

Transport poverty in Italy: exploring affordability through Household Budget Survey

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- 1 Transport poverty
- 2 Affordability
- 3 Main indicators
- 4 Multilevel logistic regression
- 5 Discussions and conclusions

Transport poverty: a socio-economic condition that prevents citizens from accessing employment, education, and healthcare services. A concept that is closely linked to the Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda.

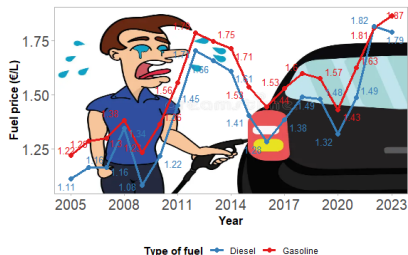


A main dimension: affordability

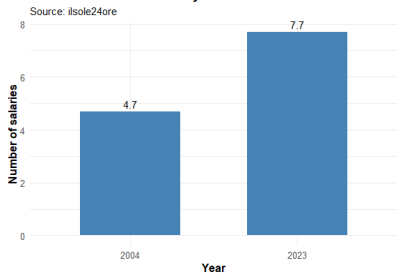
Affordability: individual's ability to pay for transport services without compromising other essential needs.

When a significant proportion of income must be allocated to transport, individuals may face financial difficulties that force them to make sacrifices.

Historical series of fuel prices in Italy



Net salaries needed to buy a new car



Household Budget Survey (ISTAT): is characterised by detailed data on families expenditures, which makes it possible to assess the share of consumption spent on transport and to determine its impact.

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- provide estimates at regional level, for the type of municipality and area of residence
- identify the key factors that contribute most significantly to explaining the phenomenon of transport poverty

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How? Exploring and proposing measures discussed in the international literature by researchers, with a specific focus on their application and relevance in the Italian context.

Literature review

- Search theory using automatic scraping techniques, focusing on retrieving data from academic databases and repositories.
- Using specific keywords to identify relevant research articles and analyze their content systematically.

Show	10	entries			Search:
	Title	Link	Authors	Year	Citations
1	Transport poverty and fuel poverty in the UK: From analogy to comparison	https://www.sciencedirect.com/science/article/pii/S0967070X17304869	G. Martini, K. Lucas, G. Marsden	2017	173
2	Transport poverty and its adverse social consequences	https://www.sciencedirect.com/science/article/pii/S0967070X17304869	K. Lucas, G. Martini, E. Verlingheri...	2016	581
3	Accessibility, affordability and poverty: Assessing public transport subsidies in Bogotá	https://www.academia.edu/download/50617592/Assessing_accessibility__affordability_and_transport_subsidies_in_Bogota_WP.pdf	L.A. Guzman, D. Oviedo, C. Rivera...	2016	4
4	Accessibility, affordability and equity: Assessing 'poor' public transport subsidies in Bogotá	https://www.sciencedirect.com/science/article/pii/S0967070X17304189	L.A. Guzman, D. Oviedo	2018	265
5	Transport expenditure and affordability: The cost of being mobile	https://www.tandfonline.com/doi/abs/10.1080/0376835X.2011.545174	C. Vester	2011	123
6	Affordability and subsidies in public urban transport: what do we mean, what can be done?	https://www.tandfonline.com/doi/abs/10.1080/01441640902786415	T. Serebelsky, A. Gómez-Lobo, N. Evangelina...	2009	192
7	Transportation affordability	https://www.researchgate.net/profile/Todd-Litman/publication/371838356_Transportation_Affordability_evaluation_and_improvement_strategies/links/576f9ade408ae601819ac0736/Transportation-Affordability-evaluation-and-improvement-strategies.pdf	T. Litman	2016	59
8	Accessibility and Affordability Impacts on Transport-Related Inequalities and Poverty: The Case of Santiago, Chile	https://search.proquest.com/openview/951e687aa874176095196ca9c1d7570/1?pq-origsite=scholar&M=44126	IAT Aftes	2020	1
9	Transport poverty and subjective wellbeing	https://www.sciencedirect.com/science/article/pii/S0967070X18313806	SA Churchil, R. Smyth	2019	110
10	Affordability of public transport a methodological clarification	https://www.sagepub.com/content/doi/10.1177/0960004509000003.un50003	A. Gomez-Lobo	2011	50

Showing 1 to 10 of 50 entries

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During these months, HAC VIA website was developed to facilitate access to project-related information and resources.

The website can be accessed at www.hacvia.eu.

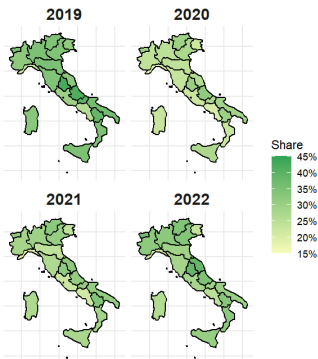


HAC VIA

The literature review identified the following as the most commonly used indicators.

Households in poverty of transport (2019-2022)

By 10%Metric



10% metric

A household is considered to be in risk of transport poverty if it spends more than 10% of its total expenditure on transport-related costs, potentially limiting their access to essential services, employment, and social opportunities.



Over 2 Times National Median

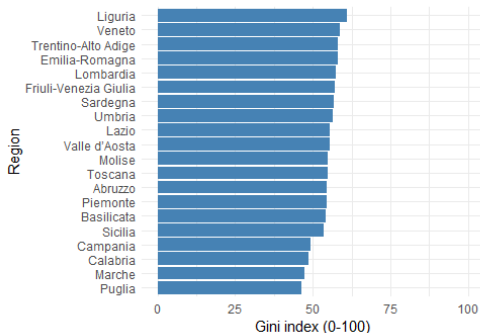
A household is regarded as transport poor if its transport costs are more than twice the median transport expenditure. This indicator identifies households that are disproportionately burdened by transport expenses relative to the general population.

Gini index

To determine whether transport expenditure is spread evenly across households. A high value might indirectly signal that many low-income households are excluded from access to transport.

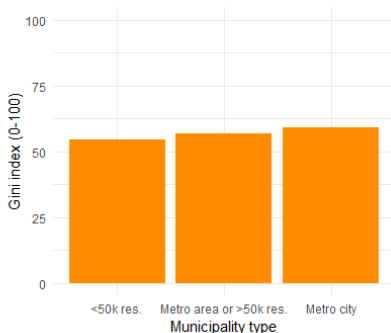
Inequality by regional level

HBS 2022



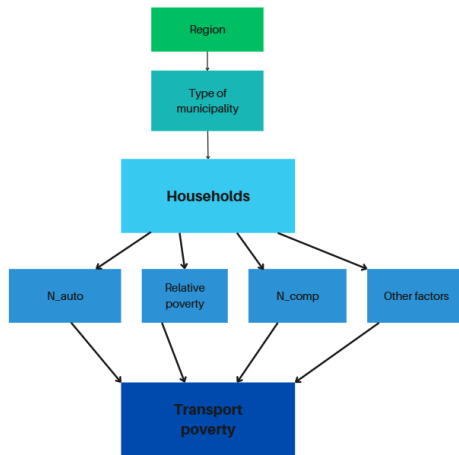
Inequality by municipality type

HBS 2022



Multilevel logistic regression

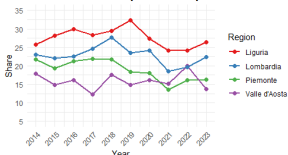
$$\text{logit}(P(T_{povi})) = \beta_0 + \sum_{m=1}^n \beta_m X_{im} + u_{\text{rgn}[j]} + u_{\text{t.com}[k]}$$



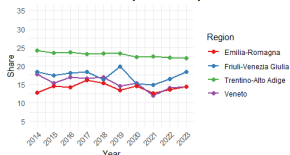
Use of transport

Low use can be attributed to issues of affordability, as the costs may be prohibitive. More probably these trends are driven by **accessibility** challenges, such as limited availability of services, insufficient coverage in some areas, inadequate infrastructure, which make public transport a less viable option.

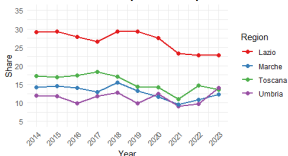
Citizens who used public transport - Nordovest



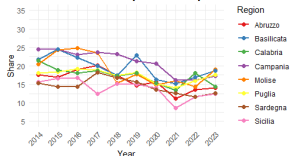
Citizens who used public transport - Nordest



Citizens who used public transport - Centro



Citizens who used public transport - Sud e Isole



- Consider additional Information on accessibility using ISTAT Survey "Aspects of Daily Life" and integrate other datasets
- Improve the Multilevel Model
- Propose Small-Area Estimates: the goal is to generate localized insights that policymakers can use to design targeted interventions and allocate resources

Thank you for your attention!



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