

Preferred citation style

Axhausen, K.W. (2021) Response rates of longer duration studies, *Subcommittee meeting „Household travel surveys EAB25 (1) “*, TU TRB, zoom, January 2021.

Response rates of longer duration studies

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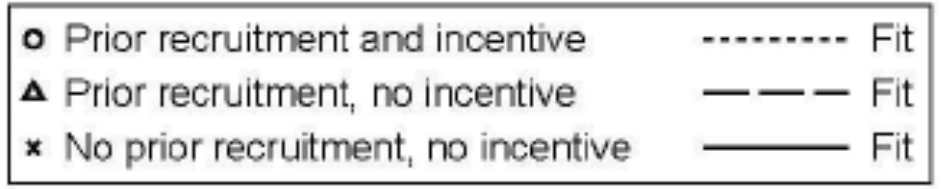
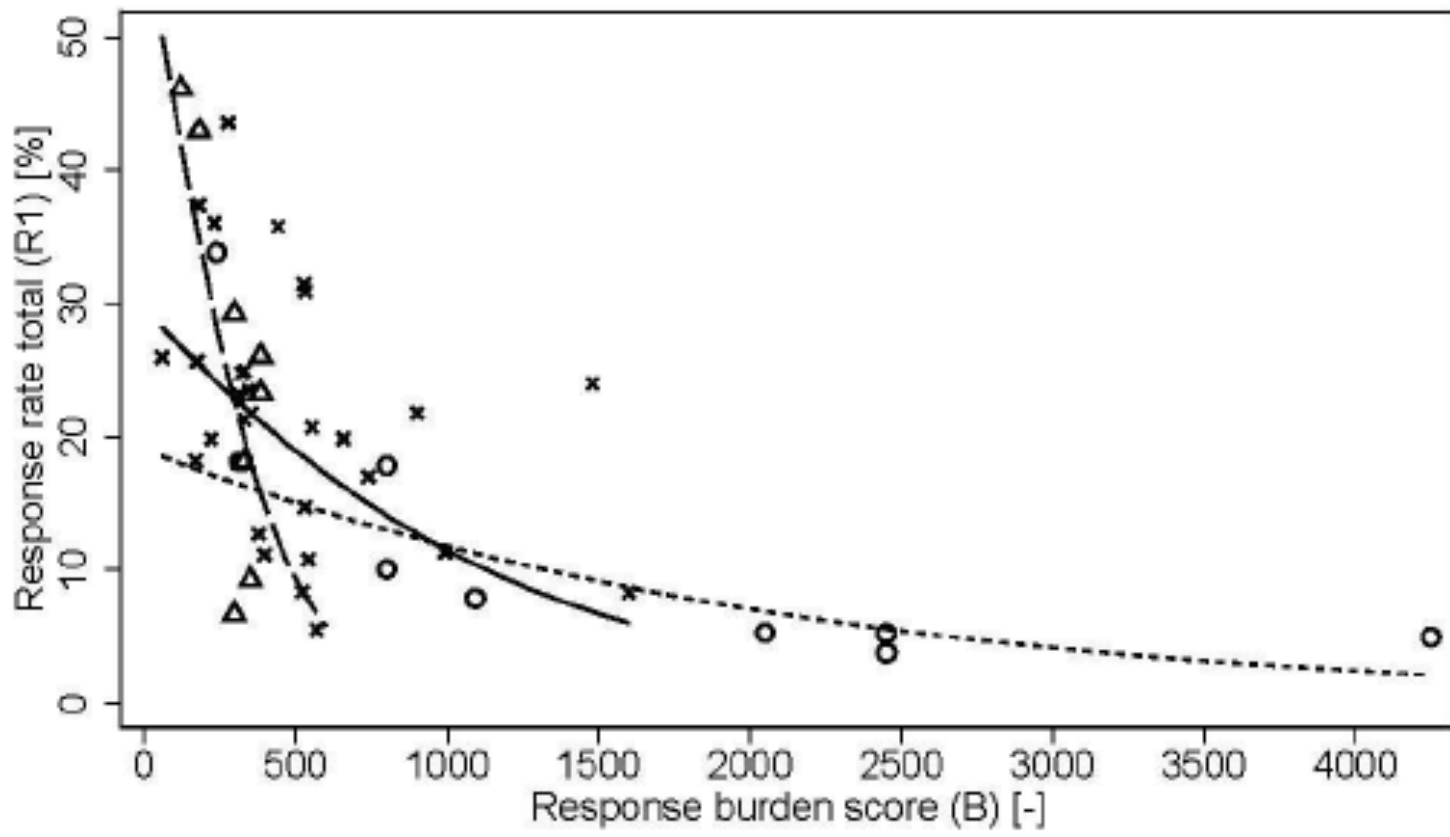
January 2021

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Response rate R1 – IVT surveys



Source: Schmid and Axhausen, 2019

Rates

| Project name | MOBIS | SPOT | IN-THE-MOMENT | ATLAS | AKTA | Cincinnati | Atlanta | Reno | Tel Aviv HTS |
|------------------------|-------------|---------|---------------|--------|-----------|------------|---------|------------|--------------|
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Tracker | MotionTag | MEILI | rMove | SITSS | Device | Device | Device | Device/App | App |
| Country | Switzerland | Sweden | USA | NZ | Denmark | USA | USA | USA | Israel |
| Year | 2019 | 2015 | 2015 | 2014 | 2001-2003 | 2010 | 2011 | 2015-2016 | 2016-2017 |
| Tracking days | 56 | 7 | 7 | 3 | 112 | 3 | 7 | 7 | 2 |
| Min. incentive (USD) | \$100 | | \$25 | | variable | \$25 | \$25 | \$25 | |
| Validation/annotation | Optional | Yes | Yes | yes | no | yes | yes | yes | yes |
| Invited persons (N) | 90,909 | 130,000 | 1,427 | 186 | 25,000 | 11,118 | 16,374 | 25,817 | 67,199 |
| Intro survey (N) | 21,571 | | | | | | | | |
| % of invited | 23.73% | | | | | | | | |
| Qualified (N) | 6895 | 1159 | 478 | | | | | | 38,500 |
| % of invited | 7.58% | 0.89% | 33.50% | | | | | | 57.29% |
| % of intro completed | 31.96% | | | | | | | | |
| Registered (N) | 5375 | 495 | 295 | 77 | 500 | 4656 | 1938 | 602 | 27,415 |
| % of invited | 5.91% | 0.38% | 20.67% | 41.40% | | | 11.84% | | 40.80% |
| % of qualified | 77.96% | 42.71% | 61.72% | | | | | | 71.21% |
| Started tracking (N) | 4218 | 293 | 295 | 73 | 500 | 4656 | | 602 | 25,201 |
| % of invited | 4.64% | 0.23% | 20.67% | 39.25% | 2.00% | 41.88% | | | 37.50% |
| % of qualified | 61.17% | 25.28% | 61.72% | | | | | | 65.46% |
| Completed tracking (N) | 3690 | 51 | 240 | 65 | 500 | 3849 | 1061 | 312 | 23,240 |
| % of invited | 4.06% | 0.04% | 16.82% | 34.95% | 2.00% | 34.62% | 6.48% | 1.21% | 34.58% |
| % of qualified | 53.52% | 4.40% | 50.21% | | | | | | 60.36% |
| % of registered | 68.65% | 10.30% | 81.36% | 84.42% | 100.00% | 82.67% | 54.75% | 51.83% | 84.77% |

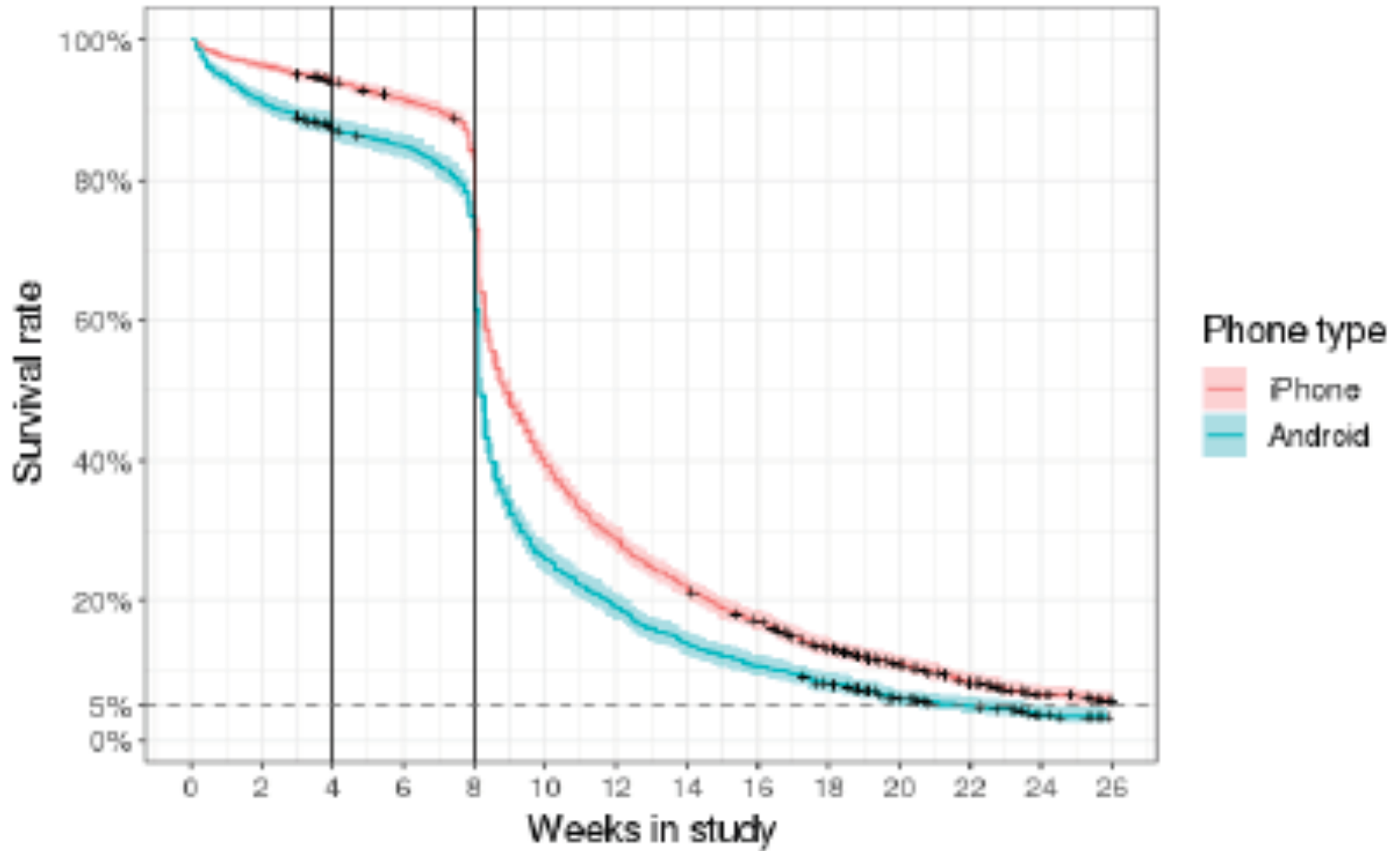
1. Allström, Kristoffersson, and Susilo (2017), 2. Greene et al. (2012), 3. Safi et al. (2015), 4. Nielsen (2004),

5. Wargelin, Stopher, et al. (2012), 6. Livingston (2011), 7. Stopher, Daigler, and Griffith (2018), 8. Nahmias-Biran et al. (2018)

Example: 2019 MOBIS – 100 sFr incentive for 8 weeks

| Stage | Number | Share [%] |
|------------------------|--------|-----------|
| Invited | 90'900 | 100 |
| Intro/screening survey | 21'600 | 24 |
| Qualified | 6'900 | 8 |
| Registered | 5'400 | 6 |
| Started | 4'200 | 5 |
| Completed | 3'700 | 4 |

Example: 2019 MOBIS – MOBIS/COVID19



Appendix: MOBIS-COVID19 in 2020

MOBIS COVID19 sample

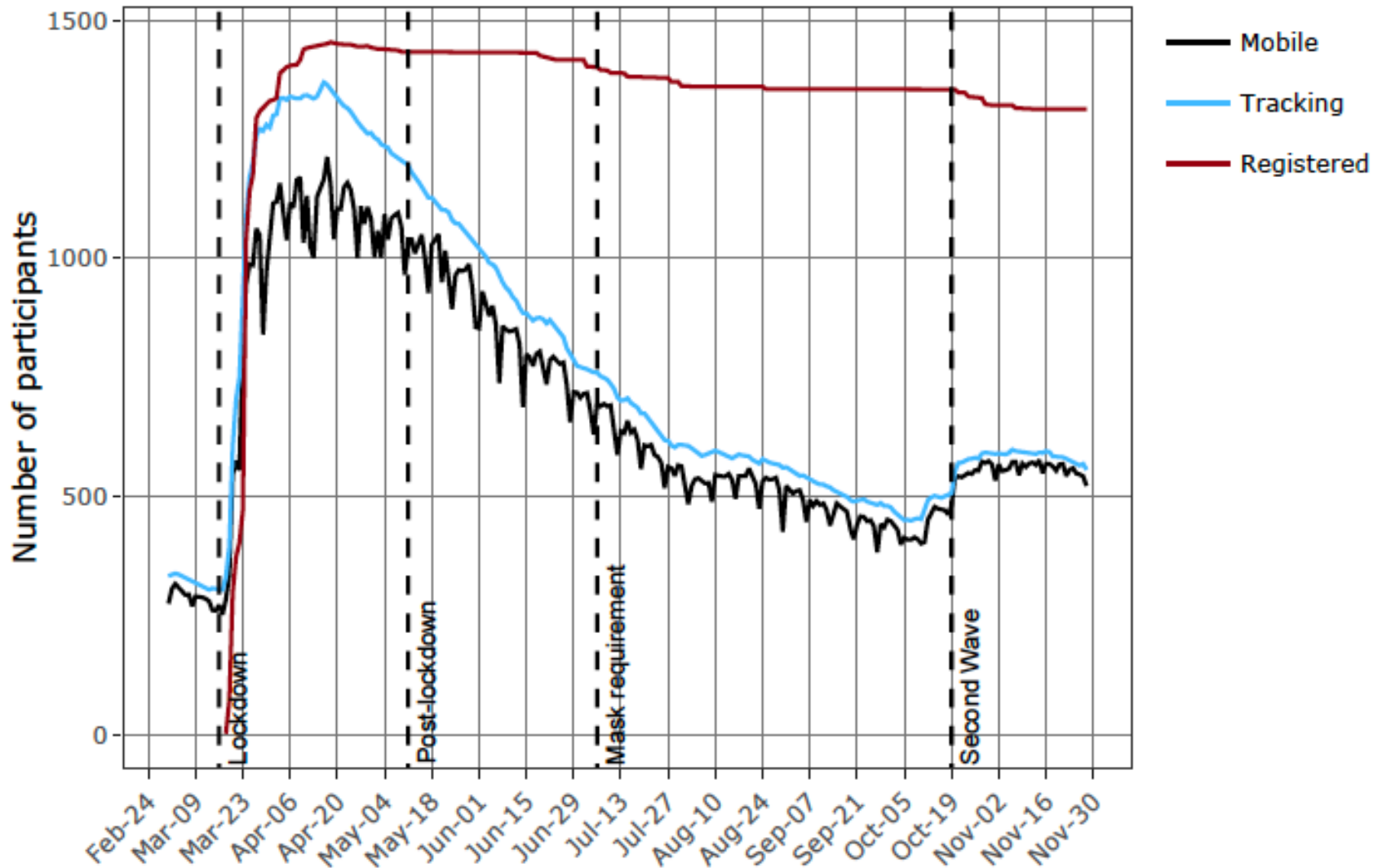
MOBIS/COVID19 sample

- 1300+ started to track again after our invitation
- No incentives; just volunteers

- 3 short surveys addressing work and work location, deliveries, and health

- Second invite for the second wave
- Further recruitment of new participants with LINK

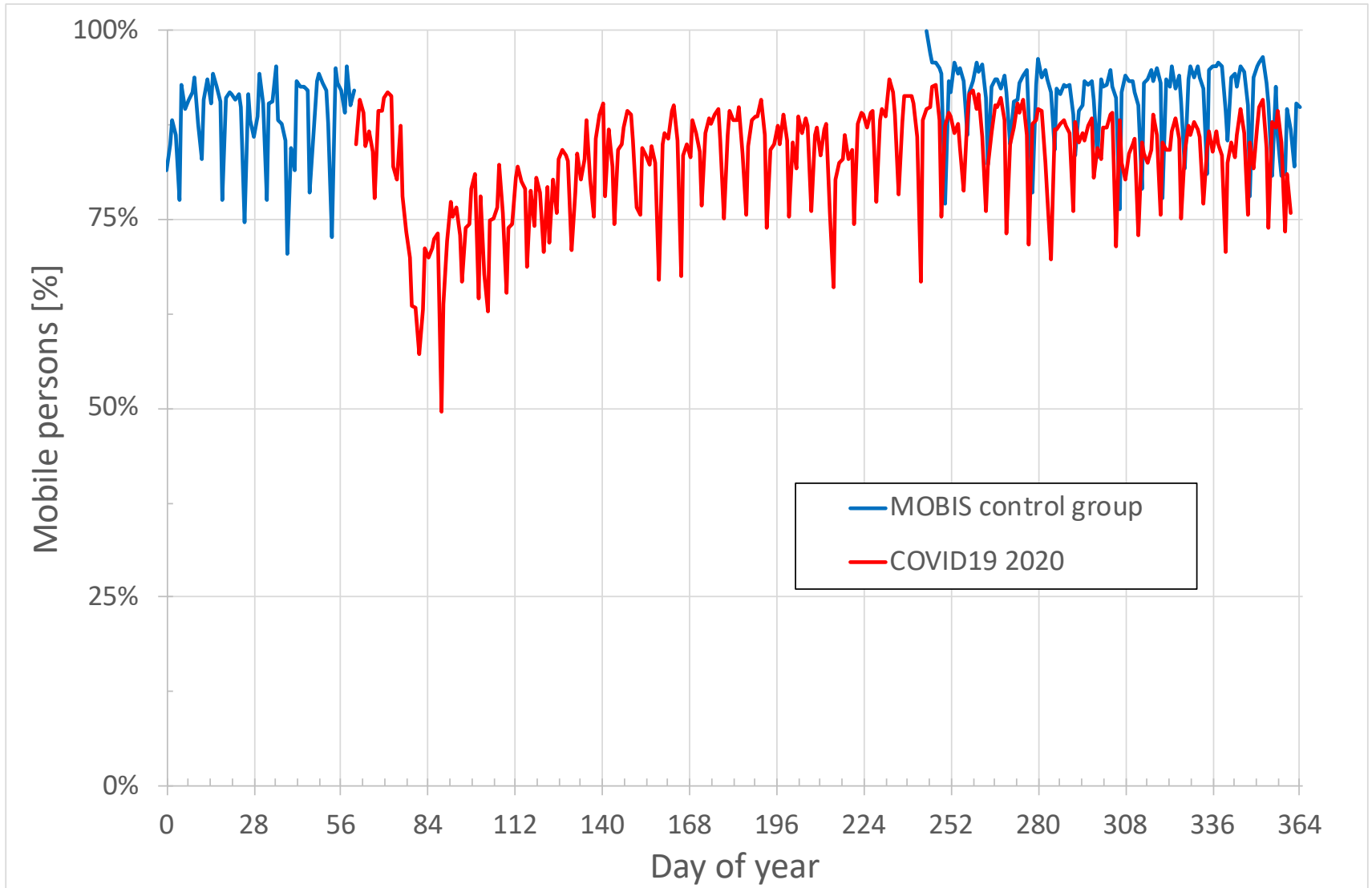
MOBIS/COVID19 sample since March 2020



Source: Molloy et al., 2021

MOBIS/COVID19: Out-of-home share

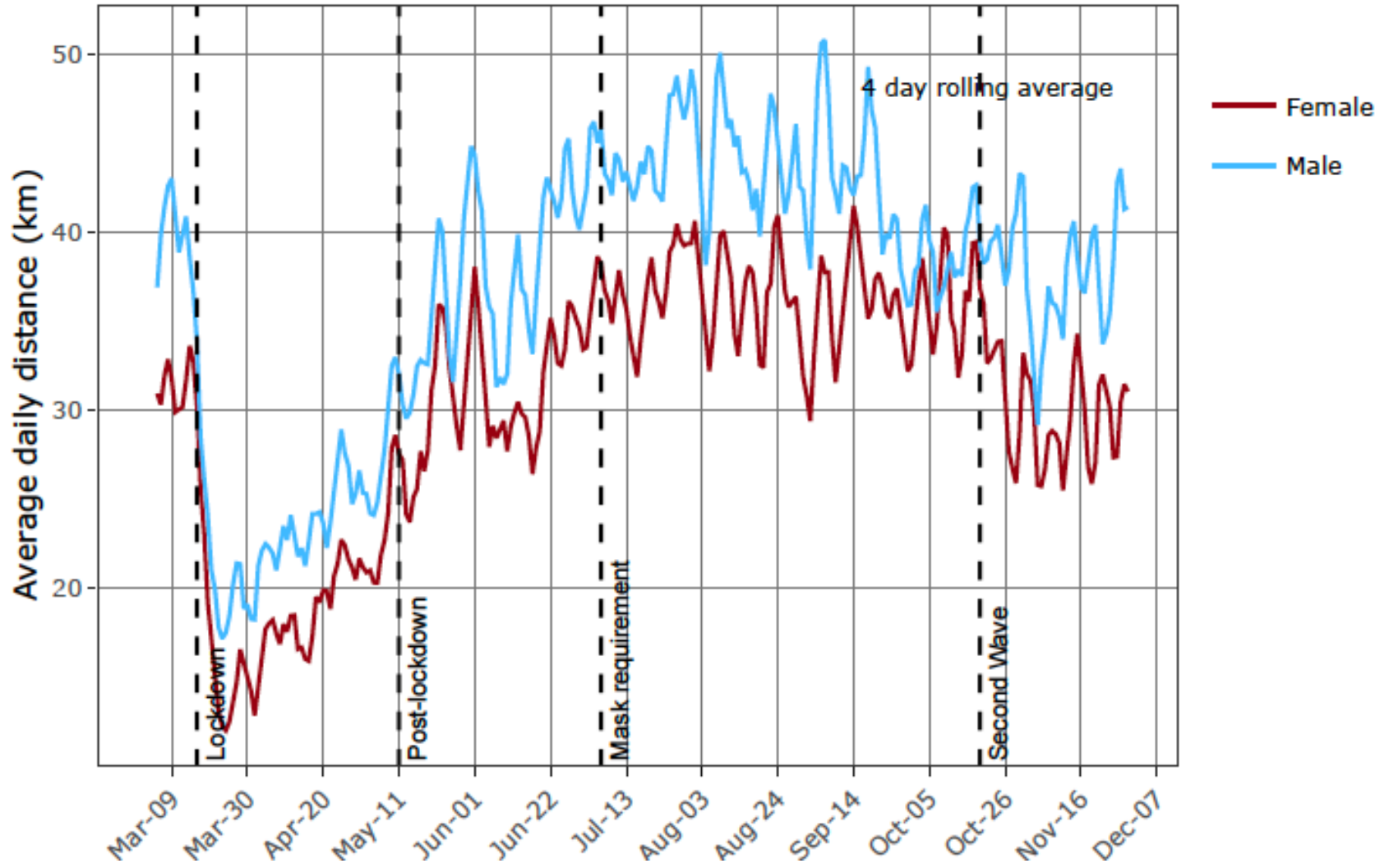
Mobile person by day



Data: Molloy et al., 2021

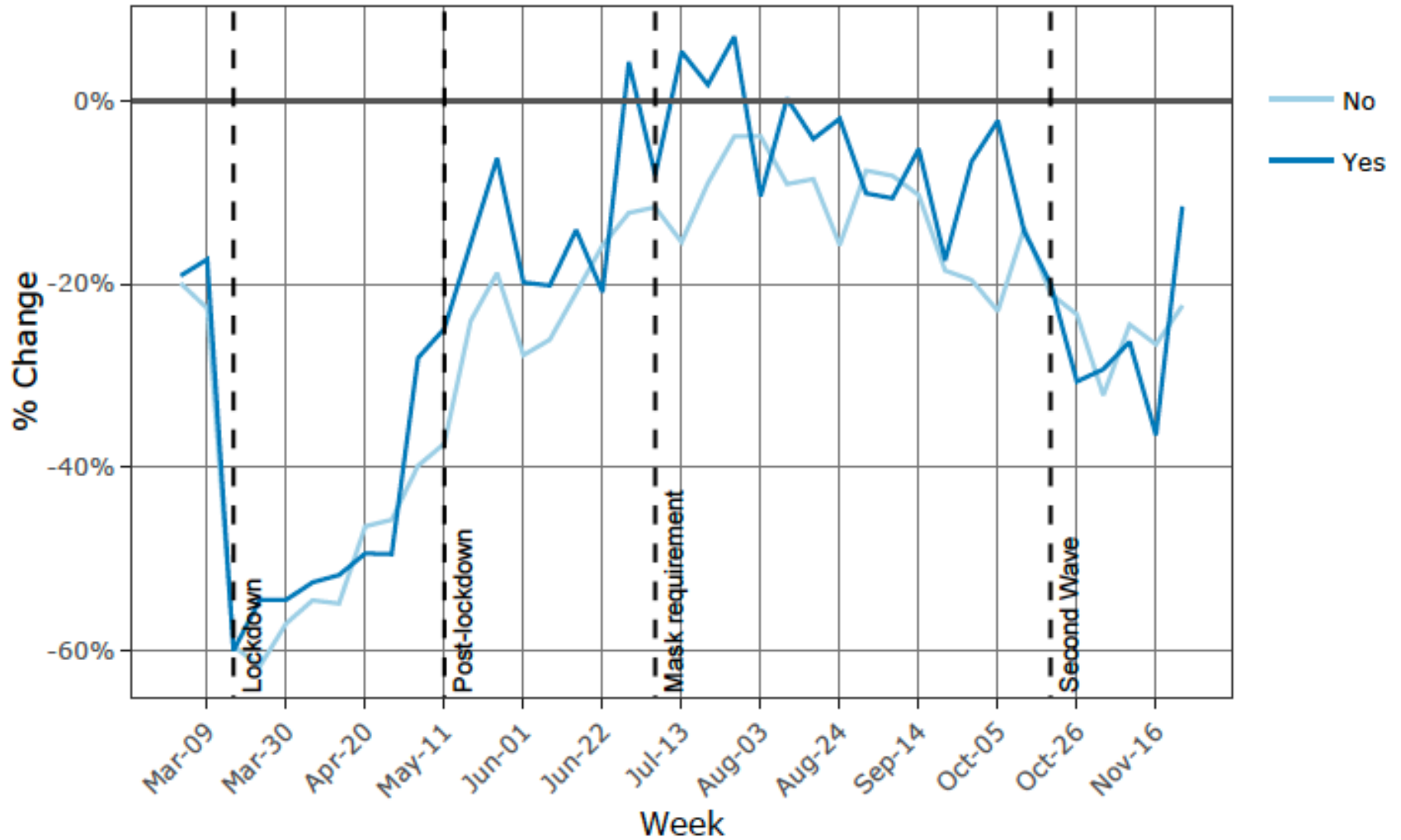
MOBIS/COVID19: PKm, trips and activity spaces

PKm by sex



Source: Molloy et al., 2021

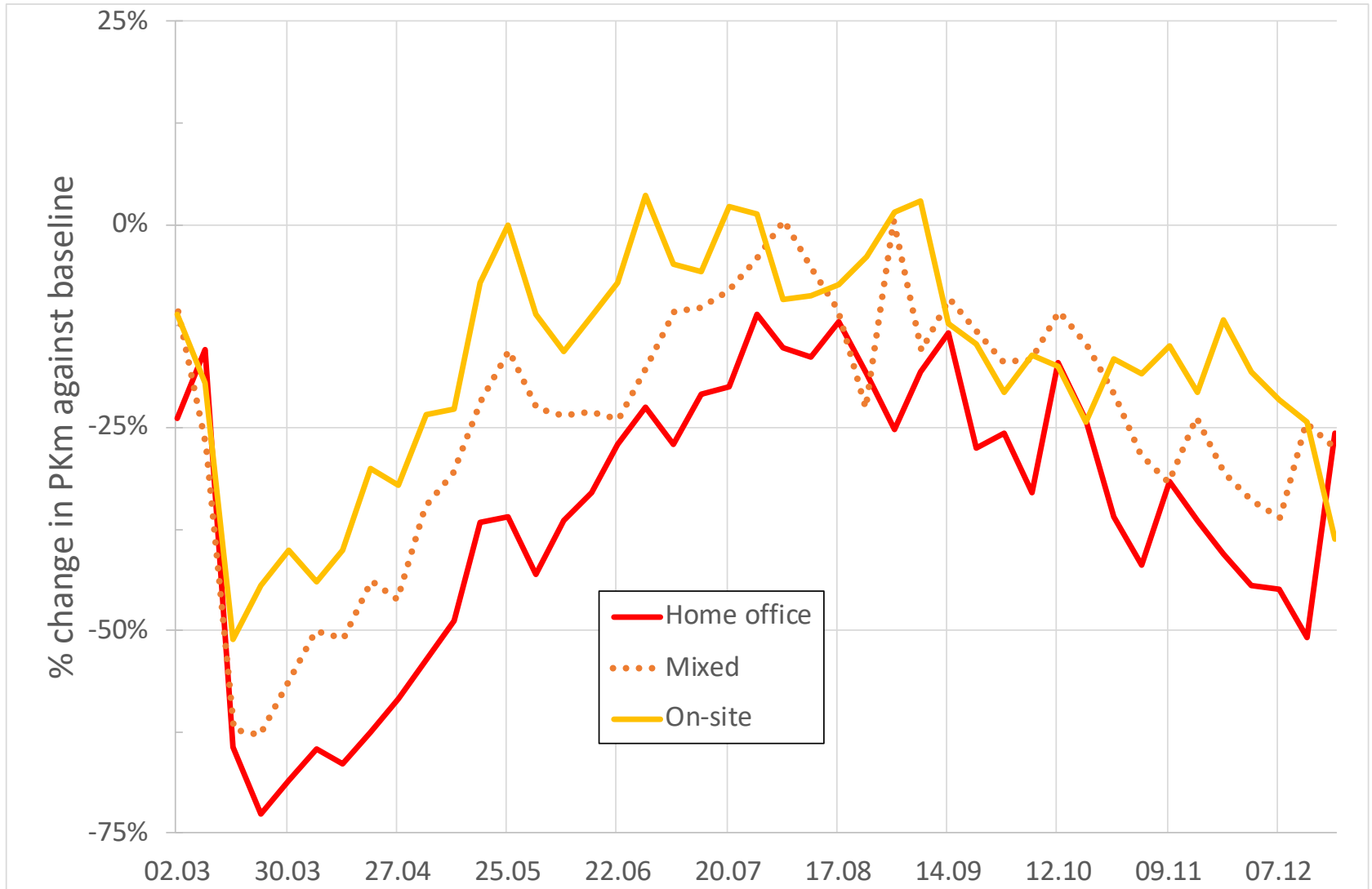
$\Delta\%$ change in VMT for “furloughed” participants



Source: Molloy et al., 2021

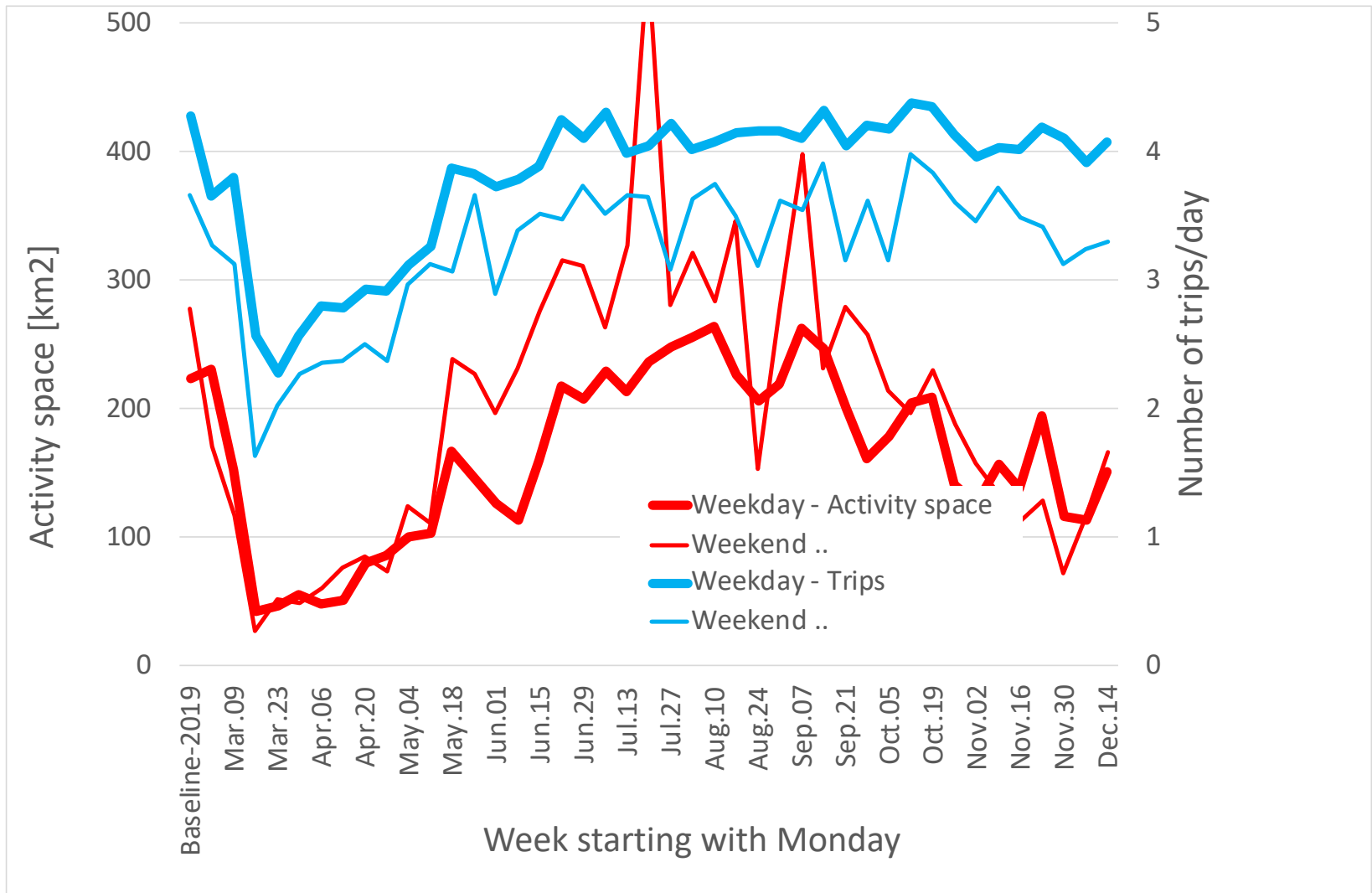
$\Delta\%$ change in trips by work location: WFH impact?

Data: Molloy et al., 2021



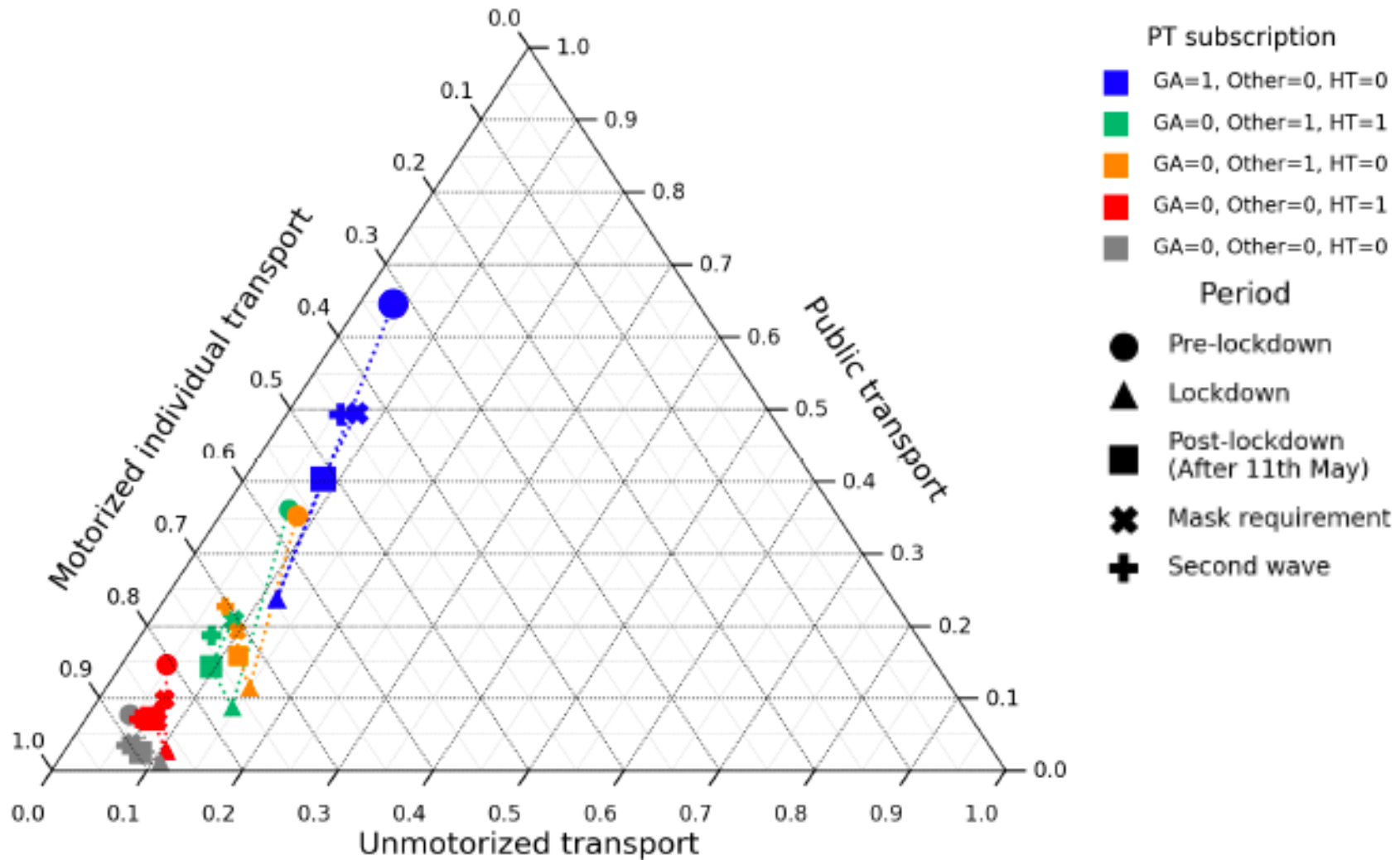
$\Delta\%$ of number of trips and size of activity space

Data: Molloy et al., 2021



MOBIS/COVID19: Mode choice

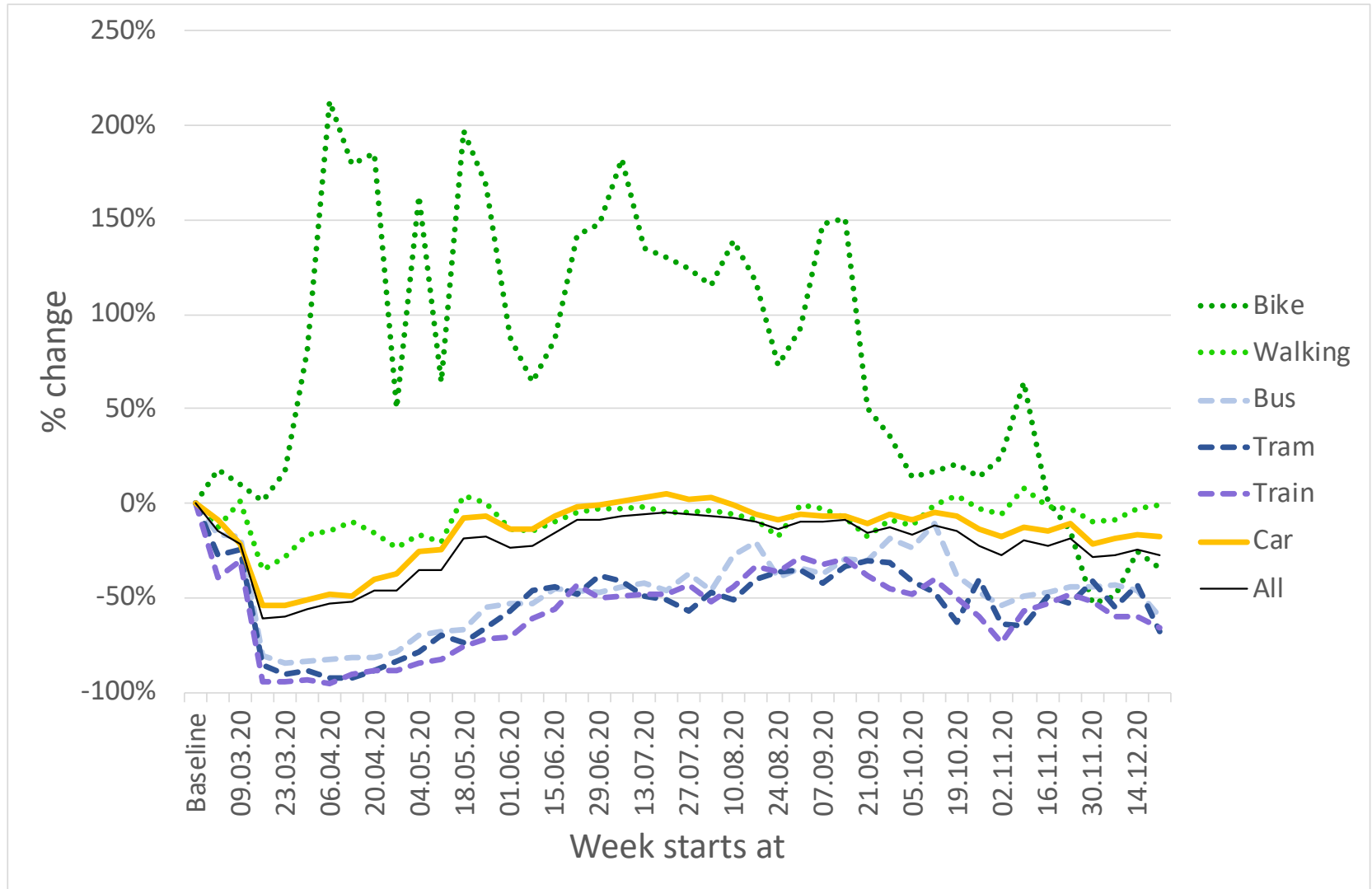
Working day Pkm by mode and phase of the pandemic



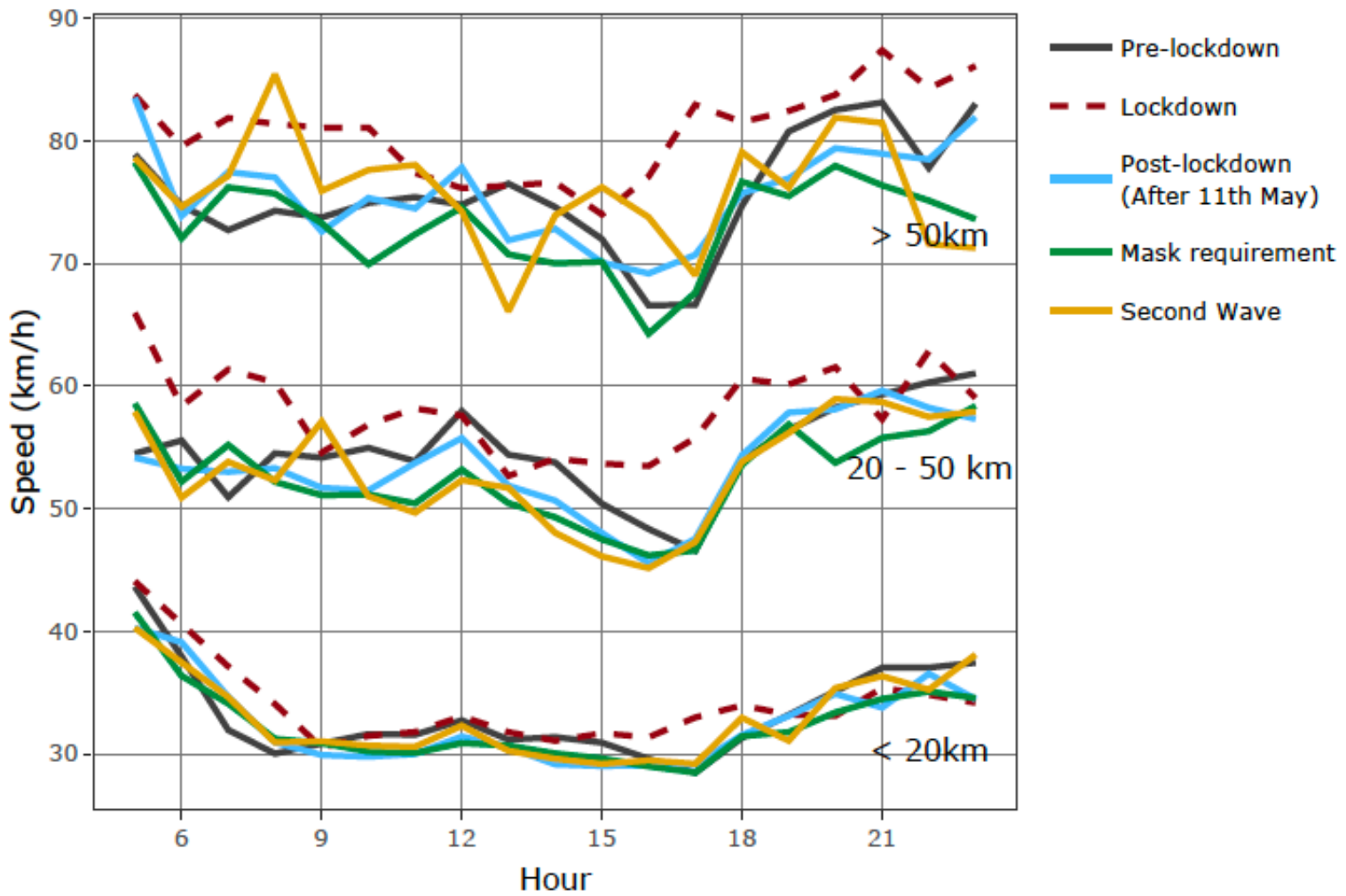
Source Molloy et al., 2021

MOBIS/COVID19: PKm change by mode

Data: Molloy et al., 2021



COVID19 door-to-door car speeds



Source Molloy et al., 2021

Questions ?

ivtmobis.ethz.ch/mobis/covid19/

www.ivt.ethz.ch

References

Molloy, J. (2021) UNDERTAKING MOBILITY FIELD EXPERIMENTS USING GPS TRACKING, PhD thesis, ETH Zürich, Zürich.

Molloy, J., C. Tchervenkov, T. Schatzmann, B. Schoeman, B. Hintermann and K.W. Axhausen (2020) MOBIS-COVID19/31: Results as of 28/12/2020 (second wave), *Arbeitsberichte Verkehrs- und Raumplanung*, **1585**, IVT, ETH Zurich, Zurich

Schmid, B. and K.W. Axhausen (2019) Predicting response rates of all and recruited respondents: A first attempt, *Transport Findings*, <https://doi.org/10.32866/7827>