

Developing an index of child well-being in Korea

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Introduction

- ▶ National child indicators study supported by Save the Children Korea
- ▶ Goal of the study: To develop an index of child well-being in Korea and examine Korean children's quality of life across the nation
- ▶ Increased interest in children's quality of life, life satisfaction, and subjective well-being
- ▶ Children's lives are multifaceted and each dimension of them affects children's well-being respectively & cumulatively

Child Well-being Index

- ▶ Thus, the well-being of children cannot be represented by a single domain or indicator
- ▶ In this study, our child well-being index consists of eight domains of children's lives:
 - health, subjective well-being, personal relationship, material resources, education, behavior & risk, housing & environment, and flourishing
- ▶ Include both subjective and objective indicators
- ▶ Include both positive and negative indicators

Indicators and components of eight domains of CWBI

1) Health

Components	Indicators
Objective health	<ul style="list-style-type: none">- Children who are absent from school more than a week during one month due to illness *- Children who have chronic disease*
Subjective health	<ul style="list-style-type: none">- Children's subjective evaluation of one's health status
Health behavior	<ul style="list-style-type: none">- Children who exercise more than 4 days a week, for 30 minutes each time.- Children provided with 3 meals a day at home- Children provided with fresh fruits every day
Mental health	<ul style="list-style-type: none">- Children's depression level*

* Reversed coded indicator

Indicators and components of eight domains of CWBI

2) Subjective Well-being

Components	Indicators
Personal well-being	<ul style="list-style-type: none">- Children's overall happiness- Satisfaction with oneself- Children's overall assessment of one's life
Well-being at school	<ul style="list-style-type: none">- Children's level of pressure from school work- Satisfaction with one's school
Family well-being	<ul style="list-style-type: none">- Satisfaction with one's family
Community well-being	<ul style="list-style-type: none">- Satisfaction with the community where they live

* Reversed coded indicator

Indicators and components of eight domains of CWBI

3) Children's Relationships

Components	Indicators
Quality of family relations	Level of positive relationship with parents
Peer relationship	Level of positive friendships with peers Subjective evaluation of peer relations

* Reversed coded indicator

Indicators and components of eight domains of CWBI

4) Material Situation

Components	Indicators
Deprivation	<ul style="list-style-type: none">- Children who are not provided with more than 2 items among 14 items by their parents*- Children's worries about family's financial situation*- Number of items that children do not possess among 4 items*- Number of items that children lack & want to have among 10 items*- Children who have less than 10 books at home*
Poverty	<ul style="list-style-type: none">- Children who live in a household with family income less than 120% of the minimum cost of living
Worklessness	<ul style="list-style-type: none">- Children living in jobless household

* Reversed coded indicator

Indicators and components of eight domains of CWBI

5) Risk and Safety

Components	Indicators
Violence and violent behavior	Children who were bullied at school * Children who were ostracized at school *
Risk behavior	Level of children's status delinquency* Level of children's criminal delinquency*

* Reversed coded indicator

Indicators and components of eight domains of CWBI

6) Education

Components	Indicators
Achievement	Overall achievement Language(Korean) achievement English achievement Mathematics achievement
Participation	Frequency of learning extra curricular subject outside school Frequency of reading for fun outside school Frequency of doing homework outside school

Indicators and components of eight domains of CWBI

7) Housing and Environment

Components	Indicators
Overcrowding	- Children who live in a overcrowded household where rooms per person is less than 0.5. *
Environment	- Children who rate their community as safe - Children who are left without adult supervision after school more than 3-4 days a week, more than one hour for a day * - Level of social capital in the community
At-risk housing	- Children who live in at-risk housing such as container, vinyl greenhouse, temporary building and so on. *

Indicators and components of eight domains of CWBI

8) Flourishing

Components	Indicators
Flourishing	<ul style="list-style-type: none">- Level of generosity- Level of altruism- Level of empathy- Positive perception of one's future- Social competence (1)- Social competence (2)

Method

▶ Sampling procedure

- Population: 3rd grade and 5th grade students of primary school & 1st grade students of secondary school and their parents (paired sample) in South Korea

- Proportionate stratified sampling method:
 - 1) Based on the number of students in each region, the number of schools was proportionately assigned.
 - 2) Schools were randomly selected within the region.
 - 3) For each school, one class for each grade was randomly selected.

Method

Sample

Region	3 rd grade in primary school			5 rd grade in primary school			1 st grade in secondary school			Total
	schools	classes	students	schools	classes	students	schools	classes	students	
Seoul	15	15	484	15	15	477	15	15	451	1,412
Busan	6	6	153	6	6	166	6	6	178	497
Daegu	5	5	161	5	5	150	5	5	147	458
Incheon	5	5	154	5	5	166	5	5	156	476
Gwangju	3	3	90	3	3	99	2	2	70	259
Daejun	3	3	106	3	3	113	3	3	92	311
Ulsan	2	2	69	2	2	60	2	2	59	188
Gyeonggi	21	21	626	21	21	669	20	20	640	1,935
Gangwon	3	3	107	3	3	90	3	3	95	292
Chungbuk	3	3	107	3	3	106	3	3	103	316
Chungnam	4	4	105	4	4	112	4	4	122	339
Jeonbuk	4	4	111	4	4	119	4	4	128	358
Jeonnam	4	4	113	4	4	126	4	4	141	380
Gyeongbuk	5	5	142	5	5	144	5	5	140	426
Gyeongnam	6	6	197	6	6	204	7	7	186	587
Jeju	2	2	45	2	2	54	2	2	59	158
Total	91	91	2,770	91	91	2,855	90	90	2,767	8,392

Calculation of CWBI

Regional data construction

- the mean value was calculated for individual level indicators
- negative indicators were transformed to positive indicators

Aggregate data construction

- 16 regional data were combined and for each indicator
- z-score was calculated based on the mean of 16 regions

Calculation of Index of each domain

- For each domain, the mean value of z-scores of domain indicators was calculated (no weights were imposed)

Calculation of Composite index

- CWBI was generated by averaging indices of 8 domains
- Transformed to a standard score mean of 100, SD 10

Results

- CHILD WELL-BEING INDEX_ Total

Ranking	Region	CHILD WELL-BEING INDEX	HEALTH	SUBJECTIVE WELL-BEING	CHILDREN'S RELATIONS HIP	MATERIAL SI TUATION	RISK AND S AFETY	EDUCATION	HOUSING A ND ENVIRO NMENT	FLOURISHIN G
1	Daejun	108.30	1	4	1	2	1	2	8	2
2	Chungbuk	105.93	7	1	4	12	2	1	10	3
3	Seoul	105.87	4	5	2	3	3	5	15	1
4	Busan	105.34	3	2	3	8	9	6	3	4
5	Incheon	102.01	8	3	9	5	8	4	9	9
6	Ulsan	101.84	11	7	7	1	10	10	5	10
7	Gyeongnam	101.31	6	13	5	7	7	9	4	6
8	Daegu	101.14	2	6	6	10	6	8	11	11
9	Gyeonggi	100.51	9	8	8	6	4	11	12	5
10	Gwangju	98.79	10	10	10	9	16	3	7	8
11	Gangwon	97.99	14	15	11	4	5	13	2	13
12	Jeju	97.96	5	12	12	16	13	7	6	7
13	Chungnam	94.98	12	11	13	14	12	16	14	12
14	Jeonnam	94.94	15	9	14	13	15	14	1	14
15	Jeonbuk	91.84	16	16	16	11	11	12	13	16
16	Gyeongbuk	91.25	13	14	15	15	14	15	16	15

Results

- CORRELATION BETWEEN DOMAINS

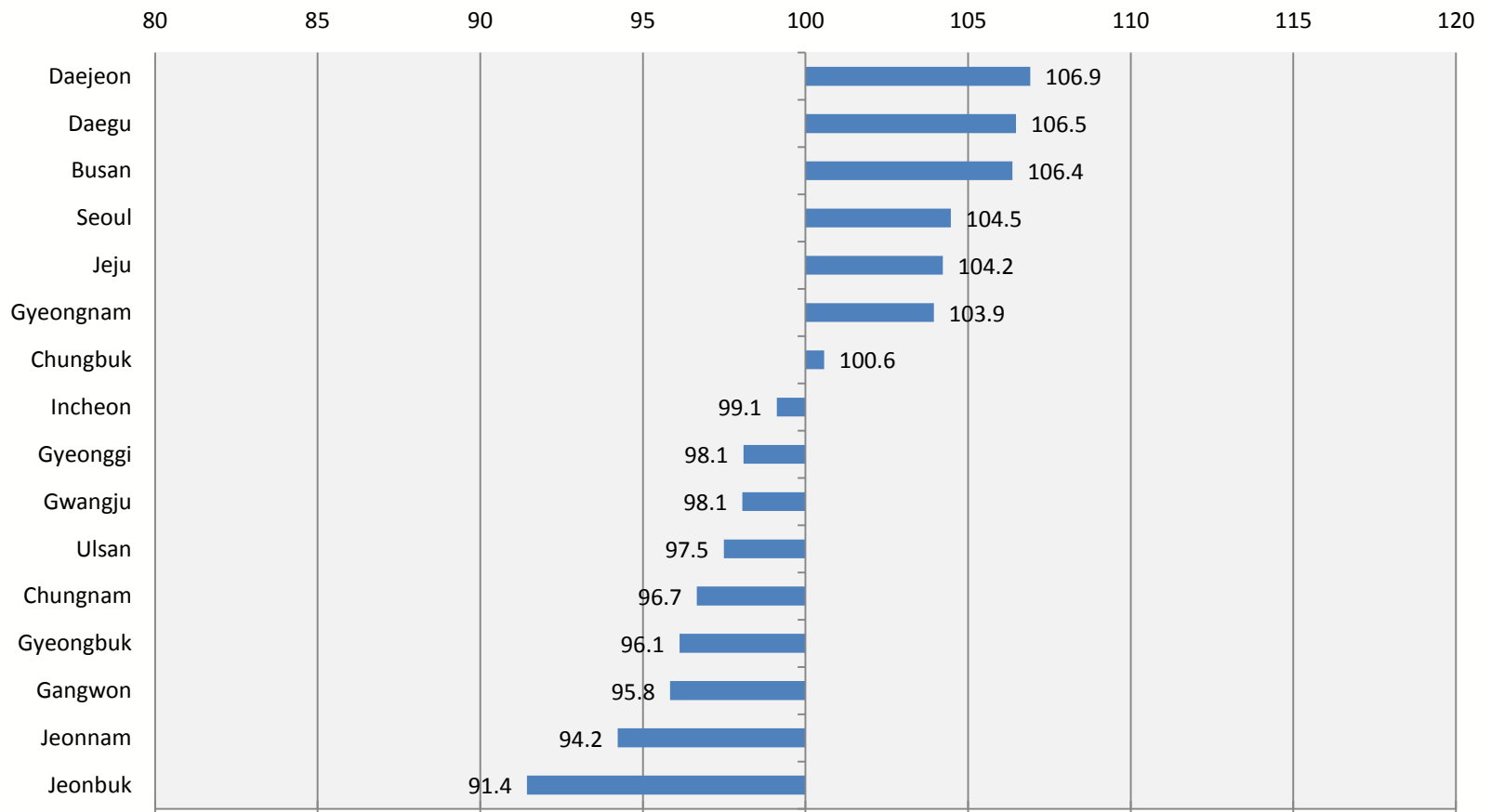
	HEALTH	WELL-BEING	CHILDRENS RELATIONSHIP	MATERIAL SITUATION	RISK AND SAFETY	EDUCATION	HOUSING AND ENVIRONMENT	FLOURISHING	OVERALL INDEX
HEALTH	1	.531*	.823**	0.181	0.447	.562*	0.071	.788**	.763**
SUBJECTIVE WELL-BEING	.531*	1	.740**	0.309	0.491	.750**	-0.033	.784**	.824**
CHILDRENS RELATIONSHIP	.823**	.740**	1	.574*	.586*	.734**	0.16	.949**	.972**
MATERIAL SITUATION	0.181	0.309	.574*	1	0.42	0.392	0.236	0.394	.591*
RISK AND SAFETY	0.447	0.491	.586*	0.42	1	0.446	-0.199	.527*	.654**
EDUCATION	.562*	.750**	.734**	0.392	0.446	1	0.021	.778**	.821**
HOUSING AND ENVIRONMENT	0.071	-0.033	0.16	0.236	-0.199	0.021	1	0.045	0.169
FLOURISHING	.788**	.784**	.949**	0.394	.527*	.778**	0.045	1	.934**
OVERALL INDEX	.763**	.824**	.972**	.591*	.654**	.821**	.169	.934**	1

*. Correlation is significant at the 0.05 level (2-tailed).

**.. Correlation is significant at the 0.01 level (2-tailed).

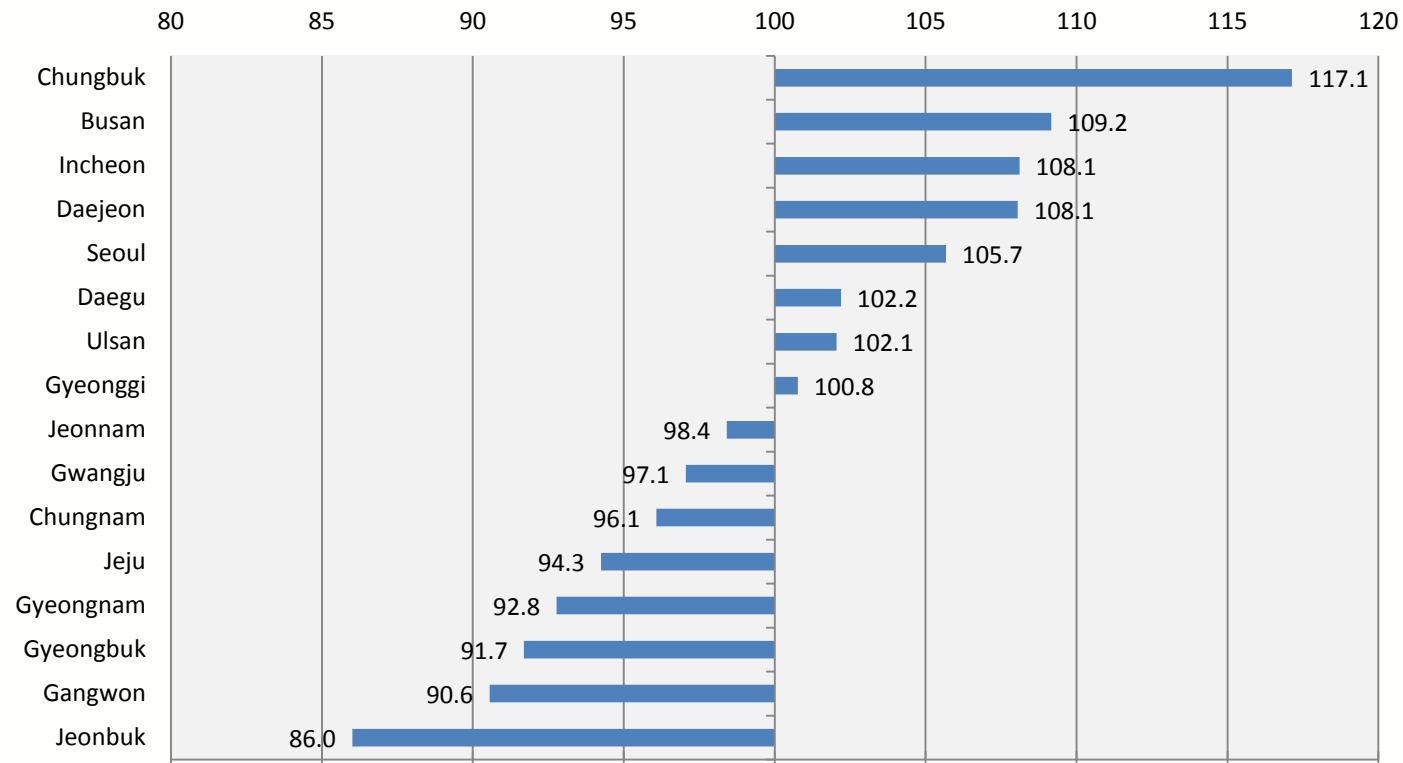
Comparison across Regions

- HEALTH



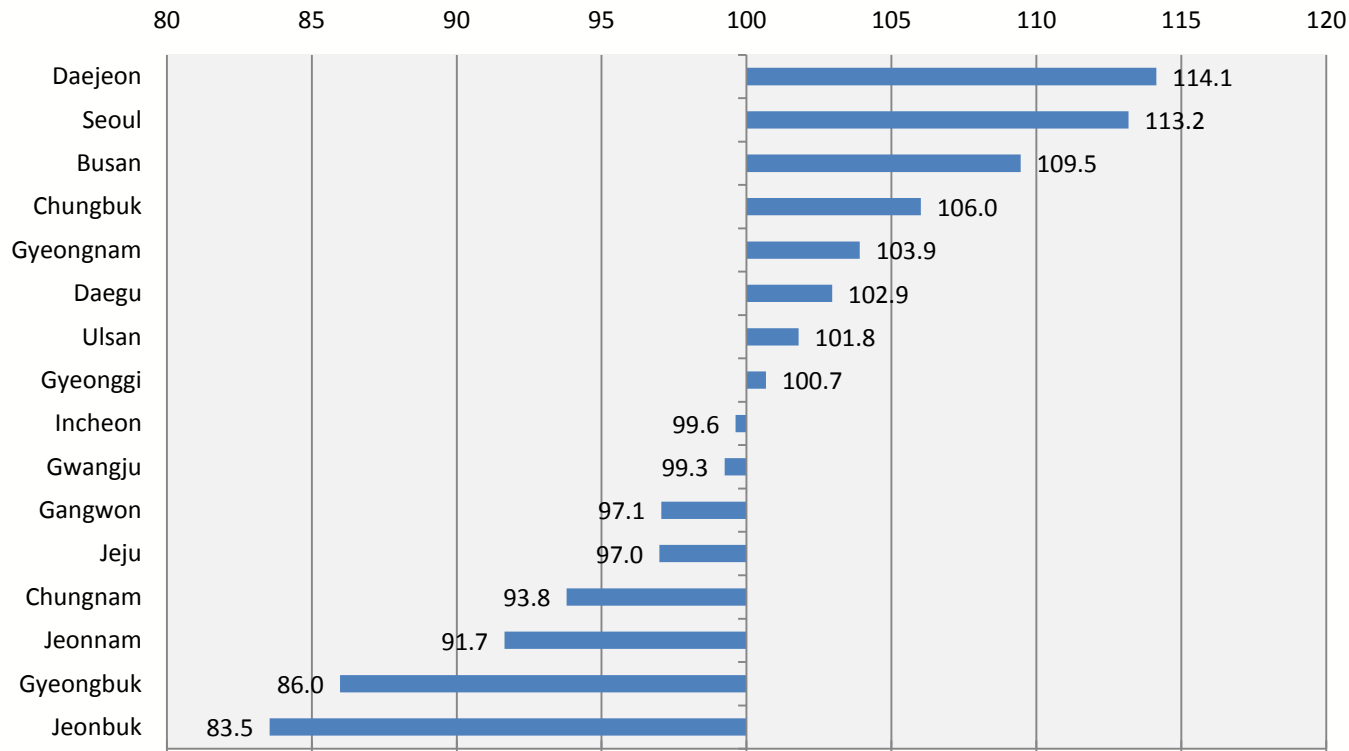
Comparison across Regions

- SUBJECTIVE WELL-BEING



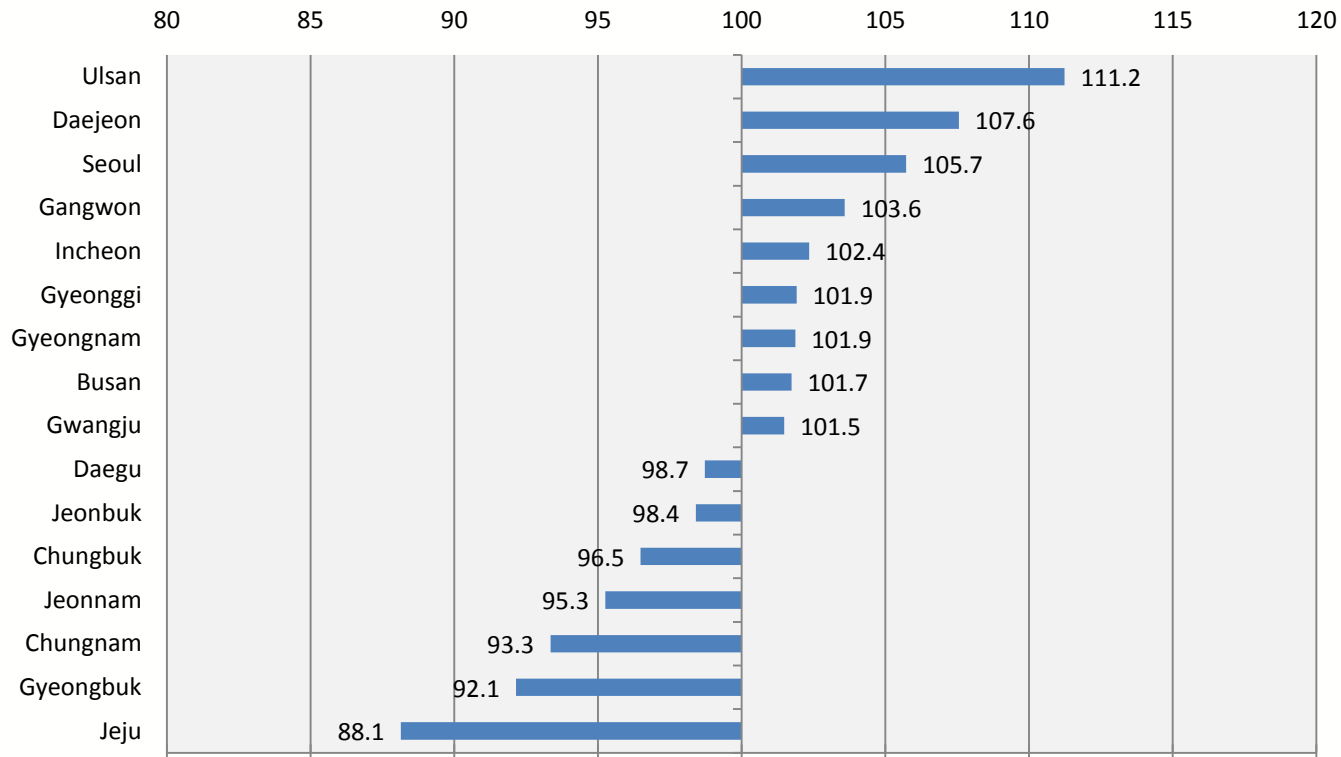
Comparison across Regions

- CHILDREN'S RELATIONSHIP



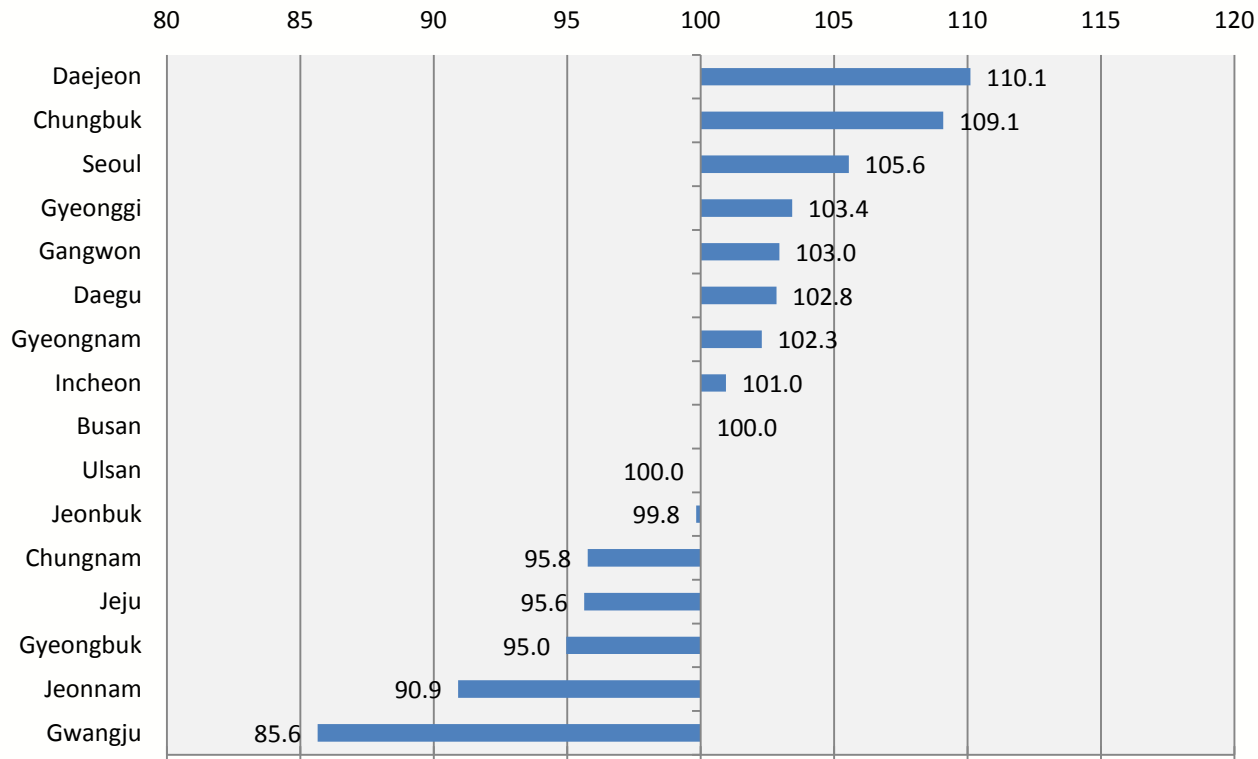
Comparison across Regions

- MATERIAL SITUATION



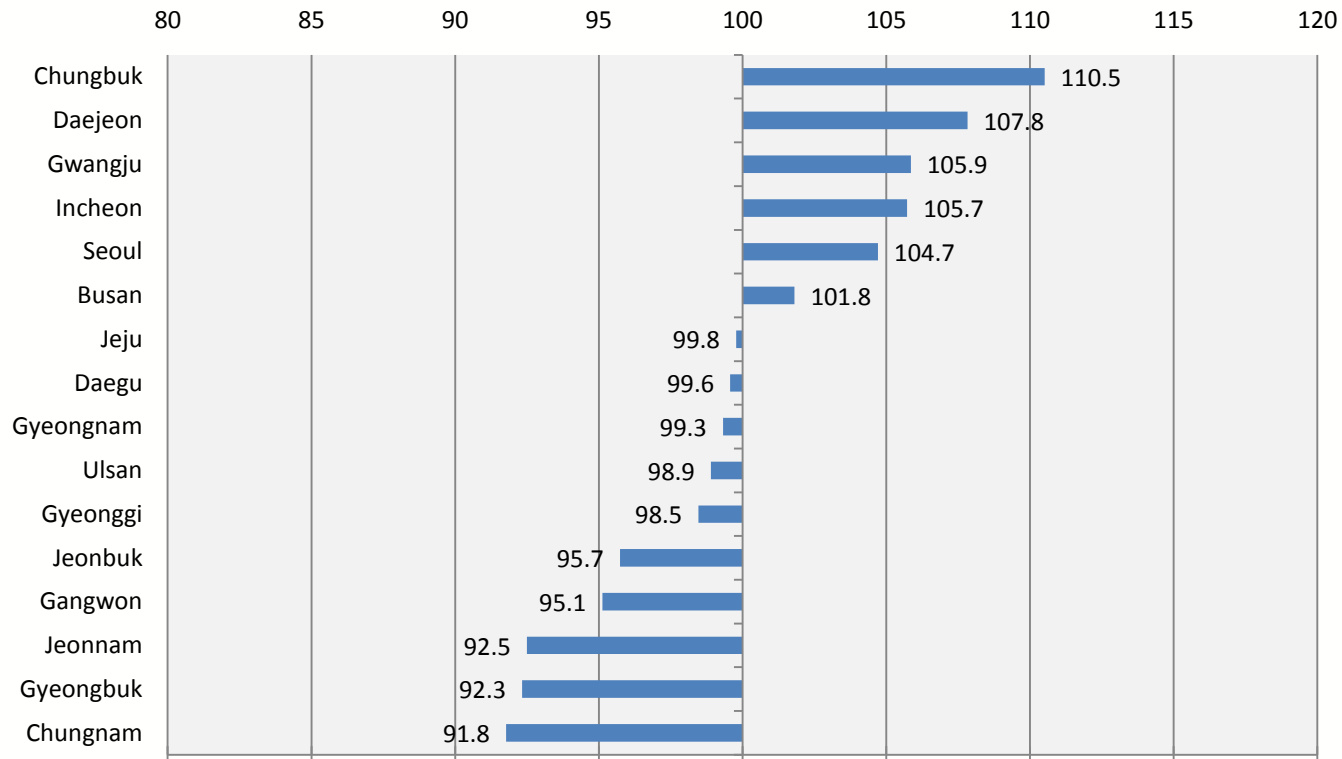
Comparison across Regions

- RISK AND SAFETY



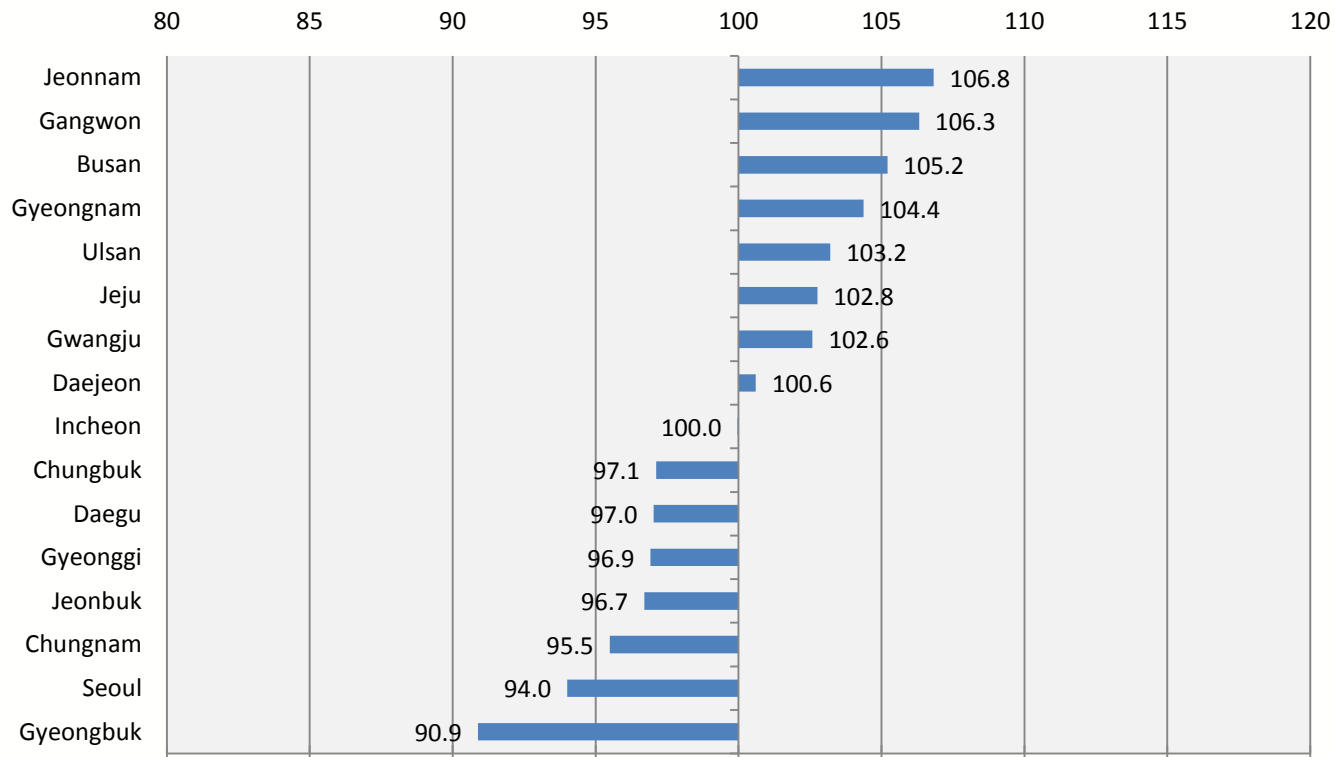
Comparison across Regions

- EDUCATION



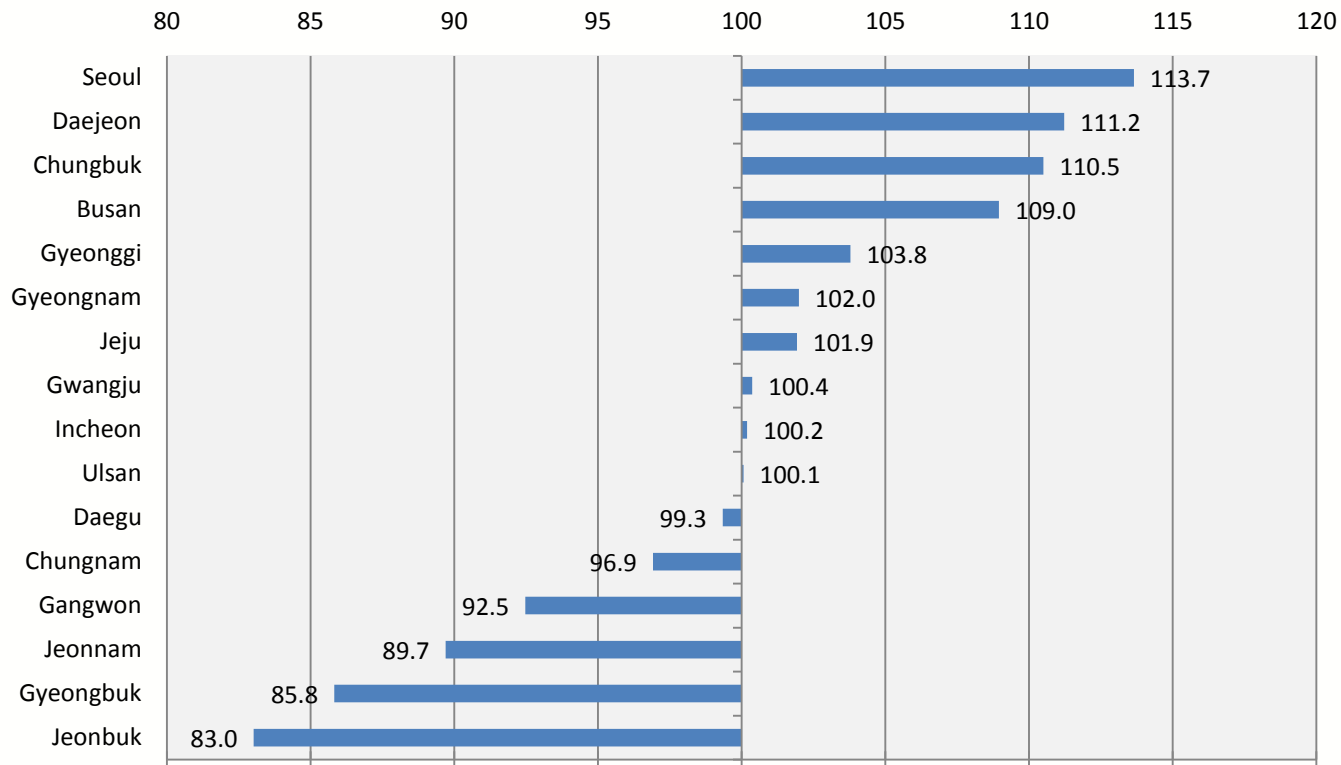
Comparison across Regions

- HOUSING AND ENVIRONMENT



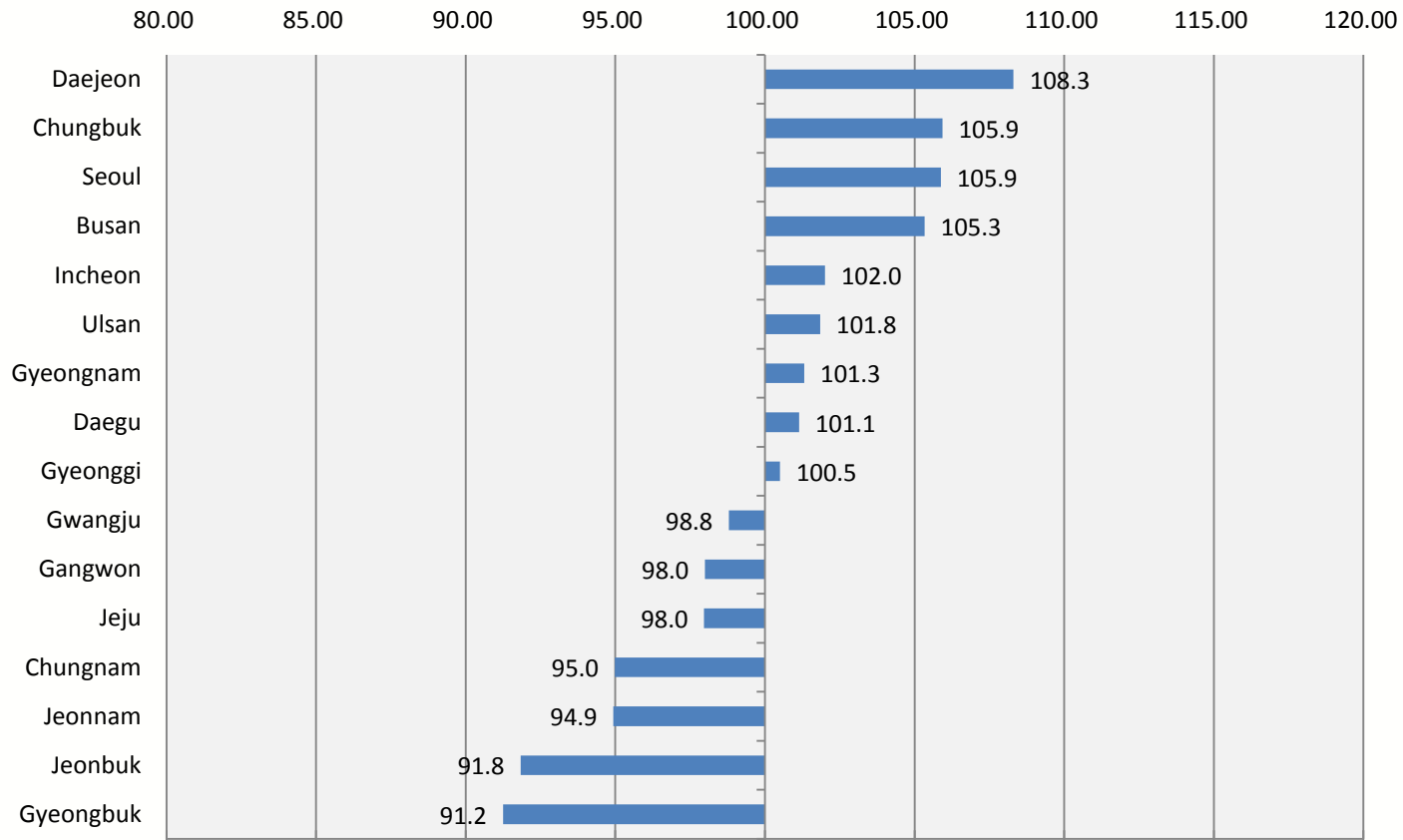
Comparison across Regions

- FLOURISHING



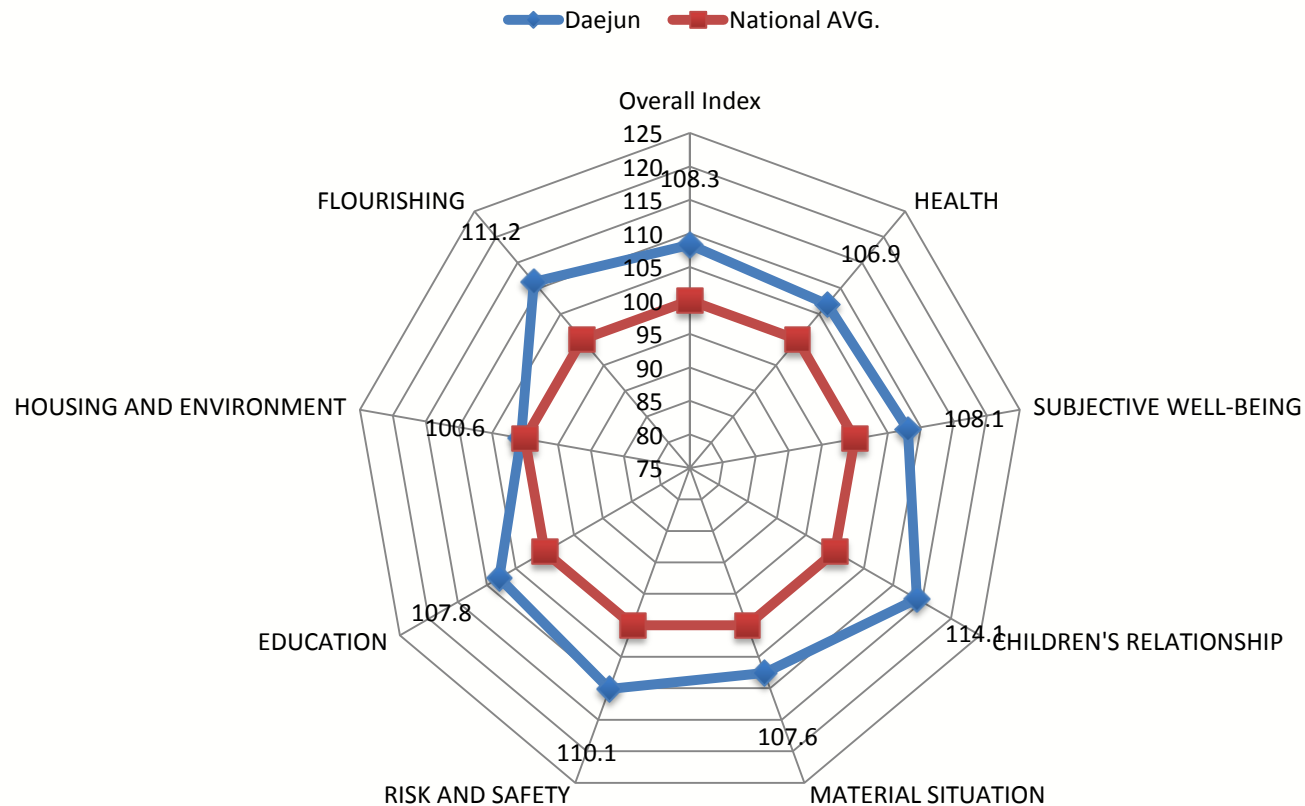
Comparison across Regions

- CHILD WELL-BEING



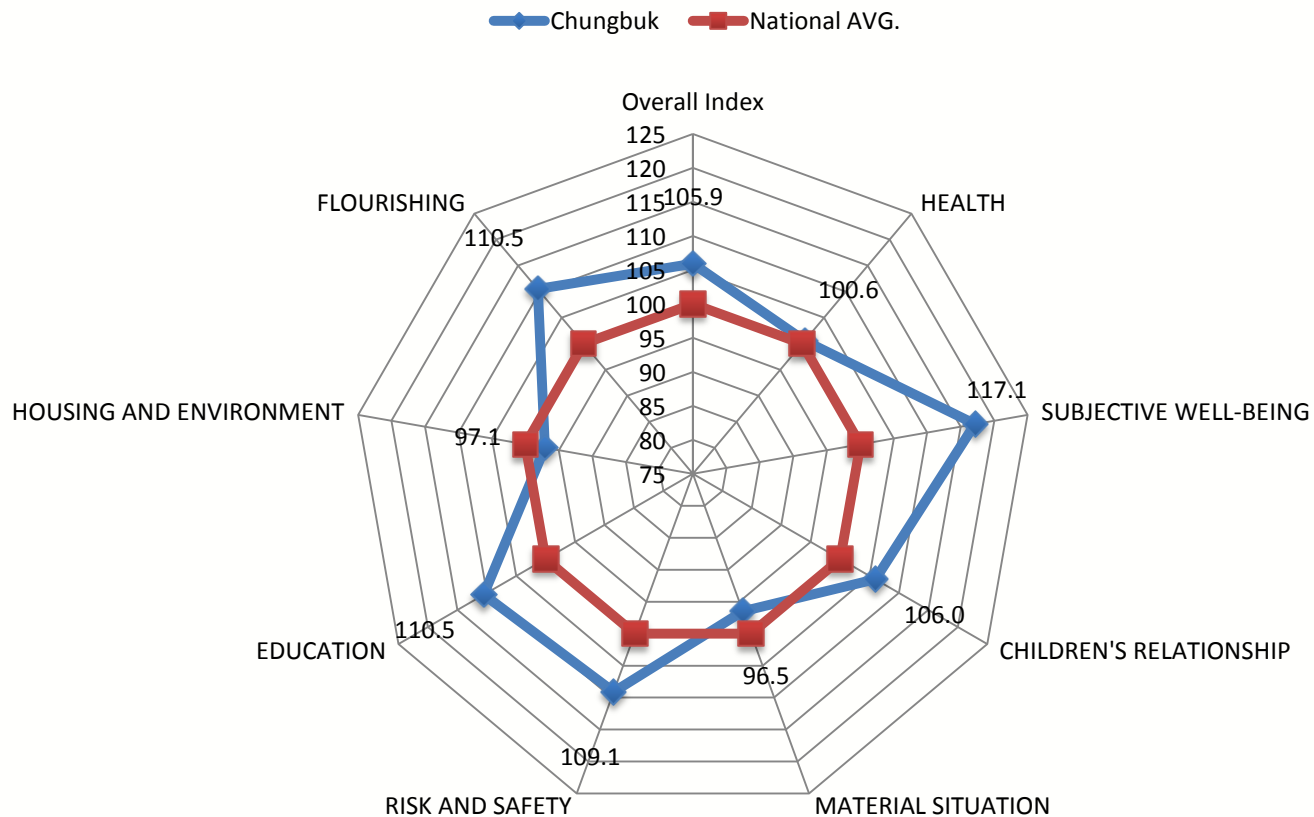
Region-specific results

- DAEJEON



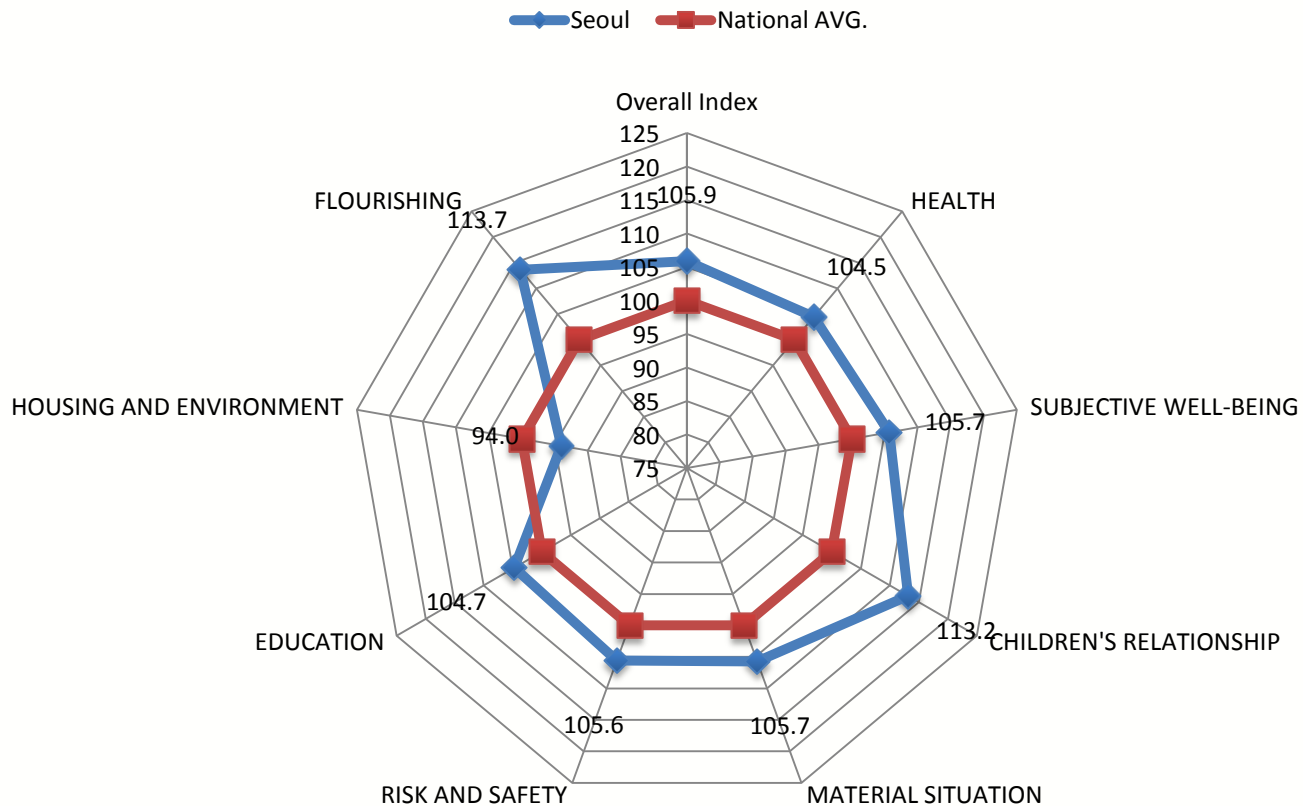
Region-specific results

- CHUNGBUK



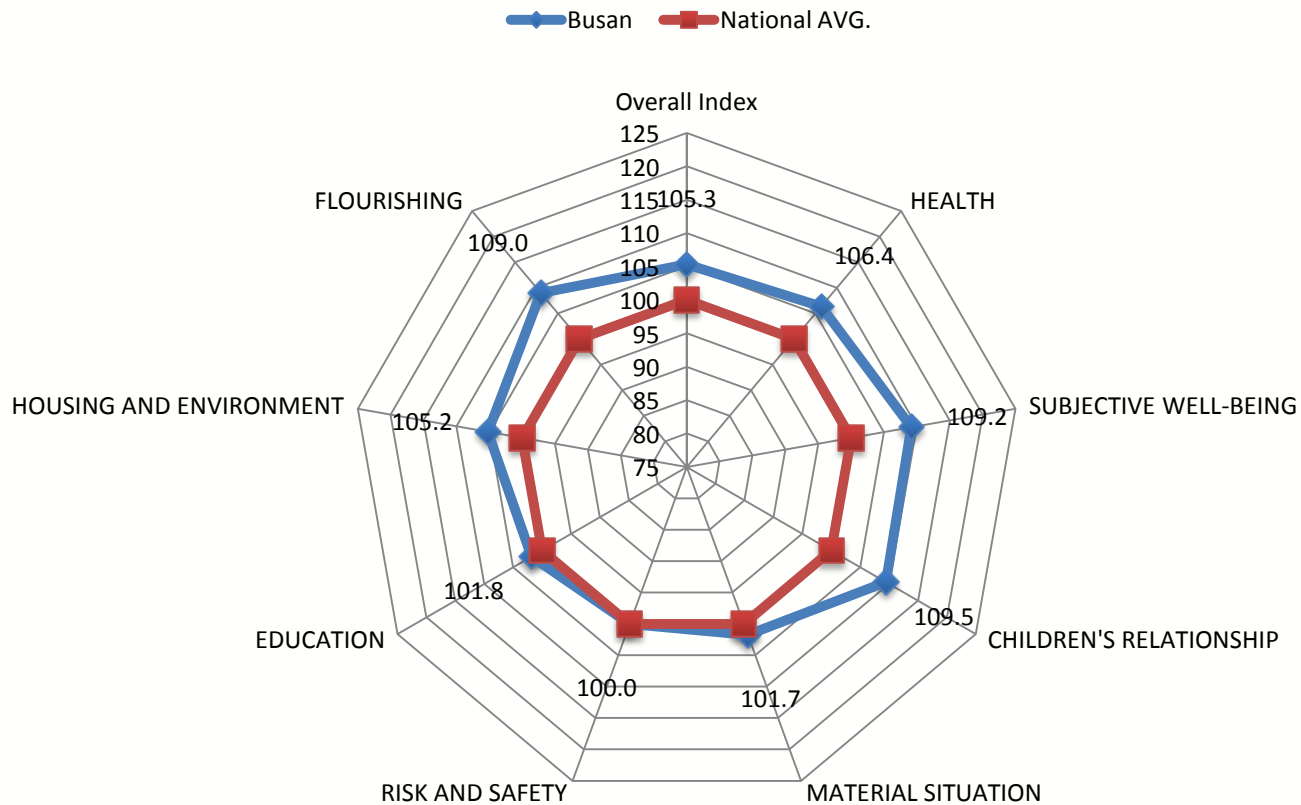
Region-specific results

- SEOUL



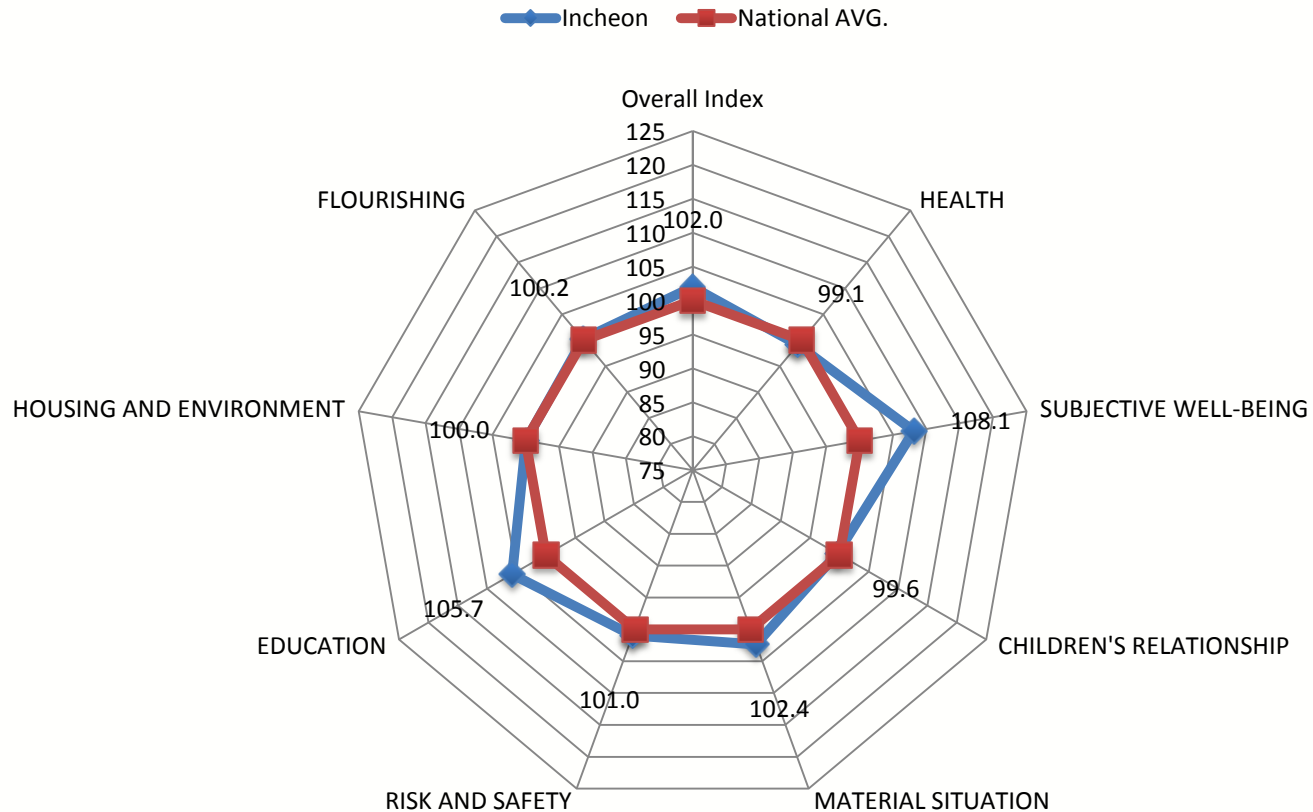
Region-specific results

- BUSAN



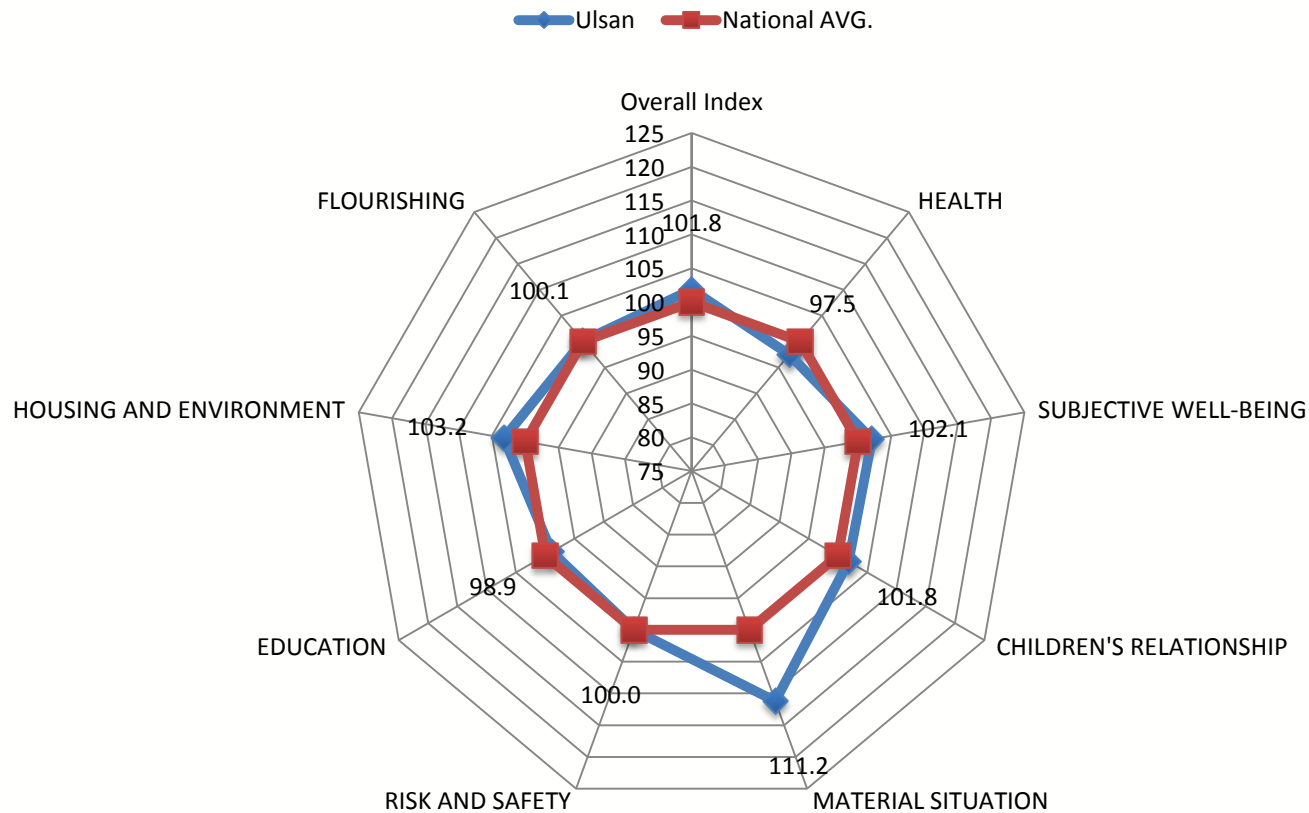
Region-specific results

- INCHEON



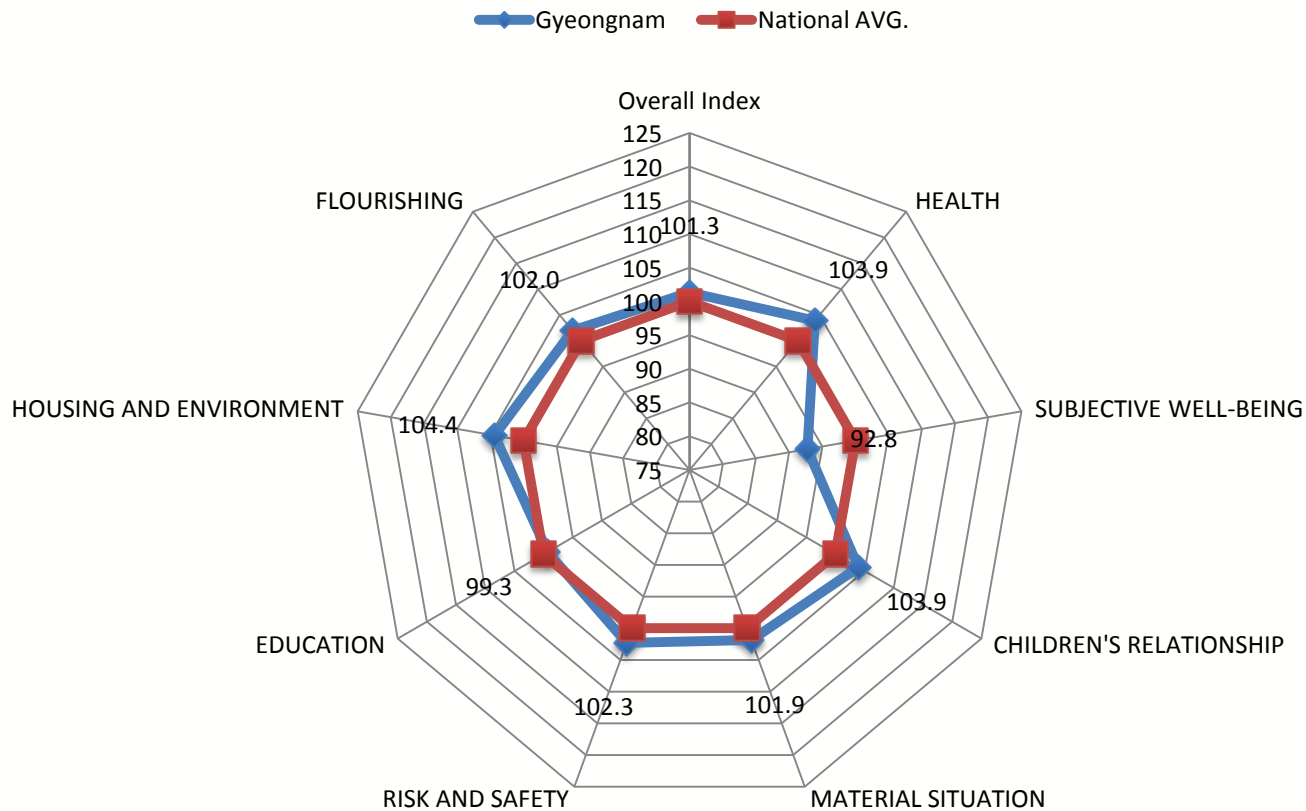
Region-specific results

- ULSAN



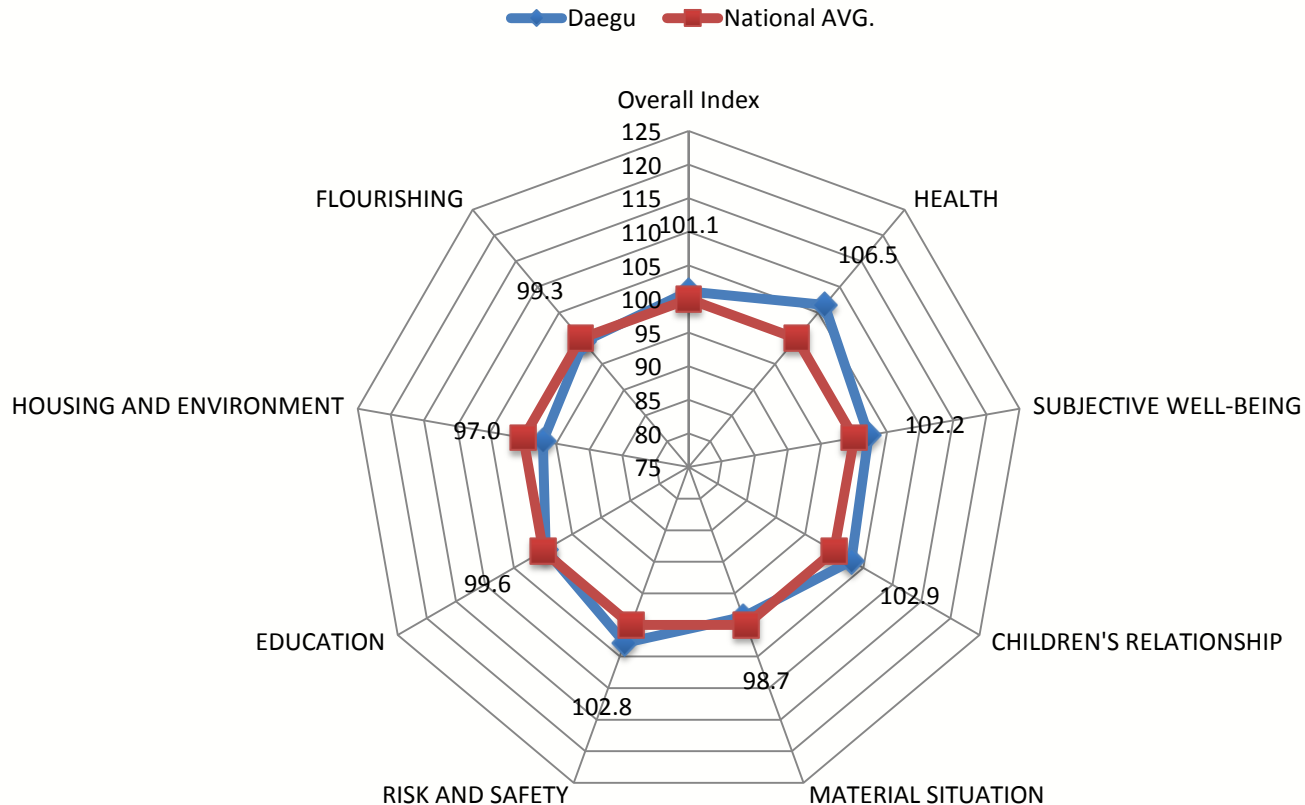
Region-specific results

- GYEONGNAM



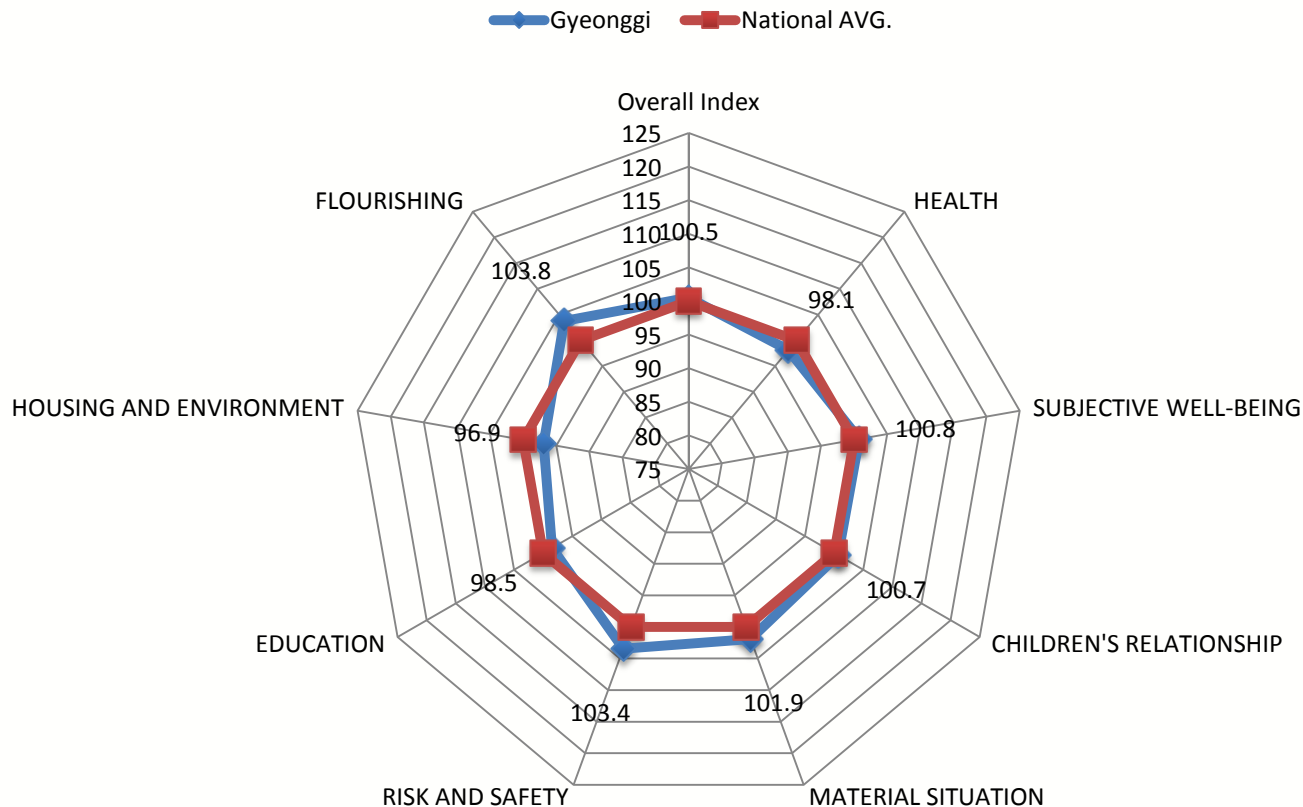
Region-specific results

- DAEGU



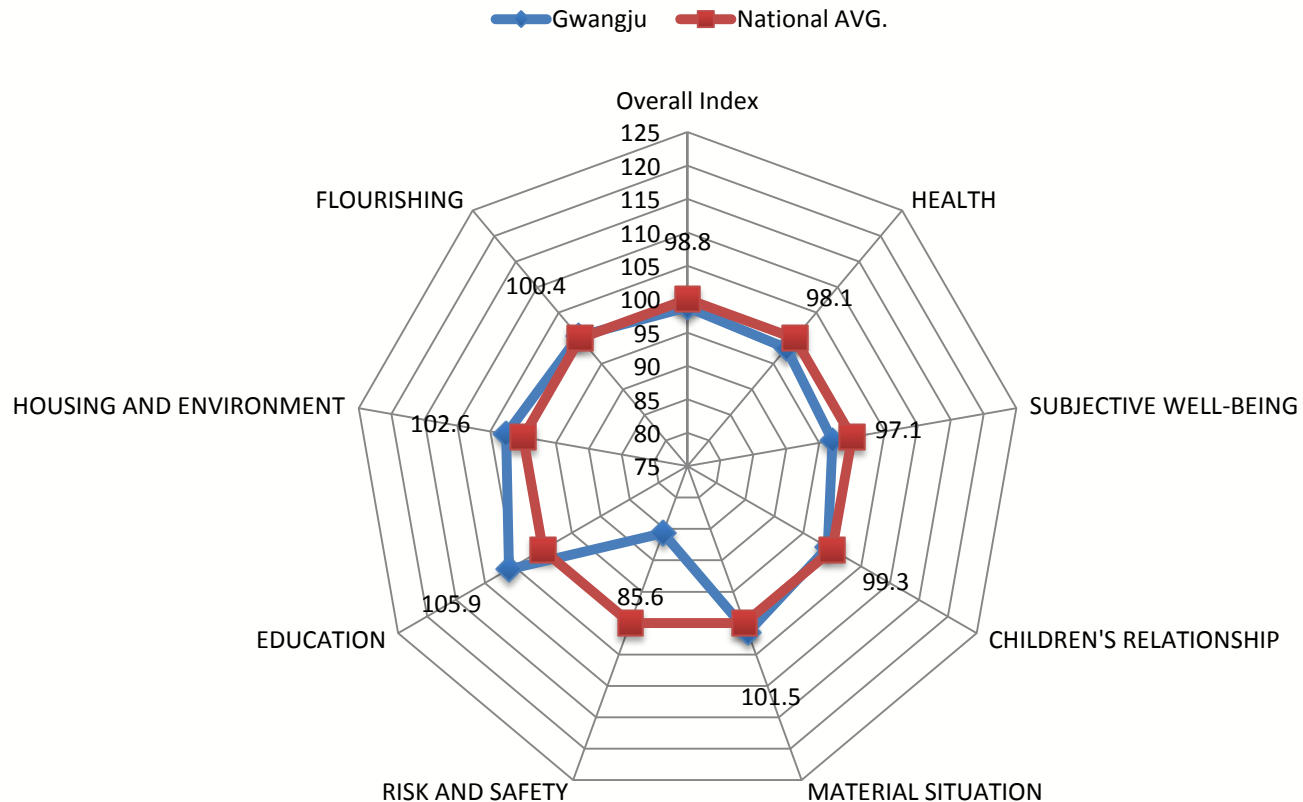
Region-specific results

- GYEONGGI



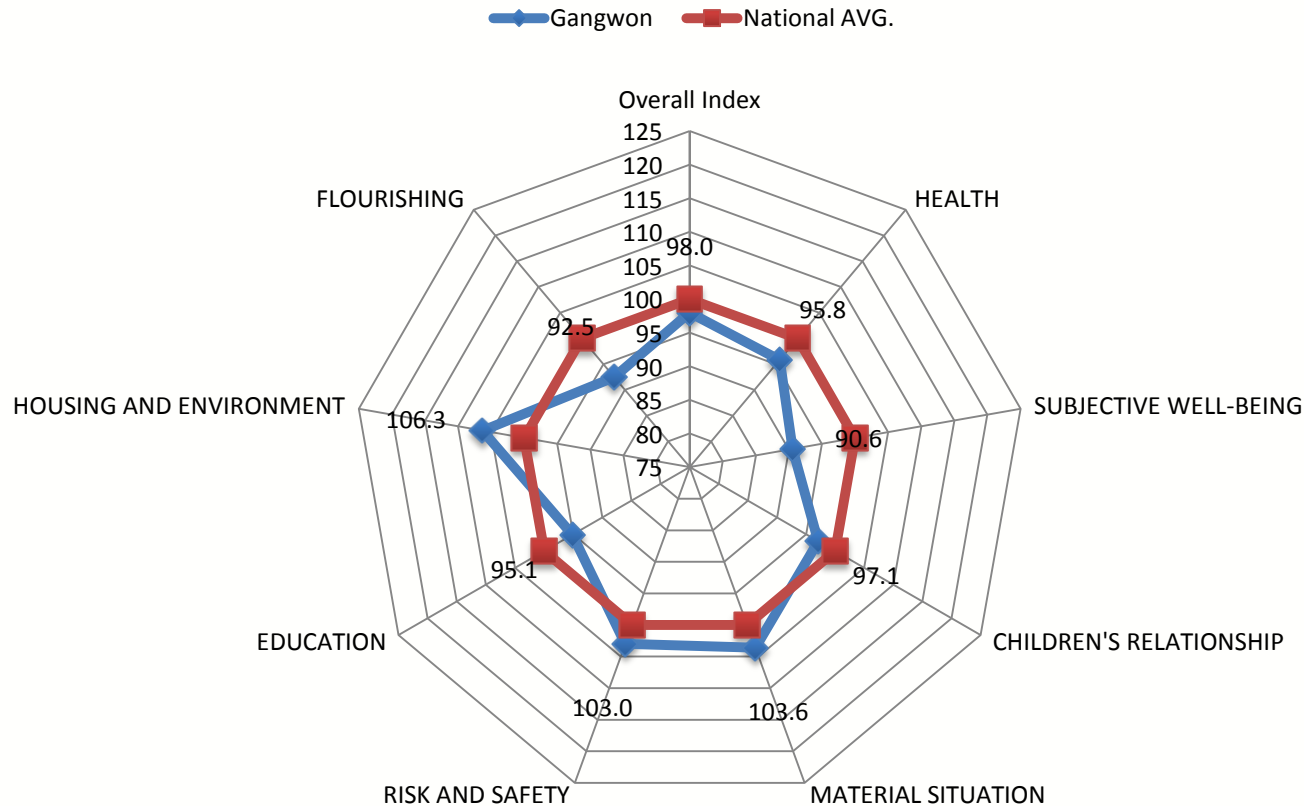
Region-specific results

- GWANGJU



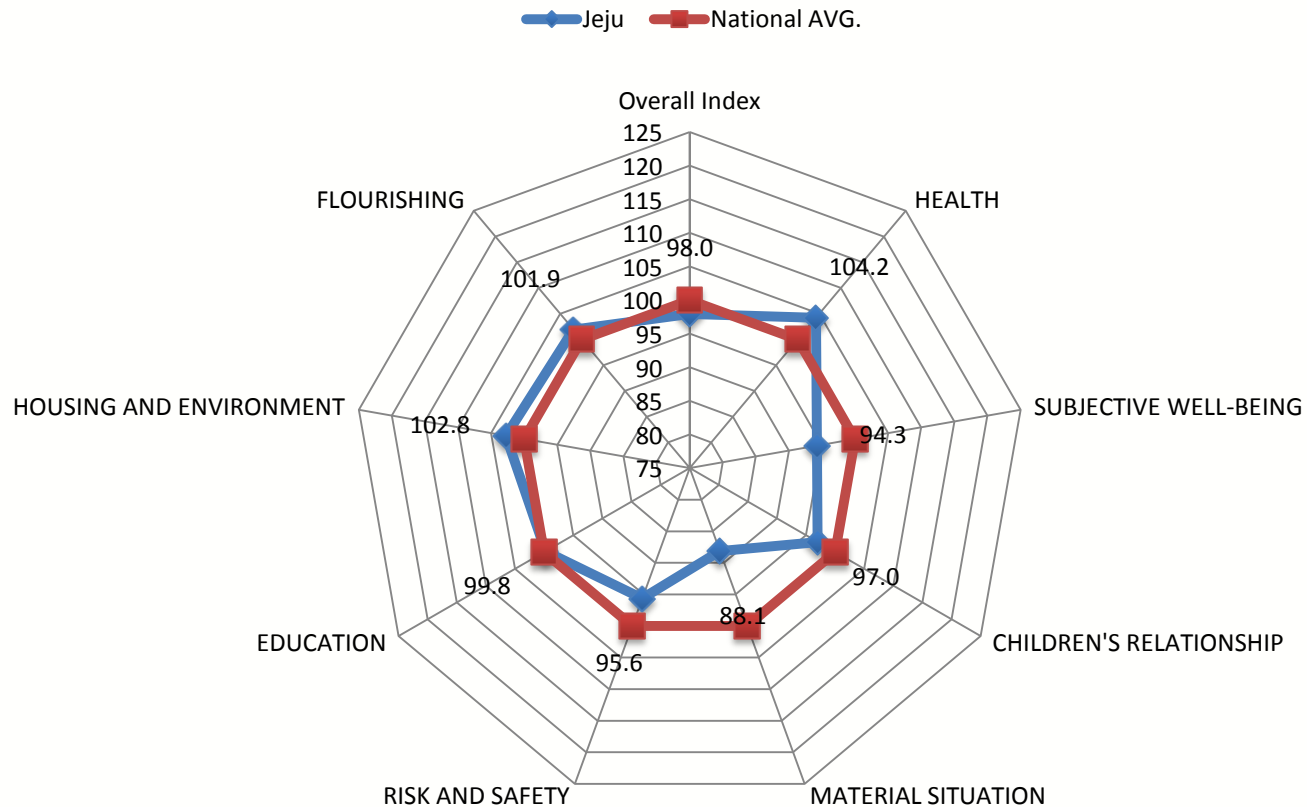
Region-specific results

- GANGWON



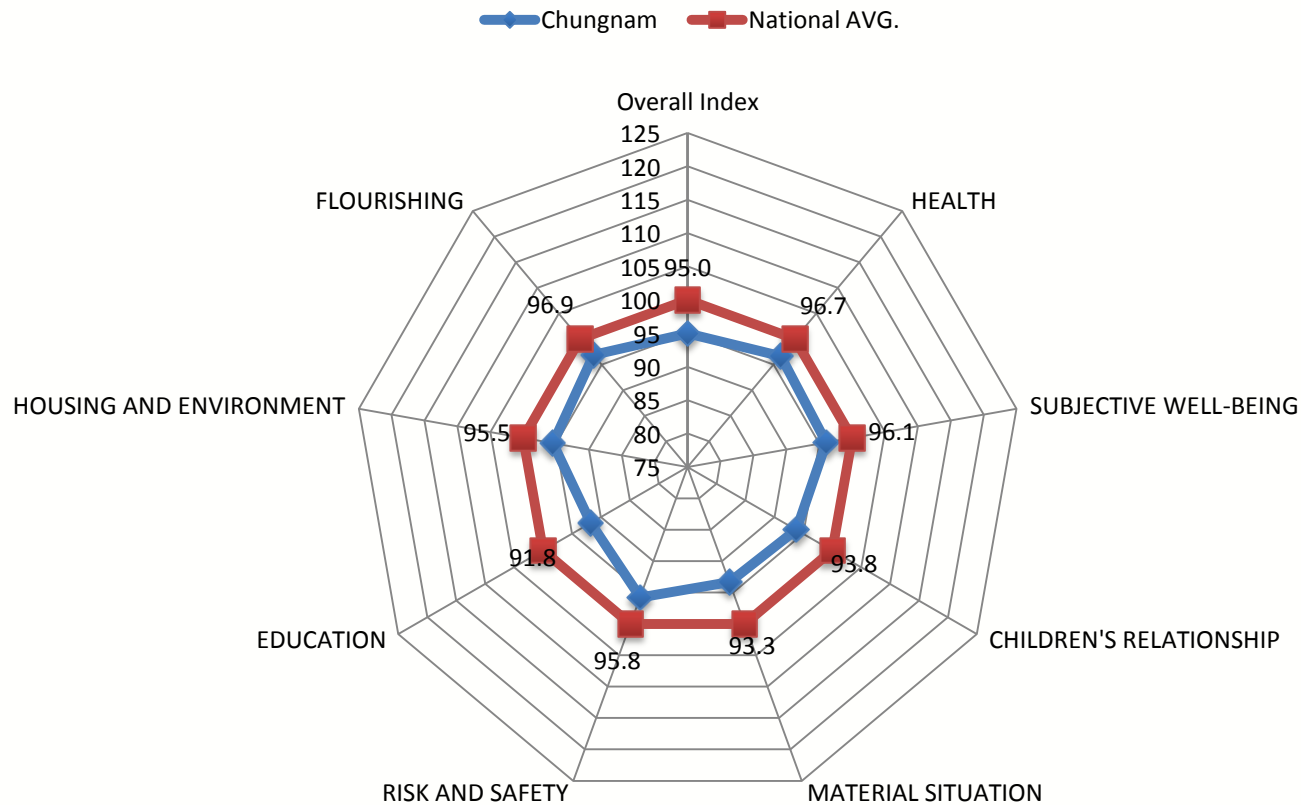
Region-specific results

- JEJU



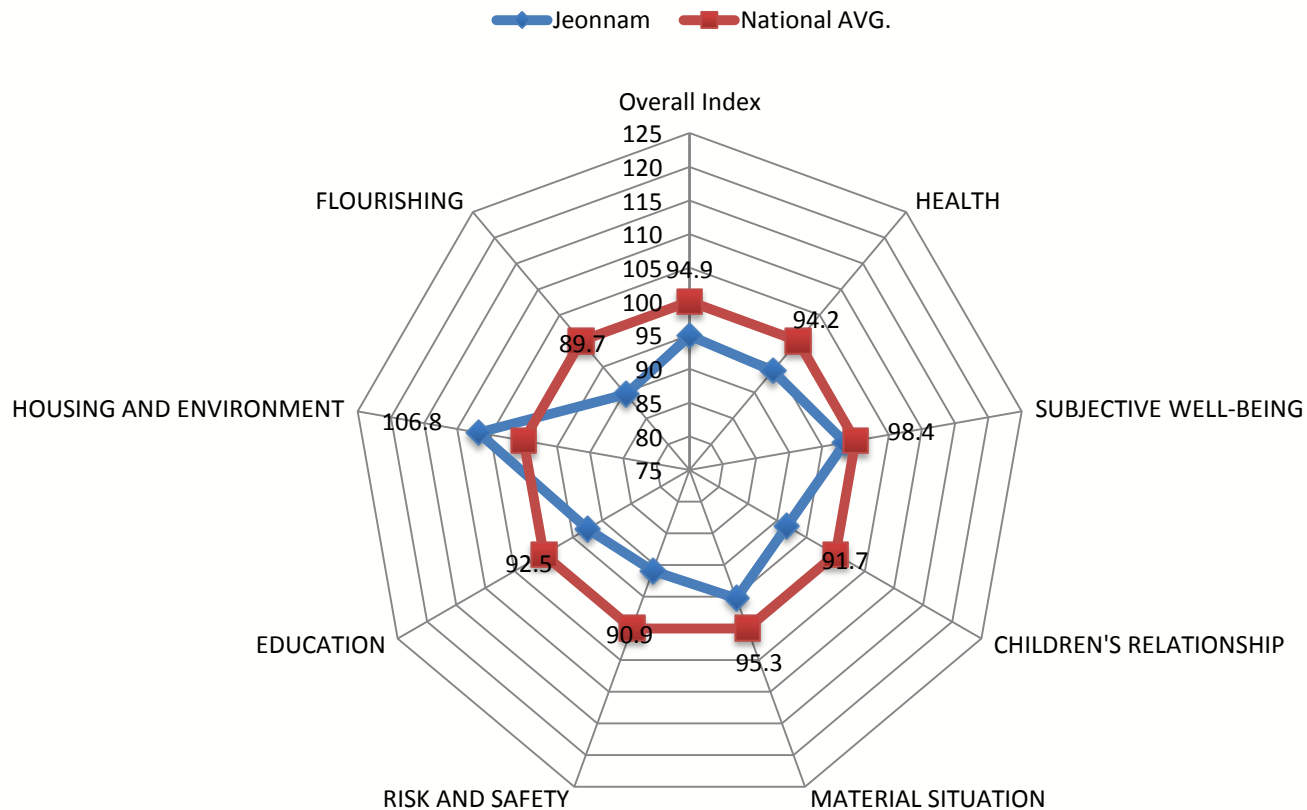
Region-specific results

- CHUNGNAM



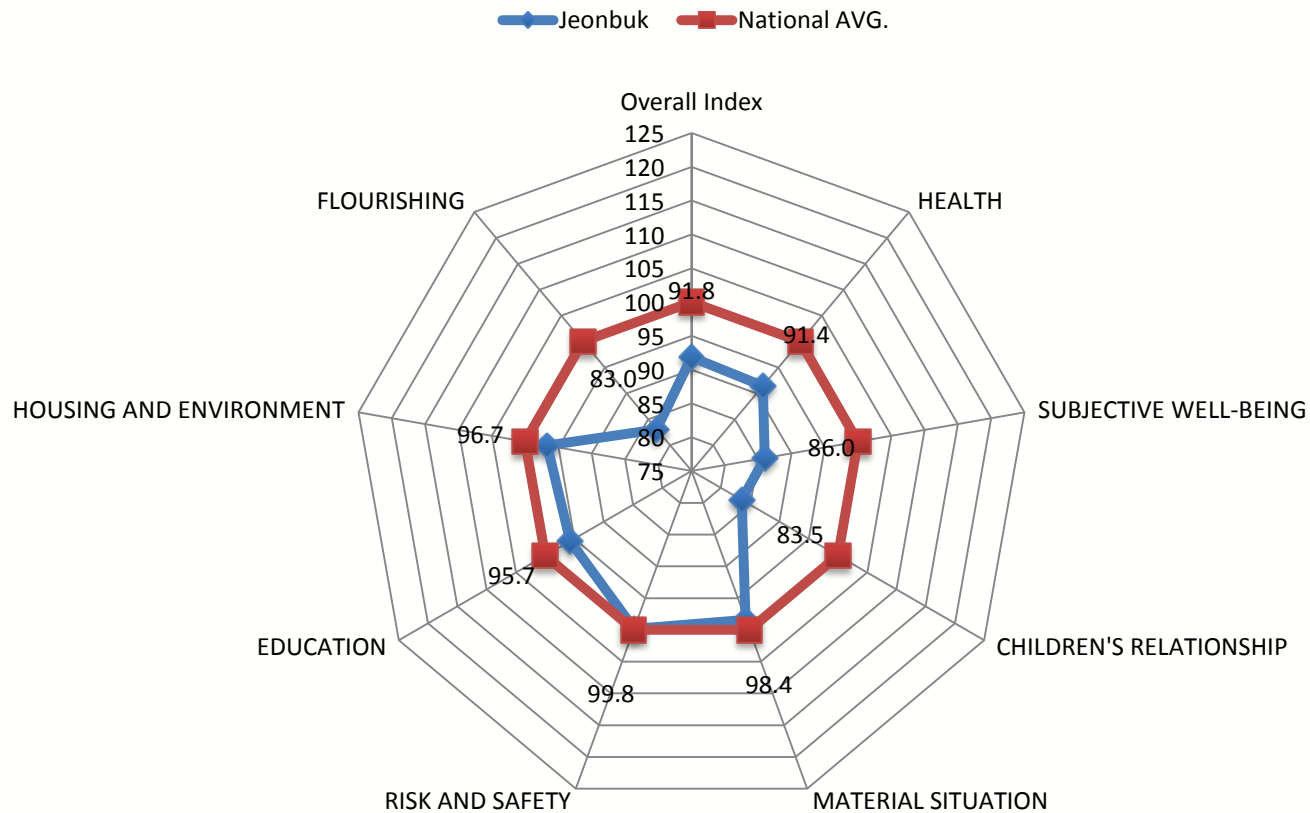
Region-specific results

- JEONNAM



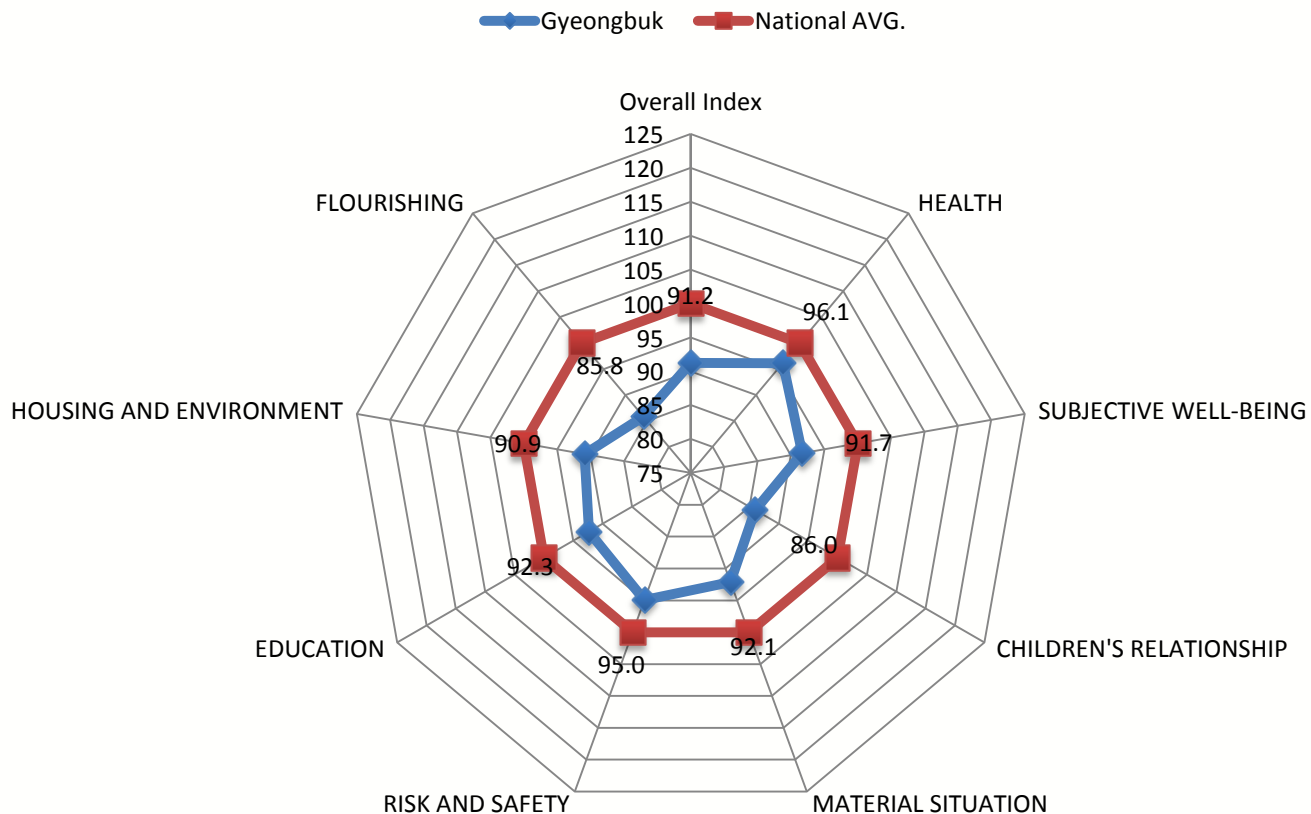
Region-specific results

- JEONBUK



Region-specific results

- GYEONGBUK



Implications for Policy

- Significant gaps in CWBI among regions
 - Children living in metropolitan area tend to be ranked higher than children living in non-metropolitan area in all domains of CWBI
 - These gaps are related to financial independence ratio (FIR) of local governments
 - Central government's efforts to alleviate these gaps are required, especially for those regions with the lowest FIR

Implications for Policy

- Consideration of what really determines children's well-being
 - Correlations between domains show that children's relationships, flourishing, subjective well-being have stronger effects on children's well-being than physical environment such as material situation and housing & environment
 - Policy efforts to support children's flourishing and subjective well-being as well as children's relationships should be emphasized

Implications for Policy

- Importance of early investment for children
 - Problem of inequality does not remain in education area but expand to every aspects of child development.
 - To promote balanced growth of children, early investment for children is called for