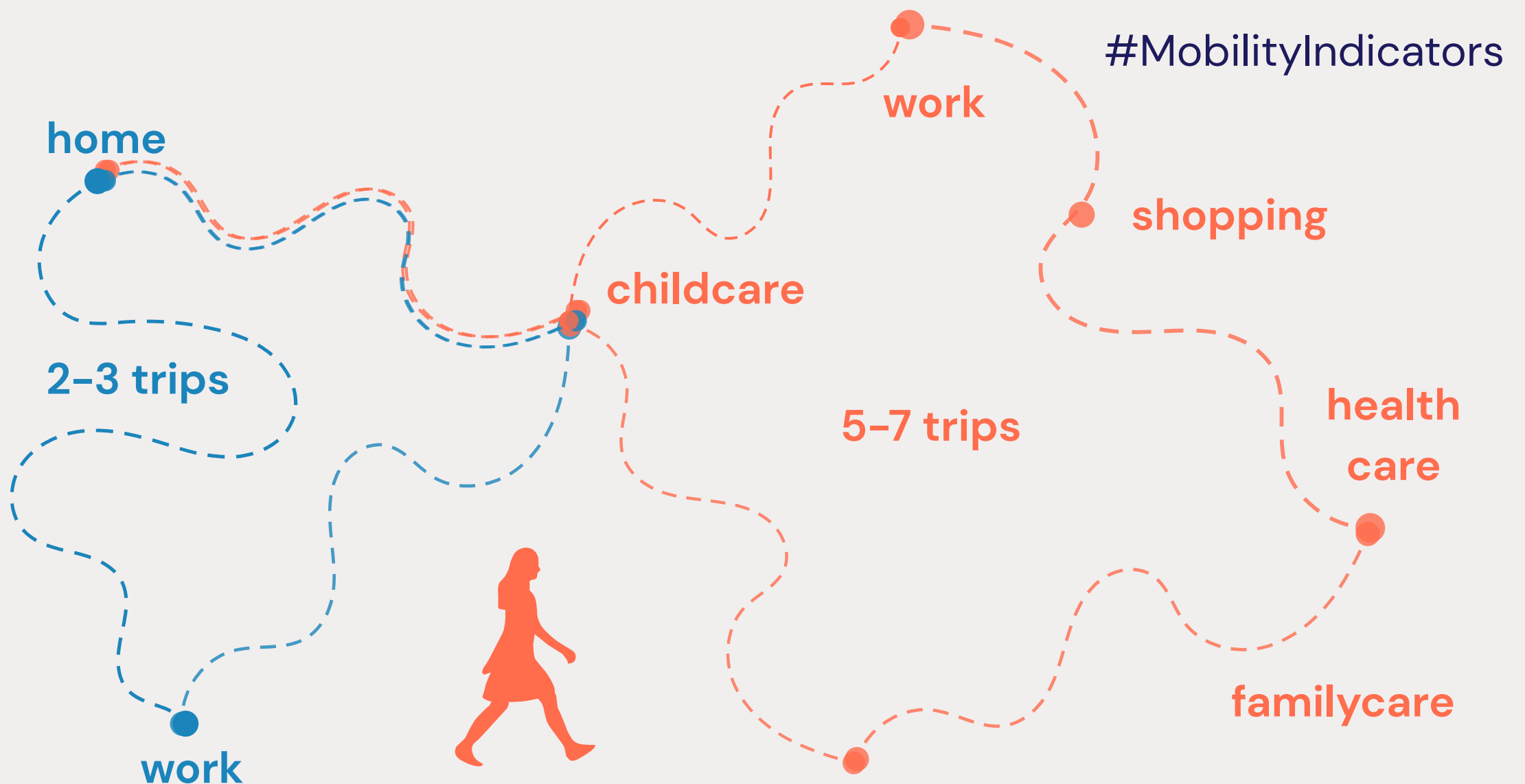


Trips per person per day



Simpler pattern

Home → Work → Home. Fewer stops, longer individual trips. Often reflects car-commuting or single-earner households with outsourced care.

Complex chained pattern

More trips do not necessarily mean more freedom; they often reflect the need to fulfill household, caregiving, and other essential tasks.



Two ways to compute the same indicator



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3.1

Population-based rate

Total trips ÷ total population, including zero-trip days.
Better for policy, captures immobility.

3.8

Mobile-person rate

Total trips ÷ only those who travelled. Higher number, but hides who stayed home & why. ⚠ Always check which denominator your source uses

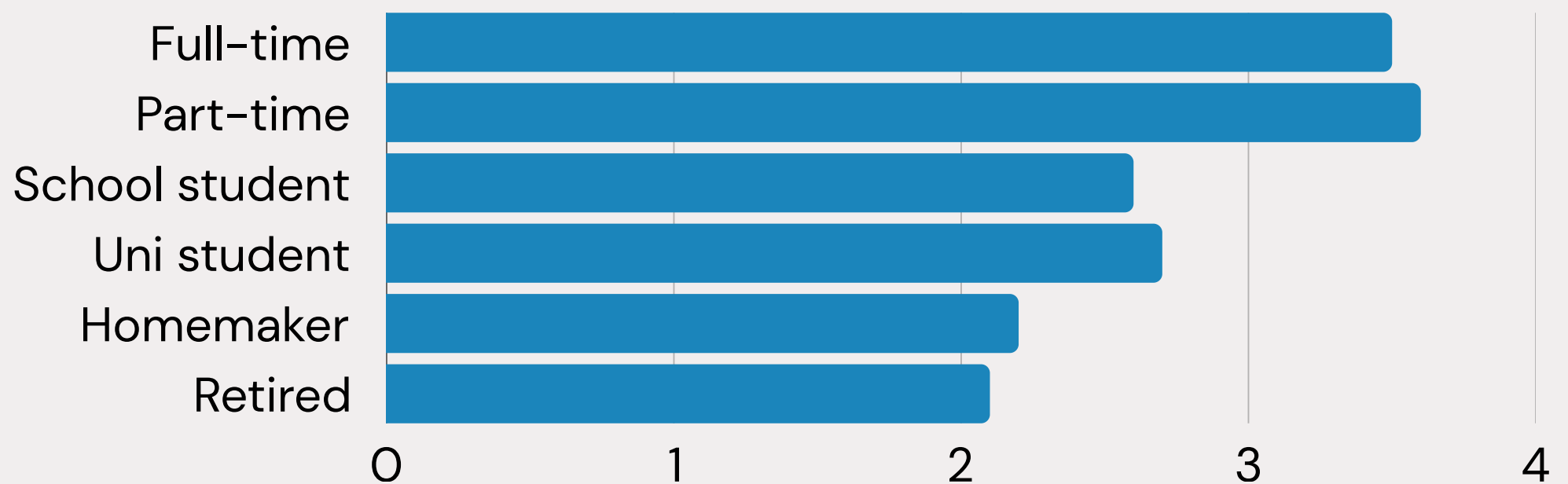
Gender-responsive

Women often record more trips per day than men in surveys that capture full chained travel; but each trip is shorter and more constrained by care logic. More trips ≠ more mobility. The quality, flexibility, and purpose of those trips matters as much as the count.

What the numbers look like

Trip rates typically range from 2 to 4 per person per day, but that average conceals wide variation e.g. across cities, occupation and income groups.

Example: Trip rate by occupation (Germany, trips per day)



infas, DLR, IVT und infas 360 (2025): Mobility in Germany (on behalf of BMV)

Part-time workers (3.6) exceed full-time (3.5), likely reflecting care trip chaining on non-work days. Homemakers (2.2) and retirees (2.1) show the lowest rates, consistent with fewer fixed daily obligations and higher immobility rates.

Suppressed demand vs. free choice

A low trip rate is not always a sign of efficiency. It can signal that people cannot afford to travel, live far from destinations without cars, or face safety barriers that restrict movement.

What is it used for?

Trip rate is an input into almost every major transport model.

Four core applications:



Climate scenario modelling

Trip rate × distance × emission factor = Emissions baseline. Reducing trip rate or shifting modes reduce total emissions.



PT demand forecasting

Trip generation models use per-person rates to estimate future transit demand: This is essential for sizing fleets, frequencies, infrastructure.



Land use planning

Mixed-use, compact development may influence mode share, but less influence on trip rates. Trip rate alone can mislead, always pair with trip distance.



Equity assessment

Comparing trip rates across income, age and gender groups reveals who is being served or suppressed by the system.

Total emissions = Population × trips/person/day × avg. trip distance × emission factor per km



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How trip rate feeds into emissions calculations

Changing trip rate by 10% shifts emissions proportionally, but only if the mode mix stays constant. Mode shift **can reduce emissions** even with the same trip rate. This is why trip rate and mode share must be read together.

Common misuses to avoid



Trip rates are dynamic, influenced by prices, infrastructure, land use, changing behaviors (e-commerce and work from home). Assuming they remain constant can distort forecasts.



Using mobile-person rates in population models. This inflates estimates by excluding zero-trip days.

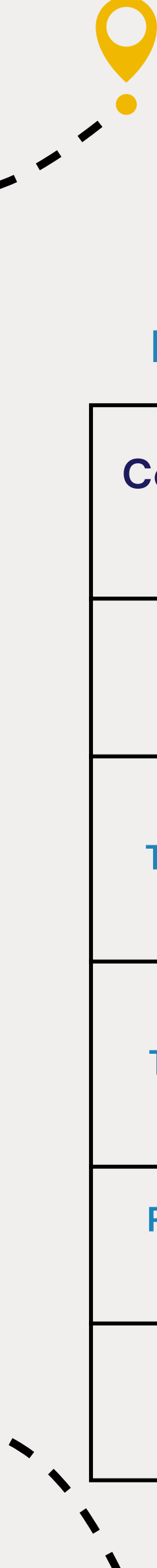


Ignoring trip purpose. A commute trip and a school-escort trip have very different mode, distance, and time-of-day profiles.



Why purpose disaggregation matters for gender

Trip purpose data often shows **women make more escort, healthcare, and shopping trips** while men dominate commute and leisure trips. Models that treat all trips as equivalent systematically undervalue the infrastructure needs of care-based travel.



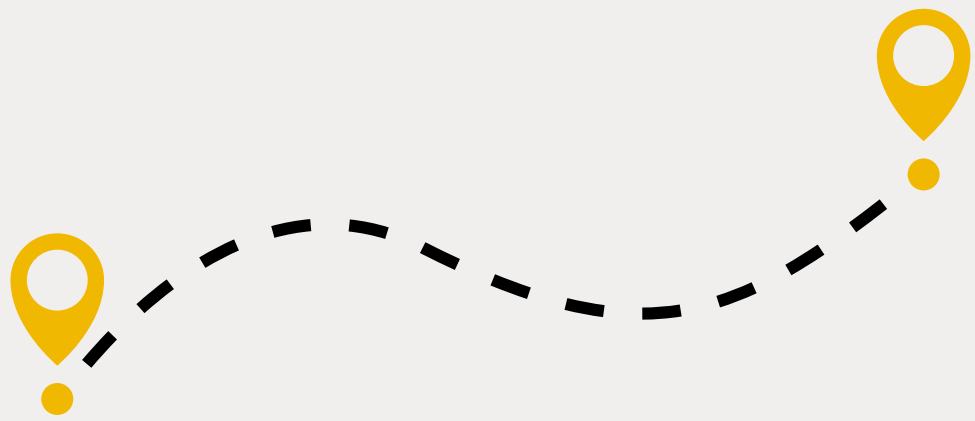
Reading it right: combinations that tell the story



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Barriers and the policies that address them

Combine trip rate with	What it reveals	Policy implication
Mode share	Are trips growing in sustainable modes or car-dependent ones?	Mode shift targets
Trip distance	Are people travelling more but less far (compact city) or further per trip (sprawl)?	Land use and zoning policy
Trip purpose	Which activity types are growing: work, care, leisure? Who makes which?	Differentiated service design
Participation rate	Is a low trip rate driven by choice or suppressed demand?	Access and affordability interventions
Income / gender	Who makes how many trips for what purpose, and at what cost?	Equity-targeted investment



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Trips per person per day

What is it?

Average **number of trips made** per person per day.

What does it tell?

Trips per person per day tells you **how much a city moves**. Mode share tells you how. Participation tells you who gets left out. Use all three together. Always ask whose trips are being counted, and whose are being assumed away.

Scope?

Trip rates typically range from **2 to 4 trips** per person per day





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Sources:

- infas, DLR, IVT und infas 360 (2025): Mobility in Germany (on behalf of BMV). Available: <https://www.bmv.de/SharedDocs/DE/Artikel/G/mobilitaet-in-deutschland.html>

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Transformative Urban Mobility Initiative (TUMI): <https://transformative-mobility.org/>

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