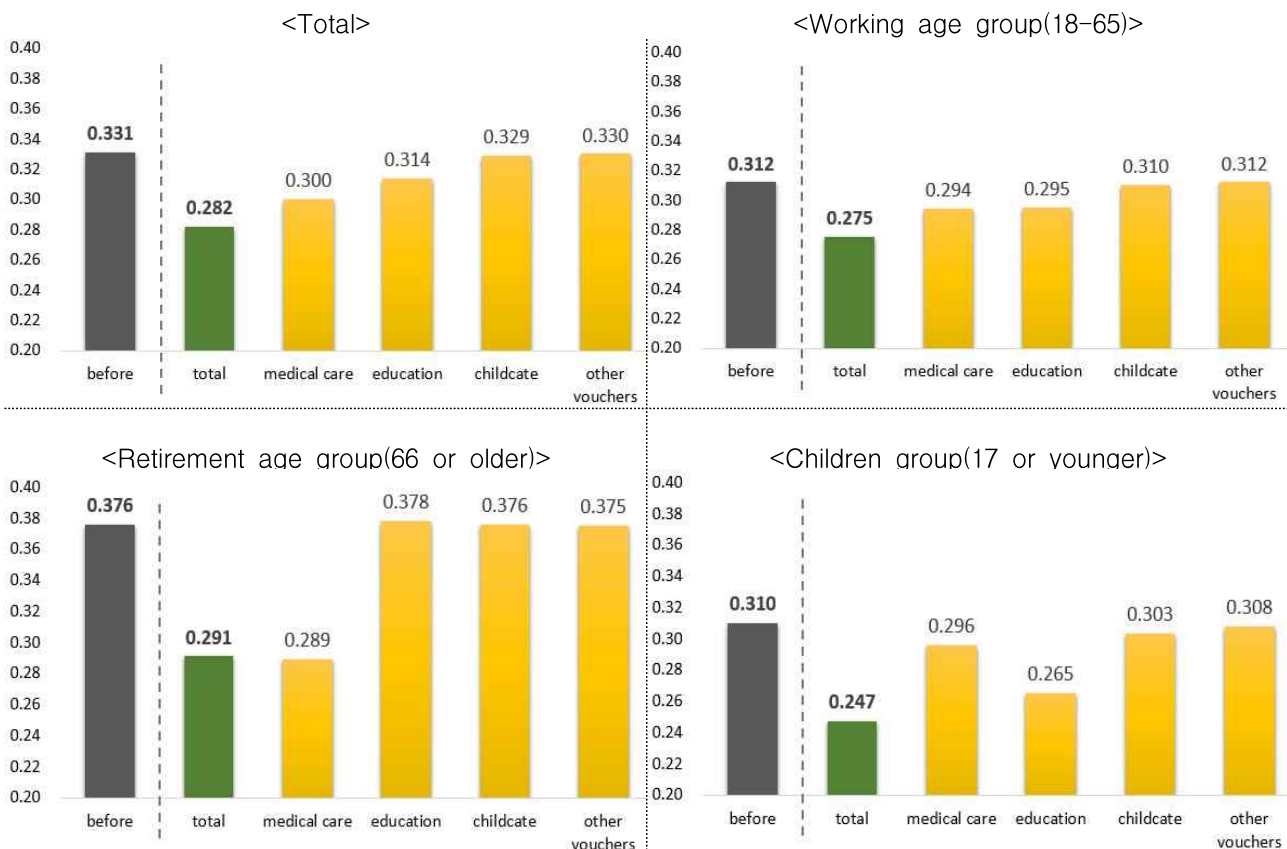


## 4. Changes in the Gini coefficient by social transfers in-kind for each sector

Including social transfers in the medical and education sectors significantly improved the Gini coefficient. In particular, the former led to the greatest improvement.

- In 2020, Korea's Gini coefficient based on adjusted disposable income, which includes only the medical sector was 0.300. That indicates the medical sector showed the greatest positive effect.
  - The Gini coefficient including only the education sector was 0.314. This shows that the education and medical sectors had a larger improvement effect than other sectors, as they accounted for a high proportion of social transfers in-kind.
- The improvement in the Gini coefficient from including social transfers in-kind by sector differed significantly among different age groups.
  - For the working age group, both medical and education social transfers in-kind had a large and similar improvement effect.
  - For the retirement age group, the medical sector had the most significant improvement effect, while the education sector worsens the Gini coefficient.
  - For the children group, the education sector had the largest improvement.

< Changes in the Gini coefficient by social transfers in-kind sector in 2020 >



### 1. Production Process

#### ① Selection of service sectors

- (Selection criteria) service sectors with ① a large share of welfare expenditure, ② a strong known effect on income redistribution, or ③ a realistic possibility to estimate the value of the services\*.

\* Target service sectors include the social transfer programs of central government agencies and exclude those of local governments due to difficulty in determining their type and value.

- Target sectors include individual welfare services that directly benefit households, such as education and medical care, and exclude collective welfare services, such as national defense and construction and transportation.

- (Sectors) Five welfare service sectors: medical care (including long-term care for the elderly), education (including national scholarships), childcare, public rental housing, and other vouchers\*

\* 15 welfare programs including senior care, maternal support and newborn healthcare, support for the disabled, visits for housekeeping and nursing care, and energy vouchers

- The selection of service sectors may vary depending on the welfare policies of each country, but commonly included sectors are medicine, education, childcare, and public rental housing.
- However, these experimental statistics exclude public rental housing due to the absence of a verifiable estimation method. We plan to include public rental housing at a later date by improving the estimation method.

#### ② Creating basic data for each service sector

- Utilizing budget and settlement macro data and individual microdata for each sector

- Reviewing and confirming data that satisfies the concept of income estimation for each service

- The data used for each sector are ① budget and settlement data from different statistical annual reports for 'education and medical care', ② data on individual benefits and budget for 'childcare', and ③ data on individual benefits for 'national scholarships and other vouchers.'

### 3 Income estimation by service sector

- The method for estimating the value of public services and assigning the value to individuals and households follows the OECD report\*

\* Divided We stand(OECD, 2011)

- Methods for estimating and allocating the value of social transfers in-kind

	Methods in details	Sector
Value estimation	<ul style="list-style-type: none"> <li>▶ A method for estimating the monetary value of public services               <ul style="list-style-type: none"> <li>– <b>(Production cost approach)</b> Assuming that the social transfers income paid to service beneficiaries is equal to the average cost of providing or producing the service</li> </ul> </li> </ul>	
Value allocation	<ul style="list-style-type: none"> <li>▶ A method of assigning the estimated monetary value (income generated from services) to an individual</li> </ul>	
	<ul style="list-style-type: none"> <li>– <b>(Actual consumption approach)</b> Allocating the estimated value of the service to the beneficiaries</li> </ul>	Four sectors (excluding medical care)
	<ul style="list-style-type: none"> <li>– <b>(Insurance value approach)</b> Calculating and allocating the 'value of term insurance' for individuals based on individual characteristics such as age and gender</li> </ul>	Medical care

### 4 Evaluation of income estimation results

- (Comparison with the total value from settlement payment data) As of 2020, the overall coverage rate for the estimated value of social transfers in-kind income was 99.9%. The estimated coverage rates for each sector were slightly different, with 100.4% for education and 97.3% for medical care.

\* This is affected by the fact that the number of service beneficiaries and weightings may differ between surveys and administrative data.

- (Comparison with macro indicators) The estimated value of social transfers in-kind received corresponds to around 78.2%\* of Korea's national account.

- Micro-statistics and macro-statistics have different production methods, which leads to a difference in their respective coverage.

\* Estimated income value (2020): 152.6 trillion won. General government sector of Income in-kind redistribution account under national account: 193.3 trillion won



## 2. Production Methods

### 1 Education services

- Includes all expenses\* paid by the government for the education of students in elementary, middle, and high school/university/kindergarten (the Nuri curriculum for children 3-5 years old)
  - \* Includes expenses associated with faculty hiring and student education (except administrative expenditure for non-educational purposes, such as the operations of the Office of Education, according to the OECD SOCX (Social Expenditure Database) standard).
- (Elementary, middle and high schools) Estimated the value of benefits for each student, region, and school level by dividing total government expenditure\* on student education by the number of national, public, and private students in the Education Statistical Yearbook
  - \* Total government education expenditure = Faculty labor costs + Education expenditure
  - Estimated the net value of benefits per person excluding expenses incurred by households (such as tuition) from among public school and private school expense accounts.
  - Adjusted the value of estimated per-student benefits by school level and region to the ratio of national, public, and private school students before allocating the adjusted value to the corresponding household member.
- (College) Estimated the value of benefits per student by calculating the total education costs\* based on budget settlement data from national and public (provincial) universities and colleges and dividing it by the number of enrolled students
  - \* Sum of costs recorded in the accounts of 52 national public universities (national university corporations), development funds and industry-university cooperation foundations, as well as the costs of purchasing books, machinery and equipment
  - The estimate excludes private universities because the government subsidies paid to them are not sizable.
  - Adjusted the estimated value of benefits per student by applying the ratio of national and public students and the average ratio of enrolled students at higher education institutions nationwide before allocating the adjusted value to the corresponding household member

- (National Scholarships) Directly allocated the national scholarship received\* if the recipient is a household member covered by the SFLC.
  - \* Using administrative data from the Korea Student Aid Foundation
- (Kindergarten\*) The total government educational expenditure includes the budget allocated for general local education subsidies and education personnel expenses for the Nuri curriculum for each region (children 3-5 years old) supported by the Ministry of Education. It is possible to estimate per person education benefits for each region by dividing the total government education expenditure by the number of children eligible for budget support.
  - \* The Nuri program supports children aged 3 to 5 who attend daycare, so this is included in the estimation.
- Allocated per person benefits to household members of an age not eligible for childcare allowances.

## 2 Medical care services

- Includes medical care benefits and long-term care insurance benefits for senior citizens under the 'national health insurance system' and the 'medical care assistance system' that the government operates for the public.

	Beneficiary	Benefits in-kind
National health insurance	The employee insured and the self-employed insured among citizens residing in Korea.	Medical care benefits, health check-up expenses, prepaid benefits in excess of the co-payment ceiling
Medical care assistance	Recipients of low-income nationals under difficult living conditions	Medical care benefits, health check-up expenses
Long-term care insurance benefits for senior citizens	Senior citizens aged 65 or older or those with geriatric diseases	Benefits for home care services, institutional care benefits, visits for nursing or bathing care, short-term care, etc.

- (National health insurance system) Estimated the benefits per person by dividing the total amount of medical care benefits by gender and age (in five-year age groups) by the number of people covered by national health insurance, and allocating this value to the corresponding household member.

- (Medical care assistance system) Estimated the benefits per person by dividing the total medical benefits borne by institutions by gender and age (in five-year age groups) by the number of people covered by the system before allocating this value to the corresponding household member who is eligible to receive such medical benefits.
- (Long-term care insurance benefits for the elderly) Estimated the benefits per person by dividing the total NHIS share of expenses on home care services (from among long-term care insurance benefits) by gender and age (in five-year age groups) and allocating this to household members aged 65 or over.
  - \* Those younger than 65 with geriatric diseases such as dementia are also eligible for support, but they account for just 4–5% of total NHIS expenditure. In consideration of the problems with allocating per-person benefits to such persons, we excluded them from the statistics.

### 3 Childcare services

- Includes childcare allowances (I-Happiness Card for daycare center fees and child tuition) that the government provides to support childcare for infants (0-2 years old) and the budget allocated to support the operation of childcare centers
  - \* Excludes those eligible for the Ministry of Education's Nuri program (for children 3–5 years old) who attend daycare centers from the beneficiaries of childcare allowances.
- Estimated childcare allowances per child by adding the childcare subsidies for each child provided by the Ministry of Health and Welfare(from administrative data) and daycare center operating costs per child\*
  - \* The budget allocated to support daycare center operations (excluding childcare fees) divided by the number of benefited children from the Childcare Statistical Yearbook
- Additionally allocated the estimated benefits per person other than childcare allowances to children aged 0-2 who receive childcare allowances

#### **4 Other vouchers**

- Refers to 15 social security services\* that the government provides to low-income and vulnerable groups such as the elderly, young people, and women
  - \* Includes comprehensive care for the elderly, maternal and newborn health care, investment in community services, visits for housekeeping and nursing care, rehabilitative services for children with disabilities, language development support, psychological counseling for parents with children with developmental disabilities, support for activities for disabled persons, pregnancy and childbirth treatment expenses for adolescent mothers, diaper and formula support for low-income groups, energy vouchers (implemented in the second half of 2015), medical expenses for pregnancy and childbirth (childcare support [implemented in 2017 by the Ministry of Gender Equality and Family] not received), daytime activities support and after-school activities support for the developmentally disabled, and health and hygiene products.
- Directly allocated the benefit\* if the recipient of each support program is a household member covered by the SFLC.
  - \* Using administrative data for social security services from the Ministry of Health and Welfare