Governance Models for Implementing Fare-Free Public Transport: A Comparative Analysis

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Over 50% of the world's population, 4.4 billion people, currently live in cities. This number is projected to increase to over 70% by 2050 (The World Bank, 2023). It is therefore imperative that these cities can grow sustainably into the future. However, cities face a range of complex issues, from traffic congestion to environmental pollution and social inequality. The United Nations Sustainable Development Goals provide targets to address these issues, and SDG 11.2 specifically aims to "provide access to safe, affordable, accessible and sustainable transport systems for all" (United Nations, 2022). One solution that has gained attention in recent years is fare-free public transport (FFPT). By abolishing fares for select groups of the population, or the population at large, scholars argue that the issues above get alleviated. (Cats et al., 2016; Fearnley, 2013; Grzelec & Jagiełło, 2020).

But how does a city, municipality, or region implement FFPT? The effects of such a system may have urban and economic consequences, but the decision-making process leading up to it is inherently political. While there may be benefits to fare abolition, such as mitigating the issues above, there are also drawbacks. Cost and efficiency issues arise when tickets become free, and FFPT is usually paid for by tax money. The government and governance structures therefore need to be capable of justifying fare abolition to their citizens, but evidence is rare. Due to these systems only existing for a relatively short period of time, Estonia's capital Tallinn in 2013 and Luxembourg in 2020 being the most recent major ones, empirical evidence is only just starting to make its way to the literature (Carr & Hesse, 2020; Cats et al., 2016).

Currently, fare-free public transport systems are mainly being researched by urban studies scholars, and economics (Fiedeń & Štraub, 2023; Kębłowski, 2022; King & Taylor, 2023). The political processes of structure, justification, and implementation remain underexposed. Political science literature rarely concerns itself with public transport governance, instead focusing on overarching structures of governance (Hooghe & Marks, 2003; Paulsson et al., 2017; Sørensen et al., 2023). With public transport becoming fare-free in more cities worldwide, such as Dunkerque, Alexandria, and Washington D.C., FFPT is quickly entering the mainstream political debate. This thesis will attempt to provide more concrete background to the political dimension of fare-free public transport by documenting and providing analytical insights through its research question: **What is the effect of stakeholder involvement in the design-making process in the field of fare-free public transport?**

This paper will detail the research done through a qualitative content analysis of news articles, newsletters, press releases, and government reports to critically assess different types

of governance structures. How stakeholders are involved, how plans are justified by relevant actors, and what effects they have on implementation are all relevant factors that will be considered.

Literature review

Public transport

From a macro-economic theoretical perspective, regular public transport is most often categorized as an impure public good (Sandler, 1998) or club good (Platje, 2012). A public good is considered to be non-rival and non-excludable. However, nearly no good can perfectly adhere to these typologies, and public transport is no exception. The rivalry of public transit is physical, due to a limited amount of seats on vehicles, yet also influenced by policy. If the allocation of public transport vehicles is proper and abundant, the usage of the good by one individual should not subtract from the experience of others; it is impurely non-rival.

The case for non-excludability is less clear. If fares are affordable enough, no individual can be reasonably excluded from using the service. However, this distinction is highly subjective. For lower-income people, the fee may be a barrier to entry, and some are therefore excluded. Public transport then becomes a club good, where only those that can pay for their ride are part of the club. This is of course not a dichotomous categorization, both concepts vary based on their specific implementation, therefore it is best understood on a spectrum, where specific instances of public transport systems exist somewhere between a club good and impure public good (Adams & McCormick, 1987).

Both theoretical categorizations have different problems associated with them. Public goods often suffer from free-riding, where the good is consumed even by those that do not aid in providing it, since they cannot be excluded. The solution from a management perspective lies in estimating the correct amount of demand for the good, and then adequately providing it, leaving no room for the free riders (Brando et al., 2019; Kaul et al., 1999). This solution focuses on the production side, keeping consumption constant.

Club goods experience congestion issues more often. A club good behaves initially like a public good until the critical size of the club is reached, after which it is essentially a rivalrous good. Solutions to this problem include determining that critical point of demand, either through trial and error or theory, and establishing and maintaining that club size through exclusion (Adams & McCormick, 1987; Buchanan, 1965). Thus, its scope is more related to the consumption of the good, keeping production constant.

Contrasting the two concepts and solutions, it becomes clear that both focus on different sides of the same coin, and can also be observed empirically. The adequate

provision of public transport is one of the core business goals of public transport companies, and they spend a great amount making sure their network is as tailored as needed (Velaga et al., 2012). They also engage in market research to price their tickets adequately (Fiedeń & Štraub, 2023). Consequently, these mechanisms also interact with each other, with lower fees meaning more demand, and therefore a higher need to run public transport vehicles.

Fare-free public transport

However, fare-free public transport moves across the goods matrix to become fully non-excludable, since there are no fares anymore, with the rivalness quality still on the aforementioned spectrum. FFPT is therefore a (more) pure public good, rather than an impure one or a club good. How does this theoretical shift impact the problems facing FFPT systems? Since the good still needs to be provided adequately, the public goods problem of free-riding still applies, although in this situation there are no fees and free-riding is done by everyone not paying taxes. The problem of congestion also remains relevant, although without the price-changing mechanism, the problem becomes entirely policy-based, and it therefore shifts from a consumption scope to include production too (Adams & McCormick, 1987).

These costs will have to be paid by either local or national governments, depending on the structure of the transport system, or the public transport company, or both. Of course, costs for a FFPT system are still burdened on the citizens using the service, although they commonly pay for it using taxes. Fares account for 5 to 50% of total operating and maintenance costs, so the monetary price of implementing also wildly varies between municipalities, and is therefore a political choice whether or not to implement FFPT, purely from a monetary standpoint. Fare abolition is thus necessitated by both political will, and optimal resource allocation since it is now fully paid by public taxation (King & Taylor, 2023).

Justification for implementation

This political choice will have to be justified by politicians to the public. Noting especially that public transport is a public good, it needs to depend on support from a majority of the population to be used sufficiently and efficiently. Implementing fare abolition

thus needs good reasons to persuade citizens in favor of it, and in this light much of the academic and political discourse on fare-free public transport has been on its environmental, societal,and economical effects.

Promoting public transport, whether through fare abolition or not, has been a major solution to various environmental problems, especially in cities. Urban areas often face issues related to car externalities, such as air and noise pollution, traffic congestion, and the need for infrastructure like parking lots. By implementing fare-free public transport, local politicians hope to lower the barrier for entry, and entice car drivers to take public transport instead of their own car, thereby reducing the amount of cars in city centers (Cats et al., 2016; Zhou & Schweitzer, 2011).

Next to reducing car hindrances in cities, cutting down on the overall number of automobile journeys is beneficial for the environment too. Public transport is proven to be less polluting than cars, and at scale it is more efficient at moving people simultaneously (Miller et al., 2016). Notably, the United Nations Sustainable Development Goal 11.2 specifically mentions public transport as an important step towards a sustainable future, and fare abolition makes this means of transport the most accessible one (United Nations, 2022). Through the introduction of fare-free public transport, the provider both promotes its own service, and raises awareness about ways to travel more sustainably.

Furthermore, besides the environmental effects, much research has been devoted to the societal benefits of fare-free transit. By utilizing tax money instead of fares, the tax bracket system inherent to most national and local taxation systems ensures that people with higher income pay more towards the transport system than those at minimum wage, which are usually more dependent on public transport anyways. By alleviating pressure on that group, free-fare transport allows for greater social mobility for the underprivileged (Cats et al, 2016; Fearnley, 2013).

Lastly, by abolishing fares, public transport systems may actually see an economic boost. Due to cutting costs related to ticket provisions, such as booths, collecting tickets and the accounting system, smaller cities in particular may see immediate benefits due to these savings (Van Goeverden et al, 2006). Alternatively, by increasing demand, public transport providers may see increased efficiency on their lines during off-peak hours, leading to more overall passengers for advertising revenue and general social benefits, as per the third point (Štraub & Jaroš, 2019).

These justifications may be linked to geographical and cultural differences. Kębłowski (2019) notes that on average, the United States justifies its zero-fare transit mostly

on the basis of the economic benefits. Contrarily in Europe, free-fare public transport is usually justified by the social dimensions. The reasoning is that the US's liberal model has a smaller role for governments, only acting where the market fails to provide. Contrarily, in Europe there is increased consensus on more socialist policies, helping the worse off in society. This dichotomy is however very preliminary and needs to be explored further.

Models of governance

Implementation of public transport systems is not only a choice by governments, but they also provide the service after it is in place. Public transport as a public good is necessarily provided, or at least supported by governments. However, the role of governments has been redefined in various aspects. In the 1980s, the usual "command-and-control" style of governments shifted more and more to a facilitating style, governance instead of government (Sørensen et al., 2023). Under the government approach, society is steered by the central, hierarchical government. It determines societal goals, drafts means of policy, and then executes those policies correspondingly (Jordan et al., 2005). By contrast, governance is characterized by the government taking a more hands-off approach, letting non-governmental actors steer and organize society, while the government oversees the process (Joss, 2015).

In the public sector, every project involves many stakeholders to increase legitimacy, and aid in tailoring it to the specific area (Fransen, 2011). Therefore, it is most useful to consider stakeholder governance specifically. There are two main models which help to explain the ways in which stakeholders interact and make policy, and the governance culture it causes. The first is the negotiation model. When resources are to be allocated by a higher level of government, the parties involved engage in negotiation over those resources. This is characterized by a fragmentation of each new project by every stakeholder, which first needs to be negotiated with the government before they get the resources they want. This makes decision-making slower than it needs to be, projects more down-sized than they need to be due to fear of complete rejection, and a lack of a shared vision for the region (Treib et al., 2007; Paulsson et al, 2017)

The contrasting model is the collaboration model. In this view, major stakeholders, mainly municipalities and local councils, have their own resource pool, which needs to be fitted into the regional picture. Through various formal and informal collaboration arenas, a

common vision is created, plans are drafted and operationalized, leading to a more cohesive public transport plan for the region. The converse is however, that due to the number of councils at municipal, regional, and in-between levels, these run the risk of being obscured from the decision-making process, they fall between two defined areas of scale. Obscured and blurred mandates can lead to scenarios where the actual outcome of the collaboration procedure is unclear (Treib et al., 2007; Paulsson et al, 2017).

Governance in practice

Once a model of governance is in place, the service still needs to be provided to society. One of the ways in which the government exercises governance in the field of public transport is through the tendering process. In it, the government still exercises property rights over public transport, but hands out contracts to private companies for the implementation of the service (Veeneman, 2010). The scale of the contract and operating area is dependent on the level of the contracting authority. In this multi-level governance model, the national government most often secures the funding through taxation, which is then transferred to either regional or local governments, depending on the situation. The stronger the agency of local governments, the stronger the embeddedness of the public transport network in society, leading to a better network. Stakeholder involvement on the three levels also plays a distinctive role in the allocation of funds towards local-level projects (Hooghe & Marks, 2003; Veeneman & Mulley, 2018)

There are largely two distinct models of tendering; competitive tendering and direct contracts. Competitive tendering is mandatory in the European Union (European Commission, 2019). It is characterized by a procedure whereby the contracting authority prescribes the details to which the contract needs to adhere, and relevant parties may then submit their proposal. The contracting authority then weighs the proposals according to predefined criteria, and awards the contract to the party with the best bid. Benefits of this model include transparency and open access to competition, and the government getting best value for money. The main downside is the length and complexity of the procedure. (Wegelin & von Arx, 2016).

This is contrasted by the direct tendering procedure, more often found in the United States (International Association of Public Transport, 2021). Here, a contract is awarded to one party directly, without consulting other parties. This leads to more flexible negotiations and less complexity in the contract, speeding up the tendering process. However, since the

contractor is the only available party, the government has less room for negotiation if the service is sub-par (Wegelin & von Arx, 2016).

The last addition to the understanding of fare-free public transport governance comes from Kębłowski (2022). He paints a different picture, in what can be considered the only article focusing on the decision-making procedure before fare-free public transport is even implemented. He frames FFPT as an alternative policy where a common good is provided by public institutions rather than the market, and draws upon urban regime theory to undergird this observation. Urban regime theory does not focus on institutions, and who is governing, as is the case in the previous models, but rather highlights the importance of informal relationships and networks of power, in shaping urban governance and policy. Kębłowski is supported by Stone's (1989) approach that power in urban areas is not concentrated solely within political institutions, such as mayors and city councils, but diffused across a range of actors, like business leaders, non-profit organizations, and community councils. These actors, influenced by their historical legacies and institutional structure, together shape the goals and policies that make city governance.

Kębłowski (2022) then argues that following this theory, current public transport governance largely is governed along the same principles. Municipalities also usually involve public and private public transport operators, engineering companies, international experts, and urban planners. Despite the impression that this inclusion makes public transport governance more consensual, he denotes that this coalition-building, often based on technical knowledge, leads to a depoliticization of the debate, thereby excluding the public from it (Healey, 2013). Citizens are sometimes invited to meetings as well, though their participation is usually limited to specific proposals, not allowing broad mobility agendas to be discussed and shared, effectively sustaining the technocratic decision-making process that it tries to break down. Public transport governance should therefore also be critically assessed in its capacity for meaningful participation by all parties, to validate passenger and worker expertise, and come to a better and alternative urban regime model. This inclusion should then lead to more alternative policies being adopted, such as free-fare public transport.

Theoretical framework

Governance and fare-free public transport

Based on the current literature, there are various ways in which different models of stakeholder governance can influence fare-free public transport implementation. Considering that public transport is a public good, and it especially depends on the population taking it to become efficient, the involvement of citizen participation should result in a more tailored system with higher usage rate and overall better goal achievement. Another factor is the willingness of various stakeholders, such as the contract operator or city council, to implement FFPT altogether. If the contractor is unwilling or unable to implement the changes necessary for the system to succeed, implementation reaches a dead end. It should therefore be imperative for a strong contract to be in place, together with avenues of cooperation between the stakeholders to forge consensus for fare abolition.

The cooperation between stakeholders is then dependent on the overarching, facilitating structure. Here, the models by Paulsson et al. (2017) become relevant once more. In the negotiation model, there are several different stakeholders that are competing over the same budget. Fare abolition hinges on efficient expenditure of resources, and requires all parties involved to act together for a cohesive and usable public transport network. If interests clash, a FFPT plan will most likely not be successful. In the collaboration model, the chance of successful co-action increases, aided by the increased potential for a shared vision being created.

Conceptualization

In public transport governance, there are three main aspects to consider as main avenues where the differences of the two stakeholder models can express themselves. Firstly, the aspect of politics, which concerns itself with the actors and organizations involved with governance. Then, the aspect of polity, the figurative institutional landscape shaped by the politics, which actors have to find their ways in. Furthermore, there is the aspect of policy, which is when politics and polity together shape the nature and character of the specific rules, regulations and norms employed (Paulsson et al., 2017; Treib et al., 2007)

Combining these insights, in the aspect of politics, the negotiation model reinforces ideas of competition between the stakeholders, fragmenting the field and hindering collective action between the actors and organizations. This results in a worse resource allocation, which is not beneficial for fare abolition prospects. A system of collaboration should achieve this much better, with actors and organizations having to cooperate for their region, necessitating a shared vision and therefore increased levels of consensus for plans like FFPT. This can be further exemplified by involving the public as a stakeholder, increasing public support next to heightening likelihoods of alternative urban policy being adopted, like fare abolition.

The aspect of polity examines the structure in which the stakeholders act. In other words, these are the initial structures of negotiation and collaboration. When the institutional landscape is split up, stakeholders have to work in a competitive market. This creates clear incentives for each actor, but clashing ideas can result in dysfunction in public transport systems, and fare-free systems especially. Collaborating actors can circumvent these issues, but have to be wary of parties being blurred from the decision-making process, which leads to decreased accountability

Lastly, the aspect of policy. The main policy decision leading up to FFPT implementation is the contract that the authority decides to give out. In direct contracts, the contractor is a subordinate to the contracting authority, and usually just has to execute what the government policy prescribes. In competitive contracts, there is more equal footing between the parties, and the contractor can be considered an equal stakeholder. If they do not agree with fare abolition, the government can simply decide to tender the contract again, attracting only those companies willing to carry out the plans. Stakeholder involvement only takes place in a competitive contract environment, and functions best when the stakeholders then have a shared vision for the region, fostered by the collaboration model. This results in the main hypothesis: *Stakeholder involvement in the decision-making process through a collaborative governance model positively influences the implementation of fare-free public transport.*

Methodology

Methodological approach

To answer the research question, different government structures and policies need to be identified. Next to an initial descriptive case study to outline the context of each case, five news articles relating to the implementation of the FFPT network will be analyzed by means of a qualitative content analysis. As noted by Hardy et al. (2004), a discourse analysis is often more suited for concepts which are context-bound, however, a discourse analysis also includes reactions of the audience, combined with an increased time-frame to determine where the discourse started. This type of detailed case study is also employed by most other studies into government structures and its effect on public transport in general (Kębłowski, 2022; Sørensen et al., 2023; Veeneman & Mulley, 2018). However, these papers aim to explain the structures in place through interviews with stakeholders and field work with the public. Considering the budget and time constraints of this thesis, this method of deep description is simply not feasible.

However, Hardy et al. also propose a methodology of qualitative content analysis using the analytical mindset of a discourse analysis, which does then include the specific situation of the selected cities. The specific type of qualitative content analysis used in this thesis is a directed approach. It is characterized by the aim of the study to validate or further theory, and therefore draft its coding frame on the basis of that theory (Hsieh & Shannon, 2005). Since this thesis bases itself on existing theory to explain a new context, directed qualitative content analysis with the mindset of a discourse analysis is a pertinent method to analyze. The coding is done by hand, by a single coder.

Halperin and Heath (2017) describe various units of analysis for a qualitative content analysis. Taking into consideration the , the best unit is the sentence. Using words would be too fine-grained, losing most of the text's importance on governance structures, and paragraphs are not useful in the lesser-structured news reports.

Case selection

In order to reach meaningful conclusions on the different types of governance practices leading to fare-free public transport, a diverse case selection method was chosen (Seawright & Gerring, 2008). The cases were selected based on their geography and governance model. One case in Europe was chosen, and one in the United States, both with a collaboration model, and a third case in the US with a plan to implement FFPT and a negotiation model. The main benefit of this case selection method is the ability to capture various cases across the spectrum of governance models, geographical location and success of implementation in a small-n study. However, this lack of inherent structure can lead to selection bias. Due to this research requiring cases with fare-free public transport systems in place, while simultaneously being the dependent variable, this study is not able to capture the full range of cases in which public transport is a factor of governance. This phenomenon is regrettably unavoidable, and leads to a different interpretation of the eventual conclusions. Studies based on dependent-variable case selection usually contribute to the development of insights, theories and hypotheses, but cannot be used to test those theories (Geddes, 1990). As such, this research will aim for the same.

The cases chosen all implemented fare abolition after 2015, since data on earlier programs is of lesser quality due to the lower political salience at the time. It also results in more accessible data. Furthermore, only cases with full FFPT schemes have been selected. There are various other types of FFPT, such as partial and socially-limited schemes, but these do not have the same political salience and representativeness as full systems (Kębłowski, 2019). Analyzing full fare-free systems has therefore become the norm in the field, and this thesis will not depart from it (see also: Carr & Hesse, 2020; King & Taylor, 2023; Grzelec & Jagiełło, 2020; Štraub & Jaroš, 2019)

As previously mentioned, Luxemburg is by far the largest area to date to introduce zero-fare transport for the full user base. It is a well-documented case, especially considering the increased media-attention the country has received after FFPT implementation. The reason why Luxembourg has not been used in the literature to detect political structures, justifications, and outcomes is because the Duchy is most often understood as a post-political case (Carr & Hesse, 2020). In this light, there is no political process to be understood, since they justify it as a case of want, not one of need.

Therefore, the city chosen in France is the urban community of Dunkerque. When it implemented full fare-free public transport in 2018 on its 18 bus and tram lines, it became the largest municipality to do so, at the time. It is a medium-sized city, with 198.341 inhabitants (2016), 293,3 km^2 of land, giving it a density of about 670 inhabitants per km2. The FFPT scheme includes all bus and tram lines within the city and its outskirts, giving free access for everyone (Observatoire des villes du transport gratuit, 2019; Kębłowski, 2019)

The city chosen in the United States is Alexandria, Virginia. It implemented fareless public transport in 2021 on its network spanning 11 bus lines. It is a medium sized city, in the Washington D.C. metropolitan area, with 147.600 inhabitants (2015), a total area of 39.75 km^2, and thus a density of 3.700 inhabitants per km^2. The free-fare scheme on all buses was started in 2020 as a result of the Covid-19 pandemic, but kept permanently in 2021 (City of Alexandria, 2018).

The final city chosen is Washington D.C.. There are relatively few cities that have meaningfully discussed fare-free public transit and chosen not to implement it yet, so the size of the city unfortunately does not match the other two cases. It has a population of 689.545 (2020), 158,32 km^2 of land, making its density about 1.500 inhabitants per km^2 (US Census Bureau, 2020).

Data selection

The analyzed data consists of news articles, descriptive articles, newsletters and reports about the three cases. Firstly, I searched for articles about public transport on local news websites, such as lavoixdunord.fr, alextimes.com and washingtonpost.com. If the news articles proved useful, they would be added into the selected data. Afterwards, the sources for the article were examined, leading to government reports and newsletters. Since these are rich sources for governance structures, if possible they were added too. The timeframe for selecting the articles were set at two years before and after the implementation of fare abolishment in the given city, for the sake of relevancy. It is common in qualitative studies to have between 1 and 30 data informants in total, but there is no established criteria for the number of texts to study (Bengtsson, 2016). Therefore, I chose to allocate between 3 and 5 sources per case, where each case has 5 texts allocated, giving a total data set of 15 texts. The sources for the texts are provided in Appendix A.

The news articles describe the political situation in the region, providing a summary of the status quo. These sources were supplemented by descriptive academic articles for the

case of Dunkerque, since it has been one of the most well-documented FFPT programs in France (Javary & Huré, 2020; Briche & Huré, 2017). These allow for a deeper insight into the motives of the government before implementing the policy. In the case of Alexandria, news articles were aided with a press release from DASH, the public transport operator in the area, a newsletter from the mayor, and the report by the city council on the choice for FFPT. Since the report is 80 pages long, the non-technical parts of the summary were chosen as the data to be analyzed. For Washington D.C., one interview with the main proponent of fare-free transit in the city council was chosen to deepen the data.

The data is however not without its flaws. Most notably, news reports and articles are not primary sources. This could introduce bias, with no real way to check or correct it, other than acknowledging that it could be a factor. Furthermore, news reports, especially by local news outlets, may not have the same academic standard required for research. Some details may be omitted, and it is difficult to fact-check the claims they make. Lastly, Dunkerque's local news is mostly in French. For the sake of general readability, an effort was made to find articles in English. The articles in French have been translated using Deepl.com's translating service, and can be provided upon inquiry.

Coding frame

To operationalize the variables and prepare them for the qualitative content analysis, a coding frame was drafted. Since case selection was based equally on the dependent and independent variable, the coding frame fully focuses on the independent; structures of stakeholder governance, as guided by the theories. Following the directed approach, its categories were formulated as directed by the theoretical framework and parts of the literature, with room for specific indicators to be added based on the content of the data. The full frame is listed below, and its categories are discussed afterward.

Table 1
Directed Approach Coding Table

Category	Subcategory	Indicators
Politics	Inclusion of public in decision-making	• Mention of citizen input in meetings • Mention of focus groups • Mention of surveys • Mention of fieldwork • Mention of alternative politics • Mention of democracy
	Exclusion of public in decision in decision-making	• Mention of elites • Mention of limited transparency • Mention of limited public input
	Single-actor agency	• Mention of mayor decision or campaign • Mention of council member decision or campaign • Mention of stakeholder decision or campaign
	Democratic multi-actor agency	• Mention of collaborative effort • Mention of city council decision
	Justification with economic benefits	• Mention of cost-cutting • Mention of ridership increase • Mention of tax redistribution
	Justification with social benefits	• Mention of social justice • Mention of mobility • Mention of climate change
Polity	Collaboration model	• Mention of shared budget • Mention of common vision • Mention of blurred actors
	Negotiation model	• Mention of competitive budgets • Mention of separate visions
Policy	Competitive contract	• Mention of competitive tender process • Mention of independent public transport company
	Direct contract	• Mention of negotiation • Mention of government organization

Politics

The aspect of politics is characterized by the type of actors and organizations present among the stakeholders. Public involvement was therefore added to account for the alternative politics theory, and for implementation tailored towards citizens' needs. The type of actor involvement was included through either single actor agency, indicating unique and separate plans, or a shared action plan. Lastly, economic and social justification subcategories were added to provide further insight in geographical differences.

Polity

This category aims to detect the overarching structure of each case. A subcategory was added for both models, and the indicators present are the main characteristics of each model.

Policy

The policy category is defined by the implementation of contracting policies. As theorized, direct contracts are often subordinates to governments or are government agencies themselves, which is reflected in the indicators. This is contrasted by competitive contracts, which require independent public transport companies and a tendering process.

Discussion and analysis

Below is the coding matrix with short summaries of each code's results. The full results table will be added in Appendix B. Afterwards, each case study will be discussed and analyzed more extensively based on the specific context, and the findings from the research will be analyzed more generally.

Table 2
Summarized results of all coding matrices

Category	Subcategory	Dunkerque	Alexandria	Washington D.C.
Politics	Inclusion of public in decision-making	5 mentions	6 mentions	2 mentions
	Exclusion of public in decision in decision-making	-	-	-
	Single-actor agency	5 mentions	1 mention	11 mentions
	Democratic multi-actor agency	2 mentions	5 mentions	4 mentions
	Justification with economic benefits	7 mentions	3 mentions	5 mentions
	Justification with social benefits	7 mentions	2 mentions	4 mentions
Polity	Collaboration model	4 mentions	5 mentions	4 mentions
	Negotiation model	-	2 mentions	9 mentions
Policy	Competitive contract	-	-	-
	Direct contract	-	6 mentions	4 mentions

Dunkerque

When Dunkerque introduced fare-free public transport in 2015, it first did so only on weekends. At the time, it was the largest urban area in France to do so (Observatoire des villes du transport gratuit, 2019). The push to implement fare-free public transport was an election promise by the then newly-elected mayor Patrice Vergriete. After discussions with the city council and taking into consideration feedback from citizen feedback, the council

nearly unanimously voted to implement FFPT fully in 2018 (Appendix A, Huré, 2020). This is also reflected in the subcategory "Inclusion of public in decision-making", which shows a modest level of citizen involvement in the project, mostly through more passive means.

The main push for implementation of fare-free public transport came from mayor Vergriete, and it encompasses all mentions of single-actor agency for Dunkerque. He justified the policy on both the economic and social benefits, evidenced by the equal coding scores for those subcategories. Since the public transport network serves the entire urban community, which is a main city and its independent suburbs, a coalition needed to be forged not only between Vergriete and the Dunkerque city council, but also between the governments of the suburbs. As evidenced by the amount of mentions for the collaborative model in contrast to negotiation, this is exactly what happened. A collaborative effort by all mayors and councils involved, particularly "the rallying of the ecologist mayor of Grande-Synthe, Damien Carême, who insisted on the environmental dimension of free travel" (Appendix A, Huré, 2020, p. 2), culminated in the implementation of fare-free public transport in the city.

The public transport operator responsible for the Dunkerque area is Dk'Bus, a subsidiary of Transdev (Dk'BUS, 2020). No mention of the authority was named in the analyzed texts, but considering Transdev is a privately owned company, it is safe to infer that Dk'BUS operates under a competitive contract, in line with European Union regulations (European Commission, 2019). In any case, the lack of mention of the contractor suggests no meaningful issues with the provision, therefore the system functions as intended.

With Dunkerque being one of the first major cities to implement fare-free transport in France, they also set up a governance observatory aimed at better understanding the political, economical and societal causes and outcomes of FFPT (Appendix A, Huré, 2020). Dunkerque consequently serves as one of the case studies for other municipalities willing to implement fare abolition. The constant efforts undertaken by the city and its inhabitants to promote the network shows that the concept is supported by all layers of society, enhancing the stability and chance of success.

Alexandria

The city of Alexandria set out to reimagine its public transit system in 2019, since it had become largely obsolete. This was in part due to the network keeping the same structure it has had since its inception in 1984 (Appendix A, Alexandria Transit Company, 2021). The local government launched an investigation on how to build a better bus network, to "serve existing needs, as well as the new residents, business, and visitors who will come to

Alexandria in the next 10–20 years" (Appendix A, City of Alexandria, 2018, p. 16). The Alexandria Transit Vision (ATV) study was established the same year, and sought to actively consult the general public, experts in public transport, and other stakeholders to come to a more comprehensive view on the future of transit in Alexandria. This multistakeholder model of governance is clearly reflected in the "Inclusion of public in decision-making" and "Collaboration model" subcategories, with both having significantly more entries than their opposing categories.

After two years of study, including increased attention to public transport effects due to the Covid-19 pandemic, the ATV was approved by the Alexandria Transit Company, Driving Alexandria Safely Home (DASH). In the same time period, mayor Justin Wilson announced the city would be looking into implementing a fare-free public transit system alongside the new network proposed by the ATV plan. The city council succeeded in budgeting the extra subsidies necessary, and the plan was approved and put into service in 2021 (Appendix A, Alexandria Transit Company, 2021). The city also applied for two state-level grants under a "Negotiation model", explaining the two entries for that subcategory, but whether those funds were secured is unclear at the time of writing, noting that the budgeting for fiscal year 2023 has not been made publicly available. Evidently, they were not essential for the implementation of fare abolition.

Mayor Wilson and the city council justified their choice for FFPT initially on the basis of bringing back ridership to pre-pandemic levels, but also mentioned it as a solution to car congestion, reflected in the "Justification with economic benefits" category. Social issues were also addressed, mainly in the form of aid towards lower-income residents, and environmental benefits. The justifications persuaded all other stakeholders in their collaboration model, and fare-free public transport was implemented without much friction.

This was aided in part by the observations from the "Direct contract" subcategory. Since DASH is an agency by the City of Alexandria, there was no conflict of interest, and the line of contact between the city council and the DASH board was efficient, also aided by the collaboration model. There was consensus among all actors, including contractors, from the very start, which resulted in efficient and smooth implementation.

Washington D.C.

After a nearly two-year-long push, D.C. council member Charles Allen had a bill, named Metro for D.C., pass unanimously in the Washington D.C. city council (Appendix A, Wolman, 2023). Allen equally used justifications based on economical and social benefits to

persuade fellow council members into supporting the project. Funding had already been secured, largely taking city funds initially allocated for a different project, spearheaded by mayor Muriel Bowser. The “K Street Transitway” included a dedicated bus lane and traffic islands to ease congestion in one of the busiest streets of D.C., aiming to solve different issues with the public transit system, as opposed to FFPT.

However, the deadlock started when the Washington D.C. Chief Financial Officer announced in March 2023 that the city lacked the funds to implement the Metro for D.C. bill and that funding had to be secured through other means (Appendix A, George & Brice-Saddler, 2023). The city council thus turned to the K Street Transitway, moving to scrap it, freeing up funds for the fare abolition bill. This struggle for limited resources is reflected in the mentions for the negotiation model, with the lack of a shared vision for downtown being a major indicator.

More stakeholders were involved in the Metro for D.C. bill, most importantly Metro themselves, the government contractor responsible for bus services in the area. The plan saw another roadblock when the board of Metro issued a public letter stating that they did not support the plans of the city council, instead urging for more research into fare-free transit, and a push towards a multistakeholder discussion, involving neighboring Maryland and Virginia cities to engage in the discussion. The Metro board also came out in support of mayor Bowser’s K Street Transitway, essentially positioning itself in the middle of the political discussions with its own, separate vision on implementation. These facts are all reflected in the “Single-actor agency” subcategory, and were present throughout almost all analyzed articles, and explain the high amount of mentions found in the texts.

The general public has largely been left out of this dialogue, only sparingly involved by the authorities in this discussion. The city council, elected by the residents, has been in favor of fare-free transit. On the other hand, opponents of the plan point to the populace wanting, above all, “Long-term Health of the Metro System and Consistency of Operations” (Appendix A, Zipper, 2023, p. 39). There has not been any active public involvement in either project so far.

Analysis

Overall, the implementation of fare-free public transport in Dunkerque was met without many issues. Mayor Vergriete, as the main proponent of the plan, had to convince other relevant stakeholders to support the project. The public was able to give their input through test phase feedback, and the democratically elected city council. Neighboring mayors also collaborated on the plan, which created a wide base of support for the fare-free system during its testing phase, and beyond. Though, the authorities learned from studies in Tallinn, and realized that just fare abolition was not sufficient for their goal. The network at the time was outdated and not fit for current standards, leaving aside the ridership increase that was expected due to the new policy. Accordingly, the city also announced a major overhaul of the public transport network, with new buses and better planning, to make public transit even more attractive (Appendix A, Deljurie, 2018).

Commented [1]: "... leaving aside the ridership increase..." klopt niet helemaal vgm, denk eerder "losing the ridership increase"

Commented [2]: deze bedoelde ik hetzelfde als in t nederlands "dit en dit daargelaten"

Fare-free public transit implementation in Alexandria followed largely the same lines. The public was regularly invited to meetings regarding the Alexandria Transit Vision, DASH, while technically being a subsidiary of the government, was also actively involved in the drafting of the plan. This meant that ATV acceptance by the DASH board was to be expected, as collaborators in the model. The ATV can be understood as the forging of a common vision for the region, one of the main characteristics of the collaboration model. Fare abolition was introduced as one of the measures of the ATV, especially by mayor Wilson. The plan was met without much resistance, as the public and city council agreed on it after it was deemed feasible. Here, too, fare abolition was accompanied by major line overhauls to better suit the public's needs, heightening the likelihood of the network being used to its capacity.

In Washington D.C., there was a different story. While the plan was initially unanimously supported by the city council, the public was never directly involved. Under the negotiation model, other stakeholders such as mayor Bowser and the Metro board had their own, conflicting visions and ideas. This complicated implementation, since all plans were mutually exclusive. As such, the Metro for D.C. bill has not been put into effect yet, since it lacks funding and cannot depend on a coalition to support efforts to secure it.

Taking a broader view of the cases altogether, three main trends become clear. Firstly, the creation of a common vision as outcome of the collaboration model is essential in successful implementation. Whereas in Dunkerque and Alexandria, the collaboration model led to a broad level of support among the public, government, and contract operator, in Washington D.C. all relevant stakeholders clashed in their negotiations. This issue was

doubled down on by the fact that due to the conflicting interests, there was no room for both fare abolition and a network overhaul in the budget. This was a crucial part of FFPT reforms in the other two case studies, and even if fare abolition is implemented, the main concern of citizens, consistency of operations, will most likely not be addressed sufficiently by the new policy.

Furthermore, in this process of consensus-building, in all cases there was one actor spearheading fare abolition. In Dunkerque, mayor Vergriete introduced the policy as an election promise, and continued to justify it in subsequent times. Alexandria's mayor Wilson proposed FFPT while the drafting of the ATV was ongoing, making it another one of the tools used to reach the goals set by the government. In Washington D.C., city council member Allen was the main proponent of his bill, devoting his time to convince the council to support the plan. Recalling the inherent issue of selection bias, this observation cannot be used to test existing theory, but it does raise the question whether such a prominent figure is a necessary or sufficient condition for fare-free public transport implementation.

Lastly, Kębłowski's (2019) preliminary assumption does not hold, with the subcategories for economic and social justifications getting nearly equal coding frequencies. The only discernible trend is that Dunkerque's social justifications are aimed towards isolated, often elderly citizens, with FFPT increasing their capability for mobility. In Alexandria and Washington D.C., the social dimension is mentioned through economically disadvantaged citizens, advocating for more social justice and redistribution. Still, ecological factors are a major driving force behind all case studies.

Generally, the most apparent outcomes of successful implementation are all factors of the stakeholder model of collaboration. This is consistent with theory and the proposed hypothesis. Especially a common vision and shared interests prove to be useful towards successful implementation. It should be noted that these findings are not definitive, and cannot be used to confirm the theories used, but they do reinforce the conditions deemed necessary for fare abolition implementation.

Conclusion

This thesis has aimed to examine the effect of stakeholder involvement in the design and implementation process of fare-free public transport. With a qualitative content analysis of three case studies, taking into account the specific contexts of each city, support was found for the main theory. A collaborative model of governance, with all stakeholders on equal footing and a shared budget, fostered a stronger coalition for FFPT plans. Furthermore, the inclusion of citizens as a stakeholder was important. It resulted in more efficient and tailored implementation, a necessary condition for a functioning public transport network. This finding is in line with previous research focused on governance models of public transport, which also found support for collaboration models (Paulsson et al., 2017; Rye & Isaksson, 2018). This suggests that the theoretical shift of fare-free public transport on the scale from club or impure public good, to pure public good, does not have meaningful differences in stakeholder model effectiveness from more traditional public good management.

However, these findings are curtailed by the most pressing issue in this research, the selection bias. Since fare-free public transport systems are always the object in studying the phenomenon, it is nearly impossible to avoid selection bias, especially due to the current relative rarity of FFPT plans. Future research should therefore address this bias, either through necessary or sufficient conditions (Dion, 1998), or through large-n case studies where selection bias is partly overcome by generalization (Thiem, 2007).

Furthermore, data quality can be improved in future research in this style. Although the articles were selected on quality and potential for relevant data, the chance for second-hand source bias is impossible to correct for. A further study could aim to generate more first-hand data, by conducting interviews with politicians and stakeholders in the area. This should yield more reliable and rich data, making the conclusions more robust.

Since the field of fare-free public transport is becoming increasingly relevant around the world, yet remains understudied in academia, it should also prove useful to expand this research design to other case studies worldwide, to discern trends more universally. First explorations like this thesis are good starting points, to let this niche academic field grow into the mainstream policy proposal it is trending towards. As a policy goal for the Sustainable Development Goals, public transport is touted as a main solution for the urban problems facing society today and tomorrow. Transportation should not have to cost the world.

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Appendix A

Dunkerque

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Appendix B

Table 3

Summary of all filled coding matrices with descriptions

Category	Subcategory	Dunkerque	Alexandria	Washington D.C.
Politics	Inclusion of public in decision-making	5 codes; mostly pointed towards feedback and passive input from citizens	6 codes; active participation in meetings, also gathered feedback	2 codes; survey about PT network top priority
	Exclusion of public in decision in decision-making	-	-	-
	Single-actor agency	5 codes; all related to Dunkerque's mayor Vergriete and campaign	1 code; mayor Wilson proposing to implement FFPT in his newsletter	11 codes; select groups of Metro board members, Charles Allen and mayor Bowser
	Democratic multi-actor agency	2 codes; community council discussion and voting	5 codes; engage stakeholders in council debate, city council voting	4 codes; DC Council vote on FFPT bill
	Justification with economic benefits	7 codes; ridership increases, attractiveness of city center and tax redistribution	3 codes; car congestion, ridership increase	5 codes; tax redistribution, economic recovery, ridership increase and car congestion
	Justification with social benefits	7 codes; living downtown, environmental factor, fight against isolation	2 codes; environmental factor, benefit lower income residents	4 codes; helping essential workers/lower income, environmental factor
Polity	Collaboration model	4 codes; working with other mayors and actors in the	5 codes; public, stakeholders and officials engage in level	4 codes; aim for regional involvement in the plan, Metro

		field, redistributing local funds	debate, government ATV adopted by DASH stakeholders and local fund distribution	wanting to working with other stakeholders
	Stakeholder model	-; no mention of hierarchical relationships	2 codes; plans for State grants	9 codes; DC Council needing to find funds, need for support from the mayor, mayor spending plan, feud between the mayor and the council, Metro had no place to speak, CFO deciding on budget implementation, forced cooperation with state capitals
Policy	Competitive contract	-	-	-
	Direct contract	-	6 codes; mention of DASH collaborating with the city council, statement that PT agencies are not private business	4 codes; mention of WMATA and its relationship to city governance.