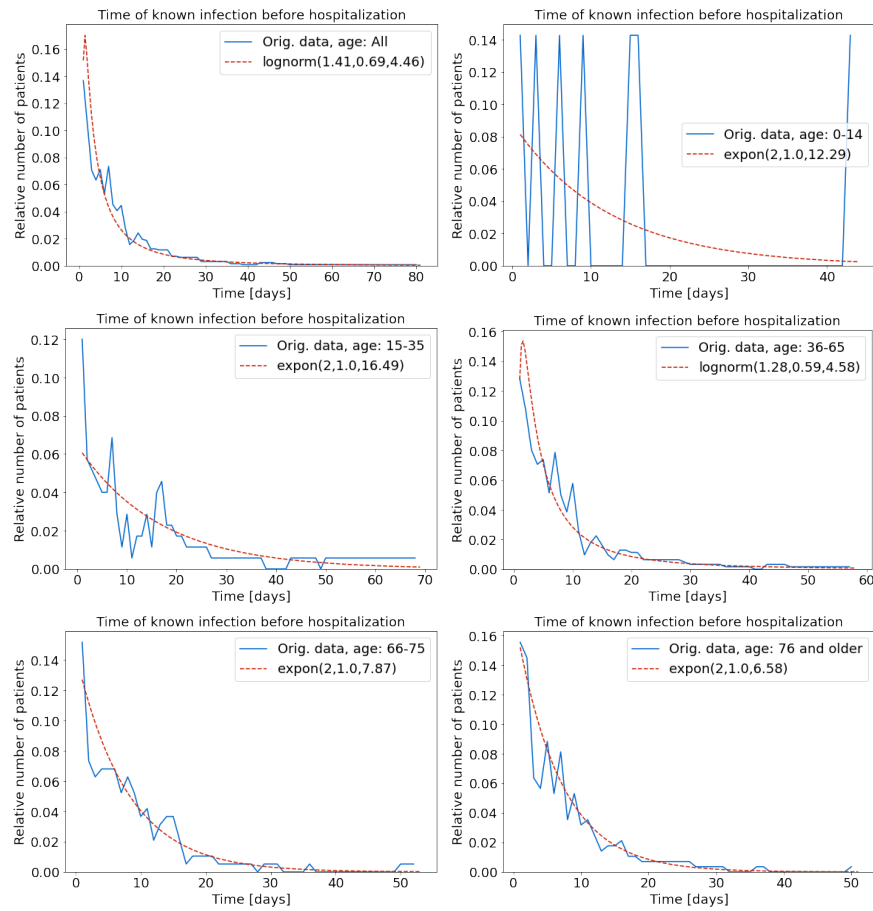**Supplementary Material**

Figure 1: **Age-specific time of known infection before admission to hospital.** Best fit by either *lognormal distribution* or *exponential distribution* with given parameters. Graphs derived from LEOSS [1].
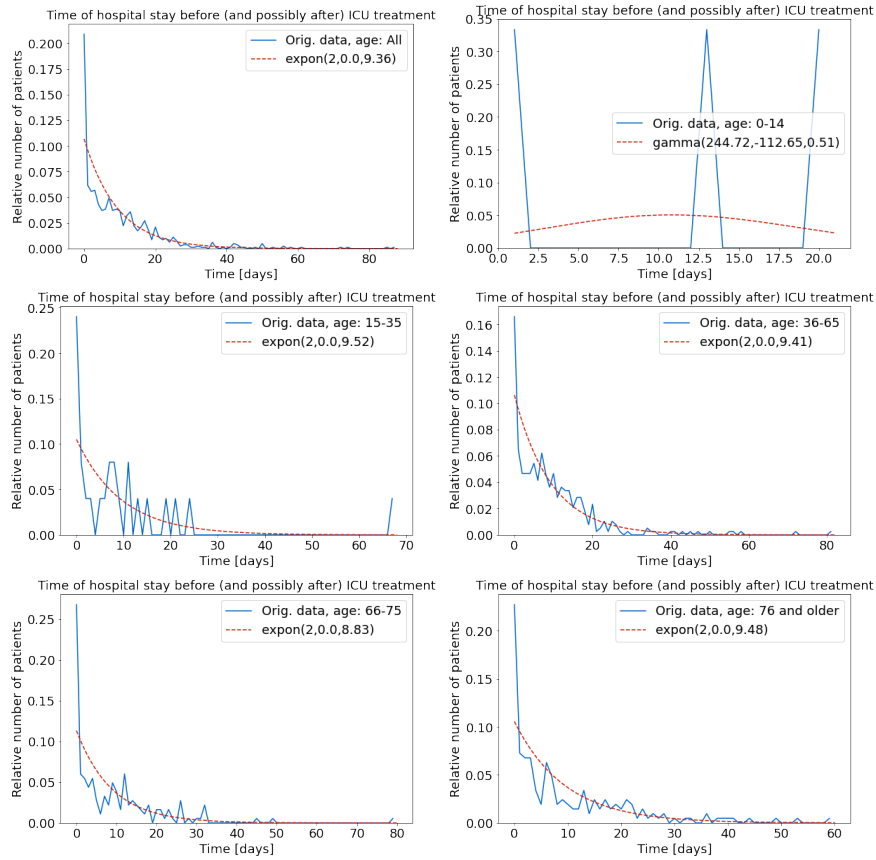
Figure 2: **Age-specific time of hospitalization for patients needing intensive care.** Best fit by *exponential distribution* with given parameters, for age group 0-14 years, gamma distribution was chosen but clearly lacking more data. It is however not clear how many days patients spent in hospital *before* and possibly *after* intensive care if eventually recovering from hospital. Graphs derived from LEOSS [1].
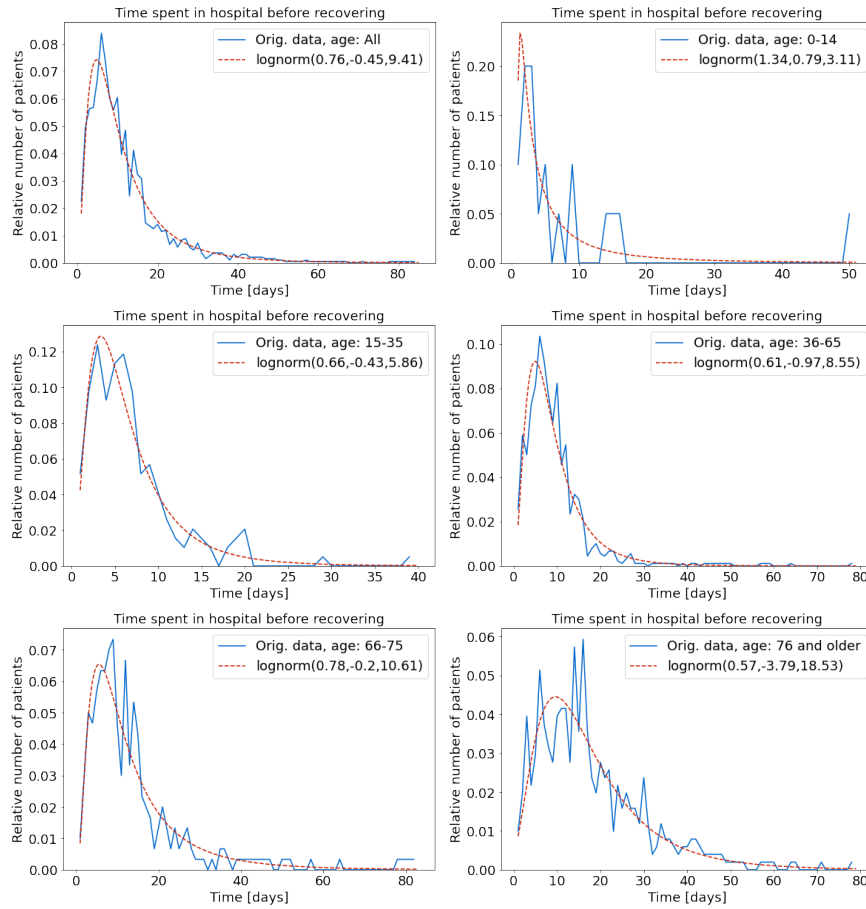
Figure 3: **Age-specific time of hospitalization for patients not needing intensive care.** Best fit by *lognormal distribution* with given parameters. Graphs derived from LEOSS [1].
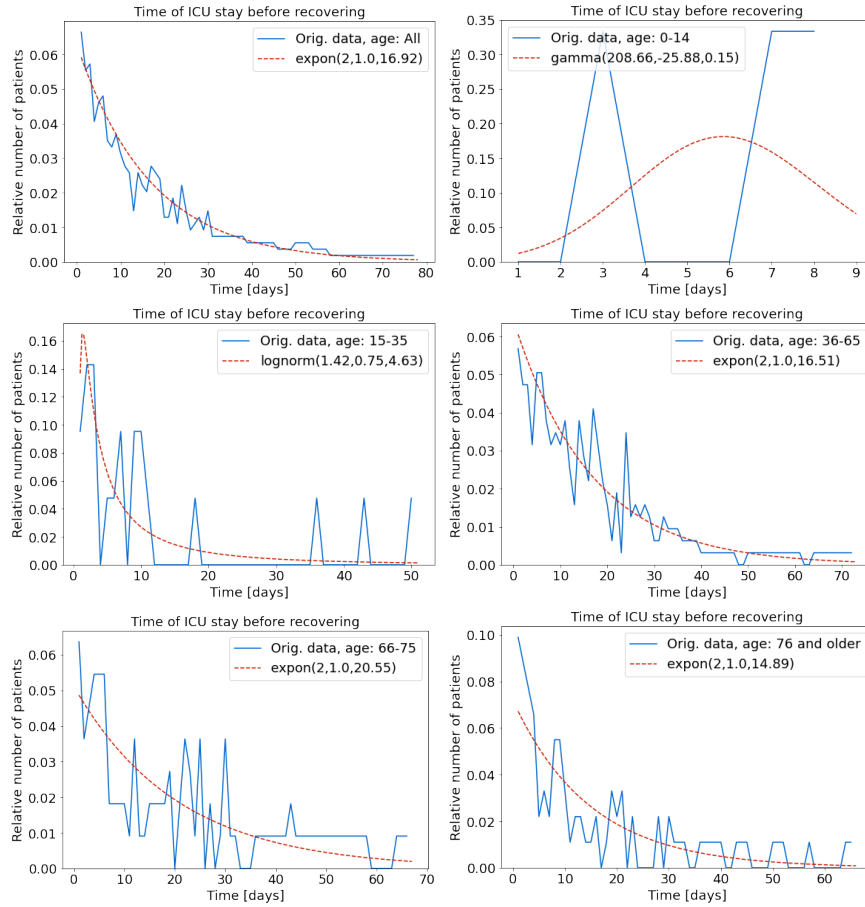
Figure 4: **Age-specific time of intensive care before recovering.** Best fit by either *lognormal distribution* or *exponential distribution* with given parameters. For age group 0-14 years, gamma distribution was chosen but clearly lacking more data. Graphs derived from LEOSS [1].
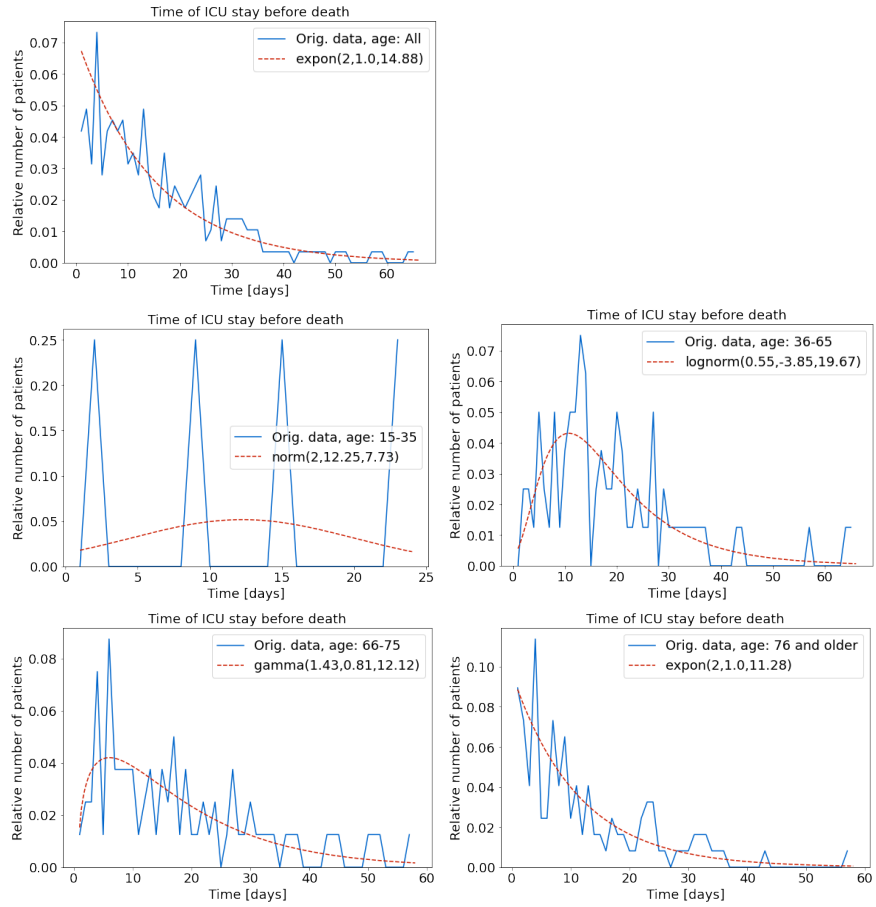
Figure 5: **Age-specific time of intensive care before eventually dying.** Best fit by either *exponential distribution*, *lognormal distribution* or *gamma distribution* with given parameters. For age group 0-14 years, no data is available, for age group 15-35, normal distribution was chosen but clearly lacking more data. Graphs derived from LEOSS [1].
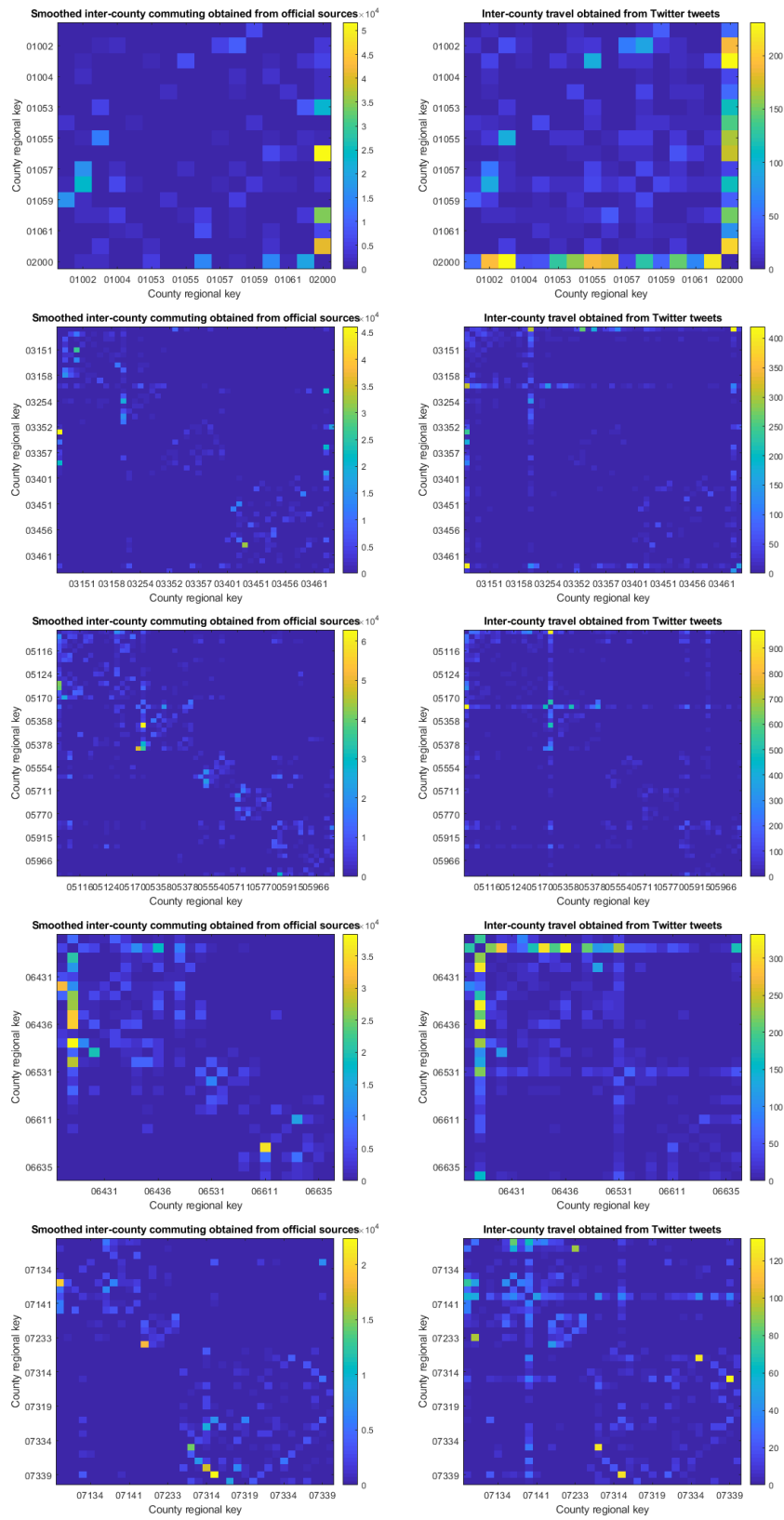
Figure 6: **Mobility for counties of different federal states and subgroups of federal states: Schleswig-Holstein to Rhineland-Palatinate.** Mobility from [2] smoothed for long-distance commuting (left) and obtained from geo-referenced tweets (right).
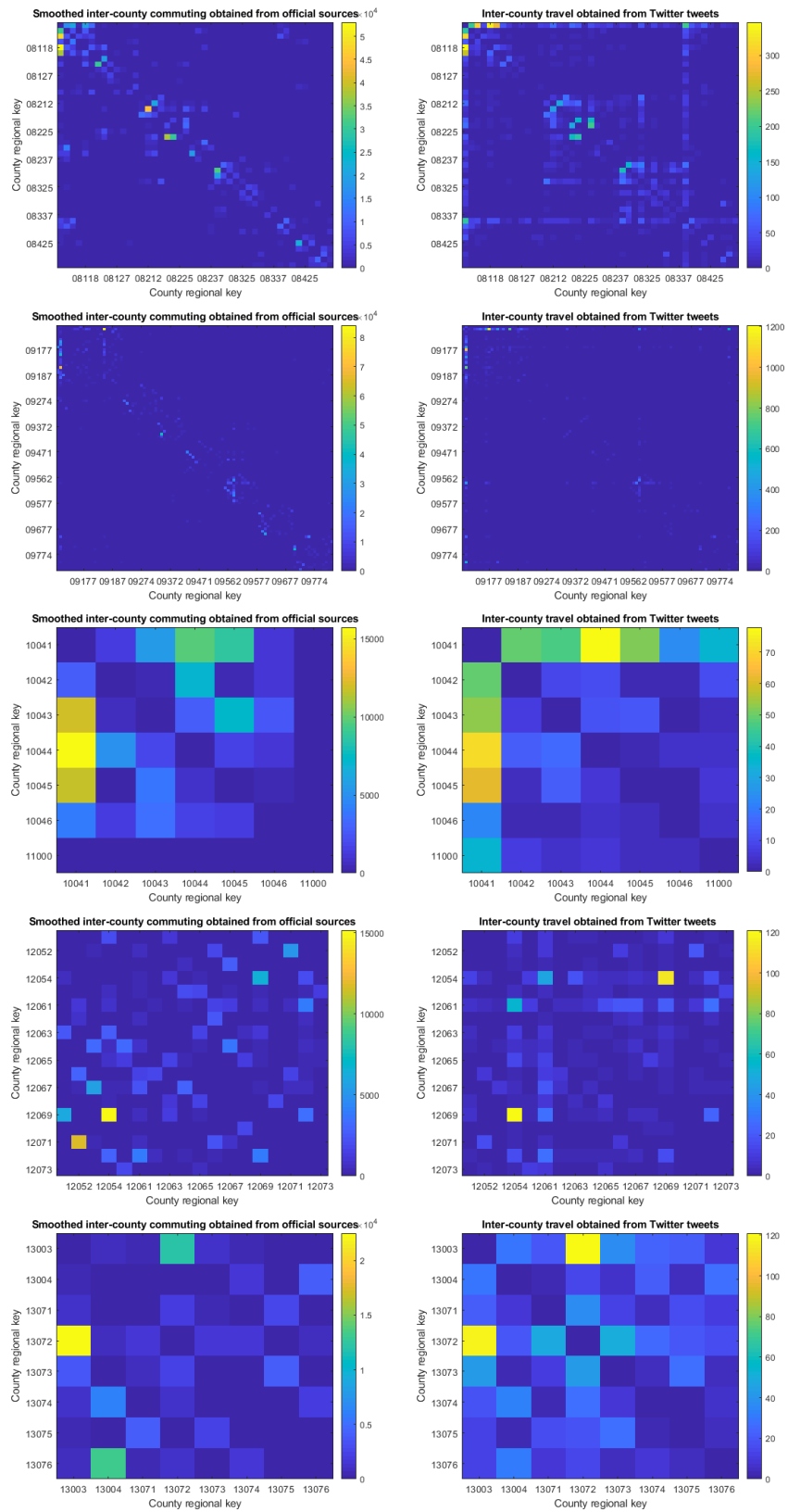
Figure 7: **Mobility for counties of different federal states and subgroups of federal states: Baden-Württemberg to Mecklenburg-West Pomerania.** Mobility from [2] smoothed for long-distance commuting (left) and obtained from geo-referenced tweets (right).
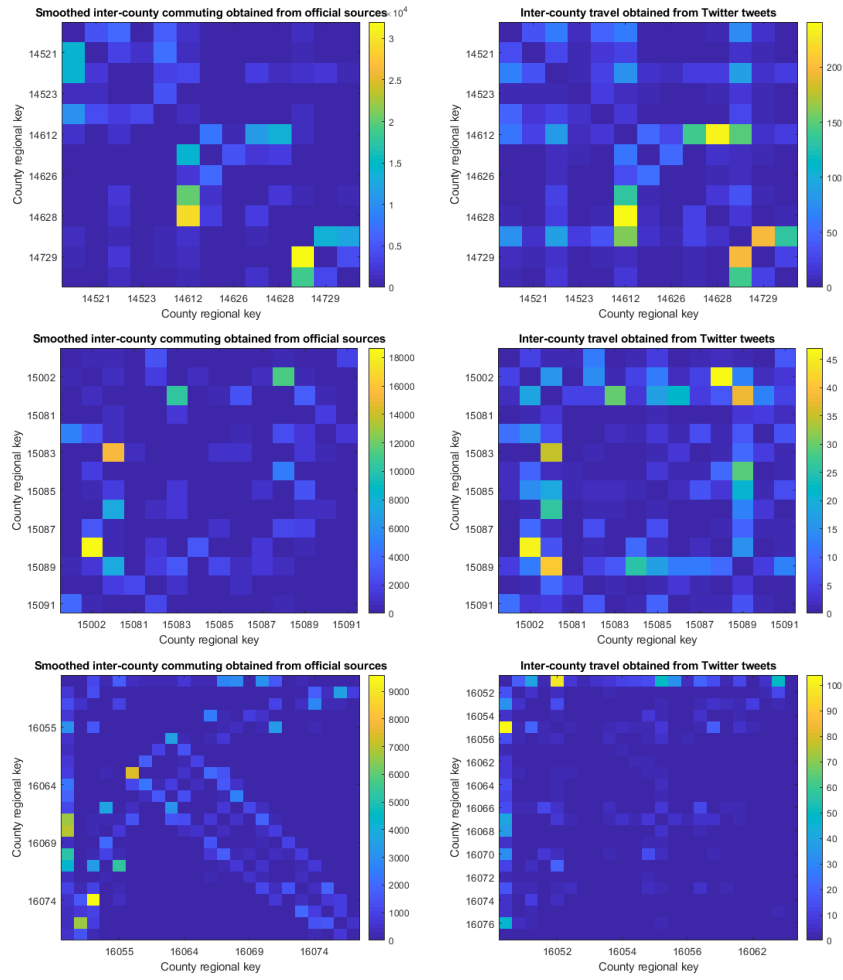
Figure 8: **Mobility for counties of different federal states and subgroups of federal states: Saxony to Thuringia.** Mobility from [2] smoothed for long-distance commuting (left) and obtained from geo-referenced tweets (right).

References

[1] LEOSS, Lean open survey on SARS-CoV-2 infected patients, 2020. URL: `https://leoss.net/`.

[2] H. Bonin, W. Eichhorst, J. Kaczynska, et al., Verbreitung und Auswirkungen von mobiler Arbeit und Homeoffice, 2020. URL: `https://www.bmas.de/DE/Service/Medien/Publikationen/Forschungsberichte/fb-549-verbreitung-auswirkungen-mobiles-arbeiten.html`.