

# MOBILITY POVERTY

## MOBILITY POVERTY OVERVIEW OF GERMANY



### I. Mobility poverty definition

Mobility poverty is a rather neglected phenomenon both in the political and in the scientific field of Germany. Due to the minimal research with just a few publications there is a lack of a consistent definition of mobility poverty. The most used one seems to be a mixture of the work of Lucas et. al (2016) and Mattioli (2021). Mobility poverty thereby exists when your social participation is limited through at least one of the following dimensions:

The **affordability of transport**. Mobility can easily be money intensive. Especially people with lower income can therefore be restricted in their mobility choices.

The **accessibility of transport**, especially public transport. It focusses on how close by mobility infrastructure is and how frequently it can be used. This also includes the lack of barrier-free access to means of public transport

The **reachability of transport**. It defines on how easily places of work, free time or every day needs can be reached. Restrictions exists if these places are not reachable within an acceptable time and/or with justifiable effort.

The **stress through external factors**. These include an unfair and disproportionate amount of stress and burden for people through things like air and sound pollution, accidents or climate costs (Runkel 2022). It also includes how much time you have to spend for your transportation because of the (missing) mobility infrastructure.

All these dimensions have a complex connection to one another. One of them can lead to mobility poverty but they are also able to strengthen or weaken the others impact (Agora Verkehrswende 2023).

## II. Mobility poverty indicators

There are several sets of indicators, which help to measure mobility poverty within Germany. Indicators for the dimensions of affordability, accessibility and reachability can be found in table down below.

**Table 1: Indicators of mobility poverty**

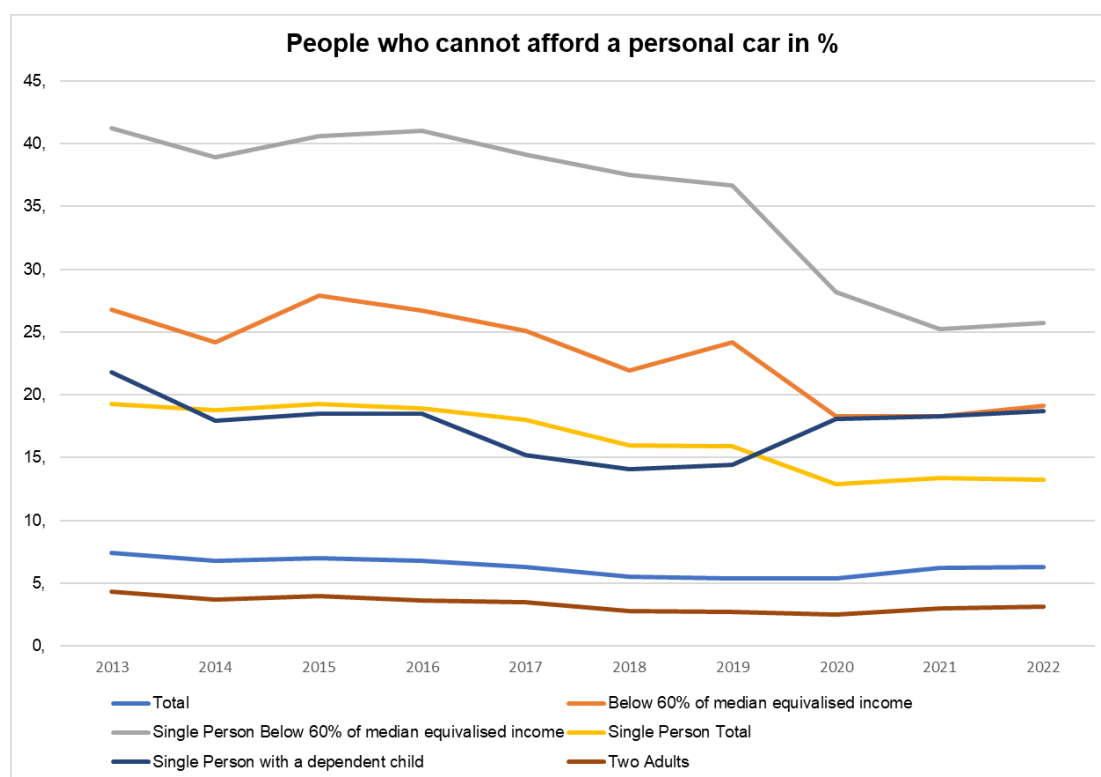
<b>Dimension of mobility poverty</b>	<b>Indicator</b>	<b>Frequency of monitoring</b>	<b>Source</b>
Affordability	People who cannot afford a personal car	Yearly	Eurostat
	Expenditure of households for transport	Yearly	Eurostat
	Monthly spending on mobility by income group	5 Years	EVS – German Statistical Office
	People who cannot afford a regular use of public transport	Irregular, last data from 2014	Eurostat
Accessibility	Public transport density by region	One time (2022)	ÖV-Atlas – Agora Verkehrswende
	Distribution of population by level of difficulty in accessing public transport by income quintile	Irregular, last data from 2012	Eurostat
	People with disabilities and their struggle with public transport	Yearly	Inclusion barometer - Aktion Mensch
Reachability	Access to every day places by car	One time (2020)	Thünen-Land Atlas - Ministry of Agriculture

Sources: (Eurostat n.d.; German Statistical Office 2018; Inclusion barometer 2022; Ministry of Agriculture 2020; ÖV-Atlas Agora Transport Transition 2022)

### III. Situation in the field of mobility poverty

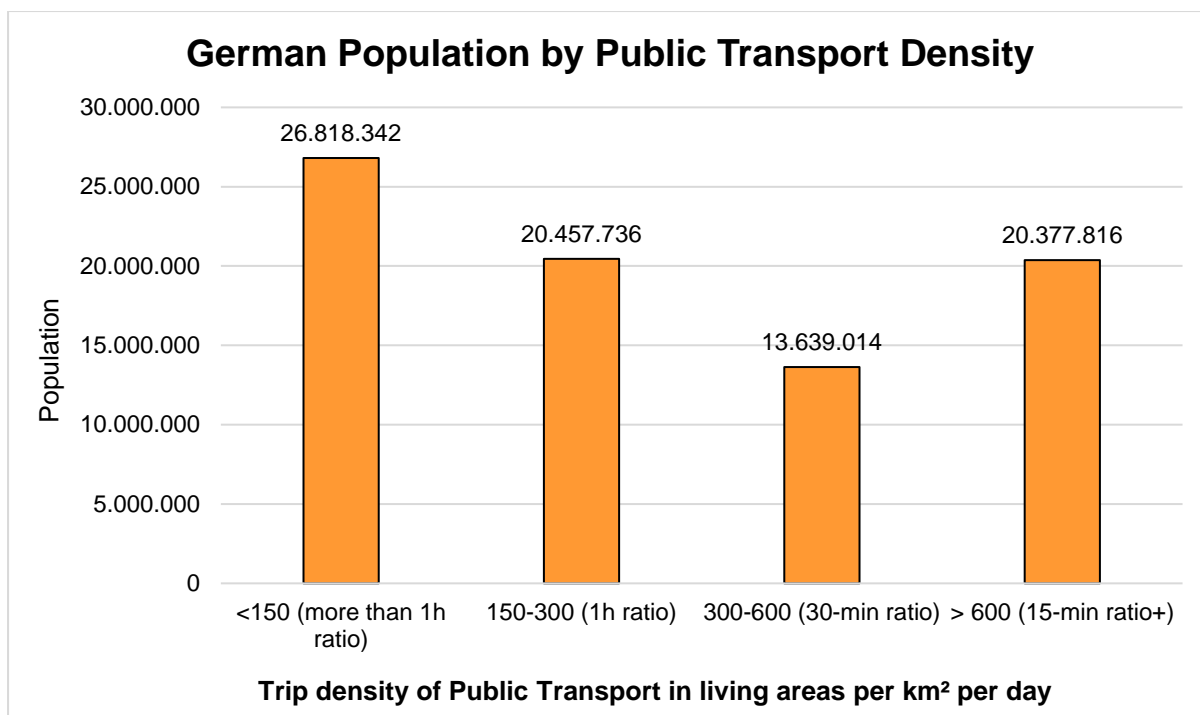
Overall, Germany has a very car orientated infrastructure. That means if you have a car you are very mobile. Important every day places (supermarket, doctor, kindergarten,...) are on average 7 minutes away (Agora Verkehrswende 2023).

Nevertheless, not everyone owns a car for various reasons. In Germany this corresponds to 22% of households (Nobis et al. 2019). In relation to the population (Statistisches Bundesamt 2021) this leads to over 13 million people left without a car. Thereby, over 6% of the adult population are actually not able to afford it (EU-SILC survey 2023). As visible in **Graph 1** especially single people with an income below the 60% of median equivalised income, which is commonly used as poverty threshold, struggle the most to have an own car, even though it's becoming less. Households with two adults on average struggle the least.



**Graph 1** (Data: Eurostat)

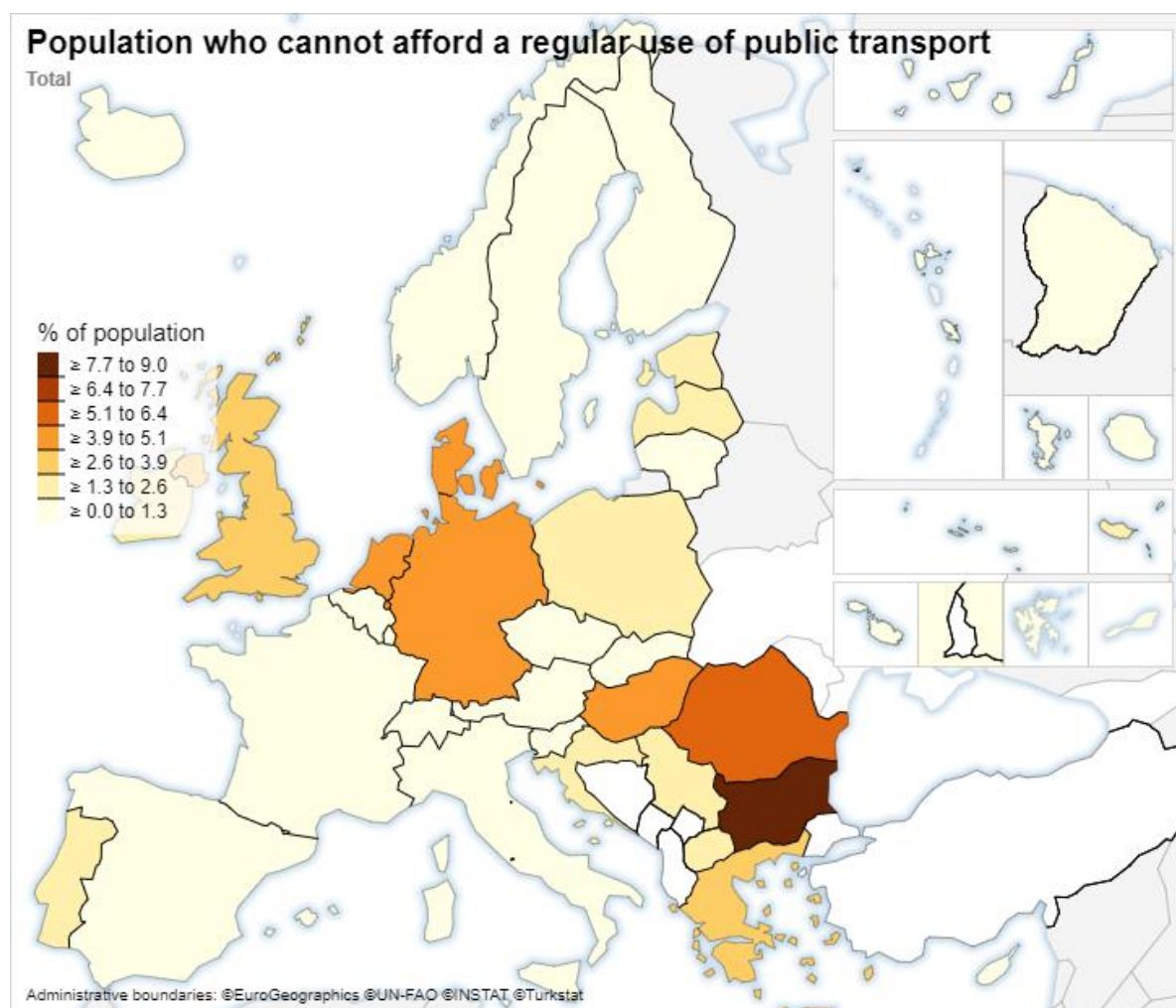
So with millions of people not having a car a sufficient and high developed public transport system becomes necessary. In bigger cities this became more likely over the last years but especially rural areas highly lack behind (Allianz pro Schiene 2023a). Over 27.5 million people live in areas which the public transport reaches in less than a 1h ratio (**Graph 2**). With Germany having a population of 80 Million people this leads to one third of the countries residents not having proper access to public transport (Agora Verkehrswende 2023).



**Graph 2** (Data: ÖV-Atlas – Agora Transport Transition 2022)

And even when there is public transportation close by, not everyone is comfortably able to use it. People with disabilities struggle 63% more with getting in and out of public transport than people without disabilities. Also stairs and not functioning/existing elevators limit the accessibility (ISPSOS 2022). In November 2023 nearly 10 % of Berlin train stations had malfunctioning or non-working elevators (SOZIALHELDEN e.V. 2023).

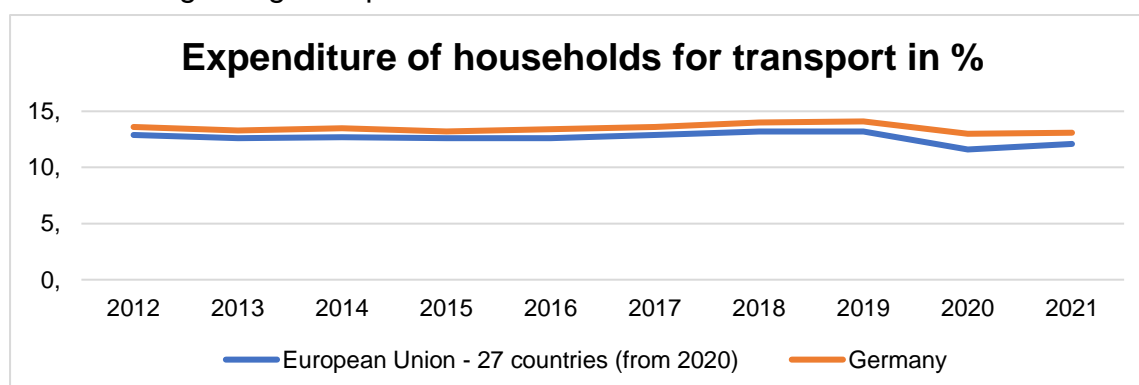
Meanwhile, the data suggests that Germany also struggles to make Public Transport affordable for everyone. With the last comparable data available from 2014 4,7% of the population cannot afford a regular use of public transport (**Graph 3**). Among the EU that is the 4<sup>th</sup> highest number.



**Graph 3** (Data: Eurostat)

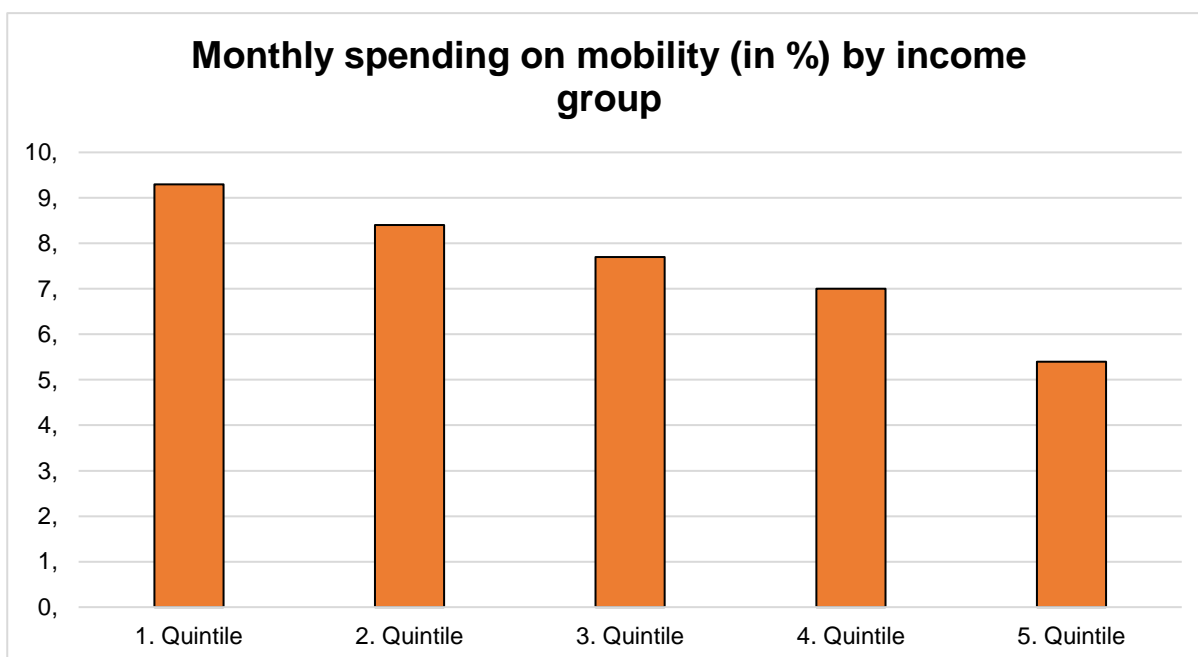
Another problem becomes visible when looking at the accessibility of general public transport especially for the 1<sup>st</sup> income quintile. The last comparable data of 2012 states that 8,8 % of the lowest income quintile within Germany are not able to access public transport. That is above the EU-average of 6,9 % and more than three times as much as e.g. other strong economic countries such as France with 2,8 % (Eurostat 2023).

There is a chance that more recent data would adjust this outcome a bit due to new measures been taking since. Nevertheless the expenditure of households for transport in 2021 was higher in Germany (13,1%) than the EU-average (12,1%) similar to 2012 and 2014 (Eurostat 2022). (**Graph 4**). It suggests that there is still an ongoing financial threshold regarding transportation.



**Graph 4** (Data: Eurostat)

But, the interest should not end on the fact that there is a general high expenditure on mobility in Germany. It is also important to analyse who proportionally spends the most on their own mobility. When looking at the analysis of Agora Verkehrswende (2023), it becomes clear that especially people with lower income spend a higher monthly spending on transport than others. The first income quintile spends about 9.3 % of their income on mobility which is more than any other group, even while having a smaller transport demand (**Graph 5**). This can be explained through i.a. there being a fix amount of spending required for a minimum of mobility which is needed to participate in basic life. This can be quite dramatic as it could lead to a reduction in other important consumption fields to ensure basic mobility (Agora Verkehrswende 2023).



**Graph 5** (Data: EVS-2018 German Statistical Office)

When looking at the fourth dimension “stress through external factors” it becomes clear that the polluter pays principle is also not really functioning in Germany. There is an uneven distribution between those who pollute and those who have to endure it. First studies indicate that areas with more people who are socially disadvantaged, have a higher concentration of fine dust and nitrogen oxides coming through transport emissions (Flacke et al. 2016). But the people living there do not contribute the most to the pollution but have to face more of it (Runkel 2022).

### IV. Mobility poverty policies and measures

Mobility poverty has not been politically addressed as a whole connected problem. But there are a few political measures that deal with the four dimensions individually.

Thereby an improvement regarding affordability becomes visible. In Summer 2022 there was a programme of the so called "9€-Ticket". This made it possible to use all public transport (except fast long distance trains) in Germany for just 9€ monthly. A novelty also because until then every region had its own price and organisation system. It is perceived as a big success with more people using public transport (VDV 2022). It also led to a follow up measure "Deutschlandticket" which enables everyone to use public transport all over Germany again for monthly 49€. The price jump was highly criticised (ZDF 2022) but nevertheless it created the first option for a countrywide public transport ticket with some regions also reducing the price for people with lower income (Hamburger Verkehrsverbund 2023). But there are still complications especially regarding the finances as both state and regional ministries and transportation companies want to minimize their financial losses due to missing ticket sales (Tageszeitung 2023).

While there are improvements regarding the affordability, measures regarding reachability and accessibility are still lacking behind. The most prominent example is the failed planning of the "Deutschlandtakt". The programme was announced in 2018 and i.a. should create a reliable and frequent train schedule all over Germany by 2030 with a doubling of passengers expected. In 2023 the final realisation date of the programme was pushed back to 2070 (tagesschau 2023).

Meanwhile, the railway investment per capita is increasing since 2014. But with 114€ in 2022 it is still relatively low in a European comparison (e.g. Luxembourg 575€, Austria 319€) (Allianz pro Schiene 2023b).

Another mobility directed policy is the "Pendlerpauschale," or commuter allowance. It is a tax benefit that allows individuals to deduct commuting expenses from their taxable income. It aims to support individuals who travel long distances for work, providing financial relief by offsetting transportation costs. However, critics argue that the "Pendlerpauschale" encourages car-dependent commuting over more sustainable modes of transportation like public transit, cycling, or walking. By incentivizing car usage through tax benefits based on distance travelled, it perpetuates carbon-intensive practices, contributing to increased greenhouse gas emissions and environmental degradation. It also has a greater benefit for people with higher income as people in higher tax groups can deduct more money (Tageszeitung 2022).

In general, policies tackling the high amount of individual car usage are rarely seen. The government rather focusses on the increase of electric cars within Germany to replace combustion vehicles (Bundesregierung 2023). Meanwhile, public referendums e.g. in Berlin demanding a car free city centres are held back with politicians arguing that there is a fundamental right of car usage (Volksentscheid Berlin autofrei 2023). Critics, upon them well known lawyers, highly argue against it and the constitutional court is expected to make an appropriate decision in the near future (Hohnerlein 2022).



**V. Key actors in the mobility poverty field**

A wide variety of actors are connected to the field of mobility poverty. The state government plays an important role in the overall funding, while regional and local authorities and mobility companies deal more with the final implementation of mobility policies.

A very important role in coordination plays thereby the “Committee of Transport Ministers”. As Germany is not a centralised state important decisions are often made by regional authorities, which in this case all come together. The committee creates the opportunity to exchange ideas regarding mobility issues. This leads to a better coordination of e.g. interregional transportation to prevent further lack of mobility due to regional borders (BMDV 2023).

**Table 2** Actors and their area of responsibility

<b>Actor</b>	<b>Area of Responsibility</b>
Government	Policy-making, funding, national transportation strategies, regulatory frameworks.
Regional authorities	Infrastructure planning, public transit coordination, regional transportation policies.
Local authorities	Public transportation provision, local road networks, urban mobility planning
(Inter)regional mobility companies	Operate transportation services, interconnectivity between regions, service provision
NGOs and Activists	Advocate for equitable access, community engagement, policy advocacy for marginalized groups

### **VI. Research gaps**

One of the more clear missing pieces in research is a widely excepted definition of “Mobility Poverty” in the scientific community. This would lead to a better comparability between studies and countries and therefore better conclusions. To extract better differences between countries there is also a need for more recent data. Most of the data which offers EU-wide comparability is 10 years old or even more and does not really represent the current situation regarding mobility issues.

In Germany specifically the topic itself has to gain more interest and further research is needed. Especially bigger per reviewed analysis are missing. On a more specific note, there is a lack of data regarding the reachability of everyday places through public transport (Agora Verkehrswende 2023). A sufficient data record would create the opportunity to analyse more efficiently how and where the mobility sector has to improve.

## **VII. Summary and Outlook**

In conclusion, even though it is not widely known or addressed, mobility poverty is a real phenomenon in Germany, the strongest economy in Europe. With a car orientated transportation structure, which is too financially costly for the whole population, Germany has laid the foundation for an unjustly mobility system. Meanwhile, the current organisation of public transport leaves many people behind. Especially people from rural areas and people with disabilities are not presented with a sufficient transportation alternative, while lower income households have to spend a great amount of their income just to move around.

With the introduction of the nationwide “Deutschlandticket” there is at least an improvement regarding the affordability of transportation. But without a proper increase of the general accessibility and reachability of public transport and an offering of a proper alternative to car usage, this measure alone ends up being nothing else than a mere drop in the ocean.

A wide package of actions is necessary to decrease mobility poverty. This could include the reduction of car dependence through expansion of public transport and bicycle infrastructure, the minimization of transport spending of households through further discounts or public “climate payments” or even the reduction of need for mobility through the right for home-office or the implementation of a 4-day work week.

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