



TRAFIKVERKET

Will we travel less after the pandemic?

Chapter in ESO-antologi: I en tid av pandemi
English version submitted to Tr. Res. Interdisc. persp.

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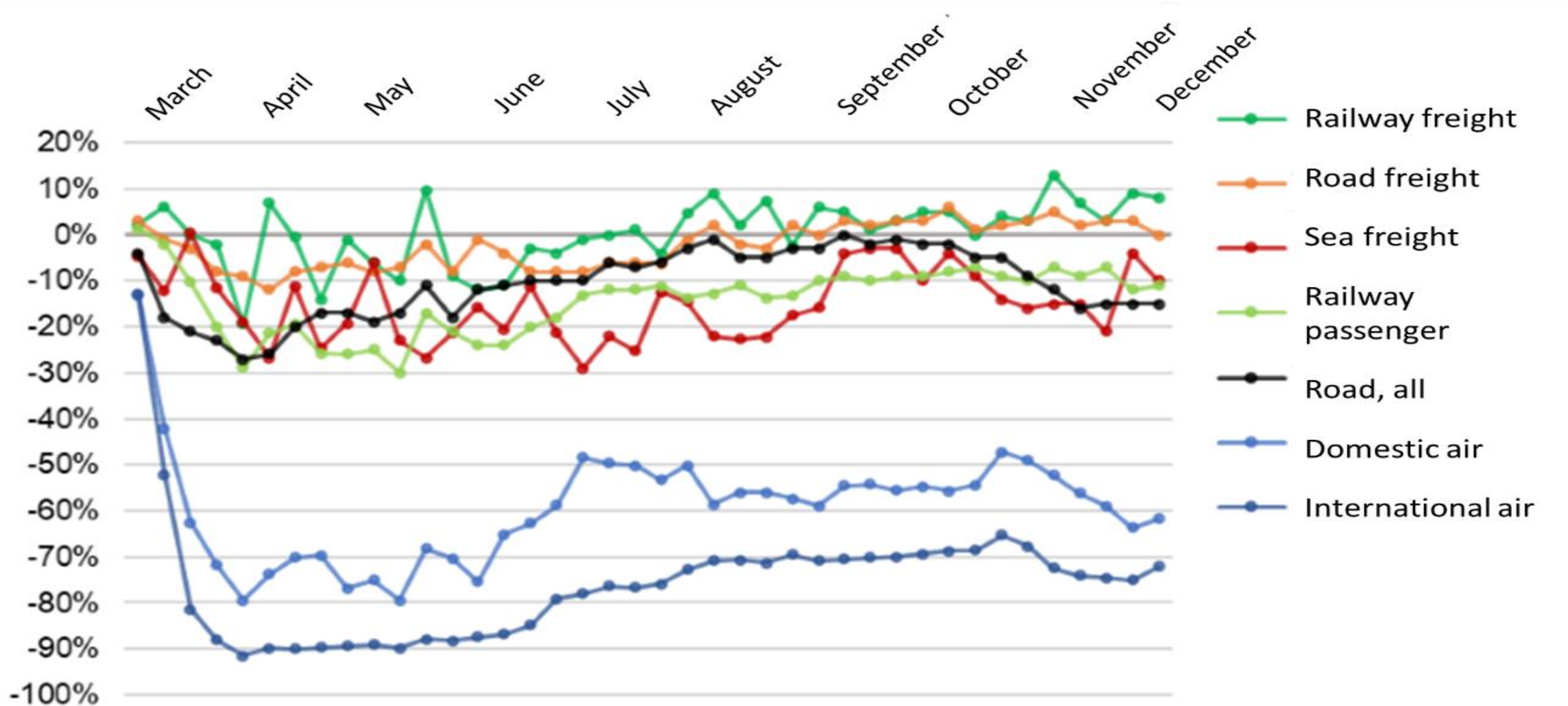
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Will we travel less after the pandemic?

- Transport reduction during the pandemic
 - Has forced increased “digital maturity”
 - New and improved digital services; more have discovered them and learnt to use them
 - Individual and organizational levels
 - Habits
-
- Will the transport reduction last?
 - Contribution to solving e.g. climate, congestion, ...?

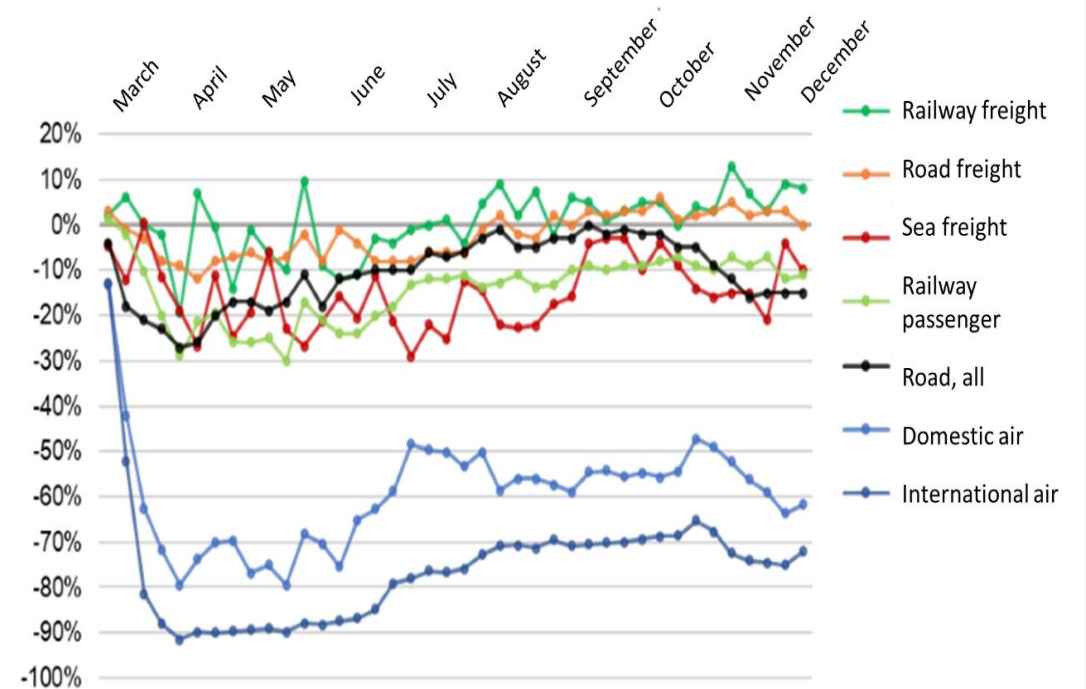
Part 1: Transport during the pandemic

Vehicle movements



Freight transport

- Road and rail: minor changes
- Sea: 10-20% fewer arriving vessels



Passenger transport

- Overall: 10-15% fewer trips (variation over the year). School trips almost halved.
- Road:
 - 75-80% of passenger km:s, majority is shopping, service, leisure
 - ~15% less from November (more in spring 2020)
 - Smaller decrease on local roads and within cities, larger on national roads
- Regional public transport
 - 10-15% of passenger km:s; majority is commuting/school
 - ~50% decrease
- Commercial railway
 - 5% of passenger km:s, majority is bsn, leisure
 - >50% decrease
- Air
 - 3% of passenger km:s, majority is bsn, leisure
 - >90% decrease

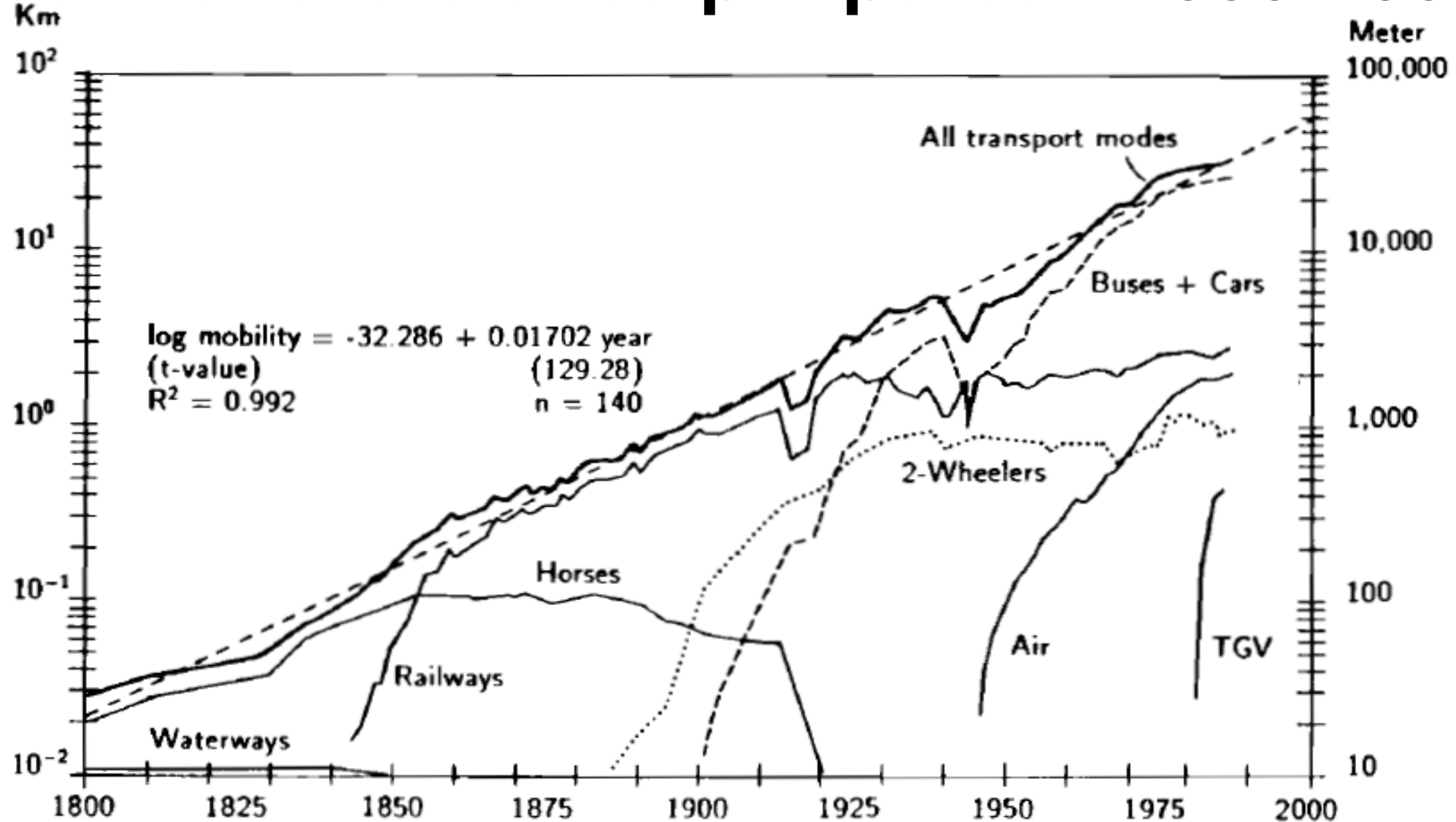
Part 2: Travel after the pandemic?

Will we travel less?

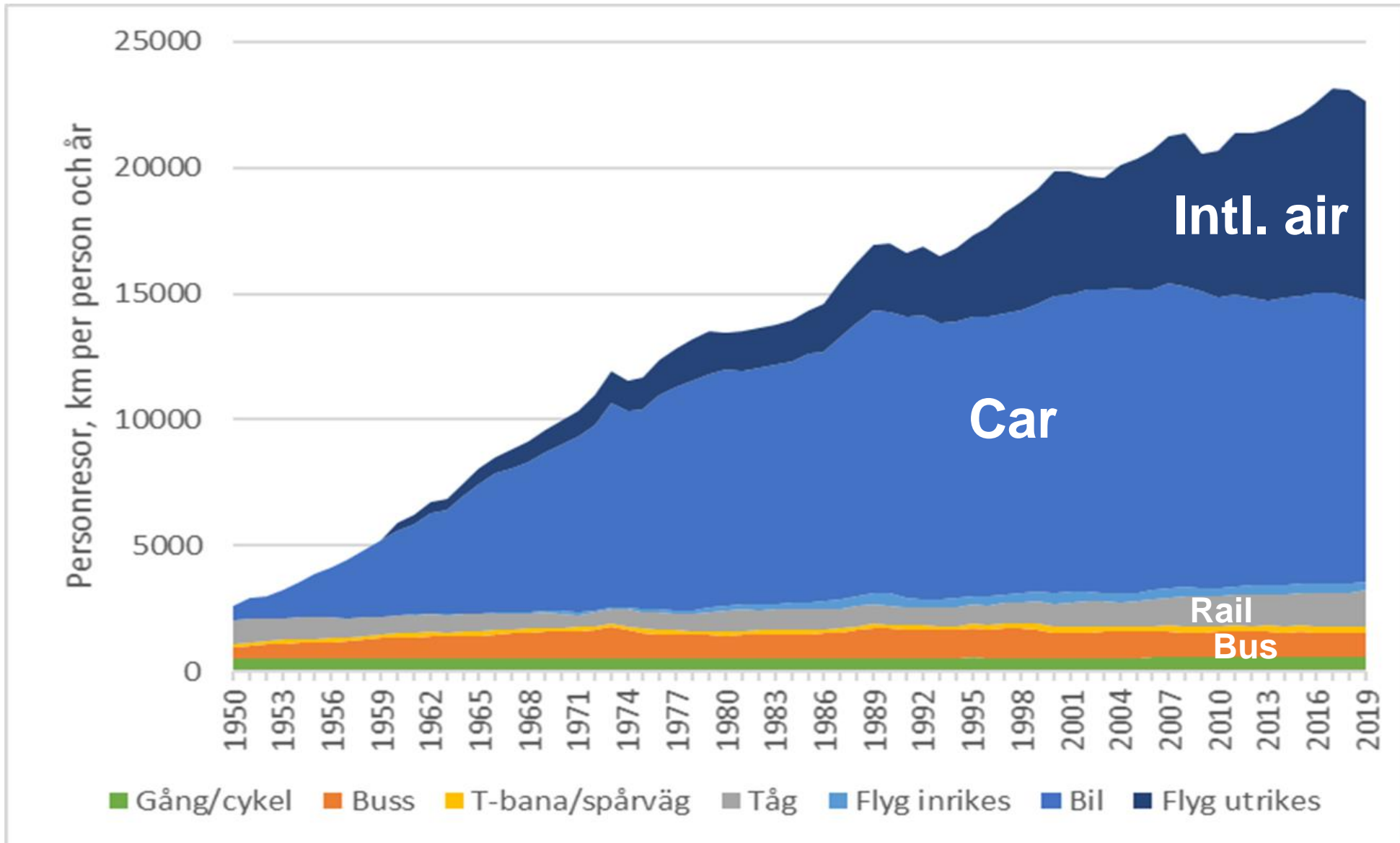
Recurring expectations:

- Improved (non-physical) communication will reduce total travel time and distance
 - Telegraph, telephone, radio, tv, mainframe computers, telefax, internet, smartphones, ...
- Faster transport will reduce total travel time
 - Steam engines, railways, bicycles, cars, airplanes, high-speed trains, ...
- Urbanization will reduce total travel times and distances

Total travel distance per person 1800-1990

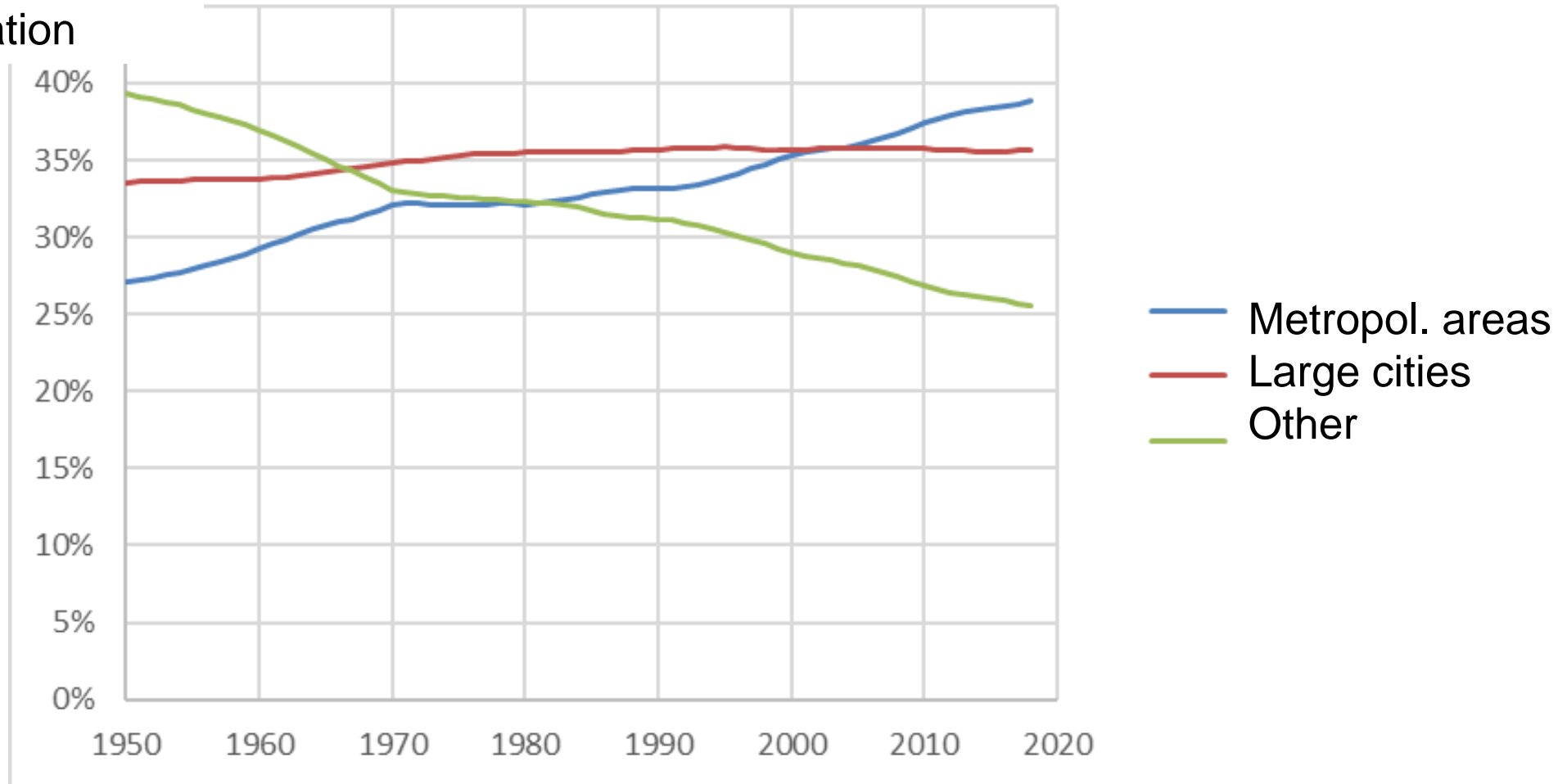


Total travel distance per person, Sweden 1950-2019



Urbanization in Sweden 1950-2020

Share of population

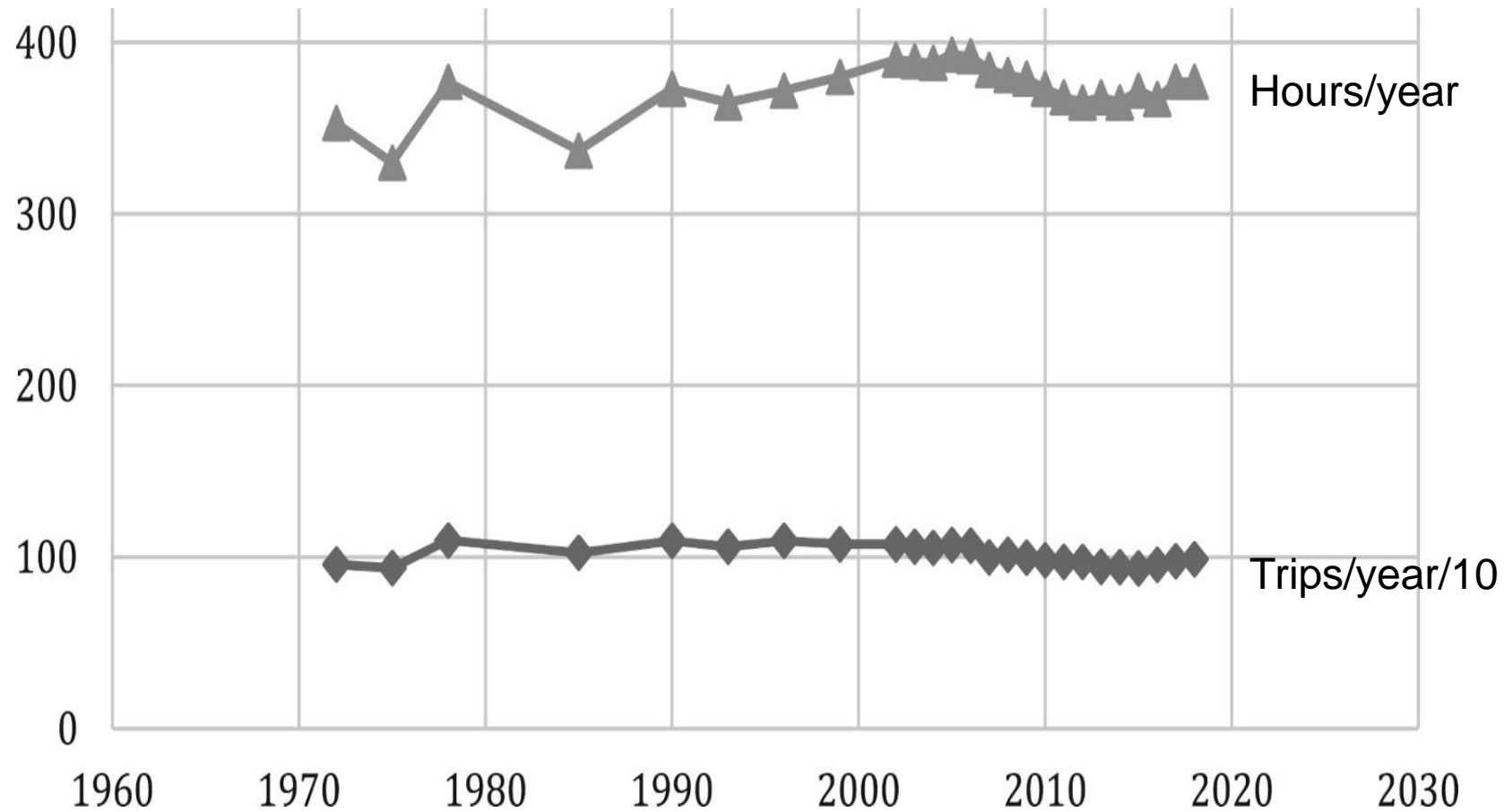


Differences in total trip lengths

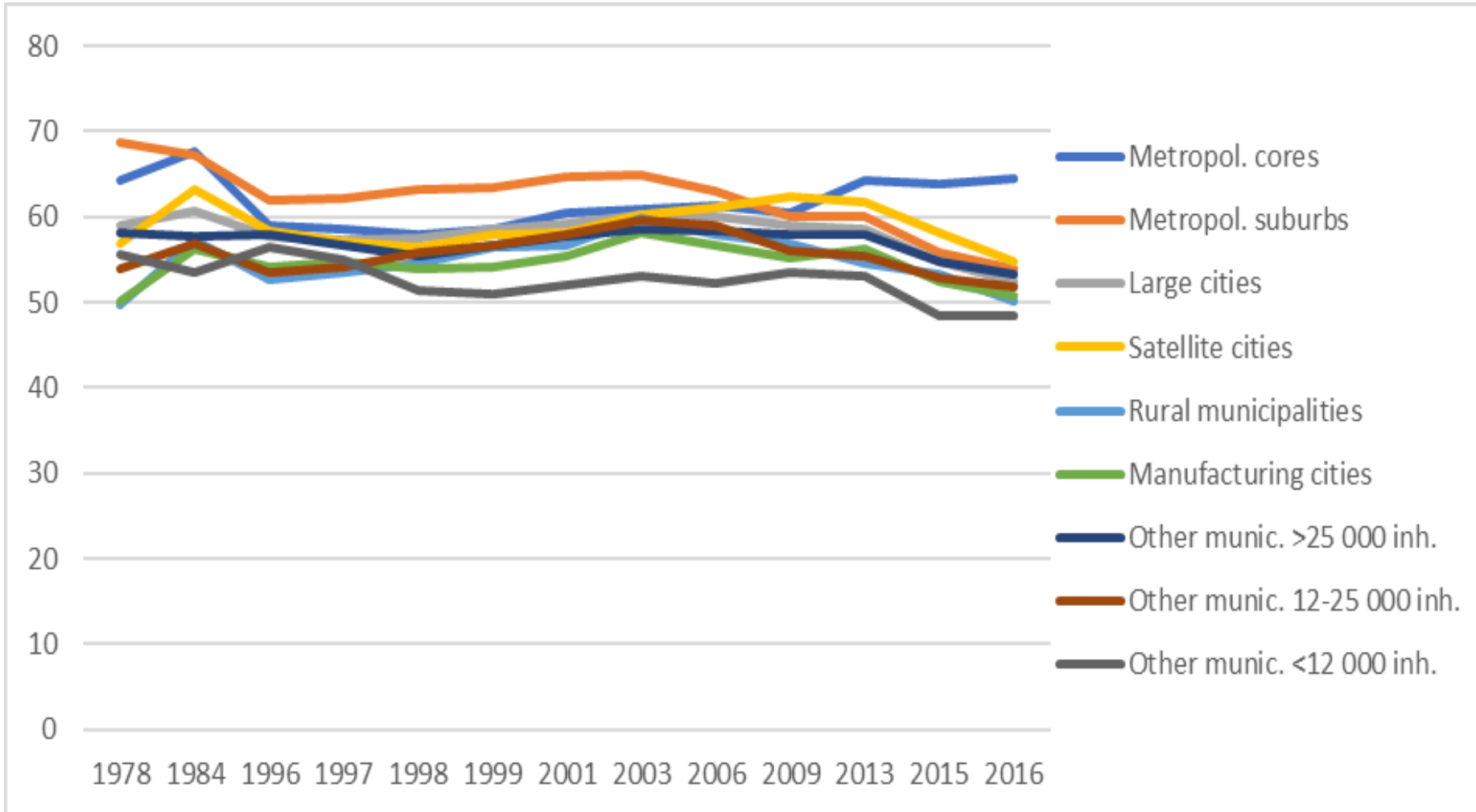
- Average total trip length 40 km per person per day in most municipality types
- Exception 1: metropolitan cores 32 km
- Exception 2: Satellite municipalities 47 km

- Rural residents travel ~50% longer than city/town residents

“Constant travel time budget” (UK 1970-2020)



Sweden 1978-2019



Why do we travel more and more?

- Potential time savings (from higher speeds and improved communication) have been entirely traded for more *access*
 - Potential time savings are not “wasted” or “pointless”
- Enables specialization of labour, lifestyles and production
 - Hallmark of modern societies
 - Increases economic growth, productivity, employment, subjective quality of life, innovation etc.
 - Organizations are more dispersed – access to specialized competence
- Increased access through longer trip distances or denser locations
 - Latter drives urbanization
- Increased speed traded for “more space” (dispersed location), and hence indirectly for longer total trip distance

Changed habits?

- While *individuals* are often habit-driven, *transport flows* are less so
- Transport flows vary little day by day and year by year (few percent) – but consist of different travellers
 - E.g. less than 25% of traffic across Stockholm are "habitual drivers"
 - Each year 15% move, 20% change jobs
- Constancy of transport flows seem to be caused by *structural* factors, not (primarily) habits
- Exceptions:
 - Trial transit cars; Stockholm charges; hysteresis in fuel price effects; ...

Conclusions

- Increased “digital maturity” will likely lead to higher use of digital services
 - New and improved services; more have discovered them; more have learnt to use them
 - Individual and organizational maturity
- Most likely we’ll exchange “saved time” for more access – same total travel time, and possibly more km’s
- Likely that we will *both* use digital services more *and* travel around 1 hour/day *and* increase total trip distance
- Things *might* be different – but we tend to think “this time is different” too often
- Prudent not to plan our climate, environment or transport policy conditional on hope of “spontaneous” traffic reduction