Variation in Migration Flows by Duration Intervals

Migration data are often collected at a fixed interval, such as place of residence one year ago. However, migration data users often require measures at different temporal scales that might not be available, such as the place of residence five years ago. Simple conversions of migration measures to shorter or longer values through simple scaling proportional to the length of the duration period used in the migration definition are known to be insufficient. Our research explores which factors related to the region of origin, destination, and migration corridors impact the measure of flow counts over varying duration intervals. We use data from IPUMS International to compare internal origin-destination migration data from multiple intervals across many countries and years. We find that the relationship between the volume of migration flows and the duration interval used in defining migration is non-linear. Multiple factors are related to this variation, for example, longer-distance migration flows decrease at longer duration intervals. To address the practical need for migration data at varying intervals, we develop a predictive model to estimate migration flows for intervals not directly measured, providing an empirical-driven solution to the one-year, five-year migration problem.