

Policy Report 2018-03

Multidimensional Poverty of Youth in South Korea



Moonkil Kim and Seonga Kim

【Principal Researcher】

Moonkil Kim Research Fellow, Korea institute for Health and Social Affairs

【Publications】

Analysis of Multidimensional Characteristics of Korean Youth Poverty and Policy Implications, Korea institute for Health and Social Affairs (KIHASA), 2017(Project Head)

The 2016 Korea Welfare Panel Study (KOWEPS) Descriptive Report, Korea institute for Health and Social Affairs (KIHASA), 2014(Project Head)

【Co-Researchers】

Seonga Kim Senior Researcher, Korea institute for Health and Social Affairs

Multidimensional Poverty of
Youth in South Korea

© 2018

Korea Institute for Health and Social Affairs

All rights reserved. No Part of this book may be reproduced in any form without permission in writing from the publisher

Korea Institute for Health and Social Affairs
Building D, 370 Sicheong-daero, Sejong city
30147 KOREA

<http://www.kihasa.re.kr>

ISBN: 978-89-6827-509-8 93330

Contents

I. Introduction	1
II. Literature Review	9
1. Youth Poverty	11
2. Multidimensionality of Poverty	13
III. Methods	19
1. Overview	21
2. Dimensions and Indicators of Poverty	22
3. Deciding the Dimensions and Indicators Based upon Expert Surveys	25
4. Deciding the Poverty Lines	27
5. Poverty Rates by Dimension and Indicator	31
6. Weights of Indicators	32
7. Measuring Lifecycle-Specific Poverty	36
IV. Results	37
1. Multidimensional Poverty Under Equal Weights	40
2. Multidimensional Poverty Under Nested Weights	45
3. Multidimensional Poverty Under Participatory Weights	50

V. Conclusion and Policy Implications 57

References 63

List of Tables

〈Table 3-1〉 Dimensions and Indicators of Poverty in Literature	24
〈Table 3-2〉 Expert Surveys: Overview	25
〈Table 3-3〉 Characteristics of the Experts in Survey 1	26
〈Table 3-4〉 Dimensions, Indicators, and Poverty Lines	28
〈Table 3-6〉 Weights Assigned to Indicators and Dimensions	35
〈Table 4-1〉 Distribution of Population Subject to Analysis by Age	40
〈Table 4-2〉 Lifecycle-Specific Multidimensional Poverty(MP): Equal Weights	42
〈Table 4-3〉 Multidimensional Poverty(MP) of Young Households: Equal Weights	45
〈Table 4-4〉 Lifecycle-Specific Multidimensional Poverty(MP): Nested Weights	47
〈Table 4-5〉 Multidimensional Poverty(MP) of Young Households: Nested Weights	50
〈Table 4-6〉 Lifecycle-Specific Multidimensional Poverty(MP): Participatory Weights	52
〈Table 4-7〉 Multidimensional Poverty(MP) of Young Households: Participatory Weights	55

List of Figures

[Figure 1-1] Poverty Rates of Age Groups in Comparison to the Overall Poverty Rate (= 100) (2016)	5
[Figure 3-1] Dimensions and Indicators of Multidimensional Poverty ...	27
[Figure 4-1] Multidimensional Poverty and Income Poverty: Equal Weights	42
[Figure 4-2] Income Poverty and Multidimensional Poverty: Nested Weights	47
[Figure 4-3] Income Poverty and Multidimensional Poverty: Participatory Weights	52

I

Introduction

I

Introduction <<

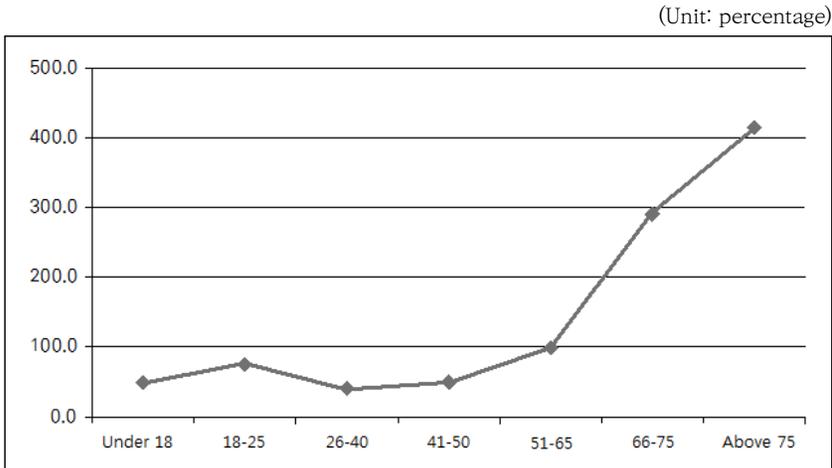
- The demographic transformation now taking place in South Korea, characterized most acutely by the country's plummeting birth rate and rapidly aging population, threatens to impose on today's young generation a greater burden to support the aged generation than young generations of the past have ever faced. However, today's young generation of Koreans face conditions that make occupational success and economic stability much more difficult to attain than was the case for their elders.
- Young Koreans today are the most well-educated of all generations of Koreans to date. Yet the consistently low economic growth rates, dichotomization of the labor market and post-industrialization, and unbridgeable income inequality threaten their socioeconomic wellbeing.
- Although young Koreans are much better educated than their parents, thanks to the hard-earned fruits of economic growth, some speculate that today's Korean youth will likely be the first generation to do more poorly, in terms of material success and comfort, than its parent generation.
- Although poverty is one of the major problems plaguing

4 Multidimensional Poverty of Youth in South Korea

Korean youth today, it has seldom received serious attention in research and literature. So far, the working poverty of young Koreans has been discussed by only a few researchers (Ahn, 2011, and Kim et al., 2015).

- Because the youth poverty rate in Korea is considerably lower than the poverty rates of other age groups, few in Korea have connected the two concepts together. Poverty rates in Korea measured by age group show a reversed “L” shape, as shown in Figure 1-1.
- As the serious social problem that it is, elderly poverty in Korea receives considerable attention, with Korea’s elderly poverty rate hovering well above the Organisation for Economic Cooperation and Development (OECD)’s average (with seniors aged 65 to 74 three times more likely to be poor than the entire population, and seniors aged 75 or older 4.2 times more likely to be poor). Moreover, child poverty is 49 percent of overall poverty in Korea, while youth poverty is approximately 74 percent.

[Figure 1-1] Poverty Rates of Age Groups in Comparison to the Overall Poverty Rate (= 100) (2016)



Source: Statistics Korea (2015 and 2016), raw data for the *Housing Trend Surveys*, as quoted by Kim and Lee (2017), p. 30.

- While the youth poverty rate appears to be deceptively low in Korea, young Koreans are constantly on the brink of falling into actual poverty, considering the dire conditions they face in the job market today. It is intuitive that favorable conditions in the job market would lead to income gains, while adverse job market conditions would lead to income losses.

- What would explain the disparity between statistical poverty and actual poverty (tied to the rising unemployment rate, weakening status of young people in the job market, etc.)? To understand this disparity, we first need to understand the multifaceted concept of poverty.

- There are three main types of poverty: statistical poverty, poverty of hope, and hidden poverty.
 - Statistical poverty is the type of poverty we commonly encounter in social discourse. Measured by a variety of indicators, this type of poverty is often used as a measure of the objective status and distribution of poverty in a given society.
 - Poverty of hope is at issue when the statistical indicators of poverty fail to capture deprivations in the diverse conditions that influence future income, such as education and human development, health, culture, leisure, and social capital, and thereby fail to expose the risks of future poverty. For example, a young person may belong to a household with a household income above the poverty line but could still fall victim to poverty once they leave the household and stand on their own. The poverty of hope represents this risk of future poverty.
 - Hidden poverty refers to present poverty that is not easily captured by statistical indicators such as the poverty rate. Its origin lies in shortcomings of the method used to estimate poverty rates. In general, poverty rates are calculated according to statistical surveys on household income. Personal poverty rates are then estimated by individualizing (leveling) household

income by the number of household members. This failure to capture transfers of income between individual members of households serves to hide the poverty that certain individual members of a household may be experiencing, while others are not.

- Given the current method of calculating poverty rates, an unemployed and income-less young person who cohabitates with income-earning family members (usually parents) is not counted among the poor in official poverty reports.
 - This is the major reason youth poverty remains hidden in Korea. Special consideration is thus needed to find better methods of detecting and reflecting this hidden poverty.
- Because it is impossible to identify and capture the structural attributes of the poverty that plagues young people in Korea today, with poverty rates based upon household income alone, we strive to understand the multidimensionality of poverty affecting youth in this study, with a view to finding policy implications.

II

Literature Review

1. Youth Poverty
2. Multidimensionality of Poverty

1. Youth Poverty

- Little research has been done on the subject of youth poverty, particularly in comparison to poverty among the elderly, the disabled, and women. As shortages of jobs, housing, and other resources for young people are becoming serious social issues in Korea, however, there has been growing interest in youth poverty among research circles.
- Since the early studies that were conducted on youth poverty, such as Park (2009), Kim (2010), and Kim (2012), researchers in Korea have reached the consensus that the problem of youth poverty is inseparable from the issue of labor market inequality, which largely involves job insecurity and low pay (Park, 2009; Kim, 2010; Ban, 2010; Kim et al., 2012; and Kim and Kim, 2016).
 - Kim et al. (2012), in particular, stresses the importance of an effective youth employment policy. Experiences of poverty in youth exert far-reaching and scarring effects that persist into marriage and middle age (Scarpetta, Anne, and Thomas, 2010).
- Researchers are also taking note of the correlation between the intergenerational trap of poverty and youth

poverty. The more affluent parents are, the more willing they are to invest in the education of their children. Good education, in turn, leads children to good schools and good jobs (Yeo et al., 2007, and Lee, 2008).

- However, few studies have examined the phenomenon and effects of intergenerational poverty among/on young people in Korea today.
- These days, youth poverty is increasingly recognized as a multidimensional issue, as it involves various problems, including housing and psychological problems (Kim, 2010, and Kim and Kim, 2016).
 - While they live with their parents, young people seldom realize the seriousness of the housing problem. As they set out on their own, however, young people realize just how limited the housing options are for them (Kwon and Lee, 2013; Lee et al., 2016; and Kim and Choi, 2017).
- As this subject matter is a problem of both the current and future generations, research on youth poverty is likely to increase in the future.
- Youth poverty is inextricably linked to the job market. More than any other generation, today's young generation is extremely sensitive to job market changes.

- Young people in Korea today put up with poor housing conditions and a low standard of living in order to work, with their workloads and the poverty of their living conditions adding to their stress levels. Any policy approach to supporting young people should therefore take into account the multidimensionality of youth poverty.

2. Multidimensionality of Poverty

- Having recognized that the conventional approach to poverty is too monetary in nature, as it is based upon income and expenditure, researchers have recently begun advocating the need to adopt a more multifaceted and holistic approach to understanding poverty, as it has become a phenomenon that cannot be reduced to only a single factor or dimension in today's increasingly complex society.
- As a concept, multidimensional poverty is relatively new in poverty research and has significantly broadened the perspective on poverty. The concept was discussed in relation to deprivation as early as the 1960s by P. Townsend, and later in relation to human wellbeing by A. Sen (Lee and Jeong et al., 2012, p. 13).
- Recent research on multidimensional poverty goes

beyond these categories of older research to focus more upon understanding the complexity of poverty and making the diverse dimensions of poverty comparable using single indices.

- Sen's research has been seminal in broadening our understanding and conceptualization of poverty as a multidimensional phenomenon.
- Sen emphasizes that the most important human right is the right to receive and partake of the resources available throughout a given community (Kim and Seo, 2015, p. 162).
 - According to Sen, individuals can genuinely enjoy opportunities and freedom and gain ownership of the resources that are available within their given society through their doing and being and when they are guaranteed a social environment in which the combinations of their attainments can be transformed into capabilities (Seo, 2007, p. 202).
- The concept of capability as proposed by Sen cannot be measured by income alone. Capability is a multidimensional concept that encompasses individuals' idiosyncrasies (knowledge, physical conditions, etc.) and social (institutional, normative, and class) and environmental (housing, climate, and regional) characteristics, among others. Poverty, too,

is thus understood as being multidimensional.

- Theories of justice that advocate expanding substantial freedom as well as the capability approach, multidimensionality approach, and indexification are not entirely new in poverty research. It is, nonetheless, worthwhile to understand how these core concepts and their advocates have been accepted over the years and how the approaches to poverty have evolved accordingly.
- M. Nussbaum sought to expand upon Sen's concept of substantial freedom and make it applicable to the real world by borrowing the concept of eudaimonia from Aristotelian ethics. Sen and Nussbaum together thus proposed applying the capabilities approach to the understanding of freedom (Robeynes, 2005).
- Capabilities arise when there are a full set of underlying conditions supporting human development. Nussbaum stressed that human development involves not one single capability but multiple capabilities. More specifically, human development requires the exploration of capability sets that encompass non-monetary factors of wellbeing and poverty (Nussbaum, 2000).
- Notwithstanding the normative validity of the capabilities approach, Sen (2005) pointed out the arbitrary nature of the components of which it is comprised as well as the

differing weights assigned to those components. This criticism gave rise to the methodology of multidimensional poverty (Alkire and Foster, 2011, and Alkire et al., 2015).

- The multidimensional findings of the multidimensional poverty approach can be quite illegible and therefore impractical in the policy world. There has thus been growing demand for the development of a single index that can make all the different dimensions of poverty comparable (Giovannini, 2017).

- Since Sen proposed the multidimensional concept of poverty, a growing number of researchers around the world have been exploring and analyzing it. And debates continue as to which methods and dimensions of poverty should be used.
- Seo (2007), Lee (2012), and Choi (2011) have taken the multidimensionality approach to poverty, and Seo and Kwon (2013) and Lee and Jeong (2014) have also analyzed poverty in all generations in Korea from the multidimensionality perspective. In addition, Kim et al. (2015) applied the concept to their analysis of elderly poverty. Seo and Kwon (2013) developed an index consisting of 11 indicators to examine seven dimensions of poverty, i.e., income, assets, health, housing, education, employment and labor, and social security, while Kim et

al. (2015) applied an index of five indicators to their analysis of three dimensions of poverty, i.e., income, housing, and medical care.

- Alkire and Foster (2011) employed Sen's capabilities approach to the theorization, conceptualization, and measurement of the multidimensionality of poverty. The authors then offered an empirical analysis of the American and Indonesian cases.
 - The study by Alkire and Foster (2011) has gone on to inspire numerous other studies, which borrowed its methodology. Researchers around the world are applying Alkire and Foster's method to measure multidimensional poverty in their respective countries and identify how monetary and multidimensional poverty differ among different population subsets as well as how the effects of multidimensional poverty on different population subsets differ from the effects of income poverty. In this study, we shall examine some of the leading studies that have employed Alkire and Foster's method to analyses of poverty in developed countries.
- Examples of such studies include Rippin (2012) and Suppa (2015 and 2016), concerning Germany; Whelan, Nolan, and Maitre (2014) and Alkire and Apablaza (2016), concerning the European Union (EU); Ohsio and

Kan (2014) and Matsuyama (2016), concerning Japan; Mirta et al. (2013) and Wagle (2014), concerning the United States; and Frame, Lannoy, and Leibbrandt (2016), concerning youth poverty in South Africa.

- These studies on multidimensional poverty mostly analyze the effects of poverty on the elderly, children, and overall population. This study is therefore distinct in that it applies the multidimensionality approach specifically to the analysis of youth poverty.

III

Methods

1. Overview
2. Dimensions and Indicators of Poverty
3. Deciding the Dimensions and Indicators Based upon Expert Surveys
4. Deciding the Poverty Lines
5. Poverty Rates by Dimension and Indicator
6. Weights of Indicators
7. Measuring Lifecycle-Specific Poverty

1. Overview

- “There is wide agreement that we need a multidimensional approach to deprivation, but implementation of this approach poses a number of conceptual problems.” (Atkinson, 2003, p. 63). Perhaps a list of questions such as the following could be used to approach the multidimensionality of poverty (Alkire and Foster, 2011).
- Normative question: What dimensions should be considered?
 - Should we decide the dimensions of poverty to be considered on the basis of a review of literature both inside and outside Korea?
 - Or should we decide the dimensions of poverty to be considered in light of generations and based upon surveys of social policy experts?
- Methodological question: What valid indicators should be used?
 - Should we select indicators of poverty based upon a literature review?
 - Or should we select the indicators and dimensions of poverty in light of generations and based upon surveys of social policy experts?

- Methodological question: Which dimensions and indicators are important?
 - Should we assign different weights based upon a literature review?
 - Or should we decide the relative importance of the dimensions and indicators of poverty in light of generations and based upon surveys of social policy experts?
 - Methodological question: How should poverty be measured?
 - Select dimensions of poverty and the poverty line for each based upon a literature review.
 - Methodological question: Who are the poor?
 - Decide using the poverty lines.
- Below we discuss how we developed our multidimensional poverty index according to the questions raised above.

2. Dimensions and Indicators of Poverty

- Of studies on multidimensional poverty, we review here the ones that actually develop poverty indices and apply them to the analysis of poverty in the respective countries and derive policy implications.

- The multidimensional approach to poverty is used mainly to analyze child poverty in developing countries. However, we review analyses on developed countries, such as Japan, Germany, and European Union states, in an attempt to derive more pertinent policy implications for Korea. The study on South Africa is included in our review because it takes a multidimensional approach to youth poverty.
- These studies include income, consumption, wealth, housing, health, education, employment, mobility, material deprivation, and social participation, among others, as the dimensions of poverty. Note that, here, mobility is not socioeconomic (social or educational mobility), but refers to physical mobility, i.e., via available modes of transportation.
- Housing is included as a dimension in all the studies subject to our review. Health, education, employment, and material deprivation are also included as dimensions in at least five of the studies in our review. Only a minority of the studies include income, consumption, wealth, and other such economic aspects as dimensions of poverty, mainly because the majority of studies focus upon contrasting multidimensional poverty with income poverty. Wealth is included as a dimension only in the study on Japan, most likely in order to take into account

the fact that Japanese households save significant amounts of their income.

(Table 3-1) Dimensions and Indicators of Poverty in Literature

Dimension	Indicator						
	Japan	Germany (1)	Germany (2)	Germany (3)	EU (1)	EU (2)	South Africa
Income		Absolute poverty line			Relative poverty (60%)		
Consumption	Non-durable goods					Consumption deprivation	
Wealth	Savings						
Housing	Housing areas	Housing conditions, facilities, and areas	Housing conditions, facilities, and areas	Housing conditions, facilities, and areas	Housing environments	Living environments	Housing environments, facilities, and types
Health		Subjective health and hospital usage	Disabilities, health issues, and obesity	Disabilities and subjective health	Subjective health, chronic morbidities, constraints on activity, and unsatisfied medical needs	Subjective health, chronic morbidities, and physical activity	General health and physical functions
Education		Schooling years and education levels	Education levels and number of books	Education levels	Education levels		Education levels
Employment			Unemployment, work hours, and insecure employment	Insecure employment, unemployment, and work hours	Number of months worked		Economically inactive population and NEET
Mobility		Car, physical disabilities					
Material deprivation	Goods		Deprivation and wealth	Deprivation	Deprivation	Deprivation	Deprivation
Social participation				Social activity and socializing			

Sources: Matsuyama (2016) for Japan; Rippin (2012) for Germany (1); Suppa (2015) for Germany (2); Suppa (2016) for Germany (3); Alkire and Apabzalza (2016) for the EU (1); Whelan, Nolan, and Maitre (2014) for the EU (2); and Frame, Lannoy, and Leibbrandt (2016) for South Africa.

3. Deciding the Dimensions and Indicators Based upon Expert Surveys

- Having reviewed the dimensions and indicators of poverty in the existing literature, we conducted two surveys on experts using an expanded list that contained additional dimensions and indicators.

〈Table 3-2〉 Expert Surveys: Overview

	Survey 1	Survey 2
Subject	Validity of dimensions and indicators of multidimensional poverty	Relative importance of dimensions and indicators of multidimensional poverty
Date	Mid-August, 2017	Early September, 2017
Method	Email-based Delphi surveys	
Agency	Korea Management Association Consulting (KMAC)	

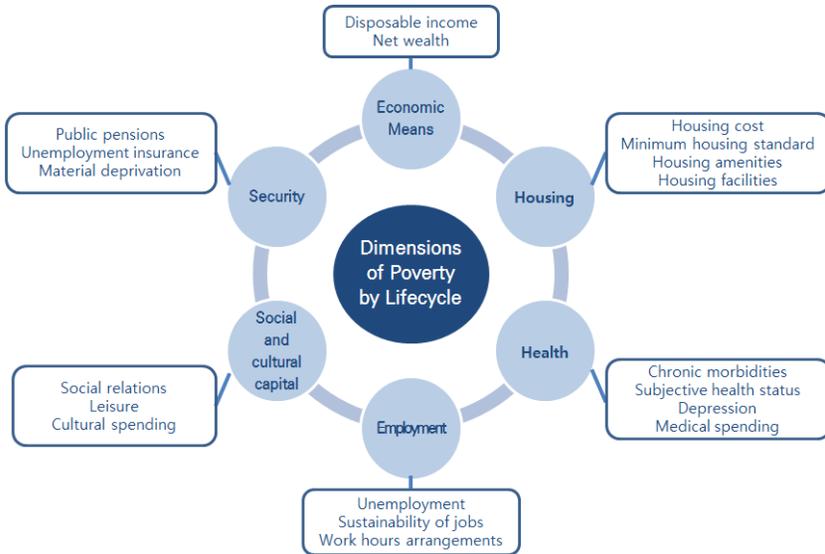
- The experts surveyed included experts on economics and sociology as well as youth policy experts (civil servants, youth group representatives, public youth service agencies, etc.)
- Based upon the expert surveys, we finally settled upon six dimensions and 19 indicators of poverty.
- Each dimension includes indicators of more than one type. There are objective indicators, such as income level, as well as subjective indicators, self-assessed health status and satisfaction with leisure activities.

- There are also household and personal indicators. Income, wealth, housing costs, and most of the other indicators are measured at the level of households, while subjective health and subscription to public pension and employment insurance schemes are personal indicators.

(Table 3-3) Characteristics of the Experts in Survey 1

Characteristics		N	Percentage
Overall		51	100.0
Sex	Male	36	70.6
	Female	15	29.4
Age	30s or younger	8	15.7
	40s	27	52.9
	50s	14	27.5
	60s or older	2	3.9
Specialty	Economics	17	33.3
	Sociology	34	66.7
Affiliation type	University	17	33.3
	Public/private research center	29	56.9
	NGO	3	5.9
	Other	2	3.9

[Figure 3-1] Dimensions and Indicators of Multidimensional Poverty



4. Deciding the Poverty Lines

- Table 3-4 describes the cut-off or poverty line for each dimension. The poverty lines were decided not according to the results of expert surveys, but according to existing theoretical grounds. Where no such theoretical grounds were found, lines were decided by judgment calls.

〈Table 3-4〉 Dimensions, Indicators, and Poverty Lines

Dimension	Indicator	Definition	Poverty line	Basis
Economic means	Disposable income	Levelized disposable income	Below 50% of median disposable income	OECD (2015), Terms of Reference: OECD Project on the Distribution of Household Incomes.
	Net wealth	Levelized value of (total household assets - total household liabilities)	Below 50% of median net wealth	
Housing	Housing cost	Proportion of housing cost in total cost of living	(1) No poverty among those who own the homes in which they live; (2) 30% or greater RIR for those living on jeonse/deposit-backed monthly rents/monthly rents; (3) No poverty among the rest	Kang (2016), pp. 90-92.
	Minimum housing standard	Ratio of one's living area to the minimum housing standard	Living area below minimum housing standard	MOLIT Announcement No. 2011-490, partially amended on May 27, 2011.
	Housing facilities	Structure, performance, and environment of housing: (1) durable, heatproof, flameproof, heat radiation, humidity controlled; (2) soundproof, ventilated, well-lit, heated; (3) free of contamination; (4) safe from natural disasters	Two or fewer conditions satisfied	
Housing	Housing amenities	Kitchen, toilet and bathroom	Lack one or more of minimum housing standard conditions (exclusive stand-in kitchen, exclusive toilet, exclusive bathroom with hot water)	Kang (2016), p. 275.

Dimension	Indicator	Definition	Poverty line	Basis
Health	Chronic morbidities	Morbidities lasting for 6 months or longer, requiring treatment and drug administration	With chronic morbidities	
	Subjective health	Very healthy (1) to very unhealthy (5)	Not so healthy (4) and very unhealthy (5)	OECD Health Statistics 2017 Bad/very bad health
	Depression	Center for Epidemiological Studies Depression (CESD) Scale 11	With a depression score of over 9, after three recordings	
	Medical cost	Proportion of medical cost in total cost of living	Over 10% of monthly disposable income spent on medicine	Devadasan et al. (2005); quoted in Hwang et al. (2013), p. 41.
	Unemployment	Having failed to land a job despite actively searching for work for the past 4 weeks	Unemployed	Unemployment rate" as defined by Statistics Korea
Employment	Sustainability of employment	Able to continue to work in one's job unless extraordinary circumstances arise (1) vs. could be dismissed from one's job at employer's will (2)	(2)	Regular job" as defined by Statistics Korea
	Work hour arrangements	Part-time (1) vs. full-time (2)	Part-time	Irregular (part-time) job" as defined by Statistics Korea
Social and cultural capital	Satisfaction with social relations	Very dissatisfied (1) to very satisfied (5)	Very dissatisfied (1) and dissatisfied (2)	
	Satisfaction with leisure activities	Very dissatisfied (1) to very satisfied (5)	Very dissatisfied (1) and dissatisfied (2)	
	Cultural spending	Proportion of spending on hobbies in total cost of living	Below 50% of median percentage of cultural spending	

Dimension	Indicator	Definition	Poverty line	Basis
Security	Public pension	Whether participating in/benefiting from public pension schemes (National Pension, Government Employee Pension, Private School Teachers Pension, Military Pension, Postal Pension, etc.)	Neither participating in nor benefiting from any public pension	National Pension, Public Officials Pension, Private School Teachers Pension, Military Pension Acts, etc.
	Unemployment insurance	Whether participating in/benefiting from unemployment insurance	Uninsured	Employment Insurance Act
	Material deprivation	Deprivation score measured in terms of inability to pay rent, utilities, public education fees, heating bills, medical bills, social insurance premiums, etc. and presence of credit delinquents in households	Deprived if any one of the conditions apply	Yeo and Kim (2007), p. 124.

5. Poverty Rates by Dimension and Indicator

- The dimensions and indicators were applied to the raw data for Korean Welfare Panel Survey (KoWePS) 11 (conducted in 2016, with respect to 2015).
- The unit of analysis is the individual (with individual weights applied).
- The total sample for KOWEPS 11 was comprised of 15,989 sampling units. As some of our indicators specifically target the economically active population, we limited our sample to the 7,092 individuals who were economically active at the time of the survey.

<Table 3-5> Poverty Rates by Dimension and Indicator

Dimension	Indicator	Total effective sample	Frequency	Economically active population under analysis (N=7,092)
Economic means	Disposable income	0.135	15,989	0.076
	Net wealth	0.303	15,989	0.275
Housing	Housing cost	0.154	15,989	0.164
	Minimum housing standard	0.016	15,816	0.015
	Housing facilities	0.108	15,989	0.106
	Housing amenities	0.017	15,989	0.017
Health	Chronic morbidities	0.306	15,989	0.289
	Subjective health	0.104	15,989	0.061
	Depression	0.062	15,989	0.057
	Medical cost	0.124	15,989	0.097

Dimension	Indicator	Total effective sample	Economically active population under analysis (N=7,092)	
			Frequency	
Employment	Unemployment	0.014	15,989	0.026
	Sustainability of employment	0.151	15,989	0.291
	Work hour arrangements	0.037	15,989	0.073
Social and cultural capital	Satisfaction with social relations	0.035	12,308	0.025
	Satisfaction with hobbies	0.150	12,308	0.155
	Cultural spending	0.261	15,989	0.232
Security	Public pensions	0.006	15,989	0.009
	Unemployment insurance	0.094	15,989	0.182
	Material deprivation	0.055	15,989	0.050

Source: Raw data for KOWEPS 11

6. Weights of Indicators

- There are three main methods with which weights may be assigned to indicators.
 - First, we may decide to assign equal weights to all indicators, in accordance with Atkinson et al., 2002 and Battiston et al., 2013 (p. 5), who argued for the creation of a balanced portfolio regarding the different dimensions and indicators of the European societies they were analyzing.
 - According to this view, we may assign a weight of

1/19 to each of the 19 indicators we are using. In this case, however, the weights of dimensions would be dependent upon the number of indicators each dimension includes.

- A number of studies assign equal weights to their indicators, including Battiston et al. (2013), for Latin American countries; Ray and Shinha (2015), Cowling et al. (2014), Bennet and Mitra (2013), and Roche (2013), for developing countries and the least-developed countries; and Oshio and Kan (2013) and Wagle (2014), for developed countries.
- Nested weights are assigned to indicators so that all dimensions have equal weights. This method of weighing is the most common among studies on multidimensional poverty.
 - Examples include Machado et al. (2014) and Villalba et al. (2013), on Latin American countries, and Yu (2013), Vijaya et al. (2014), Santos (2013), and Khan et al. (2014), on developing countries and the least-developed countries.
- Participatory weights are assigned on the basis of certain groups' perceptions so as to focus upon poverty as it is experienced by these groups. Researchers analyzing the multidimensionality of poverty as experienced by

the poor, for example, may decide the weights of indicators according to the opinions of the poor themselves. Expert opinions provided by social workers/service providers, researchers, and specialists may also be used.

- Examples include Mitra et al. (2013), on the United States, and Battiston et al. (2013), on Latin American countries. In this study, we assign participatory weights to indicators on the basis of expert surveys. All three types of weights are considered in this study for the purpose of comparison.

(Table 3-6) Weights Assigned to Indicators and Dimensions

Dimension	Indicator	Equal Weight		Nested Weight		Participatory Weight	
		Dimension	Indicator	Dimension	Indicator	Dimension	Indicator
Economic means	Disposable income Net wealth	1	1/19	1/6	1/12	29.0	60.5
			1/19		1/12		39.5
Housing	Housing cost Minimum housing standard Housing facilities Housing amenities	1	1/19	1/6	1/24	15.2	39.0
			1/19		1/24		23.5
			1/19		1/24		19.1
			1/19		1/24		18.4
Health	Chronic morbidities Subjective health Depression Medical costs	1	1/19	1/6	1/24	15.1	24.6
			1/19		1/24		23.5
			1/19		1/24		19.6
			1/19		1/24		32.3
Employment	Unemployment Sustainability of employment Work hour arrangements	1	1/19	1/6	1/18	18.5	43.2
			1/19		1/18		35.3
Social and cultural capital	Satisfaction with social relations Satisfaction with hobbies Cultural spending	1	1/19	1/6	1/18	9.9	43.3
			1/19		1/18		27.6
			1/19		1/18		29.1
Security	Public pensions Unemployment insurance Material deprivation	1	1/19	1/6	1/18	12.3	40.9
			1/19		1/18		27.3
			1/19		1/18		31.8

7. Measuring Lifecycle-Specific Poverty

- Dimensional poverty scores

$$d_{ij} = \sum m_{ik} w_k$$

- Each dimensional poverty score (d_{ij}) of individual i 's multidimensional poverty is determined by applying the indicator weight, w_k , to the indicator value, m_{ik} , of indicator k in dimension j .

- Multidimensional poverty score

$$mp_i = \sum d_{ij} w_j$$

- The final multidimensional poverty score, mp_i , of individual i is determined by applying the dimensional weight, w_j , to the dimensional score, d_{ij} , on dimension j .

IV

Results

1. Multidimensional Poverty Under Equal Weights
2. Multidimensional Poverty Under Nested Weights
3. Multidimensional Poverty Under Participatory Weights

IV

Results <<

- Our analysis of lifecycle-specific multidimensional poverty concerns the 7,092 economically active individuals on whom the raw data of KOWEPS 11 (2016) provides information for all 19 indicators and six dimensions.
- For the purpose of comparison, all individuals subject to analysis were divided into three groups according to age (young, middle-aged, and elderly), and all three groups were analyzed. The young group was further divided into two groups (early young and later young) to analyze the effect of age on poverty.¹⁾ As our analysis targets economically active individuals, note that the elderly people subject to our analysis are working seniors.

1) While we estimated the multidimensional poverty rates of young people by age and household type using different weights, there were only one married couple without children and one married couple with children in the early young group (19 to 24), so the results of the analysis on these young households are not discussed in this study.

(Table 4-1) Distribution of Population Subject to Analysis by Age

Age (years old)		Frequency	Percentage
Young	19 to 34	1,596	22.5
Early young	19 to 24	279	3.9
Later young	25 to 34	1,317	18.6
Middle aged	35 to 64	4,916	69.3
Elderly	65+	580	8.2
Overall		7,092	100.0

Note: Individual weights have been assigned.

1. Multidimensional Poverty Under Equal Weights

- First, when equal weights were assigned to the indicators, the multidimensional poverty rate for the overall population was 11.6 percent. Specifically, the rates were 10.8 percent for the young group (15.5 percent for the early young group and 9.8 percent for the later young group), 11.1 percent for the middle-aged group, and 18.1 percent for the elderly group. As with the general income poverty rate, the multidimensional poverty rate, too, was the lowest among young people when equal weights were used.
- Youth poverty measured in terms of income is 50.0 percent of the overall poverty rate, 67.9 percent of the middle-aged poverty rate, and 11.0 percent of the elderly poverty rate. Youth poverty measured across multiple dimensions, however, rises to 93.1 percent of the overall poverty rate, 97.3 percent of the middle-aged

poverty rate, and 59.7 percent of the elderly poverty rate.

- This suggests that, while income poverty may be comparatively low in the young population, youth poverty is as significant as the poverty of other age groups when measured using the multidimensionality approach. In other words, the multidimensional poverty of young people is high relative to even the poverty of other age groups.
- Young people's multidimensional poverty was 280 percent higher than their income poverty, whereas the gap between multidimensional poverty and income poverty in other age groups was 200 percent and 52 percent for the middle-aged and the elderly, respectively.
- In other words, applying the multidimensional approach to poverty, rather than the income approach, increases young people's poverty most acutely.

42 Multidimensional Poverty of Youth in South Korea

<Table 4-2> Lifecycle-Specific Multidimensional Poverty(MP): Equal Weights

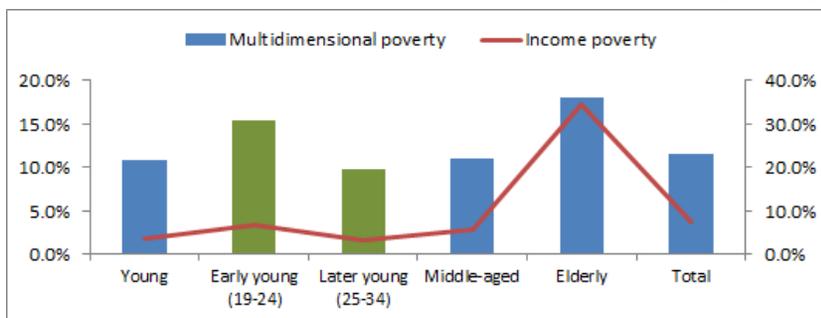
(Unit: percentage)

Age	MP	Economic means	Housing	Health	Employment	Social and cultural capital	Security	Income poverty	Overall
19 to 24	15.5	2.8	1.9	1.4	4.7	2.1	2.6	6.8	8.4
25 to 34	9.8	1.8	1.8	1.3	2.0	1.6	1.3	3.1	5.5
Middle-aged	11.1	1.6	1.5	2.5	1.9	2.2	1.3	5.6	9.8
Elderly	18.1	3.1	1.4	7.3	2.7	2.8	0.7	34.5	45.3
Overall	11.6	1.8	1.6	2.6	2.1	2.2	1.3	7.6	13.5

Note: The income poverty rates reflect the percentages of the age groups that fall below 50 percent of the median disposable income, based upon household income levelized by the number of household members. For the purpose of comparison, poverty rates were estimated with respect to all economically active individuals for whom information on the 19 indicators and six dimensions was available.

[Figure 4-1] Multidimensional Poverty and Income Poverty: Equal Weights

(Unit: percentage)



- With equal weights assigned to the indicators, the dimensional poverty rates for the young group (aged 19 to 34) were 2.4 percent for employment, 2.0 percent for economic means,

1.8 percent for housing, 1.7 percent for social and cultural capital, 1.5 percent for stability, and 1.3 percent for health.

- A comparison of young people's dimensional poverty rates with those of the entire sample population shows that young people are 115.4 percent poorer in terms of security, 114.4 percent poorer in terms of employment, 112.5 percent poorer in terms of housing, 111.1 percent poorer in terms of economic means, 77.3 percent poorer in terms of social and cultural capital, and 50.0 percent poorer in terms of health. Security, employment, housing, and economic means are the dimensions on which young people are comparatively poorer than other age groups.
- As for the share of each dimension in the overall multidimensional poverty rate of young people, employment accounts for 22.7 percent; economic means, for 18.6 percent; housing, for 17.1 percent; and social and cultural capital, for 15.9 percent.
- Specifically, employment accounts for 30.3 percent of the early young group's multidimensional poverty; economic means, for 17.9 percent; and security, for 16.9 percent. For the later young group, employment accounts for 20.1 percent; economic means, for 18.8 percent; and housing, for 18.7 percent.

- Although the early young group fares poorly in terms of employment and security in comparison to the later young group, the latter fares poorly in terms of economic means and housing.
- As for poverty rates and household types, young people living alone shows the highest income poverty rate (6.5 percent), followed by other young households, young people living with parents, young married couples without children, and young married couples with children.
- The multidimensional poverty rates are also the highest with respect to young people living alone (12.5 percent), followed by the other household types in the same order as that for income poverty rates.
- The income poverty rate of young people, as compared to the income poverty rate of the overall sample population, varies from 34.2 percent (young married couples with children) to 171.1 percent (young people living alone). On the other hand, the multidimensional poverty rate of young people, as compared to that of the overall sample population, ranges from 77.8 percent (young married couples with children) to 115.7 percent (young people living alone).

(Table 4-3) Multidimensional Poverty(MP) of Young Households: Equal Weights

(Unit: percentage)

Young household type	MP	Economic means	Housing	Health	Employment	Social and cultural capital	Security	Income poverty	Overall
Married without children	8.5	1.9	3.0	1.0	1.0	1.5	0.3	1.7	1.9
Married with children	8.4	2.1	2.2	0.9	1.4	1.0	0.7	1.3	1.7
Living with parents	11.0	1.7	1.4	1.3	2.9	1.8	1.8	3.5	6.3
Other	11.5	2.5	2.8	1.6	1.9	1.8	1.0	6.4	11.3
Overall	10.8	2.0	1.8	1.3	2.4	1.7	1.5	3.8	6.5

Notes: 1) The income poverty rates reflect the percentages of the age groups that fall below 50 percent of the median disposable income, based upon household income levelized by the number of household members. For the purpose of comparison, poverty rates were estimated with respect to all economically active individuals for whom information on the 19 indicators and six dimensions was available.

- 2) See Chapter V for the definitions of young household types. "Overall households" refers to the sum of the following young household types:
- Living alone: single-person households aged 19 to 34
 - Married without children: married couples without children and with household heads aged 19 to 34
 - Married with children: married couples with children and with household heads aged 19 to 34
 - Living with parents: young people (aged 19 to 34) living with their parents
 - Other: other households with young people

2. Multidimensional Poverty Under Nested Weights

- When nested weights are applied, the overall multidimensional poverty rate is 12.1 percent, while the rate is 11.6 percent for young people (17.0 percent for early young people and

10.5 percent for later young people) 11.5 percent for the middle-aged, and 18.4 percent for the elderly.

- As with the income poverty rates, young people again show the lowest multidimensional poverty rate. Specifically, the poverty rate for young people is equal to 95.9 percent of the overall poverty rate, 100.9 percent of the middle-aged poverty rate, and 63.0 percent of the elderly poverty rate.
- While young people may seem to be doing much better than other age groups in terms of income poverty, their multidimensional poverty is not insignificant in comparison to other age groups.
- In general, multidimensional poverty rates rise when nested weights are applied instead of equal weights. Young people's multidimensional poverty rate, in particular, increases more sharply than is the case with the middle-aged.
- Moreover, young people's multidimensional poverty rate was 310 percent greater than their income poverty rate, as opposed to the gaps of 210 percent and 53 percent that were found with respect to the middle-aged and the elderly, respectively. Applying the multidimensional concept of poverty, in other words, raises young people's poverty rate most acutely.

- The income poverty and multidimensional poverty rate gaps rise in all age groups when nested weights are applied instead of equal weights.

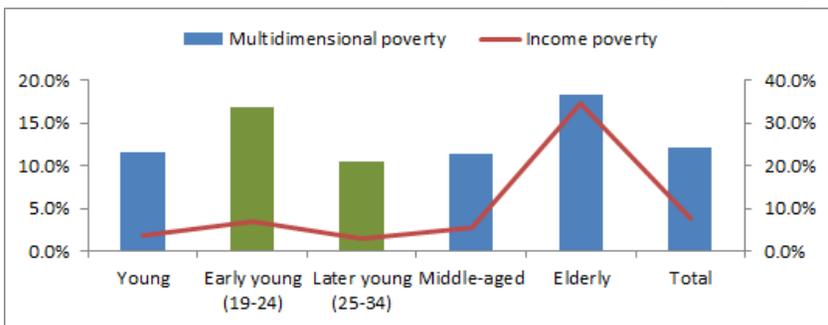
(Table 4-4) Lifecycle-Specific Multidimensional Poverty(MP): Nested Weights

(Unit: percentage)

Age	MP	Economic means	Housing	Health	Employment	Social and cultural capital	Security	Income poverty	
								Income poverty	Overall
Young	11.6	3.2	1.5	1.0	2.6	1.8	1.6	3.8	6.0
19 to 24	17.0	4.4	1.5	1.1	5.0	2.2	2.8	6.8	8.4
25 to 34	10.5	2.9	1.4	1.0	2.1	1.7	1.3	3.1	5.5
Middle-aged	11.5	2.6	1.2	2.0	2.0	2.4	1.3	5.6	9.8
Elderly	18.4	4.9	1.1	5.8	2.9	3.0	0.7	34.5	45.3
Overall	12.1	2.9	1.3	2.1	2.2	2.3	1.3	7.6	13.5

(Figure 4-2) Income Poverty and Multidimensional Poverty: Nested Weights

(Unit: percentage)



- As for the dimensional poverty rates under nested weights, young people's poverty rates are 3.2 percent in terms of economic means, 2.6 percent in terms of employment, 1.8 percent in terms of social and cultural capital, 1.6 percent in terms of security, 1.5 percent in terms of housing, and 1.0 percent in terms of health.
- When compared to the overall sample population, young people's dimensional poverty rates rise to 123.1 percent in terms of security, 118.2 percent in terms of employment, 115.4 percent in terms of housing, 110.3 percent in terms of economic means, 89.3 percent in terms of social and cultural capital, and 47.6 percent in terms of health. Security, employment, and housing, in other words, are where young people's relative poverty is most acute.
- As for the shares of the dimensions of young people's overall multidimensional poverty rate, economic means accounts for 27.3 percent; employment, for 22.2 percent; and social and cultural capital, for 15.5 percent.
- Specifically, the dimensional shares for young people aged 19 to 34 are 29.2 percent for employment, 26.0 percent for economic means, and 16.3 percent for security, while for young people aged 25 to 34, they are 27.7 percent for economic means, 19.8 percent for employment, and 16.3 percent for social and cultural capital.

- In general, young people are poor along the dimension of economic means. However, early young people suffer more from poor conditions of employment, while later young people suffer more from poor housing conditions.
- The multidimensional poverty rates of young people can be estimated by household type as well, by applying nested weights. The rate is the highest for young people living alone (14.1 percent), followed by other households, young people living with parents, young married couples with children, and young married couples without children, in descending order.
 - The multidimensional poverty rates of all household types rise with the application of nested weights rather than equal weights, while young married couples with children and young married couples without children switch places.
 - However, whereas the income poverty rates of different young household types range between 34.2 percent (young married couples with children) and 171.1 percent (young people living alone), the multidimensional poverty rates range from 77.6 percent (young married couples without children) to 121.6 percent (young people living alone).

(Table 4-5) Multidimensional Poverty(MP) of Young Households: Nested Weights

(Unit: percentage)

Young household type	MP	Economic means	Housing	Health	Employment	Social and cultural capital	Security	Income poverty	
									Overall
Living alone	14.1	5.8	2.3	0.9	1.9	1.6	1.5	6.5	9.2
Married without children	9.0	2.9	2.3	0.8	1.1	1.6	0.3	1.7	1.9
Married with children	9.1	3.3	1.7	0.7	1.5	1.1	0.8	1.3	1.7
Living with parents	11.8	2.7	1.1	1.0	3.1	1.9	2.0	3.5	6.3
Other	12.3	3.9	2.2	1.3	2.0	1.9	1.0	6.4	11.3
Overall	11.6	3.2	1.5	1.0	2.6	1.8	1.6	3.8	6.5

3. Multidimensional Poverty Under Participatory Weights

- When participatory weights are applied, the overall multidimensional poverty rate is 12.2 percent, while the rate is 12.0 percent for young people (17.2 percent for early young people and 10.9 percent for later young people), 11.4 percent for the middle-aged, and 20.3 percent for the elderly.
- As with the income poverty rates, young people again show the lowest multidimensional poverty rate. Specifically, young people's multidimensional poverty is 98.4 percent of the overall poverty rate, 105.3 percent of the middle-aged's poverty rate, and 59.1 percent of the elderly poverty rate.

- While young people may seem to be doing much better than other age groups in terms of income poverty, their multidimensional poverty is not insignificant in comparison to other age groups.
- In general, multidimensional poverty rates rise when participatory weights are applied instead of equal weights. Young people's multidimensional poverty rate, in particular, increases more sharply than is the case with the middle-aged when either equal weights or nested weights are applied.
- Moreover, young people's multidimensional poverty rate was 320 percent greater than their income poverty rate, as opposed to the gaps of 200 percent and 59 percent that were found with respect to the middle-aged and the elderly, respectively. Applying the multidimensional concept of poverty, in other words, raises young people's poverty rate most acutely.
- The income poverty and multidimensional poverty rate gaps rise in all age groups when participatory weights are applied instead of equal weights. However, participatory weights lower the rate gap for the middle aged while nested weights do not.

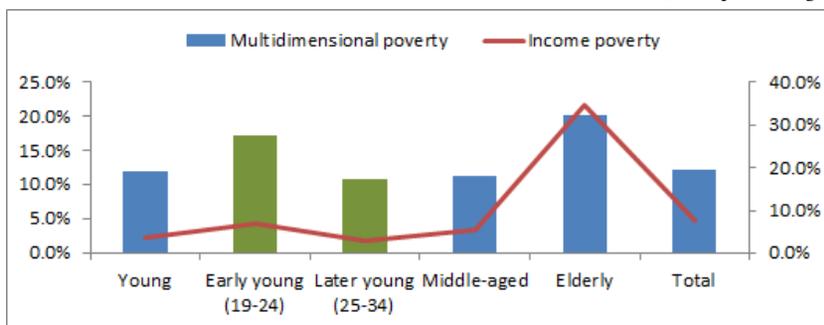
(Table 4-6) Lifecycle-Specific Multidimensional Poverty(MP): Participatory Weights

(Unit: percentage)

Age	MP	Economic means	Housing	Health	Employment	Social and cultural capital	Security	Income poverty	
								Income poverty	Overall
Young	12.0	4.6	1.7	0.9	2.9	0.9	1.0	3.8	6.0
19 to 24	17.2	6.5	1.5	1.0	5.3	1.2	1.7	6.8	8.4
25 to 34	10.9	4.2	1.7	0.9	2.4	0.9	0.9	3.1	5.5
Middle-aged	11.4	3.9	1.3	1.9	2.2	1.2	0.8	5.6	9.8
Elderly	20.3	8.9	1.0	5.4	3.0	1.5	0.5	34.5	45.3
Overall	12.2	4.5	1.4	1.9	2.4	1.2	0.8	7.6	13.5

[Figure 4-3] Income Poverty and Multidimensional Poverty: Participatory Weights

(Unit: percentage)



- As for the dimensional poverty rates under participatory weights, young people’s poverty rates are 4.6 percent in terms of economic means, 2.9 percent in terms of employment, 1.7 percent in terms of housing, 1.0 percent in terms of security, and 0.9 percent in terms of social and cultural capital.

- When compared to the overall sample population, young people's dimensional poverty rates rise to 125.0 percent in terms of security, 121.4 percent in terms of housing, 120.8 percent in terms of employment, 102.2 percent in terms of economic means, 75.0 percent in terms of social and cultural capital, and 47.4 percent in terms of health. Security, housing, and employment, in other words, are the areas where young people's relative poverty is most acute.
- As for the shares of the dimensions of young people's overall multidimensional poverty rate, economic means accounts for 38.1 percent; employment, for 24.0 percent; housing, for 13.8 percent; security, for 8.5 percent; social and cultural capital, for 7.9 percent; and health, for 7.8 percent.
- Specifically, the dimensional shares for young people aged 19 to 34 are 37.5 percent for economic means, 31.0 percent for employment, and 10.1 percent for security, while for young people aged 25 to 34, they are 38.2 percent for economic means, 21.7 percent for employment, and 15.4 percent for housing.
- In general, young people are poor along the dimension of economic means. However, early young people suffer more from poor conditions of employment, while later

young people suffer more from poor housing conditions.

- The multidimensional poverty rates of young people can be estimated by household type as well, by applying participatory weights. The rate is the highest for young people living alone (15.6 percent), followed by other households, young people living with parents, young married couples without children, and young married couples with children, in descending order.
- The multidimensional poverty rates of all household types rise when participatory weights are applied rather than equal weights, while young married couples with children and young married couples without children, which switched places under nested weights, again switch places under participatory weights.
- The multidimensional poverty rates of young people range from 85.0 percent (young married couples without children) to 130.0 percent (young people living alone).

(Table 4-7) Multidimensional Poverty(MP) of Young Households: Participatory Weights

(Unit: percentage)

Young household type	MP	Economic means	Housing	Health	Employment	Social and cultural capital	Security	Income poverty	
									Overall
Living alone	15.6	8.3	2.5	0.8	2.2	0.9	1.0	6.5	9.2
Married without children	10.5	4.1	3.3	0.8	1.3	0.8	0.2	1.7	1.9
Married with children	10.2	4.7	2.2	0.7	1.6	0.5	0.5	1.3	1.7
Living with parents	11.7	3.9	1.1	0.9	3.4	1.0	1.3	3.5	6.3
Other	13.5	5.7	2.6	1.2	2.2	1.0	0.6	6.4	11.3
Overall	12.0	4.6	1.7	0.9	2.9	0.9	1.0	3.8	6.5

V

Conclusion and Policy Implications



Conclusion and Policy Implications

- In this study, we examine and analyze the multidimensional poverty rates of young Koreans across six dimensions, i.e., economic means, housing, health, employment, social and cultural capital, and security.
- Young people in Korea show higher poverty rates in terms of economic means, employment, and security than the middle-aged and the elderly. If we include economic means and employment among the components of security, we may conclude that young people in Korea today are in a more precarious state than other age groups.
- While multidimensional poverty rates vary somewhat depending on which type of weights are assigned to the indicators, multidimensional poverty rates generally far exceed income poverty rates in the case of young people.
- Whereas young people's income poverty rates are significantly lower than those of other age groups, the multidimensional poverty rates of young people and those of other age groups show little difference.
- As for the dimensional shares of multidimensional

poverty, economic means and employment are the major contributors. Specifically, early young people (aged 19 to 24) show relatively high poverty rates in terms of employment and security, while later young people (aged 25 to 34) show relatively high poverty rates in terms of housing.

- As for the poverty rates of different young households, young people living alone show the highest multidimensional poverty rates, while young married couples with or without children show the lowest rates.
- The policy implications of our analysis can be summarized as follows.
 - First, the current policy for supporting young people should be expanded beyond its exclusive focus on employment to adopt a more comprehensive approach to supporting the needs of young people.
 - Second, policy approaches should be diversified in light of the diversity that exists among young people. Long-term policies should be considered as well.
 - Third, a more effective governance structure is needed in order to provide more comprehensive and effective policy support for young people. Also, youth policies should be brought into closer alignment with the social

security system.

- Fourth, the structure of public spending should be overhauled in the long term in order to eliminate lifecycle-specific poverty.
 - Finally, the infrastructure for youth policymaking should be expanded to include, among others, regular and comprehensive surveys on the realities of life that young people face today.
- Quality is more important than quantity in terms of policy support for the employment of young people. The Jobseekers Success Package and other such programs should thus be refined to provide more quality jobs for young people.
- The National Basic Livelihood Security Program and other such income security policy programs should be modified so as to better address the issue of youth poverty.
 - Possible policy changes include reducing the legal burden on young people to support their financially struggling parents, enhancing the connection between income security support and the Jobseekers Success Package, and increasing support with the aim of promoting the self-sufficiency of young people.

- The housing support policy should also strive to provide affordable and quality housing for young people that respects their need for privacy and meets the minimum housing standard.
- Finally, issues should be raised over the relatively neglected aspects of the youth policy, such as women, the urban-rural divide, and stress caused by overwork.

Korean References

- Ahn, S. (2011). The way towards them. *People and Policy*, 1, The Institute for Democracy. (in Korean)
- Choi, G., Suh, B. & Kwon, J. (2011). Measurement of Multidimensional Poverty by Counting Approach. *Korean Journal of Social Welfare*, 63(1), 85-111.
- Kang, M. et al. (2016). 2016 Korea Housing Survey. Ministry of Land, Korea Research Institute for Human Settlements.
- Kim, M. et al. (2015). A Case Study of the Young Working Poor. Presidential Committee on Young Generation, Korea Institute for Health and Social Affairs. (in Korean)
- Kim, M. & Lee, J. (2017). Global Perspectives and Implications of Youth Employment and Poverty. *Health and Social Welfare Forum*, 244, 20-37. (in Korean)
- Kim, S. (2010). Youth Poverty and the Difficulties in the Transition to Adulthood in Korea, *Korean Social Security Studies*. 26(3), 49-72. (in Korean)
- Kim, T. & Kim, M. et al. (2012). A Study of Young Working Poor and Policy Implications. Korea Institute for Health and Social Affairs. (in Korean)
- Kim, T., Lee, J. & Jung, J. (2015). A Study of Elderly Poverty and Depression: Focusing on the Multidimensional Concept of Poverty. *Health and Social Welfare Review*. 35(3), 71-102.
- Kim, T. & Kim, J. (2016). A Study of the Youth Working Poor.

- Conference of Korean Association of Social Welfare Policy in 2016. pp. 111-131. (in Korean)
- Kim, T. & Choi, J. (2017). Who is Poorer among Youth People. Health and Social Welfare Forum, 244, 6-19.
- Kim, Y. & Suh, J. (2015). The Multidimensionality of Poverty: Re-examination of Theoretical Debates, Journal of Critical Social Policy, 48, 146-186.
- Kwon, J. & Lee, E. (2013). A Report of the Youth Housing Poverty. 2013 Conference on Housing Welfare. pp. 597-614.
- Lee, H. & Joung, E. et al. (2012). Alternative Approach to Measuring Poverty: Multidimensional Analysis Considering Basic Needs. Korea Institute for Health and Social Affairs.
- Lee, H. & Joung, E. (2014). Multidimensional Poverty in Korea: Utilizing a Latent Class Analysis. Social Welfare Policy. 41(2), 1-25.
- Lee, T. & Kim, T. et al. (2016). A Study of Housing Support Policy for Youth Poverty Alleviation. Korea Institute for Health and Social Affairs.
- Lee, S. (2008). Intergenerational Transmission of Poverty in Korea. Korean. Korean Journal of Social Welfare, 60(2), 53-76. (in Korean)
- Park, G. (2009). What is the Cause of Youth Poverty, Generation or Development?. Hwanghae Review, 63-76. (in Korean)
- Suh, B. (2007). Capability Approach: Multidimensional Poverty in Korea. Social Welfare Policy, 28, 199-232.
- Suh, B. & Kwon, J. (2013). Longitudinal Analysis of Multidimensional Poverty in Korea: Counting Approach. Korean Social Security Studies.29(3), 195-224.

- Yeo, E. & Kim, M. et al. (2007). Study for the 2007 Minimum Cost of Living Measurement. Ministry of Health and Welfare.
- Yeo, E. & Kim, S. (2007). A Study on Educational Inequality and Transmission of Poverty. Korea Institute for Health and Social Affairs. (in Korean)
- Hwang, D. (2013). A Study of Ways to Improve the Health of Low-income Koreans and Reduce their Catastrophic Health Expenditure. Korea Institute for Health and Social Affairs, Korea Health Promotion Institute.

International References

- Alkire, S., & Foster, J. (2011). Counting and multidimensional poverty measurement. *Journal of Public Economics*, 95(7), 476-487. doi: 10.1016/j.jpubeco.2010.11.006
- Alkire, S., Foster, J., Seth, S., Santos, M. E., Roche, J. M., & Ballon, P. (2015). *Multidimensional Poverty Measurement and Analysis*. New York: Oxford University Press.
- Atkinson, A. (2003). Multidimensional deprivation: Contrasting social welfare and counting approaches. *Journal of Economic Inequality*, 1, 51-65.
- Battiston, D., Cruces, G., Lopez-Calva, L., Lugo, M. A., & Santos, M. (2013). Income and Beyond: Multidimensional Poverty in Six Latin American Countries. *Social Indicators Research*, 112(2), 291-314.
- Bennet, C. & Mitra, S. (2013) Multidimensional poverty: Measurement, estimation and inference. *Econometric Reviews*, 32(1) 57-83.

- Cowling, K, Dandona, R., & Dandona, L. (2014). Social determinants of health in India: Progress and inequalities across areas. *International Journal for Equity in Health*, 13., 1-12.
- Frame, E., de Lannoy, A., & Leibbrandt, M. (2016), Measuring multidimensional poverty among youth in South Africa at the sub-national level. *Working Paper Series 169*. Southern Africa Labour and Development Research Unit
- Giovannini, E. (2017). Experiences and Challenges on GDP plus Beyond Issues. *KOSTAT International Conference on GDP plus Beyond*.
- Kahn, A., Saboor, A., Hussain, A., Sadiq, S., & Mohsin, A. (2014). Investigating multidimensional poverty across the regions in the Sindh province of Pakistan. *Social Indicators Research*, 119(2), 515-532.
- Machado, A., Golgher, A., & Antigo, M. (2014) Deprivation viewed from a multidimensional perspective: The case of Brazil. *ECLAC Review*. 112, 125-146.
- Matsuyama, J. (2016). Measuring Poverty in Japan from a Multidimensional Perspective. forthcoming.
- Mitra S., Jones, K., Vick, B., Brown, D., McGinn E., & Alexander J. (2013). Implementing a Multidimensional Poverty Measure Using Mixed Methods and Participatory Framework. *Social Indicators Research*. 11, 1061-1081.
- Nussbaum, M. (2000) *Women and Human Development: The Capabilities Approach*. NY: Cambridge University Press.
- OECD. (2017). Health Statistics 2017, “Bad/very bad health”
- OECD. (2015). Terms of Reference: OECD Project on the Distribution of Household Incomes.

- Oshio & Kan(2013)
- Oshio, T. & Kan, M. (2014) Multidimensional poverty and health: evidence from a nationwide survey in Japan. *International Journal for Equity in Health*. 13: 128.
- Ray, R., & Sinha, K. (2015). Multidimensional deprivation in China, India and Vietnam: A Comparative study on micro data. *Journal of Human Development and Capabilities*, 16(1), 69-93.
- Rippin, R. (2012). Operationalising the Capability Approach: A German Correlation Sensitive Poverty Index. Discussion Papers No. 132. Courant Research Centre, George-August-Universität Göttingen.
- Roche, J. (2013). Monitoring progress in child poverty reduction: Methodological insights and illustration to the case study of Bangladesh. *Social Indicators Research*, 112(2), 363-390.
- Robeyns, I. (2005). The Capability Approach: A Theoretical Survey. *Journal of Human Development*. 6(1), 93-117.
- Santos, M. (2013). Tracking poverty reduction in Bhutan: Income deprivation alongside deprivation in other sources of happiness. *Social Indicators Research*, 112(2), 259-290.
- Scarpetta, S., Anne, S., & Thoma, M. (2010). Rising Youth Unemployment during the Crisis. *OECD Social, Employment and Migration Papers*. no. 106. (in Korean)
- Sen, A. (2005). Human Rights and Capabilities. *Journal of Human Development*. 6(2), 151-166.
- Suppa, N. (2015). Towards a Multidimensional Poverty Index for Germany. *OPHI Working Paper 98*, University of Oxford.
- Suppa, N. (2016). Comparing Monetary and Multidimensional Poverty in Germany. *OPHI Working Paper 103*, University of Oxford.

- Vijaya, R., Lahoti, R., & Swaminathan, H. (2014). Moving from the Household to the Individual: Multidimensional Poverty Analysis. *World Development*, 59, 70-81.
- Villalba, J., Liu, Y., Alvarez, M., Calderon, L., Canache, M., Cardenas, G., et al. (2013). Low Child Survival Index in a Multidimensionally Poor Amerindian Population in Venezuela, *Plos One*, 8(12).
- Wagle, U. R. (2014). The Counting-Based Measurement of Multidimensional Poverty: The Focus on Economic Resources, Inner Capabilities, and Relational Resources in the United States. *Social Indicators Research*. 115, 223-240.
- Whelan, C. T., Nolan, B., Maître, B. (2014). Multidimensional poverty measurement in Europe: An application of the adjusted headcount approach. *Journal of European Social Policy*. 24(2). 183-197.
- Yu, J. (2013). Multidimensional poverty in China: Findings based on the CHNS. *Social Indicators Research*, 112(2), 315-336.

Database

- Statistics Korea. (2016). Household Income and Expenditure Survey
- Statistics Korea. (2015). Household Income and Expenditure Survey
- Korea Institute for Health and Social Affairs. (2016). The 11th Wave of Korea Welfare Panel Study.