



FINANCING AND IMPLEMENTATION OPTIONS FOR FARE- FREE PUBLIC TRANSPORTATION IN BRAZILIAN MUNICIPALITIES

*CONSIDERING IMPACTS
ON EMISSIONS,
AND SOCIOECONOMIC
AND RACIAL EQUITY*

Giancarlo Moreira Gama

POLICY QUESTION

- What are the viable financing options for fare-free public transportation implementation in Brazilian municipalities, and how might such policies indirectly help to address environmental and social concerns, including racial inequality?

POLICY BRIEF GOAL

The primary goal of this policy brief¹ is to examine viable financing and implementation options for fare-free public transportation (or FFPT) in Brazil. Drawing on data from the 114 municipalities that have implemented this policy as well as eight interviews, this study aims to provide a thorough evaluation of the feasibility and potential impacts of this policy within the Brazilian context.

By presenting a detailed exploration of the costs, contractual models, and socio-economic impacts associated with fare-free policy, this brief also offers insights and recommendations for policymakers and stakeholders interested in it and contributes to the global discussion on sustainable and equitable urban mobility.

CONNECTION TO REDUCING RACIAL INEQUALITY AND EMISSIONS

Urban planning has historically been used in Brazil as a means of exercising power over Black populations², who settled in city peripheries (Santarém et al., 2021). This situation continues to this day, since most people who live in the worst conditions and away from the urban centres — and in consequence, their facilities and opportunities — are Black (IBGE, 2010). In other words, racism, the historical apportionment of land, and further processes have led to spatial demographic patterns in Brazil that place additional travel burdens on Black populations to reach city centres and enjoy its benefits, including employment, education, training, and the expansion of one's sense of self and possibility.

A public transportation system that relies on the passenger as its main or sole source of funding, prevalent in over 90% of Brazilian municipalities, thus reinforces economic and racial inequalities. Fare-free

¹ This policy brief was developed by Giancarlo Gama, a graduate of the Master of Public Policy program at the Blavatnik School of Government, University of Oxford under the supervision of Filipe Recch as part of his summer project placement with the Lemann Foundation Programme for the Public Sector. The ideas and recommendations included in this brief are those of the author, and do not necessarily represent the views of the Blavatnik School of Government or the University of Oxford. Editing: João Pedro Caleiro. Translation: Liz Ribeiro.

² In this brief, "Black" will refer to individuals classed as the Portuguese word "negro" in official Brazilian government statistics, which includes both "preto" (black) and "pardo" (brown/mixed-race) categories.

public transportation, by reducing the burden placed on these Black populations, can be expected to play a part towards reducing racial inequality.

Another potential benefit from free-fare policies could come through a reduction in car usage and consequently, their carbon emissions — a global challenge amidst the climate crisis. This impact would be amplified if combined with efforts to switch existing bus fleets to electric vehicles. Municipalities' expenditures on fuel are a significant part of public transportation contracts — up to 60% in some cases - which also include bus fleet maintenance costs. Using electric vehicles in public transportation could reduce these maintenance and fuel costs, and, as a result, the operating costs of public transportation over time.³

In Brazil, however, one significant challenge is that while these investments pay off over the long term, electric vehicles can cost up to three times more than diesel vehicles⁴, presenting a large upfront cost hurdle. Despite these challenges, some municipalities in Brazil — such as São Paulo, São José dos Campos, and Salvador — have already partially switched their fleets to electric vehicles. If resources are made available to support municipalities in these investments, the initial cost burden can be managed, aiding in covering FFPT implementation while also reducing emissions.

KEY POLICY RECOMMENDATIONS

The policy recommendations of this brief outline viable options for making fare-free public transportation feasible. Because no city over 400,000 inhabitants has implemented FFPT in Brazil as of the time of writing of this brief, our suggestions for this population range are grounded in plausible inferences drawn from the features of these municipalities.

In terms of **financing**, this brief recommends municipalities renegotiate or redefine contracts to ensure payment based on service delivery rather than passenger numbers. Financial planning is a crucial step, integrating FFPT into municipal budget laws and reallocating expenses if needed. While municipalities with less than 100,000 inhabitants may be able to fund fare-free transportation using 0.70% to 1.15% of their total budget, larger municipalities may need additional revenue-raising measures.

In terms of **contractual models**, this brief has identified a variation among the municipalities that implemented FFPT. Smaller ones (up to 20,000 inhabitants) typically use supply contracts (simply purchasing

³ Ministry of Cities. Electromobility Guide. Available at: https://www.gov.br/cidades/pt-br/central-de-conteudos/publicacoes/mobilidade-urbana/Guia_Eletromobilidade.pdf. Accessed on 12 July 2024.

⁴ Ibid

buses and employing municipal drivers) or broader service provision contracts (including maintenance and refuelling). As the population profile increases (from 20,000 to 50,000 inhabitants), service provision contracts tend to prevail and are recommended. This remains true for somewhat larger municipalities (50,000 to 400,000 inhabitants), although in this range concession models (in which the municipality grants a company the right to operate the service for profit) might still be in force. In this case, contracts should be re-negotiated for FFPT implementation, even if they remain relatively more expensive in comparison with others. No municipality with over 400,000 inhabitants has yet implemented FFPT in Brazil.

In terms of **community and citizen involvement in the public transportation system**, this brief recommends moving towards five main features: (i) greater public oversight vis-à-vis concessionaires, facilitating transparency on cost and operational data; (ii) greater contractual autonomy for the municipality, by shifting from long-term concessions to shorter contracts focused on service quality and with the possibility of termination without significant restrictions; (iii) greater governance autonomy, through enhanced mechanisms for the municipality to manage service delivery, adjusting lines and vehicles as needed; (iv) community oversight, by involving citizens in route planning and establishing service feedback and complaint mechanisms; and (v) using municipal legislation to ensure policy continuity and legal protection.

In terms of **monitoring and evaluation**, this brief recommends establishing autonomous systems to record passenger numbers, as well as conducting rigorous quantitative and qualitative assessments based on clear baselines. This approach could improve service efficiency and equity, enhance data transparency, and more clearly demonstrate the social, environmental, and economic impacts of the policy, including on racial inequality and local development.

Summary of the Recommendations

Population range (thousands)	1. How to finance?	2. Which contract model?	3. Who controls the system?	4. How to monitor and evaluate?
0 - 20	Public budget	Supply and Service	Municipal Public Authority	Establish an autonomous entry/exit system controlled by City Hall, as well as mechanisms for qualitative and quantitative assessments
20 - 50	Public budget	Service		
50 - 100	Public budget	Service and Concession		
100 - 400	Public budget+ additional revenue raising measures	Service and Concession		
> 400	Public budget+ additional revenue raising measures	Service and Concession		

Figure 1: Summary of recommendations by population group and factors to consider for policy feasibility. Source: produced by the author.

EXECUTIVE SUMMARY

This policy brief examines the financial and implementation models of fare-free public transportation policies and their potential to address challenges facing the public transportation system in Brazil. By examining data from 114 Brazilian municipalities that have implemented the policy and some international cases, as well as conducting interviews with city managers and policymakers, the brief provides findings that illustrate the viability and potential impacts of fare-free policies in different dimensions.

One of the most significant conclusions is that the cost incurred by municipalities to support fare-free public transportation is relatively low and does not vary significantly with population size. The median percentage of the amount these municipalities invest in FFPT is 0.78% of their annual budgets, while the median per capita cost is R\$46 (USD 9.2) per year, or about R\$0.12 per day per capita. In general, the municipalities spend more on collecting and transporting solid waste than on transporting people for free. This challenges the prevalent notion that FFPT is financially unfeasible due to high costs.

The brief also indicates that Brazilian municipalities implementing FFPT have made changes to their existing public transportation contractual models to ensure their financial sustainability. While some municipalities transitioned from a concession to a service provision model, a larger number of them altered the remuneration

structure of companies from one calculated *per passenger transported* to one based on *kilometres travelled*. Another relevant finding is that municipalities with FFPT are not exclusively among Brazil's wealthiest by GDP per capita, challenging the notion that only richer municipalities can adopt the policy.

Where it was measured, the impact of fare-free public transportation on mobility has been remarkable. Municipalities that adopted the policy and for which data is available reported an average increase of 147% in public transportation passengers, and some reported that the highest impact was among the poorest users. This finding underscores the potential of FFPT to address the historical decline in public transportation use in Brazil. The brief also suggests that FFPT can have positive impacts on racial equity, due to Black populations being disproportionately resident in more distant areas and more reliant on public transportation, a consequence of an urban development that has been shaped by a history of racism.

In addition to promoting social inclusion, the brief also suggests that FFPT can have positive economic and environmental impacts. Some municipalities reported a boost in economic activity following the implementation of the policy, as the increased circulation of people stimulated local commerce and tax collection. Moreover, the potential reduction in individual car use due to FFPT could translate into a decrease in carbon emissions, contributing to efforts against climate change.

This document also highlights the contrasting impacts of analogous policies in different countries. While in European countries, FFPT serves mainly as an alternative to existing transportation options, in Brazil, it can mean city access to many who previously could not afford to travel.

1. INTRODUCTION

Mobility plays a central role in social life and the way that transportation is conceived and utilised in large part determines how life in the city is organised (Santarém et al., 2021). Public transportation is a fundamental component of mobility, and its forms of organisation reverberates into how people live in the territory (Cats et al., 2014). This is most evident on the importance of the right to transportation to access other rights: when there is no proper access to locomotion, access to health, education, leisure and other rights is also compromised (Gregori, 2020). In Brazil, the right to transportation is framed in the 1988 Constitution as a social right, alongside others such as health and education (Cidade, 2016). This places transportation as both an intrinsic value (a good in itself) and an extrinsic value (or a means to achieve other values).

In Brazil and elsewhere, the discussion of transportation as a right has become increasingly present as an expression of ideas of sustainable urban development and city access (Bertoloni, 2003). One policy that has emerged prominently in this context is fare-free public transportation. Fare-free public transportation is not “free”, in the sense that it entails costs that must be somehow funded. What fare-free proponents advocate is that this cost should not be paid by the passenger, but by the government or other agents (Cidade, 2016). This entails eliminating direct charges to passengers in public transportation services, creating and maintaining public transportation networks that allow the free movement of people (Santini, 2019). Hence, in this brief, we refer to FFPT as a public transportation system in which the passenger does not pay any direct fee to use the service.

While this policy has been widely debated by scholars and social movements in Brazil and elsewhere, few if any academic works have addressed how to implement it in Brazilian municipalities. Existing studies include case analyses and discussions on political and sociological aspects, but no focus on feasibility, a gap which this brief seeks to address.

Fare-free public transportation has been gaining increased attention in Brazil for some time. The debate began in 1990 during the administration of Luiza Erundina in the City of São Paulo, was revived in 2005 by social movements, and became the main agenda behind the “Jornadas de 2013”⁵, a mass

⁵ The “Jornadas de Junho” (Journeys of June) of 2013, according to Singer (2013), refers to a series of massive protests in Brazil. Initially motivated by an increase in public transportation fares, the demonstrations quickly grew in scope, incorporating a variety of demands and popular grievances, including corruption, excessive spending on mega-events like the 2014 World Cup, and the quality of public services such as healthcare and education.

wave of national protests initially triggered by a rise in bus fares. In the last five years, the number of municipalities that have implemented FFPT in Brazil has almost tripled (Santini, 2023), a movement which is also associated with the shortcomings in the public transportation financing model.

The current public transportation structure in Brazil is primarily based on passengers paying for the cost of the service, with more than 90% of Brazilian municipalities not providing any subsidy for public transportation (NTU, 2024). In practice, this means a regressive financing model, since most public transportation users are from the poorest segments of the population (De Carvalho, 2016). In 2018, for example, Brazilian families spent more on transportation than on food, according to the IBGE (Brazilian Institute of Geography and Statistics) Family Budget Survey.⁶

This model has become increasingly fragile in a scenario of passenger number declines, which preceded the COVID-19 pandemic but were accentuated by it. In short, the concession of the transportation service is increasingly not profitable for companies, while for the state — and for those who pay for public transportation — the bill remains costly. This scenario led municipal managers and even transportation companies to consider alternatives, such as fare-free policies (Santarém, 2023), a process which will be discussed in more depth later.

Where implemented and measured, fare-free has understandably had a positive impact on passenger numbers. Additionally, it may have indirect impacts in other areas such as the environment. One hypothesis is that fare-free policies, by encouraging the use of public transportation, reduces the use of individual transportation, thus decreasing carbon emission levels. This was verified in the case in Mariana, a city in the state of Minas Gerais, which reported a decrease in car traffic after the implementation of fare-free transportation (Gonçalves, 2023).

Another study, using a difference-in-differences approach to compare municipalities that implemented fare-free policies with a comparable group that did not, found no statistically significant evidence for that mechanism, as treated municipalities showed no change in fuel (gasoline and ethanol) sales or in the stock of automobiles. However, the study did identify an overall 4.3% reduction in emissions in fare-free cities as compared to those in the control group. The authors attributed this effect to a different mechanism, supported by shifts in employment data: when transport was made more accessible, low-education workers shifted from higher-emission agricultural jobs to lower-emission construction jobs in the city, now made more accessible (Rodrigues et al., 2024).

⁶ Instituto Brasileiro de Geografia e Estatística (IBGE). Family Budget Survey: 2017–2018. Rio de Janeiro: IBGE, 2019. Available at: <https://www.ibge.gov.br/>. Accessed on 17 June 2024.

Concerning economic impacts, the same study above found a 3.8% increase in employment in municipalities that have implemented fare-free policies compared to those which had not (Rodrigues et al., 2024). Mariana also observed a significant increase in tax revenue. The hypothesis is that by freeing up the money that would be spent on transportation to other activities, combined with higher circulation of people, fare-free stimulates consumer spending and business activity. As a consequence, the revenue from taxes such as ISS (Tax on Services) and ICMS (Tax on the Circulation of Goods and Services) also experiences a boost (Gonçalves, 2023).

2. RIGHT TO TRANSPORTATION AND TO THE CITY

The first experience of FFPT in the world occurred in 1970 in Colomiers, a city in France, where it is still in force (Veloso et al., 2020). Luxembourg was the first country to implement the policy nationally. Currently, about 400 municipalities globally have implemented FFPT (Kebrowski et al, 2025) and as of the date of writing this brief, 114 of them are in Brazil — not counting those who implemented it partially, for some day of the week. This makes Brazil a global focal point for this debate — something that can be disregarded in Europe and the United States (Pereira et al., 2023), even with the notable impacts of FFPT in the Brazilian municipalities where it has been implemented.

In Brazil, the first attempt at implementing fare-free policies was in 1990 by the then mayor of the City of São Paulo, Luiza Erundina, and her secretary of transportation, Lúcio Gregório. However, the policy was only implemented in a few bus lines and for a short period (Veloso et al., 2020). The topic only gained salience much later, in 2013, after several demonstrations against increases in public transportation fares were organised throughout Brazil. The "Journeys of 2013" were an emblematic moment for Brazil, not only for featuring fare-free debates prominently but also for igniting significant and complex political processes that reverberate to this day (Singer, 2013). The movement was also responsible for bringing fare-free more prominently to the global debate as a social demand to be implemented by governments (Cats, 2017).

One of the direct consequences of this movement was the consolidation of public transportation as a social right in Brazil through a Constitutional Amendment approved in 2015.⁷ It had been first presented by the former São Paulo mayor, Luiza Erundina, who became one of the most prominent policymakers

⁷ Brazil. Constitutional Amendment No. 90 of 15 September 2015. Available at https://www.planalto.gov.br/ccivil_03/constituicao/Emendas/Emc/emc90.htm. Accessed on 23 May 2025.

associated with the topic and was then a Federal Deputy for the Workers' Party (PT). The amendment made the right to public transportation comparable to education, health, and others.

Beyond fulfilling this new constitutional right, fare-free transportation is also related to the separate legal concept of the "Right to the City". This concept pertains to every individual's right to shape and transform urban space, according to their needs and desires, aiming for a more democratic and inclusive city. Henri Lefebvre, a key proponent of the concept, argues that the Right to the City surpasses other rights, as all others are implicated within it (Lefebvre, 2008).

In Brazil, the Right to the City is established in the City Statute (Law 10,257/2001)⁸, a national law mandating a series of instruments and mechanisms that promote democratic and participatory management of urban space (Maricato, 2010). This statute identifies public transportation as an integral component of the right to the city and urban policy. The determinants of who will have access to the city or not are, notably, trespassed by existing inequalities – social, economic, and racial.

3. THE BRAZILIAN CONTEXT

Brazilian urban formation was and still is rooted in a process of marginalisation of Black and poor populations (Nascimento, 2016). In the post-abolition period, formerly enslaved Black people remained subject to rights restrictions and social exclusion (Hasenbalg, 2005) and freed slaves could not legally access land (Fernandes, 2008). Without access to these rights, these populations sought alternatives for social grouping far from urban centres, urban infrastructure, and public services, and this is how the formation of Brazilian favelas was seeded.

Favelas are defined as urban settlements characterised by irregular land tenure, inadequate housing conditions, a lack of basic infrastructure, and the occupation of "unregulated" land. Cities, in turn, were built on a logic in which urban centres concentrate employment, leisure, facilities, and public services, while peripheral regions lack all those things, and generally suffer from worse housing conditions (Silva, 2006).

Thus, the history of urban formation in Brazil is marked by a process of peripheralisation of the Black population, relegated to the worst urban conditions and greater distance from urban infrastructure and services. Currently, most people living in Brazilian favelas and peripheral regions are Black (Silva, 2006),

⁸ Brazil. Law No. 10,257, of 10 July 2001. Regulates Articles 182 and 183 of the Federal Constitution, establishes general guidelines for urban policy, and provides other provisions. Available at: http://www.planalto.gov.br/ccivil_03/leis/leis_2001/l10257.htm. Accessed on 12 April 2024.

as are most of the people who use public transportation (Santarém et al., 2021). This Black population also spends more of their income on transportation than white people.⁹ This dynamic makes fare-free transportation in Brazil relevant to reducing racial inequality, while also addressing two additional issues that will be discussed below: the car-based urban model and the challenges of financing public transportation in Brazilian municipalities.

The car-based model

Urban mobility in Brazil has historically prioritised individual transportation and cars. Only 55% of Brazilian municipalities have any form of public transport (IBGE, 2021), and among these, 90% rely primarily on buses as the main service vehicle (Gomide, 2006). The remaining 45% of Brazilian municipalities have no public transport at all.

Not only urban infrastructure and mobility, but other mechanisms, including social practices and cultural norms, position cars as symbols of freedom, status, and independence (Scheller, 2000), while placing mobility by walking, cycling, or taking public transportation in the background.

In Brazil, this car-centric model gets translated into policy in several ways. In response to the 2008 global financial crisis, for example, the federal government extended facilitated and cheap credit lines to consumers and exempted several automakers from taxes. These policies have incentivised an immense number of additional cars on the streets (Ribeiro, 2015). In 2024, the total number of automobiles in Brazil exceeded 60 million, according to data from the Ministry of Transportation.¹⁰

The challenges to existing financing mechanisms

The established models for financing public transportation in Brazil in the last decades are buckling under a series of pressures. Partly because of car dominance, passenger use of public transportation has been in a long term-decline. In 1990, over 60% of urban populations moved by public transportation (Santarém, 2023). According to ANTP data¹¹, this number dropped to less than 28% in 2019 (Xavier, 2020).

⁹ Mobility, Climate Crisis, and the Opportunity of the Elections. Nexo Jornal, 19 May 2024. Available at: <https://www.nexojornal.com.br/ensaio/2024/05/19/mobilidade-crise-climatica-e-a-oportunidade-das-eleicoes>. Accessed on 12 April 2024.

¹⁰ Ministry of Transport. Vehicle Fleet – 2024. Available at: <https://www.gov.br/transportes/pt-br/assuntos/transito/conteudo-Senatran/frota-de-veiculos-2024>. Accessed on November 14, 2024.

¹¹ National Association of Public Transport (ANTP). Associação Nacional de Transportes Públicos (ANTP). Brazilian organisation focused on promoting and developing urban and collective public transport. Available at: <https://www.antp.org.br/>. Accessed on 19 July 2024.

The COVID-19 pandemic, by further reducing the number of people using public transportation, has exacerbated the problem, according to a report from NTU (National Association of Urban Transport Companies) in 2023.

In Brazil, this negative scenario has aggravating elements related to the form of system organisation. In most Brazilian municipalities, passengers pay for most operating costs of the public transportation service, and the remuneration of private companies providing the service is based on the number of passengers transported, a model called the Passenger per Kilometre Index (IPK, 2024). In addition to stimulating overcrowding of bus lines and making fares more expensive for passengers from more distant regions (Santarém, et al., 2021), this model has led to a vicious circle: to compensate for the loss in passengers, fares are driven up, but as the price increases, demand falls further (De Carvalho, 2013).

According to a 2024 study from the CNM (National Confederation of Municipalities) with 3,476 of the 5,568 Brazilian municipalities, 63% of respondents reported unbalanced contracts with the companies providing transportation services, pointing to financial difficulties, and 89% declared needing support to finance municipal public transportation (CNM, 2024). As defined by a mayor from one of the municipalities facing issues, *"it is a bomb about to explode."*¹²

This diagnosis is corroborated by the interviews from this brief. All seven city managers and policymakers interviewed say that the model of remuneration per passenger transported had been in "crisis". A comment by a manager in City F, who has been working in municipal public transportation for over 30 years, helps us understand this: *"We know that one of the problems in almost all municipalities is public transportation. Companies are breaking down, and without support, everything is going up, diese.. everything! [City F] had a company in the city for 40 years; it did an excellent job. But over time, it became unviable for them, and they went bankrupt. They complied with all the regulations and abandoned the service in 2019 (...)"*.

Due to these challenges, the model of financing public transportation became less attractive to companies over time. This led entrepreneurs to prioritise other sectors, seek alternatives to try to rebalance their contracts with municipalities, or abandon their efforts altogether and leave it to be implemented by the public authorities. Paradoxically, this dynamic has made entrepreneurs see direct financing of public transportation and fare-free as a solution (Santarém, 2023).

¹² Boghossian, Bruno. Mayors Say Bus Fares Are a Bomb About to Explode. Folha de S.Paulo, 26 November 2021. Available at: <https://www1.folha.uol.com.br/colunas/bruno-boghossian/2021/11/prefeitos-dizem-que-tarifa-de-onibus-e-bomba-prestes-a-explodir.shtml>. Accessed on 19 July 2024.

4. METHODOLOGY AND DATA

This brief uses both quantitative and qualitative approaches to provide a comprehensive understanding of fare-free public transportation in 114 Brazilian municipalities. Its main contribution is in compiling and analysing publicly available data on the policy in the areas of cost, contractual model, and passenger numbers, provided by city halls and reported on local newspapers.

Although Brazilian Law 12,527/2012 requires the public disclosure of administrative acts, there were limitations in data availability, and detailed information was not found for all municipalities in all dimensions. For example, only 85 of the 114 municipalities analysed made their policy budgets available. 69 among them provided budget, cost and contract information, while just 21 municipalities disclosed data on passenger number changes. This raises concerns about selection bias, as municipalities with more comprehensive data available are potentially the same ones with stronger management capacity - and, consequently, better policy outcomes.

The table below details numbers by population profile, comparing the total municipalities in Brazil with those that have implemented FFPT. Then, within the latter group, numbers for where there is data on budget, cost, contract, and changes in passenger numbers:

Population range (thousands)	Total number of cities by population range in Brazil (IBGE)	Total number of cities by population range implementing Fare-Free	Data found by population range - budget, cost of the policy and contract model	Data found about the change in passenger number after FFPT
0 - 20	3823	30	11	0
20 - 50	1072	52	32	4
50 - 100	339	21	15	10
100 - 400	271	11	11	7
400 +	65	0	0	0
Total	5570	114	69	21

Figure 2: Number of municipalities, divided by population range, for which there is data available in each of the policy dimensions and impacts covered by this brief, compared to the total in Brazil. Source: produced by the author.

The analysis of the brief combined simple statistics – summarising the available data outlined above – with comparisons on how costs and impacts varied between the municipalities using different contract models. Another comparison illustrates the difference in average costs between FFPT and solid waste management. Throughout the brief, efforts were made to ensure the reliability and validity of the data. Rigour and robustness were ensured by the triangulation of quantitative and qualitative findings and, wherever possible, multiple data sources.

Qualitative methods were then used to complement the data, through semi-structured interviews conducted with municipal managers and policymakers who have implemented the policy in seven municipalities in Brazil and one municipality in Estonia. These interviews aimed to understand motivations for adopting the policy, as well as implementation challenges and fare-free's impacts on mobility dynamics, social inclusion, and economic development. This material provided valuable context to the data and allows for a more comprehensive understanding of its repercussions.

The figure below provides a brief characterisation of the municipalities from which managers and policymakers were interviewed, in order of when the interviews were carried out:

City	Population size	Location (state)	Type of interview
City A	8,741	Rio de Janeiro, Brazil	Remote
City B	28,273	São Paulo, Brazil	In-person
City C	27,512	São Paulo, Brazil	In-person
City D	37,680	São Paulo, Brazil	In-person
City E	86,895	Rondônia, Brazil	Remote
City F	209,129	Goiás, Brazil	Remote
City G	461,000	Europe, Estonia	In-person

Figure 3: General data of the managers and policymakers from municipalities, interviewed in-person and remotely, in Brazil and in Estonia. Source: produced by the author.

In the municipalities where the interviews were conducted in person, I also had the opportunity to use the free public transportation service to get around the city. In some cases, it was possible to talk to passengers in an informal and unstructured manner to briefly understand their perception of the service. Some of these observations will be highlighted later in this work.

5. FINDINGS

The first main finding from this brief is that the expenditure incurred by municipalities to support FFPT is relatively low and does not significantly vary with population size (considering that the sample is larger in smaller municipalities).

The second main finding is that Brazilian municipalities that have implemented FFPT made fundamental changes to their contractual models to make the service financially viable. The third finding is that the policy impacts on mobility dynamics have been profound. Each of these findings is explored in more depth below.

Passenger numbers

Data on the number of passengers before and after the policy implementation was only available publicly (city hall and local media websites) for 21 out of the 114 municipalities that have implemented FFPT, partly because they generally did not have a system in place to track passenger numbers.

From the municipalities for which data is available, there was an 147% average increase in the number of passengers using public transportation after the fare-free policy was implemented, with one municipality — Parobé, in Rio Grande do Sul - reporting an increase of over 600%.

While this cannot be generalised due to data limitations and the selection bias issues previously mentioned, the most significant increases were observed in municipalities with populations between 100,000 and 400,000 inhabitants, as shown in the graph below.

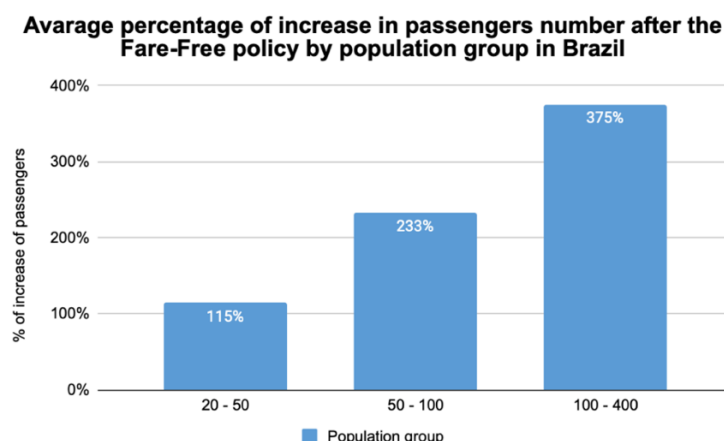


Figure 4: Change in passengers' numbers after fare-free implementation. Source: produced by the author based on data from city hall websites, media information and data publicly available on the internet.

The unverified nature of some of this data, which includes media-reported information from municipalities which are not directly available in the public domain, poses a challenge. Additionally, there is limited access to information from a larger number of municipalities. Given these factors and the different focus of this policy brief, it cannot be concluded that the high increase in the number of passengers in these municipalities was solely due to fare-free implementation. However, these data points suggest that the policy can be an important factor, especially in municipalities with populations between 100,000 and 400,000 inhabitants.

Beyond passenger numbers, municipal managers highlighted other effects, with the most mentioned being increased mobility for low-income people. This is further explored in a case study for Mariana (Santini, 2023), which by cross-referencing socioeconomic data and mobility, showed a significant increase in city access for poor people. In an interview conducted in City B, the policy manager emphasised ways in which the policy has provided transportation access for low-income people. A manager from City D - one of the pioneers in implementing the policy in Brazil, over 20 years ago — also emphasised its role in *"primarily benefiting the neediest people"*.

Another aspect highlighted was access to education. Managers in City A and City E mentioned that fare-free allowed residents of certain areas to attend courses in the city, in locations previously inaccessible. They even reported hearing from students that without free transportation, they would not have been able to start their studies due to the transportation costs of going to class every day.

A quote from a transport manager in City E, who has worked in the city's transport system for over 15 years, illustrates this impact: *"(...) the other day a lady stopped me and said, 'Look, I wanted to see my daughter but didn't have money for the fare. Today I was able to spend the day with my daughter.' So that's gratifying (...)"*.

Additionally, while there is no public and detailed information available about measurable impacts in the Brazil case, FFPT literature suggests that there is a strong impact on car usage in municipalities (Santini, 2023). Managers from City E, for example, mentioned a significant reduction in vehicle use for commuting; according to one, the reason was that *"it became more economical to travel by bus than by private vehicle"*. The policy manager in City F similarly noted a reduction in vehicles in the city centre. Beyond these results, six out of the seven city managers interviewed reported beneficial economic impacts, such as job generation, increased local commerce activity, or savings for companies. The mayor from City D also mentioned positive feedback from companies due to savings on transportation allowances.

When comparing some of these results with those observed in Europe, the difference is substantial. While Tallinn — one of the most established municipalities in implementing the policy - experienced approximately a 14% increase in passenger numbers after FFPT (Cats et al., 2017), Brazilian municipalities for which data was available saw an average increase of 147% after the policy. Additionally, some of the other impacts mentioned above are not frequently highlighted in the international literature on FFPT.

The hypothesis is that the impacts in Brazil are greater than in higher-income countries because fare-free transportation in Brazil did not serve as an alternative for existing public transportation (Cats et al., 2017) but rather allowed travel for those previously unable to afford any kind of transport – and particularly low-income people, who are disproportionately Black in Brazil.

Absolute and relative costs

Since FFPT was first raised by social movements in Brazil, and most notably since the 2013 protests (Singer, 2013), some experts have argued for its infeasibility while others advocated for its viability. Though based on limited and non-representative budget data, available only for 85 of the 114 municipalities which implemented the policy, the research on this brief suggests that implementing fare-free public transportation in Brazilian municipalities could be indeed financially viable across all budget ranges.

At the median in the municipalities for which data was available, the policy accounts for less than 1% of municipal budgets (0.78%). Additionally, these municipalities spend an average of R\$46 (USD 9.2) per capita per year. This translates to approximately 0.12 USD cents per day per capita. Therefore, according to this data, the budget necessary to implement the policy is relatively low both in absolute and relative terms.

While the absolute cost is higher for larger municipalities, this relationship changes when looking at per capita costs — how much municipalities spend per inhabitant—, with budget variation across population ranges not following a clear pattern:

Total average budget per year of the Fare-Free by population group in Brazil

How much in average the City Hall spend annually on the Fare-Free policy

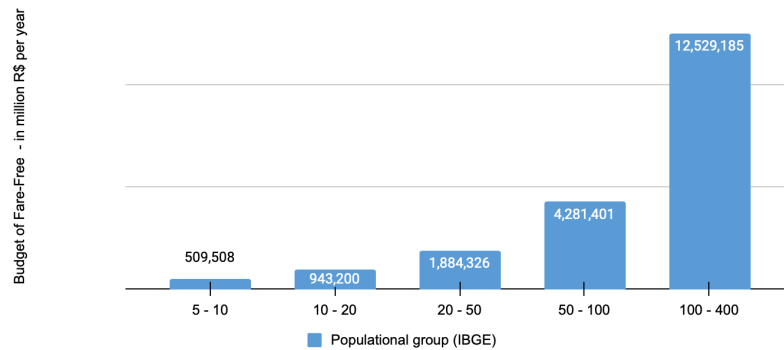


Figure 5: Average budget spent per year on fare-free public transportation by city halls in Brazil, separated by population range. Source: produced by the author with public information collected from city halls.

Per capita budget of the Fare-Free policy by population group

Budget per citizen spent in Fare-Free policy by the City halls

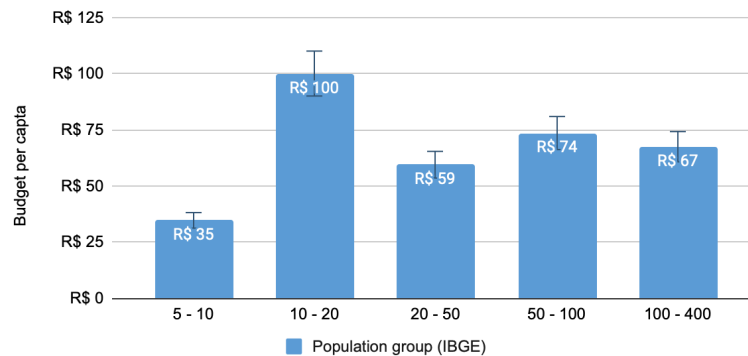


Figure 6: Per capita budget spent on fare-free public transportation by Brazilian city halls separated by population range. Source: produced by the author with public information collected from city halls.

This gives us two important indications. The first is that the implementation models of FFPT, as well as the transport structures, may vary considerably. The second and most important is that implementing the policy in larger municipalities is not necessarily more costly — while recognising that the sample size for larger municipalities is smaller and that no municipalities over 400,000 inhabitants have implemented the policy.

Another relevant consideration is that this data may be subject to selection bias: municipalities that have implemented the policy may have done so precisely because they were better prepared or had more favourable technical, administrative, or political conditions. As a result, these findings may not be fully generalisable or easily extrapolated to other contexts.

When looking at how much FFPT represents as a proportion of the total budget of the municipalities no pattern emerges, though there is a slightly higher value among larger municipalities.

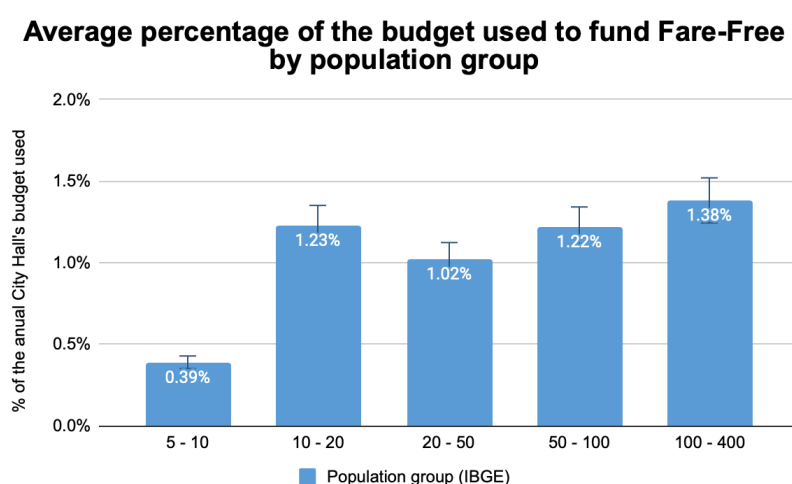


Figure 7: Average percentage of the cities' budget used to fund fare-free transportation separated by population range. Source: produced by the author based on public information collected from city halls.

Again, the difference between larger and smaller municipalities varies between 0.39% and 1.38% of budget according to population size, a somewhat limited range. This suggests that, for municipalities with populations between 5,000 and 400,000 inhabitants, the commitment of the municipal budget to fund fare-free public transport could remain below 2%, with no clear correlation with population size.

These measures of relative budget impact could be misleading if fare-free policies were being mostly adopted in municipalities that are wealthier than average, have larger budgets and therefore, are better able to bear the burden of new expenditures. However, the chart below - comparing the income profile of FFPT-adopting municipalities (in red) with the profile of Brazilian municipalities in general (in blue) — shows that this is not the case: municipalities that have implemented FFPT do not fit a single profile, and in fact vary considerably in terms of their GDP per capita. This finding challenges the common assumption that fare-free transit is only viable in wealthier municipalities.

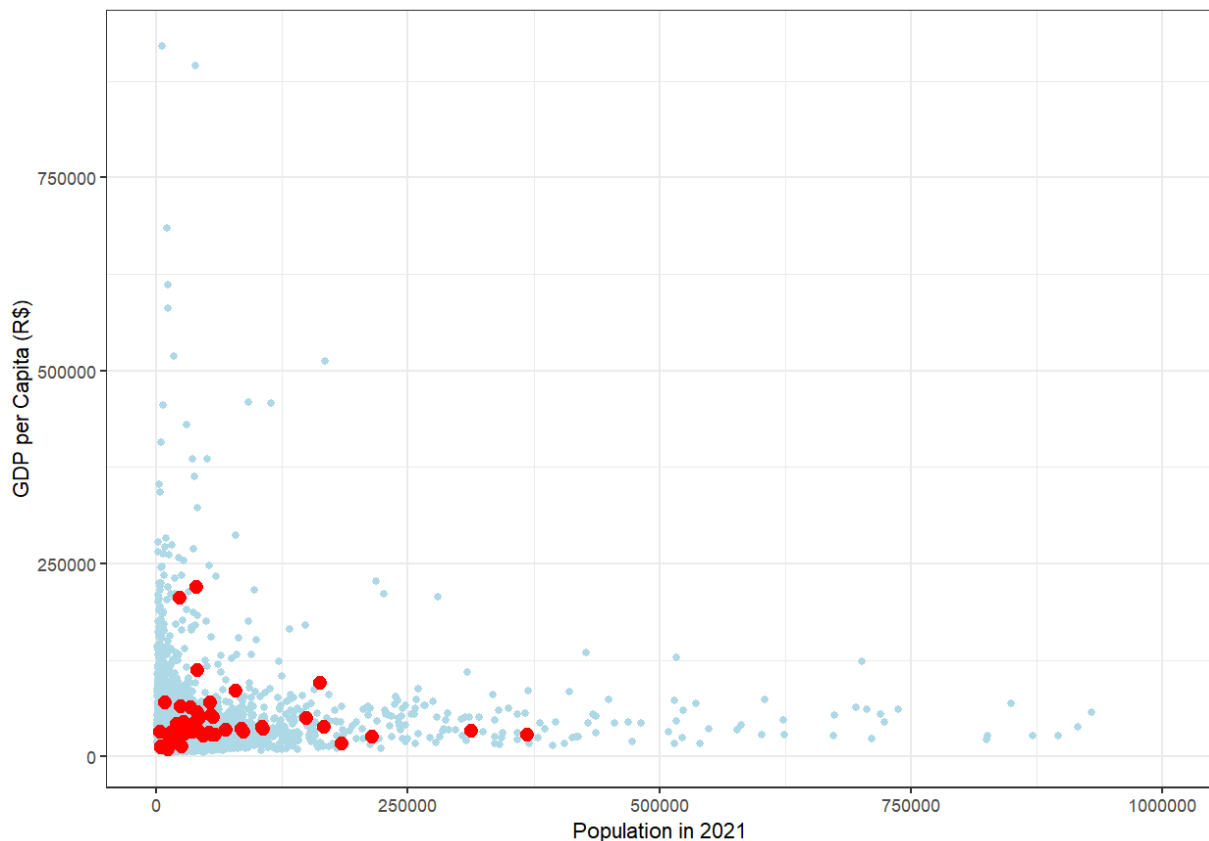


Figure 8: GDP per capita vs. population - scatter plot comparing the wealth of every municipality below a million inhabitants (blue dots) with the municipalities that implemented FFPT in Brazil (red dots). Produced by the author based on data from IBGE (2021).

This does not preclude the fact that municipalities implementing fare-free transportation might still not be representative of Brazilian municipalities in general across various domains. For example, fare-free policy adoption so far has been concentrated in the South and Southeast regions of Brazil, with few examples from the North, Northeast, or Center-West regions.

Solid waste management: a cost comparison

What does 1.35% of a municipality's budget mean? Simple at first glance, this percentage can mean different things for different municipalities. To establish a comparison base, this brief will be using solid waste transportation and collection.

This choice was informed by three factors. The first is that solid waste management is, like public transportation, in the realm of municipal governments in Brazil, according to the National Solid Waste Policy (Law 12,305/2010). The second is that, also like public transportation, solid waste management

encompasses different steps, from collection to treatment, and including transportation. The third is that, due to the National Solid Waste System, comparable data was available across municipalities. Thus, solid waste management was chosen as a policy of comparison with FFPT, while recognising that transporting waste is different from transporting people in several aspects.

It is estimated that, on average, Brazilian municipalities spend annually about R\$137 (USD 28) per inhabitant on solid waste management, covering collection, transport and treatment. About 66% of this amount is spent solely only on the waste collection and transportation steps (Ferreira et al., 2021), or about R\$90 per capita on average. Using these as parameters, an estimate was made on approximately how much of their budgets Brazilian municipalities spend on waste collection and transportation.¹³

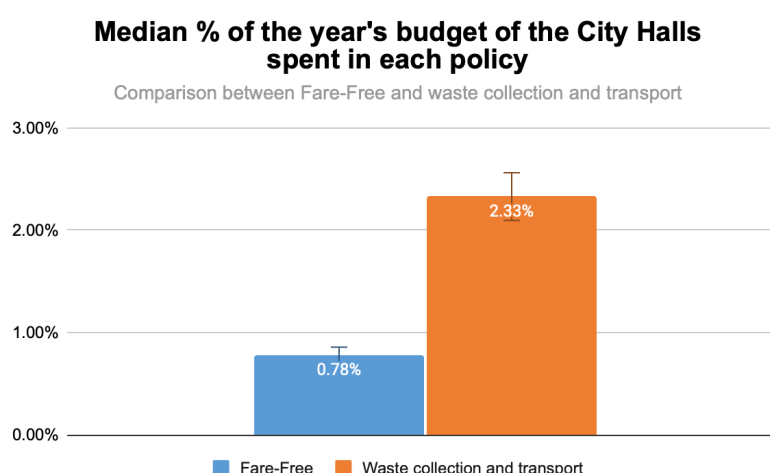


Figure 9: Median percentage of the yearly budget of the city halls spent in each policy: fare-free and waste collection and transport. Source: produced by the author based on public information collected from city halls and data available on the SNIS - National Sanitation Information System.

Brazilian municipalities that implemented FFPT spend a median of 0.78% of their annual budgets on it (Figure 7). These same municipalities, according to the parameters used, spent 2.33% of their annual budgets on waste collection and transport. This brief does not question the importance of solid waste management and the necessary budget to carry it out but rather aims to put these costs into perspective. The conclusion is that, when analysed alongside another complex policy with similar local-level responsibility, the relative cost of providing fare-free transport is relatively low.

¹³ This value is based on the mean of the municipalities that implemented fare-free policies and may be higher or lower depending on the region and city.

Implementation models

Model	Company Responsibility	Municipality Responsibility
Concession	Implement public transportation services, establishing routes, fare prices, and schedules, in alignment with the municipality.	Supervise the service provision.
Service	Provide the service as established in the contract, including vehicles, drivers, maintenance, and fuel.	Implement public transportation services, establishing routes, schedules, the number of vehicles, and the remuneration method.
Supply	Supply the product to the municipality, in this case, the vehicle.	Implement public transportation services using the product supplied by the company.

Figure 10: Models of fare-free implementation in Brazilian municipalities, based on the Law of Bidding and Contracts. Source: produced by the author based on public information collected from city halls.

As previously mentioned, the public transportation system in Brazil is in a challenging moment, a diagnosis which was corroborated by our interviews. To consider ways to move beyond the current model, it is useful to understand how transportation services can be legally provided in Brazil. The Federal Law of Bidding and Contracts (Law 14,133/2021) establishes the forms of contracts (including with FFPT) that the public administration can sign with companies. There are three available models: concession, service provision and supply.

1 - Concession

In this model, the public administration grants a private company the right to operate a public service (such as public transportation) for economic gain and provides indirect oversight. Concessions are usually long-term contracts, lasting decades, that are legally complex to terminate. In the case of FFPT, municipalities using this model authorise the company to operate the service and earn a profit – but instead of generating revenue through passenger fares, the public administration pays the company directly.

2 - Service provision

In this model, the public administration contracts a service provider such as a private company to deliver a public service (including public transportation), with specific requirements outlined in their contract and a more direct oversight. In the case of public transportation, this often includes the provision

and maintenance of vehicles, the cost of fuel and the hiring of drivers. Unlike in a concession, in this model the public administration retains control over parts of service execution – such as setting routes and schedules – while the provider only handles operations.

3 - Supply

In this model, the contracted company only supplies the vehicle to the public administration and, in most cases, has no responsibility for maintenance or any other service related to the provision of the service, which is fully done by the municipality.

The available data shows that 26 municipalities that implemented FFPT made a transition from the concession model to the service provision model. When making this transition, the municipalities also changed the remuneration model from price per passenger to price per kilometre. In other words, the city administration defined a value (different for each city) to be paid per kilometre travelled by the buses, and then a number of kilometres were “contracted” to be provided by the companies, regardless of how many passengers were using the buses. According to the interviews, this change from the concession to the service provision model contributed to the viability of FFPT. However, it should be noted that 32 municipalities remained in the concession model. In these cases, no further information was available on these contracts and how they defined how transport was being delivered.

Costs of each implementation model

Each of the models mentioned has differences in implementation and costs, and the motivation for choosing one or the other vary. For example, a manager from City A mentioned that the service model was the most economical for the city: *"By renting (the vehicle), outsourcing it, and doing only the routes of the municipality, for me, it becomes much cheaper. I don't have a problem with maintenance, with tyres..."*

Six out of the seven city managers interviewed reported that their city implemented fare-free through the service model. In addition to the manager in City A, those in Cities D and B also mentioned that the service model is the most economically viable for their context. When looking at the general data, however, there is no predominant implementation model, with about 43% being concession, 35% service, and 21% supply. However, a pattern emerges when we look at the cost of each model:

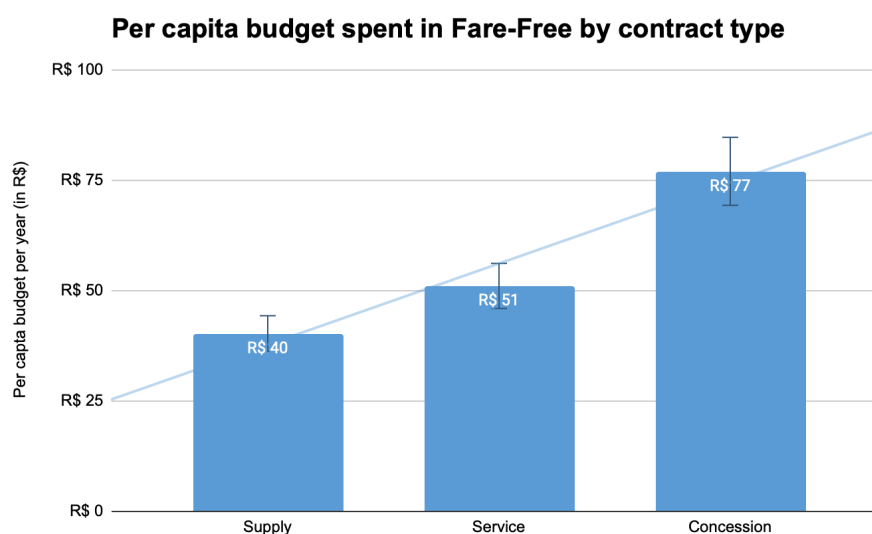


Figure 11: Per capita budget spent in fare-free public transportation per contract type in Brazilian municipalities. Source: produced by the author based on public information collected from city halls.

Municipalities that implemented FFPT through a concession model had the highest average cost per capita, of approximately R\$80 (USD 16), while in the service and supply models, municipalities spent an average of R\$45 (USD 9) and R\$40 (USD 8), respectively. Although the existing data does not allow for broader conclusions on the reasons behind this variation, it's notable that municipalities that implement FFPT through concession spend almost twice as much as municipalities that implement FFPT through service and supply models.

Here, it can be noted that the concession model is precisely the one that municipalities abandoned due to its unsustainability in a scenario of declining passenger numbers (and associated revenues) to turn a profit for the company.

6. POLICY RECOMMENDATIONS

Population range (thousands)	1. How to finance?	2. Which contract model?	3. Who oversees the system?	4. How to monitor and evaluate?
0 - 20	Public budget	Supply and Service	Municipal Public Authority	Establish validation gates or other autonomous mechanisms for monitoring bus entry/exit controlled by the City Hall, as well as qualitative and quantitative evaluations
20 - 50	Public budget	Service		
50 - 100	Public budget	Service and Concession		
100 - 400	Public budget+ additional revenue raising measures	Service and Concession		
> 400	Public budget+ additional revenue-raising measures	Service and Concession		

Figure 12: Summary of recommendations by population group. Source: produced by the author.

Given the evidence outlined above, the following recommendations aim to answer how municipalities can make FFPT feasible by addressing the following questions:

How to finance the fare-free policy?

Which contract model to use for the fare-free policy?

Who oversees public transportation in a fare-free policy system?

How to monitor and evaluate the implementation of a fare-free policy?

To be sure, each city should carefully consider its local reality when designing the policy and check how the observations presented here can be of assistance. On some of these topics, we present segmentation by population groups to account for different realities. There is no city over 400,000 inhabitants that has implemented FFPT in Brazil as of the time of writing of this brief, with the largest being around 350,000 inhabitants. While the lack of data prevents us from making clear recommendations, we offer suggestions grounded in the available evidence and plausible inferences drawn from the features of these municipalities.

For all population groups, managers are advised to pursue the transition to electric vehicles, considering both the potential operational cost savings and the need for carbon emission reduction

in Brazilian municipalities, while recognising the need for support in dealing with the upfront costs of this transition.

How to finance the fare-free policy?

Remuneration by service: the main change that enabled fare-free public transport in the municipalities that implemented it was a change in their contracts—regardless of if they were concession, service provision, or supply—from remuneration *per passenger* to remuneration *per kilometre operated*. This can help break the vicious cycle of rising fares and ensure the contracted company is paid based on what it runs, rather than on passenger numbers. Some municipalities were able to renegotiate their existing contracts with companies to remodel the contract, while others redefined it in the service provision contract, specifying the remuneration per kilometre executed.

Budget planning: city managers emphasised the importance of financial planning and clear cost estimates for each step of the implementation process in making FFPT feasible. This also involves including FFPT in the Municipal Budget Laws to guarantee proper allocation, and reallocating expenses from other areas if FFPT exceeds the current public transport expenditure. Contractual revisions and new bidding processes may also be required.

Budget

- **For populations up to 100,000:** FFPT was made feasible in most of those municipalities by using between 0.70% and 1.15% of city's annual budgets. No additional revenue-raising measures are recommended for this group.
- **For populations between 100,000 and 400,000:** depending on the local context and the city's financial situation, in this population range it may be necessary to generate additional revenue to fund FFPT. It's not that the fare-free system becomes necessarily more expensive in these municipalities, but rather that resource reallocation and contractual revision might present extra administrative challenges and that the existing municipal budget might not be enough to cover new expenses. Therefore, it is recommended that municipalities in this bracket explore measures to raise additional revenue. Possible models include: 1) redesigning the transport allowance for directing this amount paid by companies to a municipal fund for fare-free public transport; 2) taxing individual transport through urban tolls or increasing/introducing parking charges; 3) allocating municipal taxes for fare-free funding, such as property and vehicle taxes; and 4) obtaining revenue from promoting advertisements on buses. These measures may incur additional costs and implementation challenges

of their own. Although these options are documented in the academic literature and illustrated by some practical examples in Brazil, their feasibility may face political and technical challenges depending on the specific context of each city.

- **For populations over 400,000:** even though no municipalities in this range have introduced FFPT, the transport system can be expected to become more complex in this population range, often encompassing different contractual models and multiple transportation modes (buses, trains, subways, ferries, etc.). This can make reallocation, contractual redesign, and other implementation aspects more challenging. While these municipalities have added complexities, they also have greater potential for revenue generation, to be explored on a case-by-case basis based on practical and political feasibility considerations.

Which contract model to use for the fare-free policy?

Contractual autonomy

Concessions are typically long-term contracts, often lasting decades, with various legal obstacles to termination. By changing the contractual model to service provision, municipalities can have shorter contracts with more flexibility for termination in case of poor performance and a greater focus on quality. This was a relevant factor mentioned by municipal managers in making FFPT feasible.

Contract

- **For populations up to 20,000:** in this population range, most municipalities implement FFPT either through a supply contract or a service provision contract. The supply model proved effective for municipalities with few vehicles (two or three) due to small territory. In these cases, the city purchases the buses and employs drivers as municipal civil servants. Other municipalities opt for service provision contracts, including vehicles, maintenance, drivers, and often refuelling. These contracts are slightly more expensive due to their broader scope. Therefore, it is recommended that municipalities with smaller territories and fewer vehicle demands establish a supply contract while larger municipalities use a service provision contract.

- **For populations between 20,000 and 50,000:** municipalities in this population range often transitioned from their (financially unsound) concession model, which used to be the standard, to a service provision contract – though the latter proved to be more expensive. Therefore, it is recommended that municipalities in this population range use the service provision model,

including drivers, vehicles, vehicle maintenance, and refuelling. If the municipality has joint fuel purchase processes for other municipal administration vehicles, consider including the public transport fuel quantity, as buying in bulk tends to reduce fuel costs and make the fare-free transport contract more economical.

- **For populations between 50,000 and 100,000:** historically, the concession model has been the most adopted for public transport provision in Brazil, especially in municipalities with more than 20,000 inhabitants. These contracts often last decades, and the difficulty in breaking them might account for the high number of municipalities with FFPT still using them. While municipalities have sought to negotiate alternatives with companies, concession contracts remain comparatively more expensive than other contracts of supply or service provision. Thus, it is recommended that municipalities in this range, if facing difficulties navigating concession contracts, negotiate a transition to a service provision model. For those without conflicting or complex concession contracts, it is recommended to opt for the service provision model altogether, being the most economical and providing more autonomy in service provision.

- **For populations between 100,000 and 400,000:** in this population range, no model predominated. Municipalities are recommended to review and renegotiate contracts to ensure greater autonomy and operational efficiency, prioritising a service provision over a concession model whenever possible. The same is recommended for municipalities over 400,000 inhabitants.

Who oversees public transportation in a fare-free policy system?

All population groups

- **Public control and governance autonomy:** most municipalities currently use a concession model and thus have few levers of control of the operations of their transportation networks, making them vulnerable to mismanagement and incomplete data on cost, passenger numbers and other service aspects. A key change for implementing fare-free in all municipalities researched was for municipal authorities to assume a greater degree of control of the public transportation system, and then enhance transparency on cost, demand, and passenger data. That public control should be translated into enhanced governance autonomy of service delivery itself, with clear mechanisms to match lines and vehicles to mobility patterns, for example.

- **Citizen engagement and feedback:** a common challenge reported by managers and subject to population complaints is adherence of buses to schedules. Thus, municipalities are recommended to create participatory mechanisms for citizens to engage in the planning and monitoring of lines, and

frequencies, with some municipalities leveraging the use of digital tools to monitor real-time feedback and make adjustments.

- **Legislation:** to fend off legal challenges, particularly by transport companies, and ensure greater policy stability and perpetuity across administrations, municipalities are advised to enshrine FFPT as municipal legislation, a decision made by most municipalities researched that implemented FFPT.

How to monitor and evaluate the implementation of a fare-free policy?

All population groups:

- **Monitoring:** some municipalities that implemented FFPT removed the turnstiles in buses, which were used to control access and monitor passenger numbers. These municipalities now work with estimates, and the lack of precise demand data creates challenges in service provision and the allocation of lines and vehicles. Municipalities should consider establishing validation gates or other mechanisms for monitoring entry/exit and counting passengers per vehicle and line. These should be autonomous from the transport companies to avoid conflicts of interest, and with public control. This could improve data transparency and reliability and support service improvements.
- **Qualitative and quantitative evaluation:** as pointed in the first section of this brief, fare-free policies can have important direct and indirect effects which have been insufficiently measured, leading to a lack of the data that would likely be helpful for policymakers. Municipalities could benefit from measuring and evaluating effects of this policy, but to make sense of these, policymakers first need to establish clear baselines of comparison. The specific methods employed to do this are less important, as long as they remain rigorous. Therefore, it is recommended that the municipality, within its means, implement policy evaluation methods including quantitative and qualitative assessment and impact evaluations. Such measures can help identify implementation issues and improve effectiveness.

7. CONCLUSION

This brief explores the rationale behind the advancement of fare-free public transportation policy in Brazilian municipalities and the best available pathways for its implementation, noting available evidence for its multifaceted impacts.

More broadly, this brief highlights the need for Brazilian municipalities to shift from an urban model centred on individual transportation towards one that prioritises public transit. More specifically, it shows that municipalities are under pressure to achieve two objectives simultaneously: i) maintain the financial viability of public transportation systems, while trapped in a vicious circle of fare increases and falling passenger numbers; and ii) fulfil the newly established constitutional right to transportation, particularly for marginalised populations.

Fare-free policies, by shifting the financial burden of transport from mostly low-income residents to municipal administrations, can help address both challenges. However, this shift is only sustainable if accompanied by changes in contractual arrangements between provider companies and municipalities — specifically, moving away from costly concession models and replacing remuneration based on passenger numbers with compensation directly tied to the provision of services.

As expected, fare-free transportation in Brazil is often accompanied, according to the data, by an increase in the numbers of passengers using the system, an effect which appears more notable than in higher-income countries implementing the same policy. The hypothesis is that while in these richer places, fare-free transportation serves as a new alternative to existing locomotion by modes like cars, bicycles, and walking, in Brazil it more often means mobility to those who did not previously have it.

On that note, it is worth mentioning that historically perpetuated patterns of spatial urban organisation in Brazil moved marginalised groups – who are, disproportionately, Black — further from city centres and the social and economic benefits associated with it. Fare-free policies, by facilitating transportation for this group, could have then an indirect effect in addressing social and racial inequalities. Notably, some Brazilian municipalities that have implemented fare-free have reported a significant increase in the number of poor people (and in consequence, Black) using public transportation.

Additional impacts from this policy reported by city managers also include increased commerce and tax collection, improved access to public services, and more. Though more data is necessary to corroborate this, by potentially reducing car usage and its associated carbon emissions, fare-free can also contribute to addressing climate change. Additional efforts to switch to electric fleets, though expensive in the short term, would provide savings in the long term – contributing to both the financial

sustainability of FFPT and to further reductions in carbon emissions. It is worth mentioning that every administrator interviewed for this brief from municipalities that have implemented fare-free in Brazil would recommend it to their counterparts.

Beyond positive impacts, relevant trade-offs can also be highlighted. Several municipalities that implemented FFPT did not expand their fleets to keep up with the increased demand, sometimes leading to route overcrowding and a lack of service frequency. Additionally, managers reported difficulties in keeping to schedules with FFPT, given the significant fluctuations in demand for routes. Therefore, it is important to consider not only the overarching financial structure and contractual model, but also mechanisms to maintain and improve service quality over time.

An additional point is the persistent lack of data on several dimensions of the implementation and impact of FFPT. Greater transparency from municipalities, alongside improved monitoring and evaluation using both quantitative and qualitative methods, could significantly enhance our understanding of how the policy operates and its effects. This brief encourages data collection to also monitor the likely indirect impacts noted in it, such as potential reductions in inequality and air pollution.

Additionally, FFPT proponents would benefit from a more qualified debate on public transportation nationally. Brazil is a federal country with continental dimensions, and therefore, like in health and education, effective public transportation could benefit from better coordination between the municipal, state, and federal levels while respecting municipal autonomy. This national policy on public transportation is currently expressed in propositions such as the creation of the Unified Mobility System through a Constitutional Amendment.¹⁴ Another proposal in discussion would allow for the money that is currently provided by companies for employee transportation allowances to flow directly to municipality's budgets in cases where fare-free has been implemented, something that is barred under existing legislation.

In sum, this work demonstrates ways in which fare-free transportation can be made feasible in Brazil and, when well implemented, tackle underlying structural problems with public transportation systems, potentially reduce social (and racial) inequalities and contribute to a reduction in emissions. Beyond these concerns, fare-free can also play a role in making concrete the right to transportation and the right to the city at large. Taken together, these experiences and the analysis of this brief invite a broader rethink on ways to make cities more accessible, sustainable, and egalitarian.

¹⁴ Proposal Establishes Universal and Free Public Transport System. Chamber of Deputies News Agency, 2024. Available at: <https://www.camara.leg.br/noticias/974009-PROPOSTA-ESTABELECE-SISTEMA-DE-TRANSPORTE-PUBLICO-UNIVERSAL-E-GRATUITO>. Accessed on 12 July 2024.

8. REFERENCES

- Associação Nacional das Empresas de Transportes Urbanos (NTU). (2024). NTU Yearbook 2023–2024 Anuário NTU 2023–2024. Brasília. (ChatGPT translation: "NTU Yearbook 2023–2024.")
- Bertolini, L., & le Clercq, F. (2003). Urban development without more mobility by car? Lessons from Amsterdam, a multimodal urban region. *Environment and Planning A*, 35(4), 575–589.
- Brazilian Ministry of Regional Development & Inter-American Development Bank. (n.d.). Guia de Eletromobilidade: orientações para estruturação de projetos no transporte coletivo por ônibus. Retrieved from https://www.gov.br/cidades/pt-br/central-de-conteudos/publicacoes/mobilidade-urbana/Guia_Eletromobilidade.pdf. (ChatGPT translation: "Electromobility Guide: Guidelines for Structuring Projects in Bus-Based Public Transport.")
- Caribé, D. A. (2021). Tarifa Zero: mobilidade urbana, produção do espaço e Direito à Cidade. (ChatGPT translation: "Zero Fare: Urban Mobility, Space Production and the Right to the City.")
- Carvalho, C. H. R. de. (2019). Financiamento extratarifário da operação dos serviços de transporte público urbano no Brasil. Brasília: Instituto de Estudos Socioeconômicos. (ChatGPT translation: "Off-Fare Funding of Urban Public Transport Services in Brazil.")
- Cats, O., Susilo, Y. O., & Reimal, T. (2017). The prospects of fare-free public transport: Evidence from Tallinn. *Transportation*, 44, 1083–1104.
- Cidade, R. B., & Júnior, T. M. de A. L. (2016). O direito ao transporte como direito fundamental social. *Revista de Direito Urbanístico, Cidade e Alteridade*, 2(1), 196–216. (ChatGPT translation: "The Right to Transport as a Fundamental Social Right.")
- De Carvalho, C. H. R., et al. (2013). Tarifação e financiamento do transporte público urbano. (ChatGPT translation: "Pricing and Funding of Urban Public Transport.")
- De Carvalho, C. H. R. (2016). Desafios da mobilidade urbana no Brasil. Texto para Discussão. (ChatGPT translation: "Challenges of Urban Mobility in Brazil.")
- Fernandes, F. (2008). A Integração do Negro na Sociedade de Classes. São Paulo: Editora Ática. (ChatGPT translation: "The Integration of the Black Population in Class Society.")
- Gomide, A. de Á. (2006). Mobilidade urbana, iniquidade e políticas sociais. (ChatGPT translation: "Urban Mobility, Inequality and Social Policies.")
- Gonçalves, C. C., & Santini, D. (2023). Tarifa Zero, segregação e desigualdade social: um estudo de caso sobre a experiência de Mariana (MG). *Journal of Sustainable Urban Mobility*, 3(1), 111–121. (ChatGPT translation: "Zero Fare, Segregation and Social Inequality: A Case Study on the Experience of Mariana (MG).")
- Gregori, L., et al. (2020). Tarifa zero: a cidade sem catracas. São Paulo: Autonomia Literária. (ChatGPT translation: "Zero Fare: The City without Turnstiles.")
- Hasenbalg, C. (2005). "A transição para a liberdade, industrialização e relações raciais." In *Discriminação e desigualdades raciais no Brasil*. Belo Horizonte: Editora da UFMG. (ChatGPT translation: "The Transition to Freedom, Industrialisation and Race Relations.")
- Instituto Brasileiro de Geografia e Estatística (IBGE). (2010). Censo Demográfico 2010: Aglomerados Subnormais – Informações Territoriais. Rio de Janeiro: IBGE. Retrieved from https://biblioteca.ibge.gov.br/visualizacao/periodicos/552/cd_2010_agsn_if.pdf. Accessed on 14 April 2024. (ChatGPT translation: "Demographic Census 2010: Subnormal Agglomerates – Territorial Information.")
- Instituto Brasileiro de Geografia e Estatística (IBGE). (2022). 2022 Demographic Census: Preliminary Results. Rio de Janeiro: IBGE. Retrieved from <https://agenciadenoticias.ibge.gov.br/agencia-noticias/2012-agencia-de-noticias/noticias/38719-censo-2022-pela-primeira-vez-desde-1991-a-maior-parte-da-populacao-do-brasil-se-declara-parda>.
- Instituto de Pesquisa Econômica Aplicada (IPEA). (2011). Mobilidade Urbana no Brasil. In *Infraestrutura Social e Urbana no Brasil: subsídios para uma agenda de pesquisa e formulação de políticas públicas*. Brasília: IPEA. Retrieved from https://www.ipea.gov.br/portal/images/stories/PDFs/comunicado/110525_comunicadoipea94.pdf. (ChatGPT translation: "Urban Mobility in Brazil.")
- Kętbowski, W., Maciejewska, M., Gillard, M., & Boussauw, K. (2025). Fare-free public transport. In *The Routledge Handbook of Sustainable Urban Transport* (pp. 257–267). London: Routledge. <https://doi.org/10.4324/9781003425489-22>
- Lefebvre, H. (2008). O direito à cidade (5th ed.). São Paulo: Centauro. (ChatGPT translation: "The Right to the City.")

- Maricato, E. (2011). O impasse da política urbana no Brasil. Petrópolis: Editora Vozes. (ChatGPT translation: "The Deadlock of Urban Policy in Brazil.")
- Nascimento, A. (2016). O genocídio do negro brasileiro: processo de um racismo mascarado. São Paulo: Editora Perspectiva. (ChatGPT translation: "The Genocide of the Black Brazilian: The Process of a Masked Racism.")
- Pereira, T. F., Vermader, M., & Kębtowski, W. (2023). Motivations and characteristics of FFPT policies in selected Brazilian municipalities. *Journal of Sustainable Urban Mobility*, 3(1), 122–138.
- Rodrigues, M., Da Mata, D., & Possebom, V. (2024). Free Public Transport: More Jobs without Environmental Damage? Retrieved from <https://arxiv.org/pdf/2410.06037v1>. Accessed on 7 November 2024.
- Santarém, P. D., Albergaria, R., & Santini, D. (Eds.). (2021). Mobilidade antirracista. São Paulo: Autonomia Literária. (ChatGPT translation: "Antiracist Mobility.")
- Santarém, P. D. (2023). Ensaio sobre o incontornável: do ciclo vicioso da tarifa ao ciclo virtuoso da Tarifa Zero. *Journal of Sustainable Urban Mobility*, 3(1), 21–32. (ChatGPT translation: "Essay on the Inevitable: From the Vicious Fare Cycle to the Virtuous Zero-Fare Cycle.")
- Santini, D. (2019). Passe livre: as possibilidades da tarifa zero contra a distopia da uberização. São Paulo: Autonomia Literária. (ChatGPT translation: "Free Fare: The Possibilities of Zero Fare against the Dystopia of Uberisation.")
- Sheller, M., & Urry, J. (2000). The city and the car. *International Journal of Urban and Regional Research*, 24(4), 737–757.
- Silva, M. N. (2006). Nem para todos é a cidade: segregação urbana e racial em São Paulo. Brasília: Fundação Cultural Palmares. (ChatGPT translation: "The City Is Not for Everyone: Urban and Racial Segregation in São Paulo.")
- Silveira, M. R., & Cocco, R. G. (2013). Transporte público, mobilidade e planejamento urbano: contradições essenciais. *Estudos Avançados*, 27, 41–53. (ChatGPT translation: "Public Transport, Mobility and Urban Planning: Essential Contradictions.")
- Singer, A. (2013). Brasil, junho de 2013, classes e ideologias cruzadas. *Novos Estudos CEBRAP*, 23–40. (ChatGPT translation: "Brazil, June 2013: Crossing Classes and Ideologies.")
- Veloso, A., Oviedo, A., Vaz de Melo, G., Afonso, J., Assis, L., Birchall, L., Reis, L., Correa, M., & Planka, nu. (2020). A estrutura de poder do trânsito. São Paulo: Fundação Rosa Luxemburgo. (ChatGPT translation: "The Power Structure of Traffic.")
- Xavier, B. O. (2020). Transporte público por ônibus no Brasil e a Covid-19: rumo ao colapso dos sistemas. In Congresso de Pesquisa e Ensino em Transportes. (ChatGPT translation: "Bus Public Transport in Brazil and COVID-19: Towards the Collapse of the Systems.")