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# Changing internal migration flows patterns in South Korea

Guy J. Abel<sup>a,b</sup> and Nayoung Heo<sup>a</sup> 

## ABSTRACT

In comparison with other developed nations, there is a relative lack of analyses on internal migration flow in South Korea. During the last 50 years, the country has witnessed distinct changes in both the levels and patterns of internal migration. Traditionally, the faster developing north-west administrative units (Seoul, Incheon and Gyeonggi regions) have accounted for the majority of in-migration. However, since 2011, internal migration in Korea has become more diffuse, with migrants moving to a greater variety of regions. We visualize these changes using chord diagram plots.

## ARTICLE HISTORY

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## KEYWORDS

Internal migration; migration flows; South Korea; visualization; chord diagram

In comparison with other developed nations there is a relative lack of analyses on internal migration flow in South Korea (hereafter Korea). During the last 50 years, the country has witnessed distinct changes in both the levels and patterns of internal migration. Traditionally, the faster developing north-west administrative units (Seoul, Incheon and Gyeonggi regions) account for the majority of in-migration. However, since 2011, internal migration in Korea has become more diffuse, with migrants moving to a greater variety of regions (KOSIS, 2017a). We visualize these changes using chord diagram plots.

Figure 1 presents internal migration flows in 2016 between the level one administrative units of Korea. The plot was created in R using *circulize* (Gu, Gu, Eils, Schlesner, & Brors, 2014) and data from the 2016 Korean vital statistics on annual migration flows between 17 *sis* and *dos* (administrative units) (KOSIS, 2017b). Migration flows were defined by changes in residence recorded in the Korean population register. The outer sectors of the circle represent the 17 administrative units. Distinct colour palettes are used for units in the same region (e.g., lighter blues for the three units in the north-west region), with larger gaps separating units in different regions. The chords connecting the outer sectors represent the migration flows, with the direction of movements indicated by arrow heads towards the destination. The size of the chord at its base is scaled to the size of the reported migration flow in thousands. For each region, the chords for the out-migration are plotted first (reading from left to right) followed by the in-migration, with chords ordered by the size of the relative migration flow (from largest to smallest).

## CONTACT

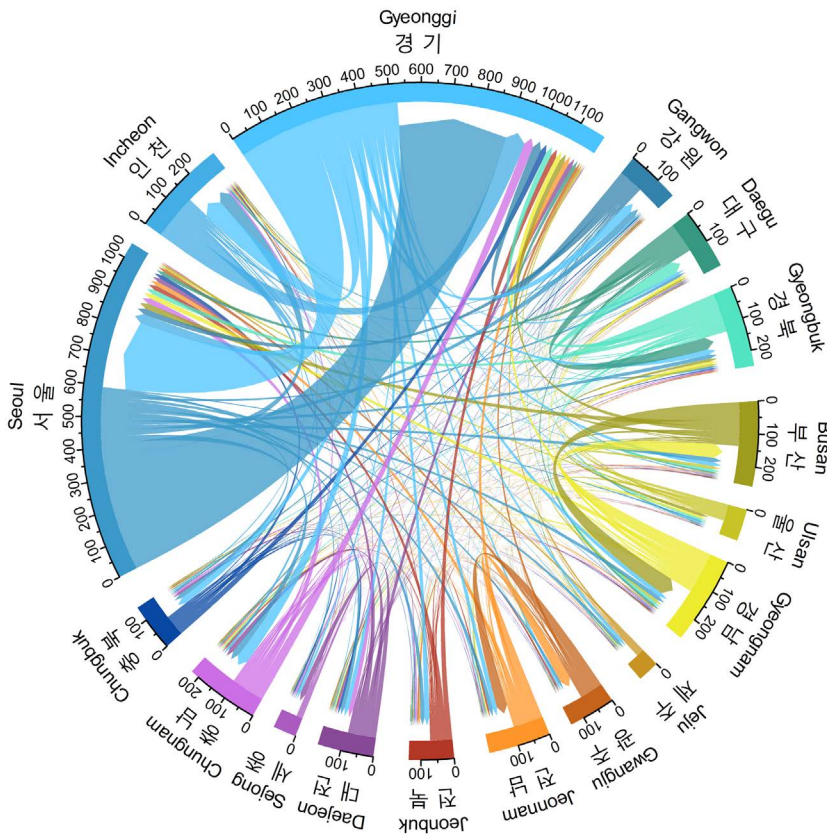
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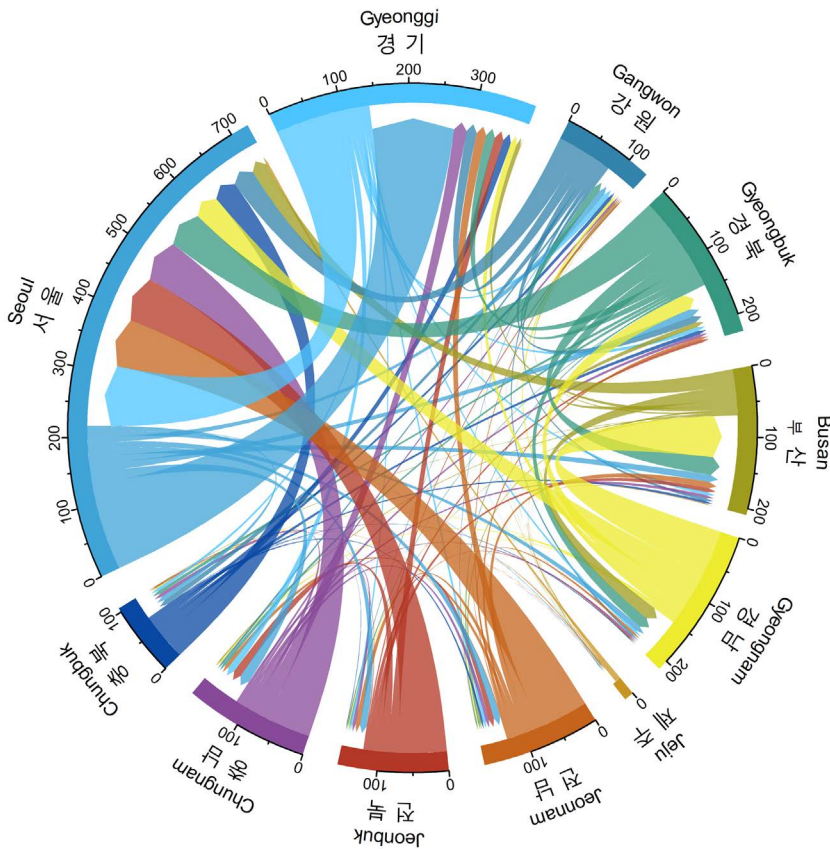
**Figure 1.** Internal migration flows in South Korea, 2016 (thousands).

The largest migration flow corridors during 2016 involved moves between Seoul and Gyeonggi. More than 370,000 people moved from Seoul to Gyeonggi, while more than 230,000 migrated in the opposite direction. In total, Seoul recorded negative net migration (more out- than in-migrants) during the year, a continuation of a phenomenon that began in 2006 (KOSIS, 2017b). Elsewhere, migration flows between units in the same or contiguous areas tended to be greater in size than moves between relatively distant regions that pass through the centre of the plot. Finally, metropolitan cities such as Daejeon, Daegu, Busan, Ulsan and Gwangju all have negative net migration, while the province-level regions Gyeonggi, Chungbuk, Chungnam, Gyeongnam and Jeju have positive net migration.

In order to illustrate the development of migration flows over time, we have produced an animated gif (available in the supplemental data online) of directional chord diagrams for the annual internal migration flows between 1970 and 2016. Figure 2 illustrates the internal migration during 1970 using the same colour palettes as in Figure 1. Note that in the 1970 data there are fewer (11) administrative units. Seoul was by far the most attractive destination of internal migrants, with over 500,000 arriving during the year. Busan and Gyeonggi were the only other regions, besides Seoul, to gain migrants during 1970.

## DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.



**Figure 2.** Internal migration flows in South Korea, 1970 (thousands).

## SUPPLEMENTAL DATA

Supplemental data for this article can be accessed at <https://doi.org/10.1080/21681376.2018.1431149>

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## REFERENCES

- Gu, Z., Gu, L., Eils, R., Schlesner, M., & Brors, B. (2014). Circlize implements and enhances circular visualization in R. *Bioinformatics*, 30(19), 2811–2812.
- KOSIS. (2017a). Domestic population movement (국내 인구 이동). Retrieved January 3, 2018, from <http://www.index.go.kr/main.do>
- KOSIS. (2017b). Internal migration statistics. Retrieved December 19, 2017, from [http://kosis.kr/statisticsList/statisticsListIndex.do?menuId=M\\_01\\_01&vwcd=MT\\_ZTITLE&parmTabId=M\\_01\\_01&statId=1976003&themald=A#SelectStatsBoxDiv](http://kosis.kr/statisticsList/statisticsListIndex.do?menuId=M_01_01&vwcd=MT_ZTITLE&parmTabId=M_01_01&statId=1976003&themald=A#SelectStatsBoxDiv)