KICCE POLICY BRIEF

Childcare and Education Support Infrastructure Trend and the Responsive Policy in the Era of Low Fertility In Korea[1]

I. Background

- Early childhood education and care institutions, such as childcare centers and kindergartens, are most severely affected by the recent decline in births rate.
  - In 2023, South Korea had 37,395 childcare centers and kindergartens, down 5.3% from 2022. Childcare centers accounted for 28,954 of this total, a 33.5% decrease over the past decade.
- Rural areas are more affected by the decline in the number of childcare centers than the national capital region.
  - By 2022, there were 95 towns and villages (eup, myeon, and dong) in South Korea without childcare centers or kindergartens, 82 of which were outside of metropolitan areas.
- Regional declines in the population of infants and young children due to low birth rate are likely to accelerate the imbalance in supply and demand for childcare infrastructure.
  - In fact, women with children living in areas that lack childcare infrastructure have low intention to have children and are more likely to move out of the area to raise them.
  - In short, the decline in local childcare infrastructure due to a low birth rate is likely to accelerate regional decline.
- A steep decline in the number of childcare centers and kindergartens can lead to a vicious cycle of poor-quality education and care environment for infants and young children, further decreasing the birth rate.
- This study investigates declining trends in the availability of childcare centers and kindergartens. It determines the level of accessibility to childcare centers and kindergartens by region through geographic information system (GIS) analysis with the aim of identifying countermeasures.

II. Current Trends in the Decline of Childcare Centers and Kindergartens

- In 2019, the number of childcare centers nationwide was 37,371, but this number has been steadily declining, and dwindled to 28,954 by 2023

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1. This paper is based on An Analysis of Childcare Infrastructure Trend and the Responsive Policy in the Era of Low Fertility: Focusing on the Education and Childcare Support Infrastructure for Infants (2023 KICCE Research Report) described by J. Lee, M. Yang, S. Yun, J. Kim and H. Koo.

- The largest decrease in the number of childcare centers occurred in Gyeongnam (31.4%), followed by the Gyeongbuk (29.0%), Daejeon (28.9%), and Jeonbuk (26.7%).

[Table 1] Number of childcare centers by year and province: 2019-2023

City/Province	2019	2020	2021	2022	2023	Rate of Change (%)
Nationwide	37,371	35,352	33,246	30,923	28,954	-22.5
Seoul	5,698	5,370	5,049	4,712	4,431	-22.2
Busan	1,848	1,778	1,668	1,547	1,447	-21.7
Daegu	1,322	1,268	1,187	1,139	1,079	-18.4
Incheon	2,049	1,943	1,803	1,697	1,652	-19.4
Gwangju	1,122	1,072	1,002	940	878	-21.7
Daejeon	1,288	1,185	1,101	1,013	916	-28.9
Ulsan	842	790	720	656	612	-27.3
Sejong	359	350	343	327	314	-12.5
Gyeonggi	11,305	10,761	10,136	9,438	8,903	-21.2
Gangwon	1,036	999	954	906	847	-18.2
Chungbuk	1,130	1,082	1,042	972	921	-18.5
Chungnam	1,812	1,717	1,625	1,516	1,421	-21.6
Jeonbuk	1,288	1,195	1,115	1,024	944	-26.7
Jeonnam	1,147	1,084	1,051	999	952	-17.0
Gyeongbuk	1,844	1,725	1,617	1,463	1,310	-29.0
Gyeongnam	2,777	2,544	2,357	2,123	1,904	-31.4
Jeju	504	489	476	451	423	-16.1

Source: Department of Health and Human Services (2023). Childcare Statistics.

- Over the past five years, the number of national and public childcare centers has increased by 43.1%, while home-based childcare centers have decreased by 37.5% and private childcare centers by 29.3%, according to data on childcare centers by establishment type.

[Table 2] Number of childcare centers by type of establishment: 2018-2022

Type of Childcare Center	2019	2020	2021	2022	2023	Rate of Change (%)
Total	37,371	35,352	33,246	30,923	28,954	-22.5
National and public	4,324	4,958	5,437	5,801	6,187	43.1
Social Welfare Corporation	1,343	1,316	1,285	1,254	1,206	-10.2
Corporations, organizations	707	671	640	610	551	-22.1
Private	12,568	11,510	10,603	9,726	8,886	-29.3
Home-based	17,117	15,529	13,891	12,109	10,692	-37.5
Cooperative	159	152	142	132	124	-22.0
Workplace	1,153	1,216	1,248	1,291	1,308	13.4

Source: Department of Health and Human Services (2023). Childcare Statistics.

- The number of kindergartens across the country has steadily decreased since 2019 from 8,837 to 8,441 by 2023, a decrease of approximately 4.5%.
- The largest decrease in the number of kindergartens by city/province was in Daegu(9.3%), followed by Gwangju (8.3%) and

Seoul (7.3%).

• In Sejong, the number of kindergartens increased by 8.3%.

[Table 3] Number of kindergartens by year and province: 2019-2023

City/Province	2019	2020	2021	2022	2023	Rate of Change(%)
Nationwide	8,837	8,705	8,660	8,562	8,441	-4.5
Seoul	830	795	787	788	769	-7.3
Busan	408	403	397	394	384	-5.9
Daegu	355	346	342	329	322	-9.3
Incheon	403	404	399	396	393	-2.5
Gwangju	312	298	294	288	286	-8.3
Daejeon	260	256	253	255	251	-3.5
Ulsan	200	198	196	191	188	-6.0
Sejong	60	61	62	64	65	8.3
Gyeonggi	2,237	2,206	2,209	2,175	2,148	-4.0
Gangwon	368	366	363	359	353	-4.1
Chungbuk	328	326	327	324	318	-3.0
Chungnam	499	499	498	498	494	-1.0
Jeonbuk	519	507	507	501	494	-4.8
Jeonnam	542	530	524	516	514	-5.2
Gyeongbuk	707	701	696	682	671	-5.1
Gyeongnam	686	686	683	683	671	-2.2
Jeju	123	123	123	119	120	-2.4

Source: Educational Statistical Yearbook (2023) of the Korea Educational Development Institute.

• By establishment type, the number of private kindergartens decreased by 16.8%, whereas that of national and public kindergartens increased by 5.6%.

[Table 4] Number of kindergartens by type of establishment: 2019-2023

Year	Total	National	Public	Private
2019	8,837	3	4,856	3,978
2020	8,705	3	4,973	3,729
2021	8,660	3	5,058	3,599
2022	8,562	3	5,113	3,446
2023	8,441	3	5130	3308
Rate of Change(%)	-4.5	0.0	5.6	-16.8

Source: Educational Statistical Yearbook (2023) of the Korea Educational Development Institute.

III. Analysis of accessibility to childcare centers and kindergartens

• A GIS analysis was conducted to determine the distance between infants and young children attending childcare centers and kindergartens.

- The population of infants and young children in the service areas of childcare centers and kindergarten was analyzed.

- Considering the characteristics of the operation of Korean childcare institutions, the analysis distinguished between care institutions for 0– to 2-year-olds and 3– to 5-year-olds care institutions[2].

- It also analyzed childcare centers and kindergarten service areas according to 2 categories: 600 meters (walking distance)

and 6,000 meters (driving distance).

- Based on a walking distance of 600 meters as the threshold for access to childcare centers for infants (0– to 2-year-olds), the percentages of infants living within the service area are 63% at the national level, 91% at the dong level, and 22% at the eup/myun level.

- Based on a driving distance of 6 kilometers as the threshold, the percentages of infants (0– to 2-year-olds) living within the service area are 85% at the national level, 100% at the dong level, and 64% at the eup/myun level.

- Jeonnam was found to have a relatively low proportion of childcare center service areas for infants, followed by the Gyeongbuk and Gyeongnam.

[Table 5] Percentage of infants (0– to 2-year-olds) living within the service areas of childcare centers in administrative divisions (eup, myeon, dong) by region (city/province)

City/Province	600m(walking)			6km(driving)		
	Total	Dong	Eup/Myun	Total	Dong	Eup/Myun
Nationwide	63	91	22	85	100	64
Seoul	97	97	-	100	100	-
Busan	89	89	73	99	99	100
Daegu	92	94	75	100	100	95
Incheon	84	96	7	92	100	39
Gwangju	88	88	-	99	99	-
Daejeon	93	93	-	99	99	-
Ulsan	86	95	54	97	100	85
Sejong	65	99	25	97	100	94
Gyeonggi	81	93	41	97	100	90
Gangwon	44	78	23	76	98	62
Chungbuk	45	90	23	75	100	63
Chungnam	39	90	24	80	100	75
Jeonbuk	38	85	13	76	100	63
Jeonnam	30	78	15	67	96	58
Gyeongbuk	34	78	18	69	99	57
Gyeongnam	44	87	19	70	100	53
Jeju	66	80	30	97	100	88

Note: "Eup," "myeon," and "dong" are administrative district units (4 levels) in Korea that are under administrative districts ("gu") or administrative cities (3 levels). "Dong" areas are usually urban districts with a relatively high population density, while the "eup" and "myeon" areas are districts with rural area characteristics.
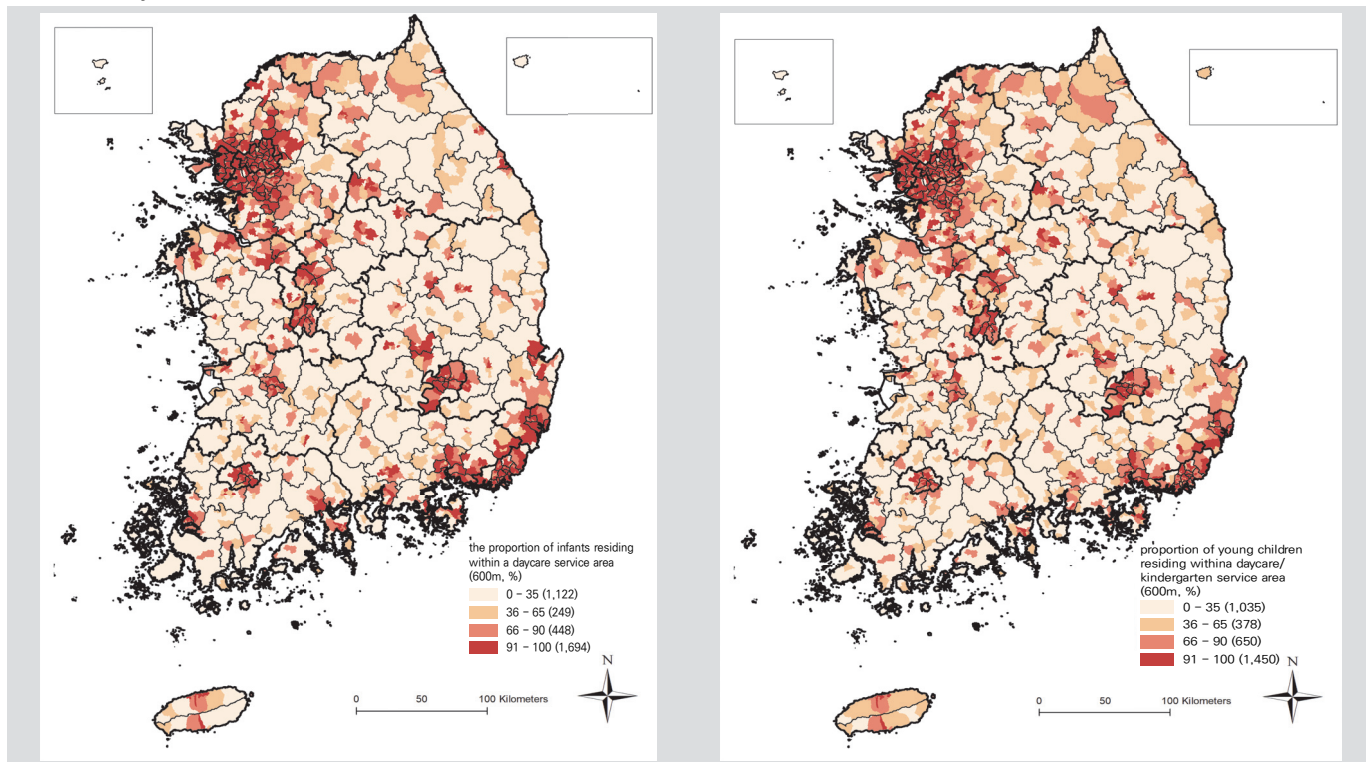
- Based on a walking distance of 600 meters as the threshold for access to childcare institutions for young children (3– to 5-year-olds), the percentages of young children living within the service area are 64% at the national level, 89% at the dong level, and 27% at the eup/myun level.

- Based on a driving distance of 6 kilometers as the threshold, the percentages of young children (3– to 5-year-olds) living within the service area are 93% at the national level, 100% at the dong level, and 83% at the eup/myun level.

- Jeonnam Province has a relatively low proportion of childcare center service areas for young children, followed by Gyeongbuk and Gyeongnam.

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2. Kindergartens in Korea primarily serve 3–5–year olds, while childcare centers serve 0–5–year olds. Institutions for ages 0–2 include only childcare centers, while institutions for ages 3–5 include both childcare centers and kindergartens.

[Table 6] Percentage of young children (3- to 5-year-olds) living within the service area of childcare centers in administrative eup/myun/dong by region (city/province)

City/Province	600m(walking)			6km(driving)		
	Total	Dong	Eup/Myun	Total	Dong	Eup/Myun
Nationwide	64	89	28	93	100	83
Seoul	95	95	-	100	100	-
Busan	87	88	73	99	99	100
Daegu	91	92	75	100	100	97
Incheon	83	93	12	95	100	61
Gwangju	85	85	-	99	99	-
Daejeon	91	91	-	100	100	-
Ulsan	83	90	54	99	100	97
Sejong	72	95	43	99	100	98
Gyeonggi	79	91	43	99	100	96
Gangwon	46	74	29	86	100	77
Chungbuk	48	88	28	88	100	81
Chungnam	42	84	30	94	100	92
Jeonbuk	43	82	22	94	100	90
Jeonnam	34	81	21	82	100	77
Gyeongbuk	39	78	24	83	100	77
Gyeongnam	46	85	25	84	100	75
Jeju	69	80	38	97	100	91

[Figure 1] GIS analysis of the proportion of infants and young children residing within a childcare centers/kindergarten service area (by car, within 6 km)

IV. Policy Suggestions

• Selecting vulnerable areas based on scientific methods

- A systematic and scientific analysis to identify vulnerable areas that require policy support. Additionally, in setting up additional childcare centers and kindergartens. Furthermore, residential address data is important for an accurate assessment of the supply and demand of these facilities.

- To conduct a through scientific analysis, it is necessary to build a dataset that links the residential address of infants and young children with the addresses of the childcare centers and kindergartens they currently attend and to fully integrate the daycare and kindergarten data with the ongoing early childhood education and childcare.

• Strengthening infrastructure support for childcare centers and kindergartens in vulnerable areas

- The declining birthrate has led to an increase in the closures of childcare centers and kindergartens.

- As confirmed by the GIS analysis, there are many rural areas (eup/myun) with poor access to childcare centers and kindergartens, and the number of such areas is expected to grow in the future.

- Support should be sought to maintain a minimum number of childcare centers and kindergartens, and their infrastructure, and financial support should be expand to designate a few childcare centers and kindergartens in vulnerable areas as core infrastructure within a given region.

• Establishing shared programs for small childcare centers and kindergartens

- The declining birth rate has led to lower enrollment in childcare centers kindergartens, resulting in a rise in the number of smaller facilities.

- It is necessary to further expand the sharing programs of small childcare centers and kindergartens currently promoted by the government (e.g.: shared childcare centers).

• Launching the "visiting childcare teacher" project

- In areas where accessibility to childcare centers and kindergartens is significantly low, childcare services must be through home visits by childcare teachers.

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