

Fertility and the Proportion of Newlyweds in Different Municipalities

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Introduction

With the expansion in recent years of policies on low fertility and the rising concern over the potential risk of so-called “local population extinction”, inter-municipal differentials in fertility have become a subject of increasing social interest.

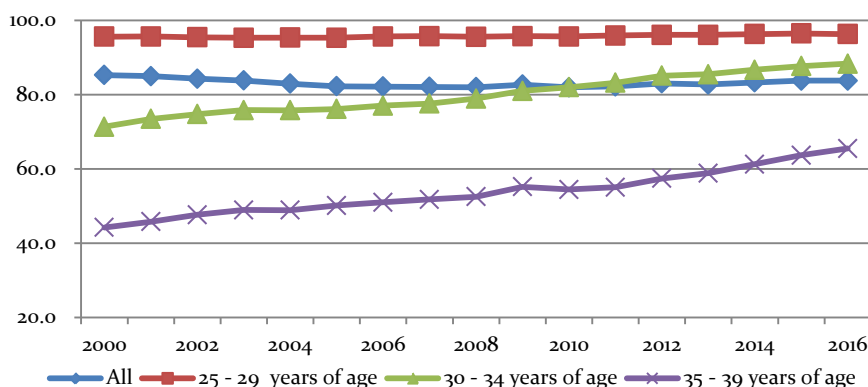
However, the heightened interest in local-level fertility usually stops short at media-led comparisons of total fertility rates in ranking order. Comparisons of such nature seem inappropriate at best, as both the structure and dynamics of population vary across municipalities. Also, there has been a form of pervasive reductionism by which the high fertility rates of some municipalities are attributed to local government’s policy support. We attempt in this study to examine the relationship between fertility and the proportion of newlyweds in different areas.

The characteristics of births to newlyweds

More than 80 percent of births in Korea were attributed to couples in their first 5 years of marriage. This has been the case for more than 15 years. Almost all births to women in their late 20s were to women married 5 years or less. In women in their early 30s, a major childbearing-age group, the proportion of births to those married less than 5 years has been on the rise, as age at marriage has increased.

The exceptionally high rate of births to newly married couples is traceable to the fact that most (90.3 percent) of births occurring in Korea are of first or second children (Birth Statistics for 2015, Statistics Korea). Furthermore, 95.7 percent of children born of newly married couples are of first or second parity; 62.1 percent of the births of third children, which account for 9.7 percent of all childbirths in Korea, are to couples married six or more years. Although late childbirths have increased of late due to a number of issues including subfertility, their impact on the birthrate of newly married couples has remained insignificant.

[Figure 1] Births to newlyweds as a percentage of all births

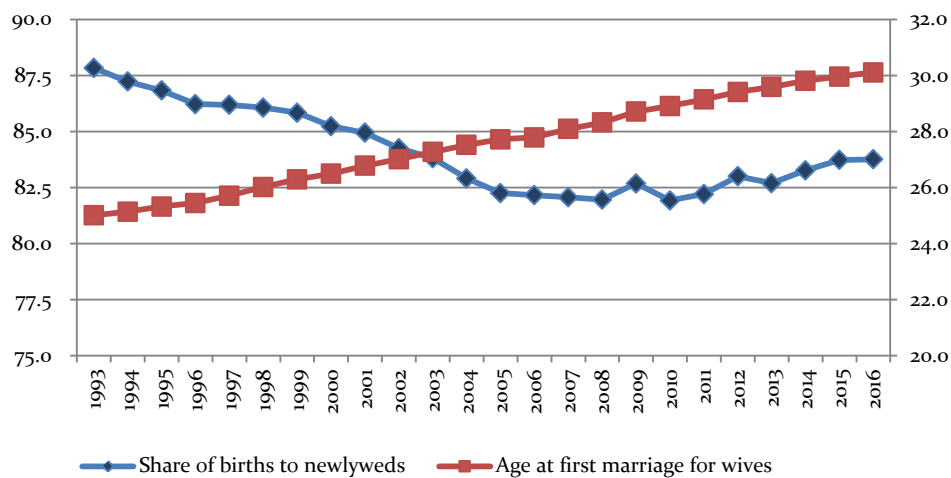


Source: Birth Statistics (for each year), Statistics Korea

The high rate of births to newlyweds may seem attributed to the recent tendency of women in general to stop having children altogether after having one child or two. Also, with age at first marriage on the rise, women in Korea seem to have been left with reduced scope to control spacing between births. But the actual birth patterns suggest otherwise (see Figures 2 and 3).

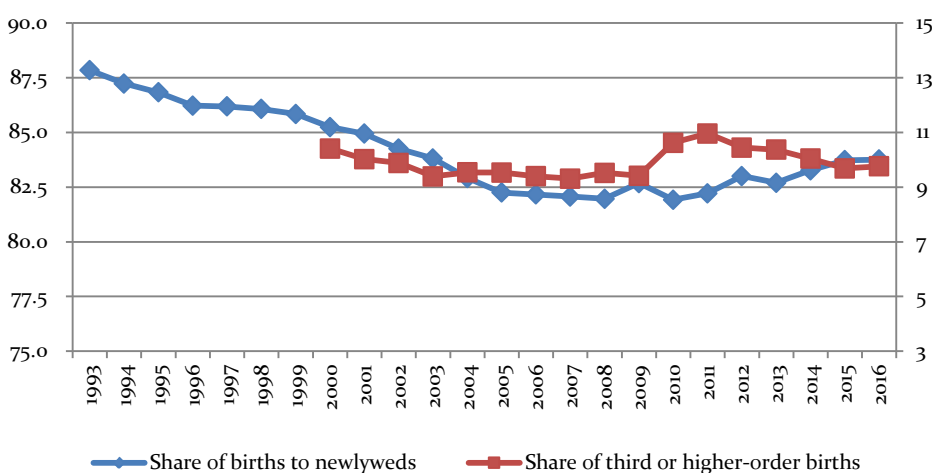
According to Statistics Korea, births to newlyweds as a percentage of all births have declined since the early 1990's. Although the figure rose to some extent in 2010, it as of now remains far below its early-1990's level. A noteworthy finding of this study is that the relationship between the proportion of births to newlyweds and the proportion of third- and higher-parity births is more positive than negative. The high concentration of births to those in their first 5 years of marriage is a demographic phenomenon quite independent of overall birth dynamics. It is a subject that would require further research elaboration.

[Figure 2] Birth rate for women in their first 5 years of marriage; changes in women's age at first marriage



Source: Birth Statistics (for each year), Statistics Korea

[Figure 3] Birth rate for women in their first 5 years of marriage; % of those with more than three births



Source: Birth Statistics (for each year), Statistics Korea

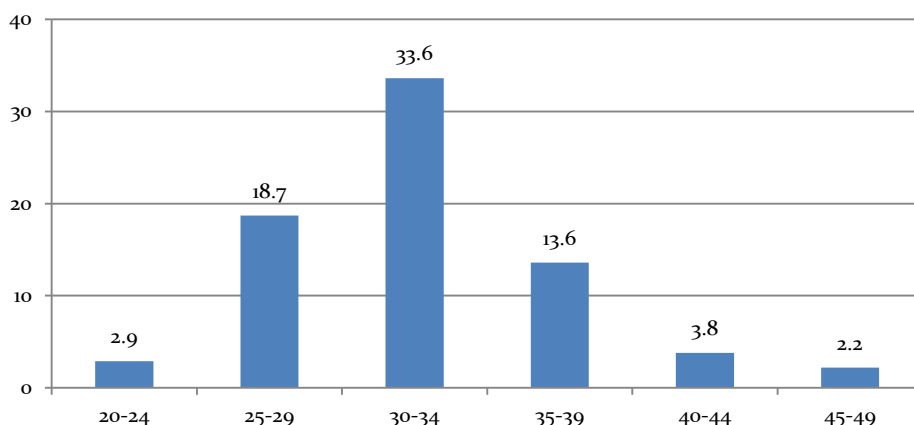
Distribution of couples married five years or less

This study examined newlyweds as a share of women 25 to 39 years of age, a major childbearing age group.¹ The 2015 statistics on newlyweds revealed that those in their early 30s

¹ This study sees “newly married women” (women in their first 5 years of marriage) as a percentage of women 25 to 39 years of age, not of women aged 15–49, on two accounts. For one thing, because the proportion of women in their first 5 years of marriage does not reflect age structure, women aged 24 and younger or 40 and older, a group among whom the proportion of newlyweds is

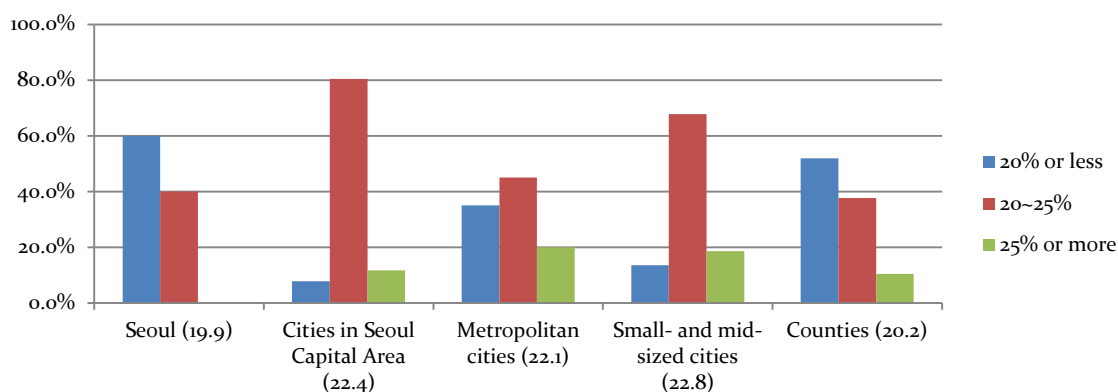
(30~34) account for the largest share (33.6 percent) of women married 5 years or less, while 8.9 percent were aged 24 and below or 40 and above.

[Figure 4] Age distribution of women married 5 years or less



The proportion of women married 5 years or less varied across different areas. Areas where these newly married women were highly sparsely populated were relatively densely distributed across Seoul, some metropolitan city districts, and non-urban regions (see Figure 5). In Seoul and in some parts of the metropolitan cities, where young people make up a relatively large percentage of the inhabitants, the low proportion of newly married women was attributable to the high proportion of unmarried women in their young female population. On the other hand, the many non-urban areas with a low proportion of newly married women had an age structure resembling a triangle with the vertex pointing downward.

[Figure 5] Distribution of women married for less than 5 years, by locality



Note: 1) Women of foreign nationality are excluded

2) Districts in Incheon City are counted as belonging to "Cities in Seoul Capital Area", and Sejong City to "Metropolitan cities"

3) Figures in the brackets are the mean values for women in their first 5 years of marriage

Source: Calculated by the authors based on Statistics Korea's data on newlyweds (2015)

Areas with a higher percentage of women married 5 years or less were new towns that had had a large inflow of population, urban settlements in regions where jobs were more readily available, or areas in which military camps were located, where the populations have a higher percentage of young people.

extremely small, may well distort the significance that the proportion of women in their first 5 years of marriage has on births. For another, in some countries with small populations, women in the group (aged 24 and younger or 40 and older) were so few that Statistics Korea prohibited the release of information regarding the number of these individuals.

New towns with large-scale housing development projects: Gangseo District (37.8 percent), Busan City; Gijang County (31.6 percent), Busan City; Sejong City (31.0 percent); Gwangju City (27.2 percent), Gyeonggi Province; Hwasung City (26.5 percent), Gyeonggi Province

Regional industrial centers: Geoje City (31.8 percent), South Gyeongsang Province; Dangjin City (29.7 percent), South Chungcheong Province; Dong District (28.6 percent), Ulsan City; Buk District (28.4 percent), Ulsan City; Asan City (26.5 percent), South Chungcheong Province; Seosan City (26.1 percent), South Chungcheong Province; Gwangyang City (26.4 percent), South Jeolla Province; Yangsan City (26.1 percent), South Gyeongsang Province

Areas with military bases: Hwacheon County (29.1 percent), Gangwon Province; Injae Country (27.6 percent), Gangwon Province; Yanggu Country (25.9 percent), Gangwon Province; Cheolwon Country (24.4 percent), Gangwon Province; and Yeonchun County (21.7 percent), Gyeonggi Province

Cities and districts in the Seoul Capital Area with a higher percentage of women (aged 25 to 39) in their first 5 years of marriage were those which, while not adjacent to Seoul City, of late had significant population inflows. In the City of Seoul itself, districts and areas where housing costs are relatively low had a higher proportion of women married 5 years or less.

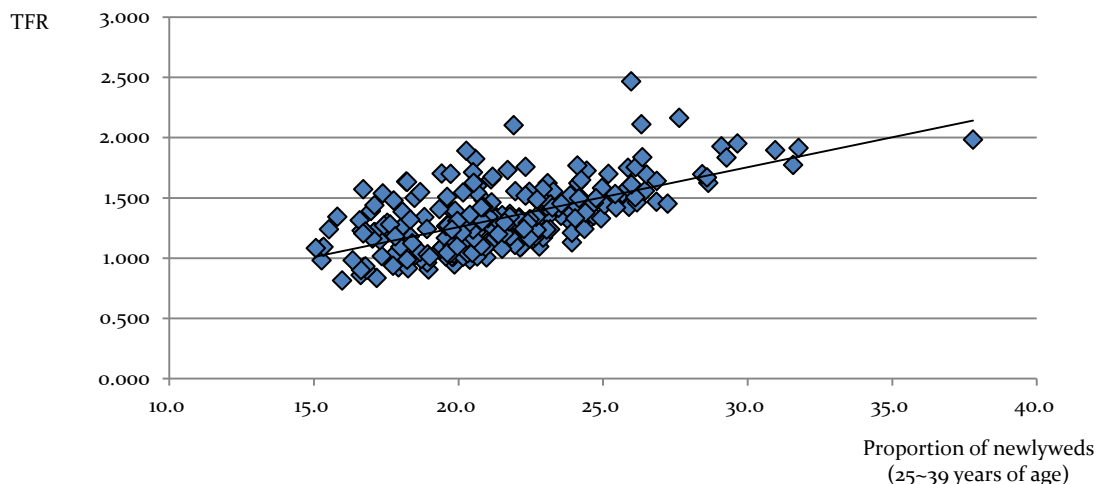
Cities and districts with in the Seoul Capital Area (but not in bordering Seoul) with recent population inflows: Gwang-ju City (27.2 percent); Young-tong District (26.8 percent), Suwon City; Hwasung City (26.5 percent); Gimpo City (26.2 percent); Paju City (25.1 percent).

Areas in Seoul with relatively low housing costs: Gang-seo District (23.9 percent); Guro District (22.9 percent); Seongdong District (22.8 percent); Nohwon District (22.2 percent); Yongdeongpo District (22.1 percent); Eunpyeong District (21.1 percent).

Fertility and the proportion of newlyweds

Areas with a higher percentage of newly married women aged 25 to 39 showed relatively high fertility rates, and the association between the two was found to be strong.

[Figure 6] Association of total fertility rates and % of couples married 5 years or less (nationwide), 2015



Source: Constructed by the authors based on Statistics Korea's data on newlyweds (2015) and population dynamics

To understand how much the proportion of newly married women was at play in

differentials in fertility across different areas, we compared the general total fertility rate and the standardized total fertility rate². The result of the comparison was that although there was not much difference between the mean values of the two types of total fertility rate, the coefficient of variation, which measures the dispersion of local fertility rates relative to the mean value, was 20.7 percent lower for the standardized total fertility rate than for the general total fertility rate. Also noteworthy was that the coefficient of variation declined by 60.8 percent for the Seoul Capital Area, suggesting that more than half of the fertility differentials in the capital city and its satellite cities were accounted for by differences in the proportion of women in their first 5 years of marriage.

[Table 1] Distribution of fertility before and after the standardization of the proportion of women married 5 years or less

	General total fertility rates		Standardized fertility rates	
	Mean	Density (b)	Mean	Density
National (a)	1.332	0.198	1.323	0.157
Seoul Capital Area	1.177	0.153	1.197	0.060
Cities and districts	1.271	0.180	1.252	0.131
Counties	1.473	0.194	1.485	0.140

Note: (a) The mean value for cities, counties, and districts across the countries

(b) The ratio of the standard deviation to the mean

Source: Calculated by the authors based on Statistics Korea's data on newlyweds (2015) and population dynamics

[Table 2] Fertility rates before and after the standardization of the proportion of women married 5 year or less

	General total fertility rate		Adjusted total fertility rate	
Top Ten Areas				
1	Haenam County, South Jeolla Province	(3)	Jecheon City, North Chungcheong Province	(129)
2	Inje County, Gangwon Province	(28)	Sangdang District, Cheongju City, North Chungcheong Province	(111)
3	Yeong-am Country, South Jeolla Province	(12)	Haenam Country, South Jeolla Province	(1)
4	Jangseong County, South Jeolla Province	(4)	Jangseong County, South Jeolla Province	(4)
5	Gangseo District, Busan	(84)	Sancheong County, South Gyeongsang Province	(10)
6	Dangjin City, South Chungcheong Province	(55)	Jinan County, North Jeolla County	(13)
7	Hwacheon County, Gangwon Province	(56)	Boseong County, South Jeolla Province	(22)
8	Geoje City, South Gyeongsang Province	(83)	Imsil Country, North Jeolla Province	(32)
9	Sejong City	(57)	Hampyeong County, South Jeolla Province	(33)
10	Sancheong Country, South Gyeongsang Province	(5)	Gurye Country, South Jeolla Province	(43)

Note: Numbers in the brackets are ranks after standardization

Source: Calculated by the authors based on Statistics Korea's data on newlyweds (2015) and population dynamics

The change in the ranking of local fertility rates was markedly significant after the

² The standardized fertility rate here is calculated by converting different populations into a common standard. To calculate this hypothetical total fertility rate, we measured the age-specific (5-year interval) birth rate of those in their first 5 years marriage and that of the rest in women aged 20~49 in each of the areas examined in this study. Then we adjusted these figures to the national population of those in their first 5 years of marriage and to that of the rest, respectively, in women aged 20~49, and added them to calculate the standardized total fertility rate.

standardization of the fertility rates. For example, Sejong City, which was 9th on the 2015 list of total fertility rates, dropped down to 57th after the standardization. Conversely, Jecheon City (North Chungcheong Province) ascended to the very top of the list from its pre-standardization ranking of 129th. There were a total of 15 cities, counties or districts that moved up or down more than 100 ranks, including: Cheongwon District (223 ranks down) in Cheongju City, North ChungCheong Province; Cheongdo County (172 ranks up) in North Gyeongsang Province; and Heungdeok District (164 ranks down) in Cheongju City, North Chungcheong Province. This suggests the proportion of women in their first 5 years of marriage is a factor of considerable influence on local fertility rates.

Concluding remarks and implications

A significant percentage of births in Korea are to women in their first 5 years of marriage. This is to say that what percentage these newly married women take up of the population of women of childbearing age in a given area is a pivotal element in determining the fertility level there. Another way of saying this is that local fertility rates are not a direct reflection of the total fertility rate, as they get affected to a significant extent by the demographic structure of the locality. The distribution of newly married couples is greatly affected by such local structural factors as employment prospects and housing supply—conditional factors that are beyond the control of local policy authorities.

In analyzing local fertility rates, therefore, their demographic and geographical contexts should be taken into account. A simple enumeration of local total fertility rates, as is the case, for example, with “fertility maps,” may distort the understanding of the actual fertility levels across the country. The tendency of seeing the total fertility rates of localities as the effect of local government policies is likewise problematic, for much of the drive that attracts newlyweds, whether it be new town housing development or an economic environment that allows strong employment opportunities, is traceable rather to structural conditions that are beyond the scope of local government policies.

Local governments’ pro-natal policies should be able to do more than simply provide support and services for childbirth and childrearing. They need to incorporate a more holistic approach that considers housing, employment, regional development, and population flow.