Demographic and Behavioural Patterns in Support for Sustainable Mobility Policies in the Netherlands

A Mixed-Methods Study on the Relationship Between Demographic and Behavioural Factors and Support for Sustainable Mobility Policies

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TU Delft

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By

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Preface

I would like to sincerely thank Niek Mouter and Amir Pooyan Afghari for all the support, guidance, and feedback they provided throughout my thesis project. Their thoughtful suggestions and constructive criticism have significantly improved the quality of my work. I truly appreciate their willingness to share their knowledge, their patience in reviewing multiple drafts, and their enthusiasm for the topic. I also want to extend my gratitude to Populytics for conducting the Participatory Value Evaluation (PVE) and providing such a comprehensive and insightful dataset, which formed the foundation of this research.

I hope this thesis provides meaningful insights into the factors shaping public support for sustainable mobility policies. My aspiration is that it can contribute to the ongoing mobility transition in the Netherlands by helping policymakers understand how different societal groups perceive sustainable transport measures. If this thesis can play a role in creating more effective, inclusive, and widely supported policies, I would consider that a great success.

J.P.C. Bunnik
Delft, April 2025

Executive Summary

Introduction

This thesis investigates how demographic and behavioural factors influence public support for sustainable mobility policies in the Netherlands. Using a mixed-methods approach, the study combines quantitative analysis with qualitative insights to uncover how socio-economic variables and mobility behaviour correlate with citizens' preferences regarding sustainable mobility goals and policies.

While the transport sector has historically generated economic and social benefits, it also significantly contributes to environmental damage and public health issues. To address these challenges, the European Green Deal and the Dutch Climate Agreement have set goals to reduce the negative externalities of the transport sector. However, achieving these goals requires more than just technological and infrastructural measures, as human behaviour and public acceptance play a crucial role in the mobility transition. This thesis underscores the importance of understanding not just which mobility policies are supported, but by which social groups and the rationales behind this support. It addresses a crucial gap by examining how support varies across social groups in the Netherlands and how this can inform more inclusive and effective policy design

The study is situated within the context of the Dutch government's objective to reduce greenhouse gas emissions from mobility. The central research question guiding this study is:

"How do demographic and behavioural variables affect support for sustainable mobility goals and policies in the Netherlands?"

To answer this question, the study investigates:

- Which demographic factors are most strongly associated with support for sustainable mobility goals and related policies.
- How frequently used mobility modes relate to goal and policy support.
- How combinations of demographic and behavioural variables relate to policy preferences and levels of support.
- What motivations and values underlie patterns of support and opposition, as expressed through open-ended responses.

Existing literature

The thesis presents a theoretical framework based on existing research on how demographic and behavioural factors influence support for sustainable mobility policies. The literature review explores demographic variables (such as age, gender, education level, employment status, and living environment) and their impact on policy support, alongside the effects of different mobility behaviours (including car use, public transport, and active modes) on attitudes towards sustainable mobility goals. Additionally, studies examining the interplay between demographics and behaviour are discussed.

Two central theoretical models emerge from the literature to explain the factors influencing mobility behaviour: the Theory of Planned Behaviour (TPB), which examines attitudes, social norms, and perceived behavioural control, and the Norm Activation Model (NAM), which focuses on personal norms and feelings of responsibility. Furthermore, literature on policy interventions is reviewed, categorising them as hedonic (pleasure-based), gain (benefit-driven), and normative (ethics-driven) strategies, or alternatively as carrots (incentives), sticks (regulations), and sermons (informational campaigns). The review concludes by identifying a critical gap: the lack of integrated analyses linking demographic and behavioural factors with mobility policy support, particularly in the Dutch context.

Methodology

This research follows an explanatory sequential mixed-methods design. It is based on data collected through a large-scale Participatory Value Evaluation (PVE) conducted by Populytics, involving a total of 5,643 Dutch participants after data cleaning. Respondents completed tasks relating to sustainable mobility goals, policy preferences, and open-ended justifications.

The quantitative component applied statistical analysis (including descriptive statistics, Spearman correlation analysis, policy support analysis, and clustering analysis) to examine demographic (age, gender, education level, province, living environment) and behavioural (frequency of car, train, bus/tram/metro, bicycle, and shared transport usage) variables and their association with support for mobility goals and policies. The clustering analysis used a K-means algorithm to identify respondent types. The qualitative component applied thematic analysis of open responses to capture motivations behind (non-)support.

By combining these approaches, the study identifies not only statistical associations but also the underlying beliefs and values that shape public attitudes, allowing for a richer interpretation of findings. This mixed-methods design enhances both the reliability and practical relevance of the results, providing insights for more responsive and socially grounded mobility policy development.

Results and conclusions

Overall, the PVE dataset showed some overrepresentation of older, male, highly educated and rural respondents compared to the Dutch national statistics. This overall group used cars and bicycles the most frequently and used public transport less frequently. Shared transport was underutilised compared with the other transport modes.

The results showed that demographics are associated with behaviour, as older age correlates with higher car usage but lower use of public transport, while male, higher educated, and urban living environment demographics correlate with lower car usage and higher use of public transport. For biking, higher education and a more urban environment were associated with more usage, while other demographic variables had limited impact. For shared transport, no conclusions could be drawn due to the small sample size of frequent users.

There were significant correlations between demographics and sustainable mobility goal support, as higher education, being younger, and living in more urban areas were associated with greater support for sustainable mobility. Similarly, public transport and bike usage correlated with strong support, while frequent car usage correlated with lower support.

Respondents supporting the sustainable mobility goal preferred policies making public transport cheaper and better the most. In almost all cases, policies making petrol and diesel more expensive were least favoured. Younger and urban respondents favour policies related to housing near public transport and improved cycling infrastructure more. Lower-educated respondents prioritise policies supporting car mobility, including incentives for electric cars, more. These results point to clear and persistent socio-demographic divides in policy preferences, reinforcing the need for context-sensitive, targeted approaches.

Three distinct clusters were identified in the dataset:

1. Suburban & Traditional: Older, moderately educated, frequent car users with moderate sustainability support.
2. Urban & Green: Young, highly educated, urban respondents favouring public transport and bicycles, strongly supporting sustainability.
3. Lower Educated & Motorist: Lower-educated, older rural car users with minimal sustainability support and low bicycle/public transport use.

The qualitative analysis identifies positive arguments for supporting the sustainable mobility goals, ranked from most to least common:

1. Climate and environment
2. Encouraging sustainable travel
3. Important or needed
4. Discouraging unsustainable travel
5. Government intervention
6. Climate targets

7. Innovation
8. Encouraging electric driving

The negative arguments, from most to least common:
1. Sufficient or too much attention
2. Nonsense or not important
3. No government intervention or responsibility
4. Too expensive
5. No priority
6. Negative effects
7. Other countries
8. Mistrust in government

Discussion

Age displayed a complex, non-monotonic association, with the youngest group expressing the least support, while the second youngest demonstrated the most support. This could potentially reflect generational differences in perception or limitations in data reliability. Higher-educated individuals supported sustainability more strongly, aligning with existing literature. Gender differences were minimal and not significant, which contrasts with prior studies that typically suggest higher support among women. Urban residents strongly favoured sustainability, potentially influenced by experiencing negative externalities such as pollution and congestion. In contrast, rural residents, typically relying more on cars due to fewer transport alternatives, showed lower support.

Behaviourally, car dependency was negatively associated with sustainability support, while public transport and bicycle users showed higher support. This may result from behavioural experiences influencing attitudes, as suggested by cognitive dissonance theory. Public transport users particularly showed stronger support than cyclists, possibly because cycling is widely practiced in the Netherlands and thus less strongly associated with pro-environmental identity than in other countries.

For policymakers, these findings stress the importance of tailoring both the content and communication of sustainable transport policies to different societal groups. Information campaigns, especially sermons that tap into personal and societal benefits, can be effective if aligned with behavioural theories such as the TPB and NAM. Particularly for less supportive groups, framing sustainability in terms of affordability, convenience, or safety may improve receptivity.

In terms of policies, affordability emerged as a key driver of support across all groups. Measures that lower the cost of public transport are widely supported and may be especially effective among cost-conscious or rural respondents. In contrast, fuel price increases are consistently unpopular and should be implemented cautiously, preferably in combination with incentives or reframed in terms of co-benefits like safety or access. Careful policy framing and compensation mechanisms are likely necessary to ensure broad social acceptability, especially among groups most dependent on car mobility.

By integrating demographic, behavioural, and motivational perspectives, this thesis offers practical tools for designing targeted, equitable, and effective mobility interventions.

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Introduction

Sustainable mobility policy challenges

Historically, transport systems have delivered significant economic and social benefits, such as market expansion, improved accessibility, and poverty reduction (Lakshmanan, 2007; Norman, 2013). Mobility and transport are also important within the European Union. However, these economic and social gains are accompanied by negative externalities, as the transport sector accounts for a quarter of total greenhouse gas emissions (European Commission, 2020). In addition to this, the transport sector negatively impacts health, ecosystems, and quality of life, making it necessary for sustainable mobility plans to internalise these external costs (Profillidis et al., 2014).

In the European Green Deal, the European Commission recognises the importance of the transport sector in achieving climate neutrality across the continent by 2050. It has set an objective of achieving a 90% reduction in the transport sector's emissions by 2050 (European Commission, 2019, 2020). In the Netherlands, these goals are reflected in the mobility chapter of the Climate Agreement. The four most important themes are the development and implementation of sustainable energy carriers, the stimulation of electric transportation, the promotion of more sustainable logistics, and the improvement of personal transport by reducing distances travelled and encouraging the use of sustainable transport methods (Dutch Government, 2019).

To achieve the goals of the Climate Agreement, these objectives must be translated into concrete policies and actions. In research, there is an ongoing debate about the effectiveness of different policies. Some researchers strongly believe that stimulating innovation is one of the most important tools to address the challenges of the transition (Gallo & Marinelli, 2020), while others criticise the emphasis on technological development, arguing that the focus should instead shift to existing alternatives (Cohen et al., 2016; Griffiths et al., 2021).

This divergence underscores the complexity and, according to Huttunen et al. (2021), the lack of integration of human behaviour in sustainable mobility transition research. They argue that focusing on human behaviour can function as a catalyst for sustainable transitions. This lack of focus on behaviour is further underscored by Kaufman et al. (2021), who found that only 4% of sustainability transition literature addresses human behaviour change. Moreover, research also shows the importance of considering demographic factors as these have a significant influence on mobility behaviour (de Oña et al., 2021; Sovacool et al., 2018).

In addition to the focus on behavioural and demographic influences in achieving successful mobility policies, another crucial factor is the integration of citizens in the decision-making process. Huttunen et al. (2022) concluded that the lack of integration of citizen perspectives and knowledge prevents policymakers from designing policies and actions that resonate with citizens' lived experiences and values. Lindenau and Böhler-Baedeker (2014) argue that insufficient public participation in policy design can lead to the failure of plans.

The Organization for Economic Cooperation and Development (OECD) explored how public engagement in policymaking can be effectively established. They highlight four key actions for meaningful citizen participation in policy development. First, they advocate for making citizen participation a standard practice by integrating it into laws, constitutions, and governmental processes. Second, they emphasize the importance of using diverse participation methods that fit the specific policy issue, recognizing that not all methods are suitable for every policymaking process. Third, they stress the need to lower barriers to citizen engagement by addressing practical and systemic challenges that may exclude potential participants. This also requires training government officials on implementing effective participation mechanisms and educating citizens on their rights to engage in the policymaking process. Finally, they highlight the importance of follow-up and accountability to ensure citizens see the impact of their participation. This can be achieved by tracking and reporting participation outcomes and ensuring decision-makers publicly respond to citizen input (OECD, 2024).

The need for research

Progress in the mobility sector towards sustainability remains limited despite ambitious policy targets set by the Dutch government. The transport sector has not yet achieved the desired substantial emission reduction, even though technological advancements and policy interventions have been implemented to meet climate objectives. Understanding the barriers and facilitating factors affecting the effectiveness of sustainable mobility policies is therefore crucial to identifying why progress remains slow.

A major challenge lies in bridging the gap between ambitions and real-world implementation. There is an ongoing debate about which policies are most effective and what investments are required. Part of this debate concerns the role of human interaction in the mobility system, how these factors relate to the mobility transition, and how policies shape human behaviour. Research suggests that behavioural and demographic aspects are often overlooked in studies on the mobility transition. Additionally, researchers advocate for engaging the public in designing policies to ensure that the resulting policies resonate with citizens' experiences and values.

Addressing this gap can provide deeper insights into the factors that facilitate or hinder the effectiveness of sustainable mobility policies. One way to integrate human interaction into policy making is by defining how people's demographics and current behaviours align with considered policies. By examining how behavioural and demographic factors relate to policy preferences and mobility choices, policymakers can refine strategies to better align with societal dynamics. This, in turn, could accelerate the transition towards a more sustainable transport system while considering human interactions.

While previous studies have acknowledged the importance of demographic and behavioural factors in shaping mobility patterns, few have explored how these factors correlate with support for specific sustainable mobility goals. Most existing literature focuses on behavioural interventions or general policy effectiveness, without capturing the nuances of citizen attitudes toward specific goals. This gap matters because public support is a crucial determinant of policy feasibility and long-term effectiveness. By addressing this gap, this thesis provides insights that can help align policy design with the behavioural and demographic realities of citizens. To address this gap in the literature, this research investigates the following question:

'How do demographic and behavioural variables affect support for sustainable mobility goals and policies in the Netherlands?'

Social and scientific relevance

The objective of this research is to understand how behavioural and demographic factors are related to support for sustainable mobility goals. By uncovering these relationships, policymakers can gain a deeper understanding of the factors underlying public support or opposition to sustainable mobility goals. This understanding enables the development of policies that more effectively address barriers and take advantage of factors that encourage public support. Therefore, this research introduces an integrative framework that classifies and explains patterns of public support based on behavioural and demographic factors. This enables policymakers to design mobility strategies tailored to specific contexts and population segments, thereby helping to advance societal objectives such as climate neutrality and improved quality of life.

From a scientific perspective, this research addresses a specific, underexplored area in mobility transition literature: the association between demographic and behavioural variables and public support for sustainable mobility goals. While prior studies have separately examined policy preferences or behavioural trends, this thesis combines both using participatory data, thereby addressing a gap in the existing literature. Previous studies have often focused on specific groups or isolated factors, resulting in a lack of comprehensive analysis of how demographics and behaviour together affect policy support in the Dutch context. This thesis fills that gap by examining a large, inclusive sample of the Dutch population and multiple mobility behaviours, providing new insights into public support for sustainability policies. Furthermore, this thesis analyses the arguments citizens provide in support of sustainable mobility goals, adding a more nuanced understanding to the current literature, in which citizens' values and opinions are rarely integrated into the quantitative findings.

Complex Systems Engineering and Management in the Dutch mobility system

Furthermore, this research aligns with the Complex Systems Engineering and Management master's programme, as the mobility system is a complex socio-technical system. It consists of technical components, such as modes of transport and emerging technologies, each contributing to emissions, congestion, and other technical challenges. Additionally, it has an institutional dimension, in which policies are designed to enhance the sustainability of the mobility system, and a social dimension, in which the behavioural and demographic characteristics of society are considered. This thesis aims to provide insights into all aspects of the mobility system and contribute to the knowledge required to intervene in this complex system to achieve its set goals.

Research approach

This research question can be divided into three key objectives, each with associated subquestions.

The first objective is to understand which demographic factors function as variables and indicators of support for sustainable mobility goals. To achieve this, it is necessary to first examine demographic variables and their relationship to support for sustainable mobility goals. Next, it is important to determine whether demographics are also associated with preferences for specific policies and actions.

1. What demographic factors are associated with support for sustainable mobility goals and policies?
    a. Which demographic variables are most closely linked to variations in support?
    b. Are there notable differences between demographics in their association with support for specific policies and actions?

The second objective follows the same approach but focuses on mobility behaviour, specifically, the frequency of use of different mobility modes, and its relationship to support for sustainable mobility goals, policies, and actions

2. How is the frequency of use of different mobility modes related to support for sustainable mobility goals and policies?
    a. Which mobility modes are most strongly associated with support for sustainable mobility goals?
    b. Do individuals who frequently use specific mobility modes differ in their preferences for policies and actions?

Finally, it is essential to explore the interdependence between demographic factors and mobility mode choice to determine whether specific groups, defined by a combination of demographics and mobility usage, exhibit distinct levels of support for sustainable mobility goals.

3. How do demographic factors interact with mobility mode choice in relation to support for sustainable mobility goals and policies?
    a. Is there a correlation between specific demographic groups and mobility mode choice?
    b. How does the combination of mobility mode choice and demographic factors relate to support for mobility goals?
    c. Are there notable differences between societal groups in their support for specific policies and actions?

Thesis Structure

To answer the research questions, a mixed-methods approach combining both qualitative and quantitative research methods will be applied. The quantitative part will analyse the data to determine whether demographic and behavioural variables have any significant association with support for sustainable mobility goals and policies. The qualitative part will examine the rationales provided by different societal groups behind for their support or lack of support.

The next chapter of this thesis will present a literature review, discussing existing research on demographic and behavioural factors and their relationship to policy support. In Chapter Three, the

research methods, including the research design and analysis methods, are described. Chapter Four presents the quantitative and qualitative data analysis along with the results. Finally, Chapter Five and Six will offer the conclusion and discussion of this thesis.

Theoretical framework

Literature search strategy

This chapter provides an in-depth exploration of the existing literature on demographic and behavioural variables, their influence on each other and their influence on support for mobility goals. Additionally, it examines literature on the use of these variables in the development of successful policies. By identifying the current state of knowledge on these subjects, the theoretical framework aims to generate hypotheses and identify gaps that can inform the further development of this thesis.

The literature was sourced using the databases Scopus and Google Scholar, with selection based on open access, the relevance of titles and abstracts, and the use of snowball sampling. The keywords used for the search queries are presented in Table 1. It is important to acknowledge that this search strategy only considered academic literature, thus missing practical insights from policy documents and reports. However, the goal is to gain an academic understanding and identify academic research gaps, therefore, only academic literature was considered. Moreover, the search methods used are based on chosen keywords, relevance of titles and abstracts, and snowball sampling. This could lead to overlooking relevant work but enhanced the efficiency of the literature search.

Search Words	Specific subjects
Influencing, Support, Sustainable, Mobility, Policies, Goals, Demographic, Behaviour.	Age, Gender, Education, Employment, Living environment, Car, Public Transport, Bicycles, Walking.
Mobility, Policy, Strategy.	

Table 1: Keywords used for search queries

Demographics and sustainable policies

Elliott et al. (1997) conducted research on public attitudes towards environmental spending by the US government. They found that different demographic factors influenced support for spending on environmental protection. Significant results were discovered for age, gender, education level, living environment, and employment status. More recent research has also shown strong associations between demographic variables and positive attitudes towards climate policies. In the research by Ejelöv and Nilsson (2020), it was found that education level influenced the acceptability of sustainable transport policies. Gender also had an impact, while age showed mixed effects on support for sustainable policies. Fritz and Koch (2019), on the other hand, found no significant results for age and gender but did find significant effects for education level and employment status.

Having established that demographic factors significantly influence support for sustainable policies, this literature review delves deeper into a detailed examination of each variable's specific impact.

Age and sustainable policies

For age, Elliott et al. (1997) found that increasing age is associated with less support for environmentalism. Hersch and Kip Viscusi (2006) also found strong correlations between age and the willingness to pay more for gasoline to protect the environment. The youngest groups of respondents had a significantly higher willingness to pay than the oldest groups of respondents. The researchers also attempted to find explanations and concluded that this disparity was partly due to differences in information provision about the environment and partly because the effects of climate policy have more long-term benefits. Because of this, the researchers emphasized the need for developing policies that also address the concerns of older people to gain support.

In another study on environmental policy support in Korea, researchers found that besides younger generations being more likely to support environmental policies, there is also a difference in the desired approach of the government between generations. These differences, according to the researchers, are due to variations in political ideologies, cultural attitudes, and societal values shaped by generational experiences (Kim & Kim, 2022). It is important to note that the context of Korea differs significantly from that of the Netherlands, as some conclusions in the research stem from the fact that older generations in Korea have experienced more authoritarian regimes than younger generations.

Gender and sustainable policies

Elliott et al. (1997) obtained a statistically significant result indicating that women tend to favour environmental spending more than men. Similarly, research on waste charging policy found that women had a more positive attitude towards the policy, influenced by lifestyle and social norms (Wut et al., 2020).

Gender-based differences are not limited to the general population, they are also observed among experts involved in environmental policymaking. In a study by May et al. (2021), a group of economists affiliated with the Association of Environmental and Resource Economists expressed their support for specific environmental policies. This research revealed a significant difference: women economists were more supportive of government intervention and protection of the environment. The researchers therefore recommend including women economists more frequently in policy discussions.

Education level and sustainable policies

Education has a significant influence on support for various sustainable policies. Research has shown that higher education levels are associated with greater acceptability of climate change, transport, and recycling policies (Ejelöv & Nilsson, 2020). In a study by Eliasson and Jonsson (2011) on support for congestion charges in Stockholm, it was found that citizens with a university degree showed stronger positive attitudes towards this new policy than others. However, they noted that the effects were not strong.

In contrast, Dietz et al. (2007) did not find an effect of education level on support for environmental policies. However, they found that education level was a predictive factor for openness to changing behaviour. According to research, higher education levels generally correlate with greater support for sustainable policies, nevertheless, the strength and consistency of this effect vary significantly across these studies.

Employment status and sustainable policies

Fritz and Koch (2019) found significant data on sustainability policy support among three employment groups: low-skilled manual workers, socio-cultural professionals, and large employers (business owners). It was found that large employers were more likely to reject climate policies, while socio-cultural professionals, people working in care-focused or education-related roles, were the most accepting of climate policies. Low-skilled manual workers were more often resistant to such policies.

In the research by Elliott et al. (1997), the only significant finding was negative attitudes towards climate policies among full-time employees, citizens on illness leave, vacation, or strike, and homemakers. It can be concluded that employment status is a challenging variable to study because researchers use different measures to define employment status.

Living environment and sustainable policies

The hypothesis that citizens living in urban areas are more willing to support policies and spending towards the environment was confirmed by the research of Elliott et al. (1997). According to their study of earlier research, this could be explained by the fact that citizens living in urban areas are more likely to be confronted with pollution. Although there is limited research on the difference between living environments and the support for sustainable policies, there is extensive research on the divide between citizens living in urban and rural areas and their support for political parties worldwide (Fitzgerald & Lawrence, 2011; Gavenda & Umit, 2016; Mettler & Brown, 2022).

While this divide is not a reliable predictor of how the living environment explains support for sustainable policies, it offers valuable insight into how the living environment influences support among policymakers. These studies conclude that support for more populist right-wing parties is significantly higher in rural areas than in urban areas. Since research suggests that support for populist right-wing parties is significantly higher in rural areas, and a study by Lockwood and Lockwood (2022) indicated that populist right-wing parties are less likely to prioritise sustainability policies, this may suggest an indirect relationship between living environment and support for sustainable mobility policies. However, further research is needed to confirm this link.

Influence demographics on sustainable policies

It can be concluded that demographic variables have a significant influence on citizens' support for sustainability policies. Age, gender, education level, employment status, and living environment have all been shown to play a role in shaping attitudes towards sustainability policies, although the degree and nature of their impact vary across studies. Regarding the influence of employment status, it is difficult to draw conclusions that achieve consensus across the field due to variations in measurement methods. For the living environment, there is a lack of research directly investigating its influence on support for sustainability policies.

Moreover, while considerable research has examined demographic influences on support for environmental and sustainability policies in general, relatively few studies focus specifically on sustainable mobility policies and goals.

These studies provide valuable insights into attitudes towards environmental and sustainable policies. However, the research identified does not focus solely on the Netherlands or specifically on sustainable mobility, but rather on the broader context of climate and environmental policies. Additionally, because the review revealed conflicting conclusions among the reviewed studies, the context in which the research was conducted becomes particularly important. In Table 2 below, the conclusions derived from this literature review are shown. Based on these conclusions, the literature guides the study's hypotheses.

Demographic variable	**Support sustainability policies**	**Additional notes**
Age	Younger generations support sustainability goals more than older generations.	Differences in support for governmental approaches may be due to varying generational contexts.
Gender	Women are more likely to support sustainability goals than men.	Differences are also found in the attitudes of men and women involved in decision-making processes.
Education	Higher education has a positive effect on support for sustainability policies.	The effect is not consistently strong across studies.
Employment status	Unknown.	It is difficult to draw conclusions with consensus from different research papers due to varying measurement methods.
Living environment	There is a lack of research on the influence of living environment on support for sustainable policies.	A significant amount of research focuses on differences between urban and rural residents and their political party support.

Table 2: Literature on demographic variables influencing sustainable policy support.

Mobility behaviour and sustainable policies

While demographic factors according to literature shape support for sustainable policies, behavioural patterns also have significant influence. To delve deeper into this, it is insightful to define different mobility behaviours. Various studies have attempted to classify travel behaviour into distinct groups. An Australian study, using latent class modelling, identified three classes based on modal choice: a public transit-oriented class, a car-oriented class, and a car-and-bicycle-oriented class (Krueger et al., 2018). In research conducted on Dutch mobility data using latent class clustering analysis, five different mobility patterns were identified: car users combined with bicycles, exclusive car users, car users combined with walking and cycling, mainly public transport users, and exclusive bicycle users (Ton et al., 2020). It is interesting to explore how different mobility patterns influence support for sustainable mobility policies. This literature review focuses on three main user groups, car users, public transport users, and users of active modes (cycling and walking), as they are most consistently distinguished in the literature.

Car dependency, public transport, and active modes

One crucial aspect of the mobility transition is the dominance of cars in the transport system. Haustein and Kroesen (2022) concluded that car dependency is the most significant factor influencing mobility transitions. The ownership and use of cars strongly engage individuals, largely due to their high appreciation for the comfort, speed, and freedom that cars offer (Harrington & Hadjiconstantinou, 2022; Rasmussen et al., 2023). This raises the question of how this engagement influences support for sustainable mobility policies. Research by Prillwitz and Barr (2011) found significant differences in political views among users of various transport modes. Those who primarily used cars for travel were more likely to vote for conservative parties compared to individuals who relied on public transport, walking, or cycling. Notably, individuals who used walking or cycling as their main modes of transport were far more likely to vote for green parties, while public transport users tended to be more moderate voters. However, this does not necessarily imply that car users are less likely to support sustainable mobility policies. Voting for conservative parties does not automatically equate to opposition to such policies. Nevertheless, a study by Hess and Maki (2019) found that conservative students are more likely to disbelieve in climate change, suggesting that support for sustainability goals may be lower among conservatives.

A study by Awad-Núñez et al. (2021) conducted in Spain on the acceptability of urban mobility measures following the COVID-19 pandemic showed that car users demonstrated significantly lower support for governmental restrictions on car use compared to users of public transport and active modes. Policies aimed at increasing space for pedestrians and cyclists also received less support from car users, despite being almost unanimously supported by users of alternative transport modes. The same research revealed that public transport users displayed higher acceptability for both restrictions on car use and policies to increase space for pedestrians and cyclists compared to car users. However, the most significant differences were observed among cyclists and pedestrians, with cyclists being even more willing to support these measures than pedestrians.

It is important to note that the results from this study can be interpreted in two ways. First, it may suggest that public transport and active mode users consider sustainable policies more important than car users. However, the policies reviewed in the study directly impact their current behaviour. Restrictions on car usage and the expansion of space for pedestrians and cyclists significantly affect car users, whereas for active mode users, these policies make their preferred mobility mode more convenient. Therefore, this research does not necessarily indicate that car users are less supportive of sustainable policies overall.

These studies help to understand how mobility behaviour influences support for sustainable mobility policies. However, the research is highly dependent on specific contexts and variables, as studies focus on distinct groups such as students, car owners, or urban policy contexts. Therefore, there is a lack of analyses that include the whole population and consider multiple transport mode users simultaneously, which would allow a clearer comparison within the same context. Table 3 below presents the conclusions derived from this literature review. These conclusions form the basis for the hypotheses in this thesis.

Behavioural variable	**Support sustainability policies**
Car dependent	Less supportive of restrictions on car use. Considered the most significant factor influencing the mobility transition.
Public Transport users	More likely to support green parties. Show moderate support for car restrictions and policies that increase space for pedestrians and cyclists.
Active mode users	Far more likely to support green parties. Strongly support restrictions on car use and the expansion of space for pedestrians and cyclists.

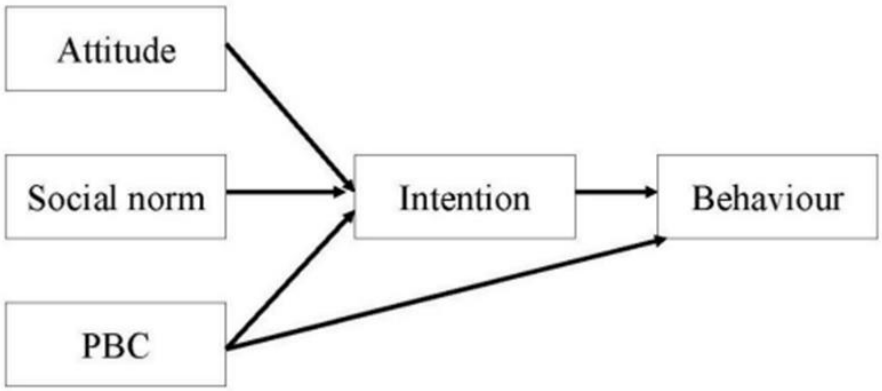
Table 3: Literature on behavioural variables influencing sustainable policy support.

Demographics and mobility behaviour

Having explored how according to literature demographic and behavioural variables influence support for sustainable mobility policies, it is also crucial to examine how demographic factors shape mobility behaviour itself. Understanding the origins of travel behaviour is therefore crucial. For this, various frameworks can be employed, as demonstrated in the research by Dijst et al. (2023). Their study aims to use frameworks to explain behavioural choices in traveling from psychological, economic, and geographical perspectives.

Theory of Planned Behaviour

An influential framework from the psychological perspective is the Theory of Planned Behaviour (TPB). This model explains that behaviour results from an individual's intention to engage in that behaviour. This intention, in turn, is influenced by three factors: attitudes, social norms, and perceived behavioural control (PBC). Attitudes reflect how an individual believes that particular behaviour leads to specific costs and benefits and how important these costs and benefits are to them. Social norms refer to the individual's perception of whether close relationship agree or disagree with their behaviour and their incentives to align with these views, this is expressed by the social costs and benefits of certain actions. Finally, PBC represents the extent to which an individual believes they can perform the behaviour. Notably, PBC is the only part of the model that can directly influence behaviour. This is because individuals may intend to perform a certain action and feel capable of doing so, yet external circumstances beyond their control can prevent them from carrying it out. The TPB framework is illustrated in Figure 1.



1: Theory of Planned Behaviour model (Dijst et al., 2023)

In a study by de Groot and Steg (2007), the TPB was applied to understand the intention to use a transferium in Groningen, Netherlands. A transferium is a designated parking facility, often located on the outskirts of a city, where travellers can park their cars and transfer to public transport or other sustainable mobility options to reduce urban congestion and emissions. The goal of the study was to examine how environmental concerns influence the intention to use the transferium. They categorized environmental concerns into three types: egoistic, altruistic, and biospheric concerns. The study found that the TPB successfully explained the intention to use the transferium.

Among the TPB components, attitudes were the most influential factor, indicating that individuals' evaluations of the transferium were the primary drivers of their intention to use it. This was followed by PBC, with subjective norms being the least influential, although still statistically significant. An important conclusion of the paper is that environmental concerns did not directly influence behavioural intentions but instead had an indirect effect through attitudes. Additionally, the study revealed that egoistic concerns were the strongest driver of environmental concerns. This means that intentions to use the transferium were primarily influenced by personal costs or benefits, rather than altruistic or biospheric considerations. This finding is critical when designing interventions aimed at influencing individual behaviour. It suggests that solutions should focus on highlighting personal benefits rather than relying solely on social norms or addressing feasibility from an environmental perspective. de Groot and Steg (2007) highlighted a key limitation of the TPB model: while intention often predicts behaviour, it does not always lead to action. This limitation underscores that the model's outcomes may not always accurately represent real-world behaviour.

Demographics and the theory of planned behaviour

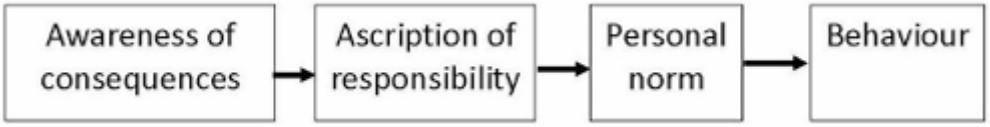
The TPB can be used to understand how demographic variables influence its different factors. A study by Li and Zhang (2021) on the intention to use car sharing tested the effects of car ownership, age, gender, and income on various aspects of the TPB. The study found no significant influences of age and income on TPB factors. However, gender influenced the PBC of car-sharing intentions. The researchers suggested that men's intentions are less influenced by PBC, while women are more process-oriented and place greater importance on the perceived ease or difficulty of car sharing. Car ownership also impacted the intention to use car sharing. For non-car owners, attitudes and subjective norms played a stronger role, whereas for car owners, PBC had a stronger effect.

In another study on the intentions to use public transport, higher education levels and incomes were found to have a positive impact on attitudes. Similarly, a study on the intention to recycle found that while demographic factors were weak predictors of recycling intentions, they did influence the three factors influencing intention. However, the researchers concluded that the total effect, including indirect influences, was not statistically significant (Botetzagias et al., 2015)

Norm Activation Model

Another model that aims to explain actual behaviour is the Norm Activation Model (NAM), which was also used by Dijst et al. (2023). While TPB emphasises intention, NAM focuses more directly on normative motivation. The NAM suggests that people engage in sustainable behaviour when their personal norms tell them to do so. These personal norms are activated through a twofold process: first, individuals need to be aware of the consequences of certain unsustainable behaviours. Second, they must feel a sense of responsibility, meaning they perceive themselves as accountable for the consequences of unsustainable behaviour and believe their actions can effectively reduce these problems. The NAM is illustrated in Figure 2.

The NAM can be extended with the integration of values making the value-belief-norm (VBN) theory. This theory claims that the problem awareness is coming from personal values.



2: Norm Activation Model (Dijst et al., 2023)

Onwezen et al. (2013) applied the NAM to explain pro-environmental behaviour by focusing on the activation of personal norms. They extended the model by incorporating anticipated emotions of pride and guilt to investigate their influence on pro-environmental behaviour. The study concluded that personal norms had a significant effect on actual behaviour, making them a strong predictor. Additionally, feelings of pride and guilt influenced adherence to personal norms and therefore, indirectly, affected behaviour through these norms.

Demographics, awareness, and values

There is a lack of studies on how awareness or values shape mobility behaviour due to demographic factors. However, a study on the influence of demographic factors on environmental value orientations and normative beliefs regarding the management of national forests provides some insights. Although this study is dated, it offers interesting results. The researchers found that women exhibited stronger biocentric values. Additionally, respondents with a college degree were more likely to hold pro-environmental normative beliefs than those with only a high school diploma. The study also revealed that a combination of demographic factors tended to amplify these values. For instance, women with a college degree had higher biocentric values than men with a college degree or women with a high school diploma (Vaske et al., 2001). Table 4 below presents the conclusions derived from this literature review.

Demographic variable	**Behavioural variables influence**
Gender	Influences Perceived Behavioural Control, which in turn shapes car-sharing intentions. Influences biocentric values, which in turn shape behaviour
Education	Influences attitudes, which in turn shape public transport usage. Influences biocentric values, which in turn shape behaviour.
Income	Influences attitudes, which in turn shape public transport usage.
Car ownership	Influences Perceived Behavioural Control, which in turn shapes car-sharing intentions. Non-car ownership influences attitudes and subjective norms.
Living environment	Strongly influences mode choice and transport preferences.

Table 4: Demographic variables and influence on behaviour

Limitations frameworks

Although both the TPB and NAM frameworks are effective in explaining behaviour, they have significant limitations. The TPB assumes that behaviour is predicted by factors such as attitudes, social norms, and PBC. However, reverse causality is also possible, people may develop a positive attitude toward a behaviour after performing it. This suggests that behaviour can shape attitudes within the TPB framework. Kroesen et al. (2017) even found that the effect of behaviour on attitudes is stronger than the reverse. In the same study, they investigated the cognitive dissonance theory, which posits that inconsistencies between one's attitudes and behaviour lead to adjustments in attitudes. Their findings supported this theory.

Both frameworks lack the direct integration of environmental factors. While the TPB incorporates individual perceptions of the environment through PBC, it does not account for actual environmental factors. However, the physical environment strongly influences mode choice (Dijst et al., 2023). For instance, the availability of walking and cycling paths, as well as weather conditions, can significantly impact travel behaviour (Wall, 2006). Additionally, the living environment influences transport preferences. For example, citizens in rural areas often face a lack of public transport and insufficient safe pedestrian and cycle paths, making them more car-dependent (Heiskanen et al., 2024). Other constraints, such as the need for a driver license or the availability of public transport in certain areas can restrict transport mode options.

Another critical limitation relates to habits. Both frameworks assume that individuals carefully weigh the costs and benefits of their actions. However, in reality, behaviour is often a deeply embedded habit rather than a deliberate, reasoned decision. Forward (2004) demonstrated this by incorporating habit into the TPB. The study concluded that while the TPB without habit was already a good predictor of behaviour, including habit significantly improved its predictive power. In three of the four cities examined, habit emerged as the best predictor of intention.

Finally, it is important to note that the NAM is particularly effective in explaining low-cost behaviour changes but is less suitable for situations involving high behavioural costs or strong constraints. In such scenarios, the TPB is more appropriate (Dijst et al., 2023).

Strategies for encouraging behavioural change

Hedonic, Gain, and Normative goals

Understanding how behaviour in transport can be explained is crucial for developing policies that promote structural behaviour change in individuals. According to Steg et al. (2014) encouraging pro-environmental behaviour is driven by three types of motivational goals: hedonic, gain, and normative goals.

- Hedonic goals focus on improving how individuals feel about their behaviour.
- Gain goals aim to enhance an individual's resources, such as financial assets or social status.
- Normative goals focus on encouraging people to do what is perceived as morally right.

Pro-environmental behaviour often involves a conflict between hedonic and gain goals on one side and normative goals on the other. This conflict arises because pro-environmental choices are frequently perceived as costly in terms of money, pleasure, time, and effort. This is why the NAM tends to be less effective than the TPB in situations where high costs for behaviour change are involved. The NAM primarily focuses on normative goals, whereas the TPB places greater emphasis on gain-related goals.

To develop effective sustainable policies, it is essential to reduce the conflict between these goals. This can be achieved by making environmentally friendly actions less costly, more convenient, and more enjoyable. Additionally, using cues, messages, and social norms can help increase awareness of the moral and environmental implications of individuals' actions, fostering long-term behavioural change.

Carrots, Sticks, and Sermons

Another well-known typology of policy methods is the carrots, sticks, and sermons framework. In this model:

- Carrots are incentives that encourage specific behaviours, such as subsidies or tax reductions for certain actions.
- Sticks refer to regulations and mandates, including laws and penalties that enforce specific behaviours.
- Sermons are information campaigns designed to educate the public about desirable behaviours.

These policy instruments are widely studied in sustainability policy research, where scholars examine their effectiveness and optimal application. Each method presents its own challenges and levels of effectiveness. For instance, Rasmussen et al. (2022) found that the carrot strategy is largely ineffective for motorists, whereas the stick strategy has significant potential but faces political resistance. Similarly, Andersson and Almqvist (2022) investigated public attitudes toward these policy tools and found that information campaigns (sermons) and subsidies (carrots) were the most supported, while mandates (sticks) were the least supported. Taxes (sticks) received moderate support. Their study also revealed that highly educated respondents were less likely to support government interventions involving taxes and mandates, whereas women and younger respondents were more likely to favour them.

Encouraging pro-environmental behaviour

In another paper by Steg and Vlek (2009), a stepwise approach for encouraging pro-environmental behaviour is outlined. In the first step, the behaviour with the most significant impact is selected. This behaviour is assessed for feasibility and acceptability, followed by a baseline assessment to understand behavioural patterns and establish a baseline, which helps tailor interventions more effectively. Target group identification is also conducted to design tailored interventions.

In the second step, the factors influencing the behaviour are identified using the Theory of Planned Behaviour and the Norm Activation Model, as previously discussed. Contextual factors and habits must also be considered. The authors emphasize that understanding the interplay between these factors is crucial for designing effective interventions.

In the third step, interventions are designed based on the identified factors. This can include informational strategies aimed at influencing attitudes and social norms, as well as structural strategies involving changes to infrastructure, legal and regulatory measures, and economic incentives to impact perceived behavioural control or abilities.

The final step involves evaluating the interventions to determine whether they have achieved their intended outcomes.

Effective policies

A considerable amount of research has been conducted to identify effective policies for behaviour change and to determine which strategies are less suitable for achieving this goal. Raux et al. (2021) found that providing information on CO2 emissions was the most effective intervention among the ones they studied. They also observed that setting injunctive norms by an authority had a small but positive effect on encouraging sustainable travel behaviour, although the impact was smaller than expected.

Conversely, descriptive norms proved to be counterproductive in this study, as they were perceived as vague and mistrusted by participants. Similarly, Aravind et al. (2024) examined the effects of different nudging techniques on promoting a modal shift through three approaches: emotional nudging, normative nudging, and gain nudging. Their findings showed that gain nudging, by emphasising health benefits was the most effective strategy, followed by emotional nudging, which used visual cues like colour scales. Normative nudging, which focuses on societal benefits, was found to be the least effective of the three techniques.

Theoretical foundation

The theoretical framework builds on and integrates existing literature and models to create a tailored conceptual approach for examining support for sustainable mobility policies, forming the foundation of this thesis. Identifying the key demographic and behavioural drivers of support for sustainability goals, based on existing research, is essential for establishing the scientific hypotheses of this study. Additionally, interpreting the findings requires the consideration of established behavioural models that explain how sustainable behaviour is shaped.

Furthermore, to assess preferences for specific policies and strategies, it is necessary to understand how they are categorised, how they differ in their design and implementation, and how levels of public support vary. Finally, the framework examines how policies can be effectively developed to encourage pro-environmental behaviour. This provides a foundation for translating the findings of this thesis into research-based policy recommendations that support the successful implementation of sustainable mobility strategies.

Although the literature provides valuable insights into demographics, mobility behaviour, and policy support, it rarely examines how these factors interact within a single, integrated framework. Few studies analyse their interdependencies in the specific context of sustainable mobility goals and policies, particularly when supported by in-depth perspectives from affected citizens. This thesis addresses that gap by linking established behavioural models with both quantitative and qualitative data on public support, providing a more holistic understanding of sustainability goal acceptance.

The next chapter discusses how this study addresses the identified gap by outlining the methodological framework, detailing the Participatory Value Evaluation approach, as well as the processes and tools used to analyse the impact of demographic and behavioural variables on support for sustainable mobility policies.

Methodology

Research design

This research employs a mixed-methods design to explore the demographic and behavioural variables associated with support for sustainable mobility policies and goals. A mixed-methods approach integrates both quantitative and qualitative methods, allowing for a more comprehensive analysis. Quantitative methods are used to assess the significance and strength of variables in relation to policy support. Qualitative methods provide deeper insights into the underlying factors associated with public attitudes toward sustainable mobility. By combining these approaches, the study gains a more nuanced understanding than either method alone.

This research follows an explanatory sequential design, where quantitative analysis is conducted first, followed by qualitative analysis. The qualitative phase helps to interpret and contextualise the findings from the quantitative phase, offering a richer understanding of the results (Creswell & Clark, 2011). This design is well-suited to answer the research questions, which aim to examine both statistical associations between demographic and behavioural variables and policy support, as well as to understand the motivations and values underlying this support.

Quantitative

The quantitative part of the research focuses on identifying statistically significant relationships between demographic and/or behavioural variables and the level of support for sustainable mobility policies. The data are sourced from a Participatory Value Evaluation (PVE), which collects demographic and behavioural data on age, gender, education, employment status, living environment, mobility behaviour, and policy support. Statistical tests will be applied to identify patterns and test hypotheses derived from the theoretical framework.

Qualitative

The qualitative part of the study aims to gain deeper insights into the rationales behind the quantitative findings. This involves analysing the open-ended responses from the PVE to explore participants' motivations and perceptions related to their support or lack of support for the sustainable mobility goal. Thematic analysis will be employed to identify recurring themes and to complement the quantitative findings with nuanced interpretations of behavioural factors and barriers.

By using this mixed-methods approach, the research ensures a more comprehensive understanding of how demographic and behavioural factors relate to policy support. The quantitative findings can be contextualised by the qualitative findings, offering depth and context. This design therefore supports the objective of this thesis to inform policymakers by identifying actionable insights into public preferences and behaviours.

Data source: Participatory Value Evaluation

To answer the research questions, data derived from the Participatory Value Evaluation (PVE) conducted by Populytics on behalf of the Dutch Ministry of Infrastructure and Water Management between 16 May and 30 June 2024 will be used. The PVE method is used to examine the desirability of governmental goals as perceived by citizens. Participants are first informed about the impact of various governmental goals and are then asked to indicate which goals they would prioritise, constrained by a public budget. This requires participants to make trade-offs in selecting their preferred goals. The outcome provides an overview of the governmental goals citizens consider most desirable (Mouter et al., 2021).

The PVE used for this thesis assesses preferences for national mobility goals. In this PVE, the participants evaluated fourteen mobility goals. The PVE consisted of three parts. In the first part, participants prioritised mobility goals in the Netherlands. In the second part, they had the option to prioritise mobility goals for freight transport. In the final part, participants provided information about their demographics and mobility behaviour. For this thesis, only the first and third parts are used, as the focus is on examining how demographics and current mobility behaviour relate to support for mobility goals aimed at citizens. Freight transport is typically not part of the mobility behaviour of individual citizens, and not all

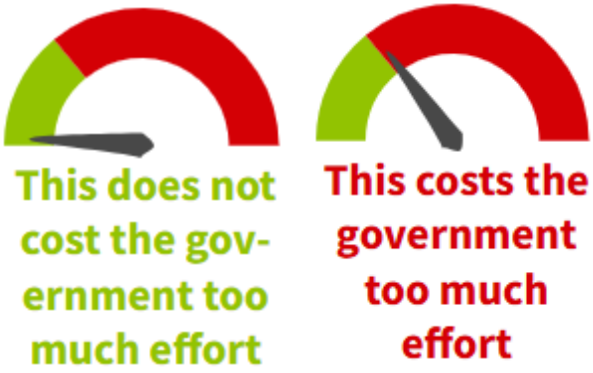
participants completed the second part, as it was optional. The PVE questions used can be found in Appendix A.

Prioritization of mobility goals

In the first part, the prioritisation of mobility goals was assessed. Participants could indicate whether a mobility goal should receive more or less attention by adjusting a slider. The slider ranged from -1 to 1, with the following scale:

- -1: The goal should receive much less attention.
- -0.5: The goal should receive less attention.
- 0: The level of attention should remain the same.
- 0.5: The goal should receive more attention.
- 1: The goal should receive much more attention.

As participants adjusted the sliders for the various goals, a meter displayed the "budget" impact of their choices. This meter indicated whether the selected prioritisation required too much effort from the government. If the meter showed that the effort was excessive, participants were unable to proceed with the PVE and had to reconsider their selections. The meter is shown in Figure 3, and the different mobility goals are listed in Table 5.



3: PVE governmental budget meter

Mobility Goals
Making it affordable for people to reach the places they want to reach.
Ensuring that traffic safety improves.
Ensuring that travel times are reduced.
Ensuring that transportation of goods in the Netherlands remains cheap, keeping prices of products low.
Reducing differences in accessibility between areas.
Ensuring that people arrive at their destinations at the expected time.
Ensuring that important products are available, for example, food in supermarkets, fuel, and medicine from abroad.
Making sure people travel more sustainably.
Making sure people have to travel less.
Ensuring that people can easily reach important facilities (such as schools, supermarkets, doctors, and hospitals) regardless of the means of transportation they own.
Ensuring that people can travel more pleasantly and comfortably.
Ensuring that people can reach different jobs that suit them, regardless of the means of transportation they own.
Improving connections with other countries.
Ensuring that people with reduced mobility can reach the places they want to reach.

Table 5: Governmental goals PVE

After the sliders were set and the respondent proceeded to the next page, they were given the option to explain their choices for each goal with an open-ended response. Providing an explanation was optional. For some of the goals, if respondents indicated that more or much more attention was needed, they had the opportunity to answer a follow-up question. In these questions, they could rank specific policies that the government could implement for certain goals. This allowed respondents to prioritise the interventions related to a goal, ranking them from most important to least important. For the sustainable mobility goal evaluated in this thesis, the policies available for ranking are shown in Table 6.

1	Making public transport tickets cheaper.
2	Improving public transport.
3	Investing in fast cycling routes.
4	Encouraging people to use shared cars.
5	Encouraging people to buy an electric car.
6	Encouraging the development of neighbourhoods with little car traffic and few parking spaces.
7	Building more homes near public transport.
8	Making petrol and diesel more expensive.

Table 6: Proposed policies for achieving the sustainable mobility goal

Demographics and behavioural variables PVE

In this part of the PVE, respondents were asked about their demographics and mobility behaviour. The demographic variables included age group, gender, highest level of completed education, main activity in life, province of residence, and type of living environment. For mobility behaviour, respondents were asked about car ownership, average frequency of using different transport modes, the type of transport used for accessing work or their education institution, the type of transport used for accessing important facilities, the type of transport used for leisure activities, and the frequency of experienced problems with accessibility. In Table 7 the different demographic and behavioural variables and their belonging choice options are shown.

Variable	Options
Age	17 years or younger, 18-24, 25-34, 35-44, 45-54, 55-64, 65 or older, I would rather not say
Gender	I am a man, I am a woman, Other, I would rather not say
Education level	Primary school, VMBO, Havo/vwo (class 1, 2, or 3), Havo/vwo (class 4, 5, or 6), MBO (level 1), MBO (level 2, 3, or 4), HBO/University, I would rather not say / I don't know
Daily life	I do paid work, I am in school/studying, I am a stay-at-home parent, I do volunteering, I am retired, Other, I would rather not say
Province (Work)	Drenthe, Flevoland, Friesland, Gelderland, Groningen, Limburg, Noord-Brabant, Noord-Holland, Overijssel, Utrecht, Zeeland, Zuid-Holland, Other parts of the Kingdom of the Netherlands
Province (Residence)	Drenthe, Flevoland, Friesland, Gelderland, Groningen, Limburg, Noord-Brabant, Noord-Holland, Overijssel, Utrecht, Zeeland, Zuid-Holland, Other parts of the Kingdom of the Netherlands
Travel distance (work/study)	5-10 km, 11-20 km, 21-30 km, 31-50 km, more than 51 km
Living environment	Big city, Small city, Small municipality, Rural area
Car ownership	No, no car; Yes, one car; Yes, multiple cars
Frequency of different transport modes (Car, Train, Bus/Tram/Metro, Bicycle, Shared transport)	(Almost) never, 1-11 days per year, 1-3 days per month, 1-3 days per week, 4 times per week or more
Type of transport (work/study, important facilities, leisure activities)	Car, Bicycle, On foot, Train, Tram/Bus/Metro, Plane, Motorbike or scooter, Wheelchair, Skateboard/skates/rollerblades, Other
Experienced problems with accessibility	Occasionally (a few times a year), Regularly (a few times a month), Often (a few times a week), Very often (every day)

Table 7: Demographic and behavioural variables

Participatory Value Evaluation in research context

The PVE dataset provided a strong foundation for analysing how demographic and behavioural variables correlate with support for sustainable mobility goals and policies. It included relevant demographic factors, behavioural data, and measures of support for mobility goals, as well as specific sustainable mobility policies and actions. Since respondents were required to indicate the relative importance of sustainable mobility goals, an assessment could be made of their support for these goals. Additionally, by having respondents rank different sustainable mobility policies, it was possible to identify which policies were most preferred among those who supported the sustainability goal.

The dataset covered key demographic factors, which could be linked to support for sustainable mobility goals and the ranking of sustainable mobility policies. The same applied to the behavioural variables included in the dataset, allowing for an analysis of whether mobility behaviour was associated with support for sustainable mobility goals and specific policies. Because the dataset contained both demographic and mobility behaviour data, it enabled an examination of how these two factors interacted in relation to preferences for sustainable mobility goals and policies.

Finally, the dataset included a qualitative component in which respondents provided explanations for their support or lack of support for specific mobility goals. This qualitative data offered a more comprehensive foundation for understanding support for sustainable mobility goals. Therefore, the dataset facilitated the identification of key variables associated with preferences for sustainable mobility goals, differences across population segments, and trade-offs between policy choices.

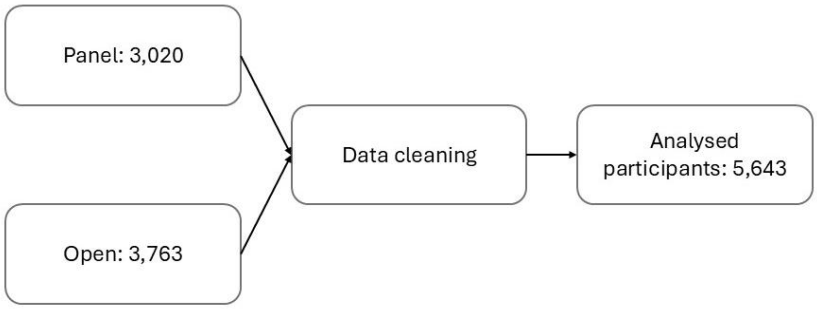
Participants

For participant selection, Populytics used two methods: panel evaluation and open evaluation. The panel evaluation involved recruiting participants based on their representativeness of Dutch society in terms of age, gender, and education level. This panel consisted of 3,020 participants. The open evaluation was open to anyone who wished to contribute and recruited 3,763 participants. The total number of participants was 6,783.

However, since not all participants completed the PVE correctly, data cleaning steps were applied. According to the developers, completing the PVE should have taken 15–20 minutes. However, the mean completion time was 31 minutes, and the fastest 25% of participants completed it in an average of 11.73 minutes. Therefore, participants who completed the PVE in less than 5 minutes were excluded to ensure that only those who took sufficient time were considered, thereby improving data reliability.

Additionally, a portion of the PVE was completed via social media recruitment, but these responses were less complete compared to those from the panel and open evaluations. Consequently, data from social media recruitment were also excluded to maintain consistency in the analysis. After applying these exclusion criteria, data from 5,643 participants were retained for analysis, as shown in Figure 4.

For the analysis, all participants were analysed together, this means no distinction was made between open, and panel recruited participants. This could result in data that is not fully representative of Dutch society. However, because the analysis controls for demographic variables, this may not significantly affect the outcomes.



4: Data cleaning procedure

Selection of variables

The selection of variables was based on the demographic and behavioural variables outlined in Table 7. These variables were included in the PVE and identified as key demographic and behavioural factors. The literature review highlighted significant effects of age, gender, education level, and living environment on support for policies. These variables were therefore logically included, as the hypotheses are built upon them. Additionally, the living environment variable was expanded to include province of residence. This decision was made because analysing policy support at the provincial level can provide insights into regional differences, which may be relevant to policymakers.

The daily life variable was excluded from further analysis. The literature review showed that distinguishing different daily life categories is often inconsistent, making comparisons with existing research difficult. Various studies use different classification methods, and groupings are not consistently defined across research contexts. Moreover, an analysis of Statistics Netherlands data revealed that only paid work and retirement were clearly distinguishable, whereas other classifications used in the PVE did not align with available statistical definitions. Due to this lack of consistency and the difficulty in meaningful interpretation, the daily life variable was deemed unsuitable for inclusion.

For behavioural variables, transport mode frequency was selected as the measure of mobility behaviour, as it provided the clearest insight into travel patterns. Other related variables, such as transport type for different trip purposes, were already reflected in the transport frequency data. Travel distance to work or study was excluded because it does not directly reflect behaviour but rather represents an external

contextual factor. Similarly, car ownership was considered partially by car usage frequency, making separate analysis unnecessary.

By carefully selecting these demographic and behavioural variables, this study ensures a clear, interpretable, and methodologically sound approach to analysing factors influencing public support for sustainable mobility policies. The selected variables are shown in Table 8.

Type variable	Selected variables
Demographics	Age, gender, education level, province of living, and living environment.
Behaviour	Frequency of car use, train use, bus/tram/metro use, bike use and shared transport use.

Table 8: Selected variables

Quantitative analysis

During the quantitative analysis, relationships between demographic and behavioural variables and the level of support for sustainable mobility policies were examined. The independent variables consisted of the previously mentioned demographic and behavioural factors, while the dependent variables represented levels of support for mobility goals, with the most important being: "Making sure people travel more sustainably." The quantitative analysis was conducted using four statistical methods: descriptive statistics, correlation analysis, policy support analysis and clustering analysis.

Descriptive Statistics

In the first part of the quantitative analysis, the cleaned dataset was used to examine the demographic composition of the selected variables. The demographic distribution was represented in percentages using the pandas library in Python. This composition was then compared with statistics from renowned sources (Statistics Netherlands, Statista, and Eurostat), to assess whether the dataset was a good representation of the general population. Based on this representativeness and the dataset composition, decisions were made regarding the inclusion and exclusion of specific demographic groups for further analysis.

Additionally, certain demographic categories were grouped to align with the statistical classifications used by Statistics Netherlands. This adjustment made the dataset more reflective of the general population, facilitated comparisons with other studies and population statistics, and increased the reliability of categories with few respondents by increasing the sample size, thus avoiding unnecessary exclusions.

After these modifications, a descriptive analysis was conducted to examine both transport mode frequency and goal support levels. First, the frequency of each transport mode was calculated and presented in percentages using pandas. The distribution of transport mode frequency was then analysed across different demographic groups, providing initial insights into how demographic variables correlate with mobility behaviour. Next, the mean support levels for different mobility goals were calculated. This was followed by an analysis of mean support across demographic distributions, allowing for the identification of preliminary trends in how demographic factors shape support for sustainable mobility policies.

Correlation analysis

After deriving the preliminary results, a correlation analysis was performed to measure the strength and direction of the relationship between two variables. This analysis helps identify statistically significant patterns, dependencies, and associations. The correlation coefficient quantifies the strength of the relationship, ranging from -1 to 1, where 1 indicates a perfect positive correlation, -1 indicates a perfect negative correlation, and 0 signifies no correlation at all (Janse et al., 2021).

To conduct the correlation analysis, all variables had to be transformed into numerical values. In this thesis, age groups were converted into ordinal categories, while education level was mapped into three groups: basic education, middle education, and higher education. Provinces were ranked in ascending order of population density, and living environment was ranked by ascending urbanisation. Additionally,

the frequency of using different mobility modes was transformed into ordinal variables to ensure consistency in the analysis.

For the correlation analysis, Python with the SciPy package was used, applying the Spearman rank correlation method. Spearman rank correlation was selected as the most appropriate technique given the nature of the dataset. This method does not assume normality or linearity and is well-suited for identifying monotonic associations between variables. Since many variables in the dataset, such as education level, mobility frequency, and urbanisation, are ordinal or skewed, Spearman correlation allows for reliable analysis without needing normally distributed data or linear relationships. It is also robust against outliers and effectively captures trends where the relationship increases or decreases consistently, even if not at a constant rate (El-HashHash & Hassan, 2022).

When interpreting the correlation analysis results, correlation coefficients were assessed in context, meaning the strength or weakness of correlations was determined by comparing them to other correlations within the same analysis. To assess statistical significance, p-values were considered: if the p-value was below 0.05, the result was interpreted as statistically significant (Andrade, 2019).

Three correlation analyses were performed to explore relationships between different variables. First, correlations were examined between demographic variables and mobility behaviour, identifying patterns in how demographic characteristics correlate with frequency of transport usage. Second, a correlation analysis was conducted between demographic variables and support for government mobility goals, assessing whether demographic factors are associated with varying levels of support for sustainable mobility policies. Finally, a correlation analysis was performed between behavioural variables and support for mobility goals, investigating how frequency of transport usage relates to policy preferences.

An important limitation of correlation analysis is that it does not imply causation and only measures monotonic relationships, which means that potential non-monotonic associations may be missed (Janse et al., 2021). Although regression methods are often used to imply causation, they were not applied in this research due to several methodological concerns. Many of the variables in this dataset are ordinal, such as education level and frequency of mobility behaviour, and the relationships between variables are not necessarily linear.

Regression models rely on assumptions such as linearity, normality of residuals, and limited influence of outliers. These assumptions were not sufficiently met in this dataset, which could have led to unreliable results or misinterpretation. Moreover, the dataset showed considerable overlap between demographic and behavioural variables, increasing the risk of multicollinearity (Meuleman et al., 2014). For these reasons, regression was not considered suitable for this analysis, which focuses on identifying patterns rather than estimating effect sizes or making predictions.

Additionally, many variables required transformation or grouping to be analytically usable, which further complicates regression modelling and the interpretation of coefficients. By also conducting a descriptive analysis, the possibility of non-monotonic relationships was considered when interpreting the results. Additionally, care was taken to avoid interpreting the correlation analysis results as causal relationships, ensuring that findings were understood within their statistical limitations.

Policy support analysis

The analysis of support for policies aimed at achieving the sustainable mobility goal was conducted. The analysis involved processing responses from respondents in the PVE, where they could rank eight different policies from 1 to 8 if they believed more attention to the sustainable mobility goal was needed. The policies that could be ranked were:

- Making public transport tickets cheaper.
- Improving public transport.
- Investing in fast cycling routes.
- Encouraging people to use shared cars.
- Encouraging people to buy an electric car.
- Encouraging the development of neighbourhoods with little car traffic and few parking spaces.

- Building more homes near public transport.
- Making petrol and diesel more expensive.

Cumulative normalised counts were calculated by summing the percentages of policy preferences across different ranks. This approach allowed for an overall ranking of policy support. To determine the ranking of policies, the cumulative normalised counts were ordered based on the highest cumulative value for each rank. The policy with the highest cumulative support in each column was identified, and the corresponding rank was extracted. This process was repeated iteratively to generate a ranked list of policy preferences.

To explore variations in policy support among specific subgroups, respondents were filtered based on demographic and behavioural characteristics. This approach made it easier to interpret how different demographic and behavioural subgroups that support the sustainable mobility goal would rank the proposed policies.

Clustering analysis

The final quantitative analysis conducted was a clustering analysis, which aimed to divide the dataset into groups based on similarities. This approach facilitates a deeper understanding of the dataset and how different demographic, and behavioural variables jointly relate to support for the sustainable mobility goals of the Dutch government.

For this analysis, the K-means algorithm was applied, as it is suitable for both ordinal and categorical variables. Additionally, K-means is a simple and efficient method compared to other clustering techniques. The algorithm works by assigning data points to a pre-defined number of clusters based on their distance to randomly selected centroids. It then iteratively updates the centroids until they stabilize, aiming to minimise the sum of squared distances within clusters, ensuring that similar data points are grouped together (Gelbard et al., 2007).

The selection of variables for clustering was based on the correlation analysis, where the most significant variables with the highest correlation coefficients with the sustainability goal were chosen. Since the dataset contained variables with varying scales, they were normalised using a MinMaxScaler. This transformation scaled all values between 0 and 1, ensuring that differences in scale did not affect the clustering process.

To determine the optimal number of clusters, the elbow method was used. This method is widely recognised for its simplicity in selecting the appropriate number of clusters. It works by plotting the sum of squared errors (SSE) for different cluster counts and identifying the elbow point, the point at which adding more clusters leads to diminishing returns in error reduction. This elbow point represents the most efficient number of clusters, balancing accuracy and interpretability (Kodinariya & Makwana, 2013).

Based on this analysis, the optimal number of clusters was selected and implemented in the final model. The K-means clustering was then performed using the scikit-learn package in Python, and the resulting groups were analysed to identify their distinguishing characteristics, providing further insights into how demographic and behavioural variables shape support for sustainable mobility policies.

A key limitation of k-means clustering was that it requires predefining the number of clusters, which can be difficult to determine objectively. Even the elbow method could be interpreted different by different researchers (Hassan et al., 2019).

Qualitative analysis

As the final step in gathering results, a qualitative analysis was conducted to examine respondents' motivations for choosing to assign more attention, less attention, or no additional attention to the sustainability goal. The analysis began with a quick scan of the dataset, in which twenty-five responses were reviewed for each level of support (-1, -0.5, 0, 0.5, 1). This initial scan allowed for the identification of recurring arguments, which were then grouped into themes. Some of these arguments were highlighted and discussed to gain deeper insight into the reasoning behind respondents' choices and the themes that

emerged from their responses. Once this thematic analysis was complete, a set of categories was established and used to classify the arguments.

To systematically assign arguments to different themes, a sample size was determined for each support level (-1, -0.5, 0, 0.5, 1) to ensure that the categorisation was based on a statistically reliable number of responses. The Sample Size Calculation Formula was applied, incorporating a confidence level of 95%, a margin of error of 5%, and the proportions of different support groups present in the dataset (Naing et al., 2022). This calculation resulted in five sample sizes, corresponding to the five support levels.

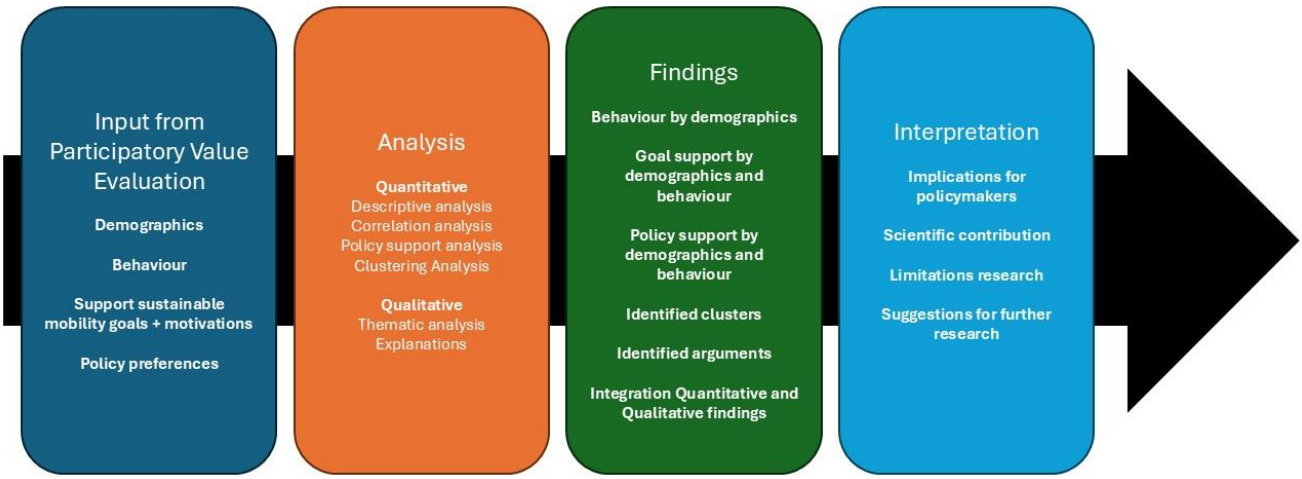
Using Python, a random selection of the sample size of responses was drawn from the dataset for each support level, ensuring that the thematic classification was based on representative data. Once the sample selection was complete, arguments were assigned to themes, providing a structured overview of how frequently certain arguments appeared in the dataset. This approach enabled a systematic interpretation of respondents' motivations, offering valuable insights into the key factors associated with public support for the sustainability goal.

A limitation of this method is that not all motivations were captured in the analysis, which could lead to missing important motivations of respondents. However, the sample size calculation formula should minimise this risk.

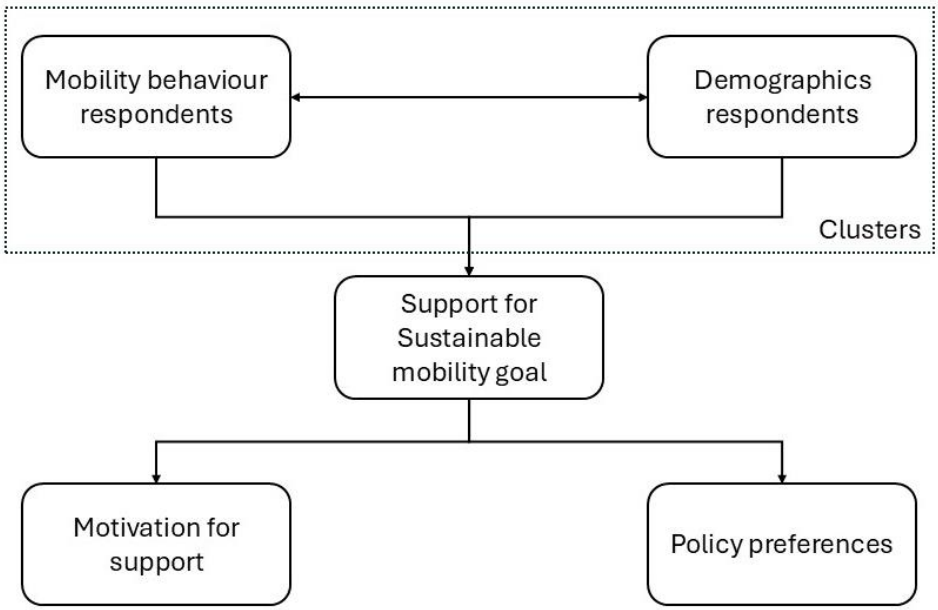
Conceptual models

To conclude the methodology chapter, two visual models are presented in Figures 5 and 6 to clarify the structure and approach of this research. The first model illustrates the research flow, outlining the steps from data collection through quantitative and qualitative analysis to the integration of findings and interpretation. This diagram provides a clear overview of the methodological process followed in the thesis.

The second model conceptualises the relationships between the key categories of variables examined, namely demographics, mobility behaviour, support for sustainable mobility goals, policy preferences, and motivations. This conceptual model reflects the hypothesised associations derived from the literature and operationalised in this research design.



5: Conceptual model research structure and approach



6: Conceptual model of variables examined

Results

Exploring the dataset

In the results section, the composition of the PVE dataset was first presented to provide an overview of the demographic and behavioural characteristics of the respondents who completed the PVE survey. These results were then compared with statistical data on the Netherlands to assess the representativeness of the dataset in relation to Dutch society (Eurostat, 2023; Statista, 2023; Statistics Netherlands, 2022a, 2022b, 2023).

Demographics and socio-economic variables representation

Table 9 provides an overview of the socio-economic and demographic variables in the PVE data sample, while Table 10 presents statistics for the Dutch population. The PVE dataset indicates that some groups are overrepresented, leading to the underrepresentation of others.

For example, in terms of age, respondents aged 65 and older are overrepresented, meaning that younger age groups are underrepresented. Regarding gender, men are overrepresented, while women are consequently underrepresented. In terms of education level, highly educated individuals are significantly overrepresented. In contrast, individuals with middle and basic education levels in Dutch society are highly underrepresented.

The distribution of respondents by province is representative of the general population, with only minor differences. However, Zuid-Holland is overrepresented by four percentage points, while Noord-Brabant is underrepresented by the same margin. Differences for other provinces do not exceed one percentage point. Finally, in terms of living environment, urban residents are underrepresented, whereas rural residents are significantly overrepresented. This discrepancy may be due to respondents self-reporting their living environment based on a different interpretation than the definition used by Eurostat.

These overrepresentations can introduce biases in the overall results and lead to misleading conclusions. However, since the results are analysed for each variable individually, any overrepresentation is considered and addressed in the interpretation of this thesis.

Reliability different groups

For further analysis, it is important to make assumptions based on reliable data. Therefore, it is necessary to exclude or group certain demographic or socio-economic variables in the dataset when analysing them descriptively. Responses such as "don’t know" or "rather not say" are not particularly useful for analysis and will not be mentioned. Additionally, some response categories have such a small number of observations that it is better to exclude them. For example, the age group of 17 years and younger consists of only seven respondents, whereas other age groups provide much more robust sample sizes. The 18–24 age group is small, with 285 respondents, but still considered large enough to draw meaningful conclusions. In the gender category, it would be relevant to analyse non-binary gender identities in addition to men and women. However, while inclusivity is important, the dataset is too small to draw meaningful conclusions for these groups.

For other variables, it is useful to group certain categories. For instance, education level is currently divided into many different subcategories, including specific grades within those levels. Therefore, we adopt the classification used by Statistics Netherlands, which groups education levels into Highly educated (HBO/University), Middle educated (HAVO/VWO/MBO 2, 3, 4), and Basically educated (Primary school/VMBO/MBO 1). The English equivalents of these education levels can be found in Appendix B. This method of excluding and grouping variables could lead to a simplification of results, making it impossible to draw conclusions for all demographic variables and potentially hiding meaningful differences within subgroups. However, as maintaining all categories could compromise the reliability of the results, this approach was deemed necessary.

Variable		Sample PVE (%)
Age	65 or older	25%
	55-64	22%
	45-54	19%
	35-44	15%
	25-34	14%
	18-24	5%
	17 or younger	0%
	Rather not say	0%
Gender	Man	57%
	Woman	41%
	Different	1%
	Rather not say	1%
Education level	University	33%
	HBO	30%
	MBO 2, 3, 4	19%
	HAVO/VWO 4,5,6	7%
	HAVO/VWO 1,2,3	2%
	MBO 1	2%
	VMBO	7%
	Primary school	1%
	Not say/Don't know	1%
Province of living	Zuid-Holland	25%
	Noord-Holland	17%
	Gelderland	11%
	Noord-Brabant	11%
	Utrecht	9%
	Overijssel	6%
	Limburg	5%
	Flevoland	4%
	Friesland	4%
	Groningen	4%
	Drenthe	2%
	Zeeland	2%
	Other	0%
Environment	Small city	32%
	Big city	31%
	Small municipality	23%
	Rural environment	14%

Table 9: Demographics from dataset PVE

Variable		Statistics (%)
Age	65 or older	20%
	40-65	33%
	20-40	26%
	Under 20	21%
Gender	Man	50%
	Woman	50%
Education level	HBO/University	36%
	Havo/VWO/MBO 2,3,4	37%
	Primary school/VMBO/MBO 1	26%
	Don't know	1%
Province of living	Zuid-Holland	21%
	Noord-Holland	17%
	Gelderland	12%
	Noord-Brabant	15%
	Utrecht	8%
	Overijssel	7%
	Limburg	6%
	Flevoland	3%
	Friesland	4%
	Groningen	3%
	Drenthe	3%
	Zeeland	2%
Environment	Urban	74%
	Intermediate	25%
	Rural	1%

Table 10: Demographics from Dutch statistics

Mobility behaviour of respondents

When analysing the data on the frequency of different modes of transport, a clear overview of respondents' mobility behaviour is obtained. The results show that the car is the dominant mode of transport among respondents. Only 13% of respondents almost never use a car, while 69% use it at least once a week. The bicycle follows a similar pattern, with 71% of respondents using it more than once a week.

Public transport is less popular. For trains, 38% of respondents almost never use them, and for buses, trams, or metros, this figure is even higher at 44%. Additionally, those who do use public transport tend to do so only occasionally rather than frequently. In both cases, most users report using it 1 to 11 days per year, followed by monthly use. Only 22% and 18% of respondents use the train or bus/tram/metro more than once a week, respectively.

Shared transport yielded some striking results. A significant 84% of respondents almost never use shared transport, with only 2% using it more than once a week and none of the respondents using it more than four times a week. Another notable finding is that, unlike other transport modes, a larger proportion of respondents indicated that they do not know or prefer not to say whether they use shared transport.

The results are shown in Table 11.

Frequency	Car usage	Train usage	Bus/Tram/Metro	Bike usage	Shared transport
(Almost) never	13.35%	38.29%	43.65%	13.68%	84.18%
1-11 days per year	4.62%	23.27%	20.93%	4.72%	6.08%
1-3 days per month	12.43%	15.56%	16.83%	8.74%	3.83%
1-3 days per week	35.10%	16.12%	12.86%	23.24%	2.25%
>4 days per week	33.81%	6.15%	5.11%	49.99%	0.30%
Rather not say or I don't know	0.67%	0.60%	0.62%	0.63%	3.35%

Table 11: Frequency of mobility mode usage

Descriptive and correlation analysis of demographic variables on behaviour

For the correlation analysis, the differences in travel behaviour frequency percentages across different demographic groups were initially considered, as shown in Appendix C. Additionally, the correlation analysis presented in Appendix D was used to determine whether any significant correlations existed. It is interesting to note that all correlation coefficients, except for the correlation between age and train usage, are below 0.35. In this paragraph, the correlations will be discussed based on significance and the relative strength of the effect.

Demographic and Socio-Economic Variables and Car Usage

The frequency of car usage increases with age. The proportion of respondents using a car more than once a week grows as they get older. Among high-frequency car users (more than four times a week), there is a noticeable shift as individuals reach older ages: this group gradually transitions to slightly lower car usage (1–3 days per week) from age 45 onward, with a more pronounced shift occurring around retirement age (65+).

The correlation coefficient is not particularly strong, likely because the trend in the most frequent car usage is not monotonically increasing, it peaks in the 35–44 age group and decreases thereafter. Men are more frequent car users than women, with men more likely to use a car more than once a week, while women are more likely to report (almost) never using a car.

For education level, the correlation coefficient with car usage is small. Additionally, the p-value lies between <0.01 and <0.05, and is therefore only modestly significant. A descriptive analysis also shows that the trend is not monotonically increasing across education levels: respondents using a car more than once a week peak among those with a middle level of education, are lowest among those with basic education, and are moderate among highly educated respondents.

Provincial differences indicate a clear divide, with residents in densely populated provinces using cars less frequently than those in more sparsely populated provinces. The same trend, though much stronger, is visible when comparing urban to rural residents: urban residents use cars far less than rural residents, and usage gradually increases as the environment becomes more rural.

The correlation coefficients and p-values are shown in Table 12.

Independent variable	Correlation coefficient	P-Value (sig <0.05)
Age	0.046	0.00
Gender	-0.089	0.00
Education	-0.036	0.01
Province	-0.124	0.00
Living Environment	-0.260	0.00

Table 12: Correlation coefficients and P-values of Car usage with demographics

Demographic and Socio-Economic Variables and Train Usage

The correlation coefficient between age and train usage is relatively strong and negative. This is also evident in the descriptive analysis, as the youngest respondents (18–24 years old) are the most frequent train users, with more than 50% using the train at least once a week, while only 8% of respondents aged 65 or older do so. This also differs significantly from the overall respondent group, where 22% use the train more than once a week.

Regarding gender, no major differences were observed, apart from the general trend that men tend to use all transport modes slightly more frequently than women. The correlation coefficient is relatively small.

However, education plays a significant role in train usage and shows the strongest correlation in this analysis. Highly educated individuals use the train far more often than those with lower levels of education, showing a particularly strong difference: among the highest educated respondents, 29% use the train at least once a week, while this decreases with education level to 11% and 8%, respectively. Similarly, the proportion of respondents who report almost never using the train decreases with education level, from 65% to 56% to 27%.

Regional differences are also evident, with sparsely populated provinces having a much higher proportion of residents who never use the train compared to densely populated provinces. A similar but even stronger divide is observed when comparing different living environments, where train usage is far more common in cities than in rural areas.

The correlation coefficients and p-values are shown in Table 13.

Independent variable	Correlation coefficient	P-Value (sig <0.05)
Age	-0.299	0.00
Gender	-0.043	0.00
Education	0.334	0.00
Province	0.141	0.00
Living Environment	0.250	0.00

Table 13: Correlation coefficients and P-values of Train usage with demographics

Demographic and Socio-Economic Variables and Bus, Tram, and Metro Usage

The trends in bus, tram, and metro usage largely mirror those of train usage, though overall usage rates are lower than for trains. However, the correlation coefficients are stronger for living environment and province. For the other variables studied, the correlation coefficients are lower: -0.26 for age and 0.19 for education level, while for gender, the correlation is not statistically significant at all. One notable exception is Zuid-Holland, where bus, tram, and metro usage is more frequent than train usage.

The correlation coefficients and p-values are shown in Table 14.

Independent variable	Correlation coefficient	P-Value (sig <0.05)
Age	-0.263	0.00
Gender	0.011	0.44
Education	0.193	0.00
Province	0.285	0.00
Living Environment	0.301	0.00

Table 14: Correlation coefficients and P-values of bus, tram, and metro usage with demographics

Demographic and Socio-Economic Variables and Bike Usage

Bike usage is the most frequent mode of transport across the entire dataset, with almost half of all respondents using it more than four times a week. Age is not a significant factor associated with bicycle use, as shown by the correlation analysis. This is also evident in the descriptive statistics, where high-frequency bike usage among respondents aged 65 and older is almost the same as among those aged 18–24. Additionally, the proportion of respondents who (almost) never use a bike remains stable across age groups.

No significant correlation was found for gender or provincial density. However, for the living environment, a relatively small but statistically significant correlation coefficient was found, indicating that bike use is higher in more urbanised areas. This is also reflected in the descriptive statistics, where 64% of respondents in rural environments use a bike more than once a week, compared to 73% or more in cities. However, small municipalities do not differ significantly from cities, although the proportion of respondents using a bike more than four times a week is lower than in cities.

The correlation coefficient for education level is stronger. This is also reflected in the descriptive statistics, where respondents with a basic level of education are far more likely to (almost) never use a bike (28%) compared to those with the highest level of education (10%). Respondents with a middle level of education fall in between, at 18%.

The correlation coefficients and p-values are shown in Table 15.

Independent variable	Correlation coefficient	P-Value (sig <0.05)
Age	-0.008	0.55
Gender	-0.015	0.28
Education	0.174	0.00
Province	0.027	0.05
Living Environment	0.085	0.00

Table 15: Correlation coefficients and P-values of bike usage with demographics

Demographic and Socio-Economic Variables and Shared Transport Usage

Finally, shared transport is the least-used mode of transport. Most respondents almost never use shared transport, and the correlation coefficients are also the lowest for this mode. Although younger individuals tend to use shared transport more often than older individuals, there is also a noticeable shift in the proportion of respondents who (almost) never use it. Among respondents aged 65 and older, 90% report almost never using shared transport, compared to 74% in the 25–34 age group and 77% in the 18–24 age group. The latter group is also the only one where usage exceeds four times a week, peaking at 1.4%.

The living environment also correlates with shared transport usage. Here, a clear divide exists between cities and other areas. In large cities, 77% of respondents almost never use shared transport, compared to 85% in smaller cities, and over 90% in small municipalities and rural areas. Large cities are also the only places where more than 2% of respondents use shared transport at least once a week, with usage reaching 4%.

For provinces, the correlation coefficient is relatively small, though usage tends to be slightly higher in provinces with the largest cities. No significant correlation was found for gender, while education level shows a slightly positive correlation. A descriptive analysis reveals that the proportion of respondents who almost never use shared transport is lowest among the highly educated, while the highest proportion of frequent users is found among those with a basic level of education.

The correlation coefficients and p-values are shown in Table 16.

Independent variable	Correlation coefficient	P-Value (sig <0.05)
Age	-0.177	0.00
Gender	-0.020	0.15
Education	0.109	0.00
Province	0.050	0.00
Living Environment	0.184	0.00

Table 16: Correlation coefficients and P-values of shared transport usage with demographics

Governmental goal support of respondents

Table 17 below presents the average support for increasing or decreasing attention relative to the current situation. The first notable observation is that every goal has a positive mean, ranging from 0.03 for ensuring that people can travel more pleasantly and comfortably to 0.4 for ensuring that people can access key facilities.

Another striking observation is that none of the means exceeds 0.5, indicating that, on average, none of the goals is perceived as highly urgent compared to the others. The goals that, according to respondents, have the highest priority (with a mean of 0.3 or higher) are all largely related to accessibility. These include access to key facilities, the affordability of reaching desired destinations, and accessibility for people with disabilities.

Other goals deemed important, with a mean above 0.25, focus on the availability of essential products, traffic safety, and sustainability.

Additionally, some goals are perceived as sufficiently addressed or less urgent compared to others, with a mean below 0.10. These primarily concern travel comfort, such as ensuring that people can travel more pleasantly and comfortably and reducing travel times.

However, some less expected goals also fall into this category. For example, ensuring that people can access various jobs that suit them is rated among the least important goals, even though accessibility is otherwise considered highly significant. Similarly, keeping freight transport in the Netherlands inexpensive is seen as less important, despite affordability ranking as the second most important goal in terms of reaching different places, and product availability receiving a mean above 0.25.

Finally, three goals fall within the range of 0.10 to 0.13: arriving at destinations on time, reducing the need for travel, and improving connections with other countries.

Goal	**Description**	**Mean of support (-1 to 1)**
1	Ensuring that people arrive at their destination on time.	0.11
2	Ensuring that freight transport in the Netherlands remains inexpensive, keeping product prices low.	0.08
3	Ensuring that people travel more sustainably.	0.27
4	Ensuring that people need to travel less.	0.10
5	Ensuring shorter travel times.	0.06
6	Ensuring that people can travel more pleasantly and comfortably.	0.03
7	Improving connections with other countries.	0.13
8	Ensuring that essential products are available, such as food in supermarkets, fuel, and medicine from abroad.	0.27
9	Ensuring that people can access key facilities (such as schools, supermarkets, GPs, and hospitals), regardless of the transport modes they own.	0.40
10	Ensuring that people can access various jobs that suit them, regardless of the transport modes they own.	0.05
11	Reducing disparities in accessibility between regions.	0.18
12	Ensuring that it is affordable for people to reach the places they want to go.	0.34
13	Ensuring that people with disabilities can reach the places they want to go.	0.30
14	Ensuring greater safety in traffic.	0.26

Table 17: Mobility goal support on a scale from -1 to 1

Descriptive and correlation analysis of demographic variables on goal support

For the correlation analysis, initially, the differences in the policy support means for different demographic groups were considered, these can be found in Appendix E. Additionally, the correlation analysis shown in Appendix F will be used to determine if there are any significant correlations. Also, in this analysis the correlation coefficients are below 0.35, in this paragraph, the correlations of demographic factors and the support for the sustainable mobility goal will be discussed on significancy and relative strongness of effect. Table 18 presents the correlation coefficients and P-values from the correlation analysis with the sustainable mobility goal, while Table 19 shows whether a significant correlation exists and in which direction for all fourteen mobility goals.

Independent Variable	Correlation coefficient	P-Value (sig <0.05)
Age	-0.036	0.01
Gender	0.004	0.80
Education	0.283	0.00
Province	0.054	0.00
Living Environment	0.092	0.00

Table 18: Correlation coefficients and P-values of demographics and support for the sustainability goal

Goal	**Age**	**Gender**	**Education**	**Province**	**Environment**
Goal 1	not significant	negative	not significant	not significant	not significant
Goal 2	not significant	positive	negative	negative	negative
Goal 3	negative	not significant	positive	positive	positive
Goal 4	positive	negative	positive	not significant	not significant
Goal 5	negative	negative	negative	not significant	negative
Goal 6	not significant	negative	not significant	positive	positive
Goal 7	negative	negative	positive	positive	positive
Goal 8	not significant	positive	negative	not significant	negative
Goal 9	not significant	positive	positive	not significant	not significant
Goal 10	negative	positive	positive	not significant	positive
Goal 11	not significant	not significant	positive	negative	negative
Goal 12	negative	positive	negative	not significant	not significant
Goal 13	positive	positive	negative	not significant	not significant
Goal 14	positive	positive	negative	positive	positive

Table 19: Correlation demographics and support for different mobility goals

Age and sustainable mobility goal support

The 18–24 age group recognises the importance of the goal "ensuring that people travel more sustainably" the least, with a mean score of 0.19, compared to 0.27 in the overall dataset. Interestingly, the 25–34 age group demonstrates the strongest support, with a mean of 0.38. Support then gradually declines in older age groups, dropping to 0.27 across all age groups, except for those aged 45–54, where there is a sudden reduction to 0.23. These notable shifts in mean scores with increasing age are also reflected in the correlation analysis, where the correlation coefficient remains relatively small.

Gender and sustainable mobility goal support

According to the literature, women generally support sustainability goals more than men, a trend that is also observed in the data. However, the difference is relatively small, with mean scores of 0.28 for women and 0.26 for men. This difference is so minor that no significant correlation can be found between gender and support for sustainability goals.

Education level and sustainable mobility goal support

One of the strongest correlations in the entire correlation analysis of demographics and mobility goals is found between education level and ensuring sustainable mobility. The correlation coefficient shows this is a relatively strong correlation. The descriptive statistics confirm this trend, as respondents with a basic level of education have a mean of slightly above zero (0.03), middle-educated respondents have a mean of 0.10, and higher-educated respondents show a clear difference with a mean of 0.38.

Province of residence and sustainable mobility goal support

A relatively small divide, with a low correlation coefficient, is observed in support for sustainability goals by province of residence. Respondents living in densely populated provinces tend to show higher support for sustainability compared to other provinces. A notable exception is Zuid-Holland, with a mean of 0.27, which aligns more closely with mid-range provinces rather than with the more densely populated ones, such as Noord-Holland (0.34) and Utrecht (0.37).

Living environment and sustainable mobility goal support

The difference in living environment is also reflected in support for the sustainability goal, with a correlation coefficient of 0.09, as shown in Table 18. Respondents in large cities consider this goal the most important, with a mean of 0.35. However, while the goal is still seen as important by rural residents, their mean score is lower at 0.21. Similar trends are observed for small municipalities (0.23) and small cities (0.26).

Descriptive and correlation analysis of behavioural variables on goal support

Appendix G shows the mean of the goal support accompanied by the frequency of transport mode usage. Appendix H presents the correlation analysis results on the relationship between mobility behaviour and policy support. It is immediately apparent that the correlation coefficients are stronger in this analysis than in the one conducted for demographic factors. Table 20 presents the correlation coefficients and P-values from the correlation analysis with the sustainable mobility goal, while Table 21 shows whether a significant correlation exists and in which direction for all fourteen mobility goals.

Independent Variable	Correlation coefficient	P-Value (sig <0.05)
Car	-0.249	0.00
Train	0.307	0.00
Bus/Tram/Metro	0.187	0.00
Bike	0.289	0.00
Shared Transport	0.130	0.00

Table 20: Correlation coefficients and P-values of behavioural variables and support for the sustainability goal

Goal	**Car**	**Train**	**Bus/tram/metro**	**Bike**	**Sharing Transport**
Goal 1	positive	negative	not significant	negative	negative
Goal 2	positive	negative	negative	negative	negative
Goal 3	negative	positive	positive	positive	positive
Goal 4	negative	positive	not significant	positive	positive
Goal 5	positive	negative	not significant	negative	negative
Goal 6	negative	positive	positive	negative	positive
Goal 7	negative	positive	positive	positive	positive
Goal 8	positive	negative	negative	negative	negative
Goal 9	negative	not significant	not significant	not significant	negative
Goal 10	negative	positive	positive	not significant	positive
Goal 11	not significant	positive	not significant	positive	not significant
Goal 12	not significant	not significant	positive	negative	negative
Goal 13	negative	negative	not significant	not significant	not significant
Goal 14	negative	not significant	not significant	positive	not significant

Table 21: Correlation demographics and support for different mobility goals

Car usage and sustainable mobility goal support

The differences in support for the sustainable mobility goal with car usage are significant. The correlation coefficient indicates that as car usage frequency increases, support for the sustainable mobility goal declines rapidly and substantially.

When examining the mean scores for support of this goal, respondents who almost never use a car have a mean of 0.37. However, striking differences appear among other groups: respondents who use a car between one and eleven times a year have a mean of 0.51, which is even higher than that of those who merely support increased attention to sustainability. Respondents who use a car monthly have a mean of 0.48, while weekly users show a significant drop to 0.31. The most frequent car users, those who drive more than four times a week, have the lowest mean score at just 0.09.

Train usage and sustainable mobility goal support
For the sustainability goal, a relatively strong correlation coefficient is found with the frequency of train usage. Support for this goal is exceptionally low among respondents who (almost) never use the train, with a mean of 0.09. Among those who use the train between once and eleven times a year, the mean support rises to 0.29. After this, support increases rapidly, with monthly users showing a mean of 0.41 and weekly users reaching 0.50. It then slightly decreases to a mean of 0.46, though a clear monotonically increasing trend remains visible.

Bus/tram/metro usage and sustainable mobility goal support
A notable correlation is also found between bus, tram, and metro usage and support for the sustainability goal, though at 0.19, it is weaker compared to train usage. Respondents who (almost) never use these transport modes display relatively low support, with a mean of 0.16. Among those who use them 1 to 11 times per year, support increases to 0.32. The highest level of support is found among those uses this form of public transport a few times per month, with a mean of 0.45. However, support slightly declines for weekly users (0.38) and drops further among those who rely on these transport modes most frequently, where the mean falls to 0.28.

Bicycle usage and sustainable mobility goal support
The frequency of bicycle usage shows a clearly strong correlation coefficient. The differences are notable, with respondents who cycle more than four times a week assigning this goal a mean score of 0.42, while those who rarely use a bicycle give it a mean score of only 0.01. The mean scores follow a clear ascending pattern, reaching 0.11 for those who cycle yearly to monthly and 0.22 for weekly users.

Shared usage and sustainable mobility goal support
When looking at the sustainability goal, the correlation coefficient of 0.13 indicates a relatively strong positive correlation. However, when examining the mean scores, a relatively random pattern emerges. Respondents using shared transport between 1 and 11 days per year show the strongest support, with a mean of 0.58, while those using it more than four times a week show the weakest support of all frequency groups, with a mean of 0.15. Respondents who almost never use shared transport have a mean of 0.25, while those using it 1 to 3 days per month have a mean of 0.41. Finally, respondents using it once to three times per week have a mean of 0.30. This irregular pattern may be because the number of respondents using shared transport is small, making these results less conclusive.

Correlation matrix
To clarify the results, all Spearman correlation coefficients between the key demographic variables, mobility behaviour variables, and support for the sustainable mobility goal are presented collectively in Table 22.

Variable	Car	Train	Bus/Tram/ metro	Bike	Sharing transport	Sustainability Goal
Age	0.046	**-0.299**	**-0.263**	–0.008	**-0.177**	**-0.036**
Gender	**-0.089**	**-0.043**	0.011	–0.015	–0.020	0.004
Education	**-0.036**	**0.334**	**0.193**	**0.174**	**0.109**	**0.283**
Province	**-0.124**	**0.141**	**0.285**	**0.027**	**0.050**	**0.054**
Living Environment	**-0.260**	**0.250**	**0.301**	**0.085**	**0.184**	**0.092**
Car	–	–	–	–	–	**-0.249**
Train	–	–	–	–	–	**0.307**
Bus/Tram/ metro	–	–	–	–	–	**0.187**
Bike	–	–	–	–	–	**0.289**
Sharing transport	–	–	–	–	–	**0.130**

Table 22: Correlation matrix (significant correlations in bold)

Policy support of respondents

Now that it is clear how the different variables are associated with support for the sustainability goal, it is interesting to examine which policies are supported by the groups who believe that more attention should be given to sustainable mobility. Table 23 presents the rankings based on the cumulative evaluation of various policies proposed in the PVE.

#	Policy
1	Making public transport tickets cheaper.
2	Improving public transport.
3	Investing in fast cycling routes.
4	Encouraging people to use shared cars.
5	Encouraging people to buy an electric car.
6	Encouraging the development of neighbourhoods with little car traffic and few parking spaces.
7	Building more homes near public transport.
8	Making petrol and diesel more expensive.

Table 23: Overall ranking sustainable mobility policies

Demographic variables and policy support

When analysing age (see Appendix I), some notable differences emerge. Younger age groups show strong support for building homes near public transport, this policy is ranked seventh in the overall dataset but much higher among younger respondents. Additionally, the youngest age group ranks investing in cycling routes sixth, compared to third overall. Regarding gender, minor differences are observed: women's rankings align with the overall results, while men rank building more homes near public transport fifth instead of seventh.

Differences also appear across education levels. Respondents with lower education levels are less likely to support investing in fast cycling routes and show a preference for policies that promote more sustainable car use. Similarly, middle-educated respondents display the same pattern. Notably, lower-educated respondents rank making petrol and diesel more expensive slightly higher than building more homes near public transport, this policy is ranked eighth by them. In contrast, higher-educated respondents favour building more homes near public transport, ranking it fifth instead of seventh.

When analysing the provinces, it is striking that in Flevoland, building more homes near public transport ranks third, in Utrecht and Zuid-Holland, this policy also ranks higher (fifth) respondents living in a city environment similarly rank this policy fifth. In Limburg, there is a slight preference for sharing cars over

faster cycling routes. In Zeeland faster, cycling routes are ranked fifth. In Noord-Holland, this policy is ranked fourth. Furthermore, respondents living in cities consider the policy of encouraging people to buy an electric car less important, ranking it seventh in big cities and sixth in small cities instead of fifth.

Behavioural variables and policy support

Appendix J contains the results for behavioural variables. Respondents who use a car less than once a month oppose policies encouraging the purchase of electric cars, this policy is ranked lowest (eighth) for them, while it is fifth overall. Monthly car users also rank it low, at seventh. Surprisingly, these respondents are not in favour of making petrol and diesel more expensive, it is ranked seventh out of eight in this group. Respondents who use a car at least once a week generally show results consistent with the overall dataset, although the most frequent car users rank investing in faster cycling lanes lower, fifth instead of third, compared to car-centred policies.

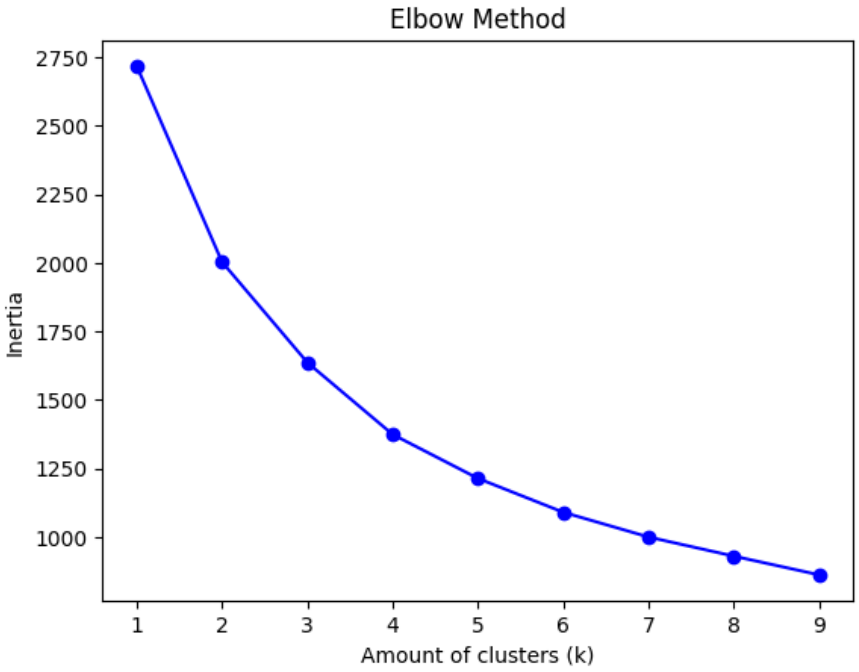
Respondents who almost never use trains show similar results to frequent car users. Additionally, it is notable that respondents who use trains moderately (about once to three times a month) place high importance on building homes near public transport. Respondents who use public transport at least once a week rank all public transport policies within their top three, except for the electric car policy, which is ranked seventh and eighth. Similar results apply to bus, tram, and metro users, though an interesting observation is that faster cycling lanes are ranked sixth by the most frequent users (more than four times a week).

Respondents who cycle less than once a month rank investing in faster cycling lanes relatively high, fifth compared to third in the overall dataset. Meanwhile, the most frequent bike users rank encouraging the purchase of an electric car low. It is also striking that although most respondents use shared transport infrequently, those who do, even among those who almost never use it, rank encouraging shared car use relatively high. However, given the small size of the group that uses shared transport, these results should be interpreted with caution.

Identification of clusters

For the clustering analysis, the demographic and behavioural variables that had the strongest correlation with the sustainability goal were considered. Variables with a correlation coefficient above 0.20 or below -0.20 were selected. Therefore, the variables included in the clustering analysis are education, train usage, bike usage, car usage, and support for the sustainability goal. These variables were scaled using the MinMaxScaler to values between 0 and 1.

Following this, the elbow method, as shown in Figure 7, was applied. The analysis revealed a clear steep decrease from one to three clusters, after which the line flattened, indicating that three clusters were the optimal number. K-Means clustering was then performed on these three clusters, resulting in clusters 0, 1, and 2, with the following mean levels of support for the sustainability goal, as shown in Table 24.



7: Elbow method cluster analysis

Cluster	Cluster 0	Cluster 1	Cluster 2	Total
# respondents	2295	1801	1084	5180
Mean goal support	0.18	0.58	-0.04	0.27

Table 24: Clusters and mean of sustainability goal support.

There are clear differences between the three clusters. Cluster 1 has the highest mean support for the sustainability goal at 0.58, which is above 0.5, indicating strong support. Cluster 0 has a mean support of 0.18, which still suggests that, on average, more attention should be given to the goal, though this is already lower than the overall dataset average. In contrast, Cluster 2 has a slightly negative mean of -0.04, meaning that the average support in this group is as far below the overall mean as Cluster 1 is above it. In terms of sustainability goal support, Cluster 2 deviates from the mean on the negative side to the same extent that Cluster 1 does on the positive side. Appendix K provides further details on the demographic and behavioural characteristics of these three clusters. The following descriptions define these clusters, and in the subsequent analysis, their assigned names will be used.

Cluster 0 (Suburban & Traditional)

Cluster 0 most closely resembles the average respondent in the dataset in terms of sustainability goal support, though it is slightly more negative. However, there are some notable differences in other variables. This group contains a larger proportion of older respondents and fewer younger respondents, with 54% being older than 55 and 12% younger than 25, compared to 47% and 19% in the full dataset, respectively. Additionally, this cluster has a slightly lower education level than the average respondent, with a higher share of middle-educated individuals. Geographically, no major differences were found in the provinces where these respondents live. However, in terms of the living environment, this cluster has a significantly higher representation of respondents from rural areas and smaller municipalities, with 46% of respondents not living in a city, compared to 37% in the full dataset.

In terms of travel behaviour, this cluster relies significantly more on cars than other transport modes, with 88% using a car more than once a week, compared to 69% in the full dataset. This increased car usage comes mainly at the expense of public transport use, with 90% of this cluster using the train less than once a month, compared to 62% in the full dataset. Interestingly, this group cycles more frequently than average, as none of the respondents use a bike less than once a month, whereas 19% of the full dataset does.

Regarding support for different mobility goals, some notable differences exist. On average, this cluster considers product availability and affordability an important government priority. Meanwhile, improving international connections is viewed as less important compared to the overall dataset. In terms of the sustainability goal, a relatively large share of this cluster believes neither more nor less attention should be given to it, with 31% selecting a neutral stance, compared to 26% in the full dataset. The most striking difference is that only 13% of this cluster strongly supports increasing attention to sustainability, compared to 21% in the full dataset. This suggests that this cluster takes a more neutral stance on prioritising sustainability than the average respondent.

Cluster 1 (Urban & Green)

Cluster 1 is distinctly different from the average respondent in the dataset. This cluster consists of younger respondents, with 30% aged 18-34, compared to only 19% in the full dataset, and a relatively small proportion of 15% aged 65 and older, compared to 25% in the full dataset. However, the most striking difference is in education level, as 86% of respondents in this cluster are highly educated, compared to only 64% in the full dataset. This increase comes at the expense of middle- and lower-educated respondents. Geographically, while no major differences exist at the provincial level, urban provinces such as Zuid-Holland and Noord-Holland are slightly overrepresented. This is also reflected in the living environment, where nearly 80% of respondents in this cluster live in urban areas, compared to 63% in the full dataset.

In terms of mobility behaviour, this cluster makes significantly higher use of public transport than the average respondent. Only 2% of this group almost never uses a train, compared to 38% in the full dataset. This high reliance on public transport comes at the expense of car use, as only 6% of this cluster uses a car more than four times a week, compared to 34% in the full dataset. Cycling is also common in this group, along with a slightly higher use of shared mobility options.

Regarding support for mobility goals, this group strongly favours better international connectivity. Additionally, it is less concerned with product availability and prices, with product prices receiving a negative mean support score of -0.12, compared to 0.08 in the full dataset. Support for the sustainability goal is significantly higher in this cluster, with only 5% holding a negative view of the goal, compared to 17% in the full dataset. Meanwhile, 81% support increased attention to sustainability, compared to 57% of the overall respondents.

Cluster 2 (Lower educated & Motorist)

The final cluster is also distinctly different from the average respondent group. This cluster consists of a slightly larger proportion of respondents aged 45 and older and a smaller proportion of younger respondents. However, education levels are significantly lower, with only 43% being highly educated, compared to 86% in Cluster 1 and 64% in the full dataset. Geographically, rural provinces such as Drenthe, Flevoland, and Limburg are slightly overrepresented. This is also somewhat reflected in the living environment, where respondents living in large cities are underrepresented, while those living in rural areas and small municipalities are overrepresented.

In terms of mobility behaviour, this cluster predominantly uses cars, with 58% of respondents using a car more than four times a week, compared to 34% in the full dataset. Public transport usage is notably low, with over 60% of respondents almost never using trains or buses/trams/metros. The most striking difference is in bicycle usage, as no one in this cluster uses a bike more than once a week, whereas nearly three-quarters of the full dataset do.

Regarding support for different mobility goals, this cluster shows some notable trends. It has a mean support score of 0.26 for ensuring that freight transport in the Netherlands remains inexpensive to keep product prices low, compared to just 0.08 in the full dataset. The importance of product prices and availability is further emphasised by their support for related goals, with an average support score of 0.36, compared to 0.27 in the full dataset. However, this cluster places little importance on reducing travel needs and improving international connectivity. For the sustainability goal, this is the only cluster with a negative mean score of -0.04. Only 32% of respondents in this group want increased attention to sustainability, compared to 57% in the full dataset. Meanwhile, 35% of this cluster believes no additional

attention should be given to sustainability, compared to 26% in the full dataset. The remaining 33% think that less attention should be placed on sustainable mobility goals. The differences between the three clusters and the dataset are shown in Table 25.

Variable	***Suburban & Traditional***	***Urban & Green***	***Lower educated & Motorist***
Age	Older	Younger	Older
Gender	More man	No difference	More woman
Education	Lower	Higher	Lower
Living Environment	More rural	More urban	More rural
Car usage	More frequent	Less frequent	More frequent
Train usage	Less frequent	More frequent	Less frequent
Bus/Tram/Metro usage	Less frequent	More frequent	Less frequent
Bike usage	More frequent	More frequent	Less frequent

Table 25: Relationship clusters with dataset

Clusters policy support

The Suburban & Traditional cluster shows no differences in specific policy support compared to the overall dataset ranking. However, the ranking of the Urban & Green cluster differs notably. Building more homes near public transport, which is ranked seventh in the overall dataset, is ranked fourth by this cluster. Another striking difference is the ranking of encouraging people to buy an electric car, which is ranked seventh by this cluster, whereas it is ranked fifth in the overall dataset. The Lower Educated Motorists cluster ranked investing in cycling routes fifth, while in the overall dataset, this policy is ranked higher, in third place. This difference is because this cluster ranked encouraging shared cars and encouraging electric cars higher than the overall dataset. The policy support data can be found in Appendix L.

Defining the arguments

By conducting the quick scan, it was found that there were eight negative and eight positive arguments for supporting the sustainable mobility goal. Before analysing the quantity of the arguments used in this section, the eight negative and positive arguments are explained, along with translated examples.

Negative arguments

Nonsense or not important

The first identified argument captures respondents who see the focus on sustainable mobility as unnecessary or unimportant. Many in this group dismiss sustainability efforts as irrelevant, often rooted in scepticism toward climate change or environmental concerns. Their arguments typically minimise the urgency of sustainability. Some respondents prioritise more immediate concerns, implying that sustainability efforts are a distraction from other pressing societal issues like affordability or accessibility.

Sufficient or too much attention

The second argument is the belief that enough has already been done, or even too much, to promote sustainable mobility. Respondents in this group often argue that existing policies are sufficient and that additional measures are excessive or unnecessary. Some feel that efforts should be paused until the economic and technological conditions improve, highlighting concerns over the feasibility of rapid transitions.

Other countries

The third argument shows some frustration that sustainability is being treated as a national responsibility when, in the view of these respondents, other countries contribute more to global emissions and should take the lead. This group tends to highlight differences between countries in taking climate action, pointing to major polluters like China or India as nations that should take more action. Their arguments often suggest that Dutch efforts are insignificant on a global scale and that unilateral action is both costly and ineffective without coordinated international commitments.

No government intervention or responsibility
The fourth identified argument focuses on opposition to government intervention in sustainability efforts. Respondents in this category are convinced of personal responsibility rather than governments-imposed regulations, seeing sustainability as a choice that should be left to individuals or market forces. There's also a strong emphasis on personal freedom, with concerns that government policies might overstep into coercion or unnecessary regulation.

Too expensive
Fifth is the argument that highlights the financial implications of sustainable mobility policies. Respondents often raise concerns about the cost-effectiveness of government spending on sustainability, suggesting that public funds could be better allocated elsewhere. On a personal level, some feel the transition impacts their own financial situation, especially in relation to expensive technologies like electric vehicles.

No priority
The sixth argument reflects the belief that sustainability goals are not as important as other mobility goals. Respondents in this group often acknowledge the importance of sustainability but argue that more immediate concerns, such as accessibility or costs, deserve greater attention. They often view sustainability as a long-term objective that should not impact short-term needs.

Mistrust government
The seventh argument centres on distrust toward the government and institutions responsible for implementing sustainability policies. Some respondents question the motives behind sustainability initiatives, perceiving them as inconsistent or politically driven. In extreme cases, this distrust extends to conspiracy theories, framing sustainability efforts as part of a broader agenda to control personal freedoms.

Negative effects
The final argument concerns about the negative consequences of sustainability efforts, particularly those associated with electric vehicles and the needed energy infrastructure. Respondents question the overall environmental benefits of technologies like EVs, pointing to resource-intensive battery production and concerns related to the extraction of needed material. Others focus on the limitations of the electricity grid, arguing that the infrastructure is not prepared for large-scale electrification and that expanding sustainable initiatives without addressing these issues could lead to further systemic problems. The identified categories of arguments and examples are shown in Table 26.

Nonsense or not important	"nonsense junk"
	"I don't really find that necessary at the moment"
	This whole sustainability thing, in my opinion, well-intentioned as it may be, is becoming a bit of a trend. First, make sure there are good, affordable travel options, and if you can make those sustainable as well, great."
Sufficient or too much attention	"already being done enough/too much", "we are already doing more than enough of that
	"already being done enough/too much"
	"A lot is already being done in other areas, and a lot of money is being spent on sustainability. This could be scaled back a bit. Also, there should be a halt on banning petrol and second-hand cars as long as it is not affordable for everyone."
Other countries	"Not important. Other countries aren't doing anything either."
	or "Sustainability this, sustainability that. The Netherlands is a tiny country; we don't change anything in the grand scheme of things. Look at China or India – they need to become more sustainable but are doing nothing at all."

	"The Netherlands is just a drop in the ocean. It costs a massive amount of money, but the rest isn't participating. This needs to be tackled on a European level."
No Government Intervention or Responsibility	"This can easily be left to individuals."
	"This is not a task for the government. People should want this themselves. No state interference = lower taxes = more money for individuals = more personal freedom and responsibility. A government that takes over everything = a nation that becomes passive and complacent."
	"Leave this to the market… sustainability is already happening everywhere. Look at the world instead of just the Netherlands. Companies need to innovate to become more sustainable, so let them do it… but first, a LOT of money needs to be made."
Too Expensive	"wasted money and effort"
	"This is not feasible for everyone. Not everyone can afford an electric car. So, scrap fuel excise duties because it's a tax on top of a tax: VAT and excise duties."
	"The energy transition is making many things unaffordable, reducing overall prosperity. Sustainability costs a lot of money, meaning fewer people can afford to travel. In that case, freedom comes before sustainability!"
No Priority	"There are more important problems."
	"I believe a lot of progress is already being made in this area. I am not in favour of rapid sustainability efforts, as they often come at the expense of other things. Give it time, but continue to encourage it to some extent."
	"It is important to promote sustainable travel, given the climate crisis and international climate agreements. However, it is more important to focus on other issues. The government would be better off promoting sustainability through a CO_2 tax (carbon tax)."
Mistrust Government	"Sustainability is a farce, let them start by flying less themselves. First, I have to rent solar panels via the housing association, which costs me money. Soon, no more net metering and having to pay for feeding energy back into the grid, an absolute scandal. We are being exploited from all sides."
	"The government is unreliable when it comes to sustainability. Solar panels, heat pumps, district heating, electric driving… time and again, they prove to be untrustworthy, constantly changing the rules halfway through. So, the less the corrupt government interferes in these matters, the better."
	"Stay out of it. No 15-minute cities and no Tristate City. Don't let yourself be used for the corrupt WEF agenda. Don't fall for the climate hoax."
Negative Effects	: "The hype nowadays is that we all have to buy an electric car because it's supposedly good for the environment. Meanwhile, poor people in Africa are dying due to the extraction of materials for batteries. The enjoyment of the wealthy is once again paid for by the poor. And yet, people flaunt their electric cars as if they're saving the planet!"
	"Enough attention is already being given to sustainability, and the electricity grid can't even handle it. Solve that capacity issue first."
	"Relying more on electricity for sustainability is currently a problem due to the overloaded power grid. The government should have addressed this years ago. With a clear vision, this could have been

solved long ago. So for now, no additional electric cars, heat pumps, or solar farms until the electricity grid has been doubled in capacity."

Table 26: Negative arguments and examples

Positive arguments

Climate and environment

The first identified argument highlights the importance of sustainability in protecting the climate and environment. Respondents in this group often mention the need to preserve the planet for future generations, expressing a sense of urgency to act. Many of the arguments express the belief that immediate action is necessary to combat climate change, and there is a strong emphasis on the responsibility to ensure a liveable world for future populations.

Climate targets

The second argument focuses on the importance of achieving climate targets set by national and international agreements. Respondents often refer to the necessity of aligning mobility policies with broader environmental goals, such as reducing carbon emissions and meeting commitments related to nitrogen reduction. There is also concern that government action in this area has been inconsistent or insufficient.

Government intervention

The third argument focuses on the need for government intervention to enforce sustainability goals. Respondents argue that governmental intervention is essential to drive the transition, as individual or market-driven efforts alone are unlikely to achieve the necessary goals. Some suggest specific measures, such as taxation on polluting forms of transport or banning larger, less efficient vehicles. There's also a belief that the government should lead by example, implementing sustainable practices within its operations.

Encourage electric driving

The fourth identified argument emphasises the promotion of electric driving as an important component of sustainable mobility. Respondents highlight the need for policies that make electric vehicles more affordable and accessible. Some also mention the importance of upgrading the electricity grid to support the adoption of electric mobility.

Discourage unsustainable travel

The fifth argument is about discouraging non-sustainable mobility practices. Respondents advocate for stricter regulations on highly polluting transport modes, such as older, inefficient cars, unnecessary flights, or cruise ships. Some suggest that bans or financial disincentives could push individuals and businesses toward more sustainable transport alternatives.

Important or needed

The sixth argument reflects a general recognition of the importance of sustainable mobility without providing detailed reasoning. These responses are typically brief but express clear support for the goal, with statements highlighting sustainability as a necessary priority, while not elaborating on this.

Encourage sustainable travel

The seventh argument is about encouraging sustainable alternatives and making them more financially accessible. Respondents suggest a variety of measures, including subsidies for cycling, reducing train fares, and improving infrastructure for public transport and active mobility. The arguments often highlight economic barriers that prevent people from choosing more sustainable options, suggesting that lowering the cost of sustainable travel could lead to greater adoption. Better cycling lanes and more frequent public transport services are also viewed as essential steps towards making sustainable alternatives viable.

Innovation

The final argument focuses on the need for innovation within mobility to drive sustainability. Respondents believe that technological advancements, such as cleaner fuels, hydrogen-powered vehicles, and

induction charging lanes, should be prioritised to reduce environmental impact. Some advocate for shifting policy incentives away from electric vehicles toward alternative technologies, believing that current solutions are not feasible for all living environments. In Table 27 the positive arguments and examples are shown.

Climate and Environment	"For the environment"
	"For the sake of the climate, it is of the utmost importance that attention is given to this."
	"Sustainability is important if we want to continue enjoying this planet for a long time."
Climate targets	"Important for achieving climate goals."
	"Very important, especially now that nitrogen and agricultural regulations are being handled so carelessly."
	"Very important in light of climate goals, but public transport must become affordable."
Government Intervention	"This is what the government should focus on."
	"Sustainability is important, and the government should manage it centrally."
	"Sustainability starts with the government setting an example and supporting its citizens. Introduce an air travel tax and a kerosene tax (polluters pay!!) and expand international train travel options. Ban larger cars, etc. There are plenty of possibilities."
Encourage Electric Driving	"Ensure lower CO_2 emissions by promoting more electric and hydrogen-powered vehicles."
	"The environment is a major issue, so this definitely needs attention. However, the electricity grid is a big problem. If you roll back all the benefits of feed-in tariffs and subsidies for electric cars, no one will invest in them anymore."
	"From an environmental impact perspective (pollution from fossil fuels and nitrogen emissions), this is important. So, more electric driving and more fuel-efficient use. This also means that the electricity grid must be upgraded, and at a faster pace than it is now."
Discourage Unsustainable Travel	"Stop unnecessary flights and cruises."
	"There are far more polluting cars than people realize. Excessively polluting cars should be phased out through environmental levies; this is more effective for the environment than buying out farmers."
	"This is very important. Cars should ideally be banned from major cities and completely replaced by green public transport alternatives. The air quality in the Randstad is already poor, largely due to emissions from cars and trucks."
Important or Needed	"This is important."
	"It is necessary."
	"Sustainability is an important issue everywhere and deserves more attention."
Encourage Sustainable Travel	"Encourage bicycle use. This can be done by providing a per-kilometre cycling allowance or including it in salaries."
	"Train travel must be made more appealing. Right now, it is relatively expensive, and often you can't even get a seat. Driving alone is still cheaper and often faster, even though that should not be the preferred option from an environmental perspective."
	That is very important. A good cycling infrastructure encourages people to cycle, which presents an opportunity for improvement. Public transport can also be improved with better frequency and a more extensive network. Additionally, making it harder for cars to access and be used in

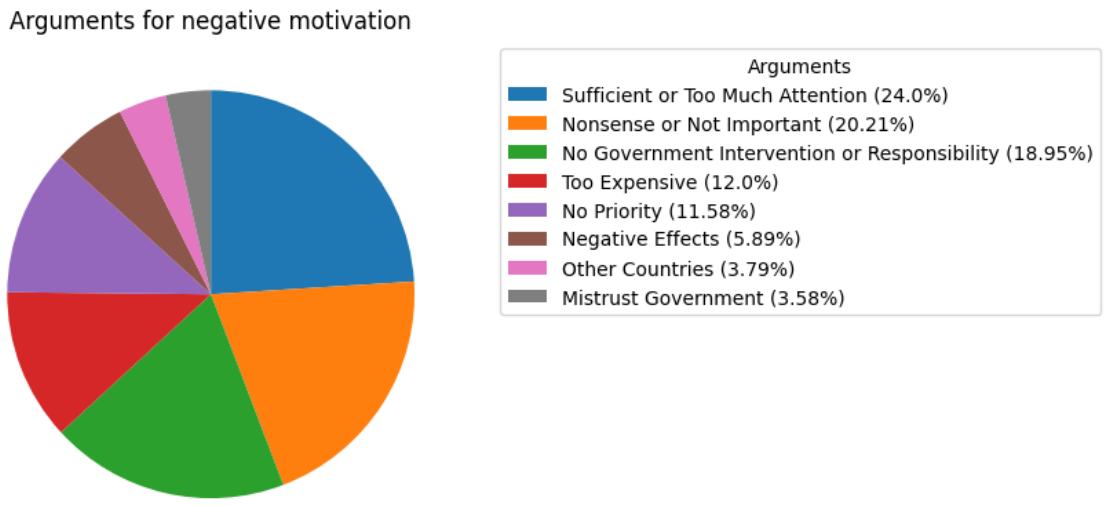
	certain urban areas (such as city centres) can yield significant benefits. Small adjustments can make a big difference."
Innovation	"Necessary for the long term, although I strongly believe that making travel more sustainable should primarily focus on the fuel and technology of transport itself. So, instead of simply flying less, more funding should go towards developing more efficient aircraft and cleaner fuels. (This applies to other transport modes as well.)"
	"See above. Additionally, installing induction lanes in roads would be ideal, allowing cars to truly run on electricity without the need for charging stations. Promoting hydrogen cars and expanding hydrogen refuelling stations is also crucial. Electric vehicles are not a long-term solution, as many people live in apartment buildings with insufficient parking spaces to accommodate charging stations for all cars. Supermarkets should also be integrated into office buildings, along with residential areas."
	"Stop subsidies for electric vehicles. Promote the development of hydrogen vehicles instead of electric ones."

Table 27: Positive arguments and examples

Count analysis

Now that the arguments have been analysed and grouped, there are eight recurring positive and eight recurring negative arguments. Following this, samples from the motivational answers in the dataset were annotated according to the different arguments identified. When multiple arguments were combined in a single motivation, the most prominent argument was used for annotation. Figures 8 and 9 show the normalised counts of the arguments.

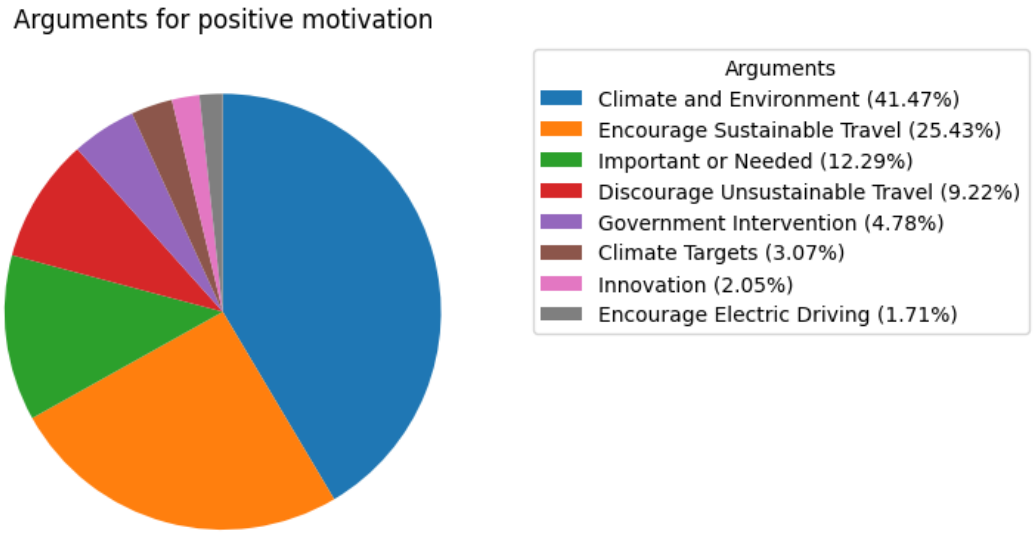
For negative arguments, almost a quarter of respondents believe that enough, or even too much, attention has already been given to the issue. Related arguments suggest that addressing this problem is too expensive or should not be a priority, bringing the total to 48% of the responses. Additionally, a fifth of respondents believe the issue is either unimportant or nonsensical. Similar arguments include concerns about negative side effects or frustration that other countries are not doing enough, collectively representing 30% of the responses. The remaining arguments focus on the role of government: some believe the government should not be involved at all, while others express mistrust toward the governmental organisations behind these initiatives.



8: Normalized counts of negative arguments.

For positive arguments, one clearly stands out: climate and environmental concerns are cited as the reason for supporting the sustainability goal in 41% of cases. This argument focuses on the long-term benefits of the policy on a global scale. Similar arguments, such as the need to meet climate targets or emphasise their importance, raise this category's share to 58% of cases. The second most frequently

mentioned argument, appearing in a quarter of the cases, is encouraging sustainable travel. This reflects how respondents also suggest a direction for action, a pattern that similarly applies to discouraging unsustainable travel, promoting electric driving, and fostering innovation. Together, these arguments account for 38% of the responses. The remaining arguments relate to the perceived need for government intervention, with respondents believing that neither citizens nor the market alone can drive sufficient action.



9: Normalized counts of positive arguments

Conclusion

The aim of this thesis was to answer the question: *How do demographic and behavioural variables affect support for sustainable mobility goals and policies in the Netherlands?* The findings indicate that both demographic and behavioural variables are associated with the level of support for sustainable mobility goals. To address the main research question, this thesis answers the following sub-questions:

What demographic factors are associated with support for sustainable mobility goals and policies?

This question is divided into two sub-sub-questions. The first sub-sub-question is: *Which demographic variables are most closely linked to variations in support?* The study found that age, education level, province of residence, and living environment significantly correlate with support for sustainable mobility goals. Age showed a negative correlation, meaning that older respondents were generally less supportive of these goals than younger respondents. However, the trend did not follow a monotonically increasing trend, as the youngest group of respondents exhibited the least support, while the second-youngest group showed the highest level of support. Higher-educated individuals tended to be more supportive of sustainability goals. Additionally, there was an urban-rural divide, with urban residents and respondents living in more densely populated provinces demonstrating higher support for sustainability measures.

The second sub-sub-question is: *Are there notable differences between demographics in their association with support for specific policies and actions?* Notable differences were particularly evident regarding age and education level, as both younger and higher-educated respondents showed stronger support for building homes near public transport. In contrast, lower-educated respondents tended to favour car-centred policies and ranked building more homes near public transport the lowest. Strikingly, this lower-educated group was the only one that did not rank making petrol and diesel more expensive as the lowest option but rather placed it second lowest. Additionally, respondents living in urban areas ranked policies encouraging the purchase of electric cars lower than respondents from more rural areas.

How is the frequency of use of different mobility modes related to support for sustainable mobility goals and policies?

This sub-question was also divided into two sub-sub-questions. The first sub-sub-question is: *Which mobility modes are most strongly associated with support for sustainable mobility goals?* The study found that all researched mobility modes had a significant association. Frequent public transport and bicycle users exhibited stronger support for sustainable mobility goals, whereas frequent car users, particularly those who drove very frequently, were less supportive. However, for shared transport users, the data was not reliable enough to draw meaningful conclusions.

The second sub-sub-question is: *Do individuals who frequently use specific mobility modes differ in their preferences for policies and actions?* The study found that the most frequent car users ranked car-centred policies higher than policies focused on investments in faster cycling lanes. Additionally, respondents who used public transport more often ranked policies encouraging electric car adoption lower but showed stronger support for building homes near public transport. Notably, across all transport mode users, making public transport tickets cheaper and improving public transport ranked as the highest-priority policies. Frequent cyclists also ranked policies encouraging electric cars lower.

How do demographic factors interact with mobility mode choice in relation to support for sustainable mobility goals and policies?

This question was divided into three sub-sub-questions. *The first sub-sub-question is: Is there a correlation between specific demographic groups and mobility mode choice?* The study found significant correlations across all mobility modes. Age correlated positively with car usage, while education level and living environment correlated negatively, indicating that lower-educated and more rural respondents relied more on cars. Meanwhile, men were more likely to use all types of transport modes. Public transport usage showed a strong negative correlation with age, meaning younger respondents used it more frequently. In contrast, education level and living environment correlated positively, suggesting that

higher-educated respondents and those living in urban areas were more likely to use public transport. For bicycle usage, education level and living environment also showed positive correlations, indicating that higher-educated respondents living in urban areas used bicycles more frequently.

The second sub-sub-question is: *How does the combination of mobility mode choice and demographic factors relate to support for mobility goals?* This was examined through a cluster analysis, which revealed that younger, urban, highly educated individuals who frequently use public transport and bicycles exhibited the strongest correlation with support for sustainable mobility goals. In contrast, the group with the lowest support consisted of older, lower-educated, more rural individuals who rely heavily on cars. These findings indicate that age, education level, living environment, and transport usage interact to shape attitudes toward sustainability goals.

The third sub-sub-question is: *Are there notable differences between societal groups in their support for specific policies and actions?* The study found clear differences in policy preferences across the identified clusters. The "Urban & Green" cluster strongly correlates with support for building homes near public transport but ranked policies encouraging electric car adoption lower. In contrast, the "Lower Educated & Motorist" cluster prioritised car-centred policies and ranked investments in cycling infrastructure lower than the overall dataset. These distinctions highlight that younger, urban, highly educated public transport users are generally less in favour of car-centred policies, whereas older, rural, lower-educated car users are more supportive of policies that reinforce car dependency. This clustering approach extends prior research by revealing how demographic and behavioural factors jointly shape policy preferences, a perspective that earlier single-factor studies in specific contexts could not capture.

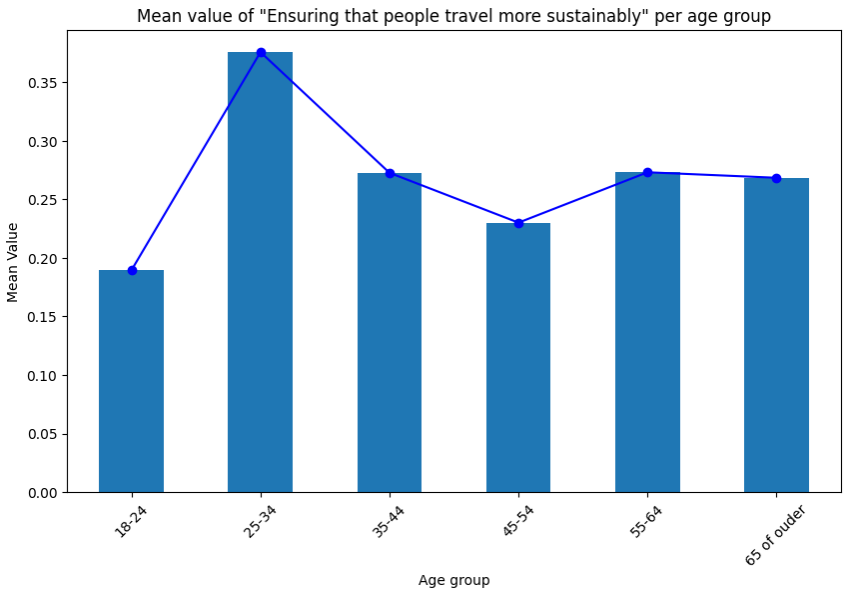
Discussion

Interpretation of correlation demographic variables

The study demonstrates significant correlations between demographic variables and support for sustainable mobility goals. Factors such as age, education level, province of residence, and living environment play a role in shaping opinions on whether increased support for sustainability is necessary. A comparison of the thesis results with the hypotheses drawn from literature is presented in Table 28 and further explained in this chapter. Overall, most findings confirm expectations from earlier studies, for example, higher education and urban living correlate with greater policy support. However, this study also challenges some past conclusions: gender showed no significant correlation, despite literature suggesting women's higher support, and the relationship with age was non-linear, not strictly increasing with youth

Age and sustainable mobility

In the case of age, existing literature suggests that younger generations tend to support environmental policies more strongly, partly due to increased information exposure and the long-term benefits of such policies (Elliott et al., 1997; Hersch & Kip Viscusi, 2006; Kim & Kim, 2022). However, the results of this thesis show only a weak correlation between age and support for sustainability goals. A closer examination of the data reveals that the trend is not monotonically increasing. Surprisingly, the youngest age group shows the least support for the sustainable mobility goal on average, while the next age group demonstrates the strongest support. After this peak, support declines to approximately the same level across all older age groups, with the exception of the 45–54 age group, in which the level of support experiences a small drop. This is illustrated in Figure 10.



10: Mean value of "Ensuring that people travel more sustainably" per age group.

When examining the behaviour of the youngest age group, no clear explanation emerges for their lack of support, as their mobility behaviour aligns more closely with respondents who are supportive of sustainable mobility goals. This could indicate a generational shift in attitudes toward government intervention, as suggested by research into how different generations have experienced governance structures. However, a more obvious reason could be that the sample size of this age group is relatively small and therefore not as reliable as the other age groups. Older respondents tend to prioritise other goals, such as reducing the need to travel and improving accessibility for people with disabilities. Meanwhile, younger generations show stronger support for increasing international connectivity and improving affordability in transport. This pattern suggests that support for specific goals across age groups may be driven by self-interest. Older individuals may prioritise improving accessibility due to mobility challenges, while younger individuals, often with limited financial resources, focus more on affordability.

This perspective could also explain the strong support for the sustainability goal among respondents aged 25 to 34, as they are more likely to be affected by the long-term negative externalities of unsustainable behaviour. In contrast, respondents aged 18 to 24 are more concerned with affordability, as the results show, possibly because many in this group are still studying or earning a lower income.

Gender and sustainable mobility

Regarding gender, the literature suggests that women tend to be more supportive of sustainability goals (Elliott et al., 1997; May et al., 2021; Wut et al., 2020). However, no significant differences were found in this study. Interestingly, the results show that women are more strongly correlated with support for social goals, such as traffic safety and accessibility, while men are more correlated with goals related to convenience, such as reducing the need to travel and ensuring shorter travel times. Findings from other parts of the results section suggest a possible explanation, as men use a wider variety of transport modes more frequently than women, leading them to experience greater inconvenience in their own mobility patterns. In contrast, women may focus more on the societal impact of mobility policies, which aligns with the relationship found in the literature between being a woman and supporting government intervention and environmental protection. Additionally, lifestyle factors and social norms may influence women's attitudes toward specific policies, as suggested in the literature (Wut et al., 2020).

Education level and sustainable mobility

As expected from the literature, education level is strongly associated with support for sustainability goals, and this thesis confirms this correlation (Ejelöv & Nilsson, 2020; Eliasson & Jonsson, 2011). However, this increased support among higher-educated respondents comes at the cost of prioritising affordability goals, which receive stronger support from those with lower education levels. This can partly be explained by the fact that higher-educated individuals generally earn more, which makes them less sensitive to affordability concerns (Statistics Netherlands, 2024).

Living environment and sustainable mobility

The living environment results are consistent with findings from the literature review, where rural residents are more likely than urban residents to support right-wing parties (Fitzgerald & Lawrence, 2011; Gavenda & Umit, 2016; Mettler & Brown, 2022). This could explain the observed divide in support for sustainable mobility goals, as right-wing parties are often less supportive of environmental policies. Another explanation could be that urban residents experience the negative externalities of unsustainable behaviour more directly, such as poorer air quality or traffic congestion, which strengthens their correlation with support for sustainability initiatives. Additionally, the living environment could influence this due to the lack of accessibility in rural or smaller living areas, as found in the literature, leading residents to prioritise goals focused on improving accessibility over those aimed at sustainability (Heiskanen et al., 2024). A final explanation could be that other factors associated with living in more rural environments also relate to support for sustainable mobility. For example, rural environments have relatively higher proportions of elderly residents compared to urban areas. Furthermore, the average education level is generally lower in rural areas (de Jong & Daalhuizen, 2014; Steenbekkers et al., 2017).

Province of living and sustainable mobility

In terms of provincial differences, the overall trend indicates that more densely populated provinces tend to show greater support for sustainability goals. However, an interesting deviation from this pattern is observed in Zuid-Holland. Respondents in Zuid-Holland, the most urbanised and densely populated province, show lower support for the sustainable mobility goal. This contrasts with provinces like Utrecht and Noord-Holland, in which respondents demonstrate high levels of support for the sustainable mobility goal. This could be explained by cultural differences or local economics unique to Zuid-Holland, which could in turn affect public attitudes toward sustainability policies that are not captured by density levels alone. For example, Zuid-Holland has a lower average education level than Noord-Holland and Utrecht as shown by Statistics Netherlands (2025), and education level has been found in the results to be an important indicator of support.

Demographic variable	Hypotheses	Results thesis
Age	Younger generations support the sustainable mobility goal more than older generations.	The youngest generation exhibits the lowest level of support, while the second-youngest generation shows the highest. Among older generations, support remains relatively consistent, except for the 45–54 age group, which demonstrates a lower level of support.
Gender	Women are more likely to support the sustainable mobility goal than men.	No significant differences were found between men and women.
Education	Higher education has a positive effect on support for the sustainable mobility goal.	Higher education is positively associated with support for the sustainable mobility goal.
Living environment	Living environment influences the support for the sustainable mobility goal.	Respondents living in more urban areas were more likely to support the sustainable mobility goal than those living in more rural areas.

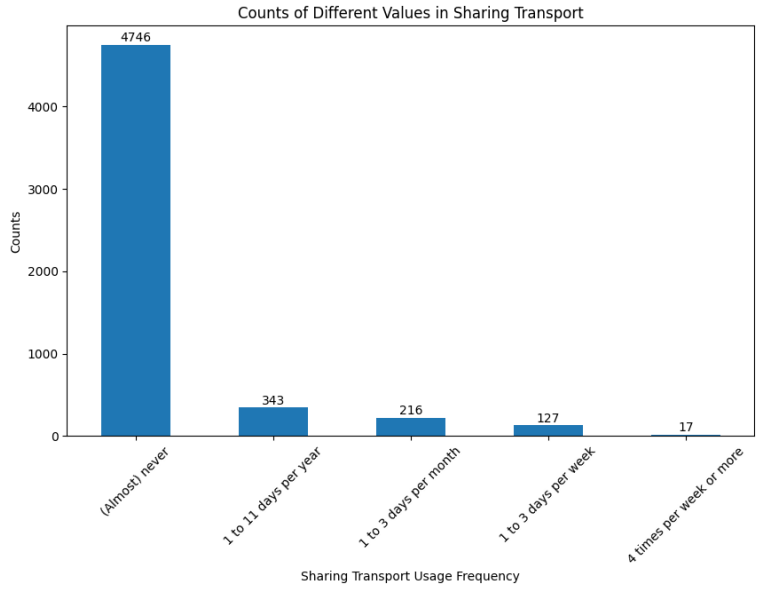
Table 28: Comparison literature with thesis' results demographic variables associated with sustainable policy support.

Interpretation of correlations of mobility behaviour

The thesis found significant correlations between the frequency of all transport modes and support for sustainable mobility goals. A comparison of the thesis results with the hypotheses drawn from the literature is presented in Table 29.

Shared transport and sustainable mobility

All the transport modes examined showed correlations with support for sustainable mobility goals. However, the patterns observed for shared transport appeared random, likely due to the small number of respondents who frequently used this mode, as illustrated in Figure 11. As a result, these findings are unreliable and unsuitable for drawing meaningful conclusions.



11: Count of different frequencies of the use of sharing transport

Car usage and sustainable mobility

The other transport modes revealed results consistent with the literature. As expected, car-dependent individuals were less likely to correlate with support for sustainable mobility goals, while users of public transport and active modes, such as cycling, were more likely to show supportive correlations. An explanation for this finding could relate to the idea, supported by the literature, that behaviour has a stronger influence on attitude than the reverse (Kroesen et al., 2017). Respondents who regularly use public transport may develop a more positive attitude toward sustainable mobility goals due to their favourable experiences with this mode of transport. On the other hand, frequent car users may develop negative attitudes toward sustainability policies because of their reliance on, and positive experiences with, car travel. This could also be partially explained by cognitive dissonance theory, which suggests that individuals adjust their attitudes to align with their behaviour to reduce psychological discomfort.

Public transport and active mode usage and sustainable mobility

Interestingly, while existing literature by Awad-Núñez et al. (2021) suggests that active mode users tend to show stronger support for sustainable alternatives than public transport users. In this thesis, the opposite was found for train usage: train users demonstrated the highest level of association with support for the sustainable mobility goal, whereas this was not the case for bus, tram, and metro users. This difference is likely explained by cultural factors unique to the Netherlands. Frequent bicycle usage is widespread across society, meaning that many respondents who regularly cycle may also use cars frequently. In contrast, frequent public transport users appear to rely less on cars, a pattern that may coincide with stronger support for sustainable mobility within this group compared to bike users. Additionally, active modes are generally not used for longer distances, whereas both cars and public transport serve this purpose, suggesting that motivations for using these modes may overlap.

Mobility behaviour and other policy goals

In the behavioural variables, public transport and active mode users display some reversed correlations compared to car users for other mobility goals. A particularly striking result is the strong correlation between product availability and affordability and frequent car usage. These factors are ranked highly by car users but rank lower for frequent public transport users. This could reflect concerns among car users about the availability of fuel, such as diesel and gasoline, as this is mentioned as one of the products in the mobility goal. Public transport users show stronger support for goals related to improving international and regional connectivity and enhancing comfort and pleasantness while travelling. This suggests that public transport users may perceive existing infrastructure and equipment as inadequate, leading to increased support for improvements. Meanwhile, car users, who may perceive existing infrastructure as sufficient, tended to report lower levels of support for these goals.

Demographic variable	**Hypotheses**	**Results thesis**
Car usage	Frequent car users show lower support for the sustainable mobility goal.	Frequent car users exhibit lower support for the sustainable mobility goal.
Public transport usage	Frequent public transport users show higher support for the sustainable mobility goal.	Frequent train users show the highest support for the sustainable mobility goal, with frequent bus, tram, and metro users also demonstrating increased support.
Active mode usage	Active mode users demonstrate the strongest support for the sustainable mobility goal.	Frequent bicycle users generally support the sustainable mobility goal. However, the results are less conclusive due to the high prevalence of bicycle use among all respondents.

Table 29: Comparison literature with thesis' results behavioural variables associated with sustainable policy support.

Interactions demographics and mobility behaviour

The interaction between demographic and behavioural variables is also important in understanding support. Support for sustainable mobility goals is closely linked to car usage, which in turn correlates with age. Both factors show a negative correlation with sustainability goals. Younger individuals are much more likely to use public transport, likely due to the requirement of a driving licence and the financial burden of purchasing and maintaining a car. However, this trend may also reflect a generational shift towards public transport use, which may be associated with greater environmental awareness and concern, often observed among younger generations. The living environment strongly correlates with car usage. This relationship is more straightforward, as residents of smaller towns or rural areas tend to have fewer public transport options, which may make car use more common. Limited infrastructure and longer travel distances further reinforce this reliance on personal vehicles. Additionally, this may explain why younger people are more likely to use public transport, as they tend to live in urban areas where public transport options are more widely available.

When examining the three identified clusters, the interaction between demographic and behavioural variables becomes even clearer. The most striking insight from these clusters is that the primary factors influencing the divide between groups are education level and transport usage. There is a clear and consistent pattern: higher education levels and the use of sustainable transport modes (such as public transport and cycling) are strongly associated with greater support for sustainable mobility goals. Meanwhile, lower education levels and reliance on car travel correlate with lower levels of support. This divide may not only reflect differing mobility behaviours but also deeper social and economic inequalities that shape individuals' experiences, needs, and attitudes toward sustainability goals.

Policy analysis

When looking at the policies that were ranked, these can be divided according to the different goals outlined in the literature review (Andersson & Almqvist, 2022; Rasmussen et al., 2022; Steg et al., 2014). We find two "stick" policies and six "carrot" policies, as well as two gain goals, four hedonic goals, and two normative goals. The ranking of these policies, along with their associated goals, is shown in Table 30. In line with the literature, the analysis clearly shows that "stick" policies are among the least popular among respondents. The qualitative analysis further highlights this: encouraging sustainable travel is frequently mentioned in more than a quarter of the motivations, while discouraging unsustainable travel is mentioned in less than 10%.

It is noteworthy that both top-ranked policies focus on public transport. This may not be explained solely by the fact that those who ranked the mobility goal higher are also more frequent public transport users, suggesting a degree of self-interested policy support. Notably, even among frequent car users, these two policies were ranked the highest. Two other policies, which remain car-centred but offer alternatives to traditional car use, received moderate rankings, and are thus seen as promising strategies. In contrast, the policy aimed at strongly discouraging car use, by increasing the price of petrol and diesel, ranked lowest. This result may indicate that even respondents who support sustainability goals do not view discouraging car use entirely as the most effective strategy. It could also reflect respondents' recognition that rising petrol and diesel prices indirectly affect other costs, such as product prices.

Interestingly, changes in the built environment were not popular among respondents, with related policies ranking sixth and seventh. However, when looking at age groups, policies promoting housing near public transport are ranked higher by younger respondents. This may indicate that housing is a more pressing concern for younger people, potentially reflecting their greater likelihood of looking for housing as this is a common problem among young citizens in the Netherlands. Another explanation could be that younger generations use cars less frequently than older generations, leading them to prioritise proximity to public transport. For instance, in the 25–34 age group, the policy encouraging the purchase of electric cars is ranked seventh. However, it is striking that investing in fast cycling routes is ranked lower among younger individuals, a result that is difficult to explain.

Differences across education levels are also evident. Lower-educated groups prioritise policies that promote sustainable car use, likely because they tend to use cars more frequently than higher-educated respondents. In contrast, higher-educated respondents place greater importance on building homes near

public transport, probably because they are more likely to live in urban areas where public transport is more present. Another similar pattern is observed among city residents, who place less emphasis on policies encouraging electric car ownership. This likely reflects the fact that car ownership in dense urban environments is not practical. This is also evident in the greater support among city dwellers for housing policies and improvements to public transport access, as these align better with their common transportation habits. In contrast, car-centred policies are ranked higher in rural areas, where car usage is more prevalent.

#	Policy	Typology
1	Making public transport tickets cheaper.	Gain; carrot
2	Improving public transport.	Hedonic; carrot
3	Investing in fast cycling routes.	Hedonic; carrot
4	Encouraging people to use shared cars.	Normative; carrot
5	Encouraging people to buy an electric car.	Gain; carrot
6	Encouraging the development of neighbourhoods with little car traffic and few parking spaces.	Hedonic; stick
7	Building more homes near public transport.	Hedonic; carrot
8	Making petrol and diesel more expensive.	Normative; stick

Table 30: Ranked policies and typology

Qualitative analysis

The largest share of positive arguments for increased attention to the sustainable mobility goal concerns climate and environmental issues. When combined with related arguments, such as highlighting the importance of the goal or the need to meet climate targets, these account for almost 60% of the responses. This suggests that raising awareness about sustainability and climate change is likely to resonate with the public and encourage support for the sustainable mobility goal. This also aligns with the Norm Activation Model discussed in the literature, in which awareness of consequences is the first step toward activating personal norms (Dijst et al., 2023). Additionally, an initiative-taking mindset is evident among respondents, with many offering ideas on how the government should intervene. This is reflected in the fact that most of the remaining arguments focus on specific actions the government should take to achieve this goal. As already established in the literature, involving citizens is crucial, and, tools like the Participatory Value Evaluation (PVE) used in this thesis are thus seen as valuable for engaging the public in decision-making.

On the negative side, 48% of respondents believe that the priority of this goal is not particularly high. Half of this group thinks that sufficient or even excessive attention has already been given to the issue, while the remainder believe that addressing it is too costly or that other objectives take precedence. This indicates that many respondents either do not see climate change as a major problem compared to other issues or do not believe that focusing on this goal will effectively address it. As a result, there is a lack of intention to support or implement sustainable mobility policies. Additionally, some respondents acknowledge the problem but feel that government actions have little meaningful impact. Another significant group dismisses sustainability goals altogether, viewing them as unimportant or nonsensical, and believes that other countries, rather than the Netherlands, should take responsibility.

This suggests a gap in public understanding and information provision regarding the transport sector's impact on climate change and environmental pollution, despite strong scientific consensus on the subject. Moreover, there may be misconceptions about the effectiveness of sustainable mobility policies in addressing these challenges. The role of the Netherlands as an inspiration for other countries also appears to be underestimated. By taking decisive action, the Netherlands can serve as a concrete example for other nations, much like it has already done in cycling infrastructure, urban development, and water management and flood control.

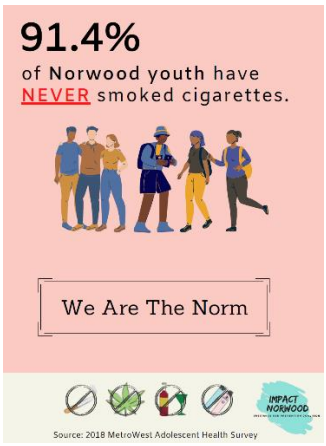
There is also a portion of respondents who believe that the government should not be involved at all, or who even express mistrust toward governmental intervention. For this group, opposition to the sustainable mobility goal stems from a deeper underlying issue of governmental trust. Understanding the

reasons behind this mistrust is essential to effectively engage this group in discussions on sustainable mobility.

Implications for policymakers

For policymakers, the findings of this thesis can contribute to the design of more effective policies. First, the arguments for and against supporting the sustainability goal suggest that improved information provision, also referred to as "sermons" in the literature, could be highly beneficial. A large share of respondents who supported the sustainability goal cited climate and environmental concerns as their main reasons, indicating awareness of the negative effects of mobility on climate change and environmental pollution. In contrast, those who opposed the goal often dismissed it as unimportant or nonsensical, with some believing that government intervention would have little to no impact. This underscores the importance of educating citizens about the negative consequences of mobility and the potential impact of Dutch government policies, both nationally and globally.

An information campaign should consider how behaviour can be influenced, as discussed in the Theory of Planned Behaviour (TPB) and the Norm Activation Model (NAM) (Dijst et al., 2023). According to the TPB, the campaign needs to enhance positive attitudes toward sustainable mobility. This can be achieved by communicating its benefits, such as the health advantages of active transport modes and the time savings of public transport through congestion avoidance. In the literature, this approach is described as gain-nudging and is considered one of the most effective strategies for encouraging sustainable behaviour (Aravind et al., 2024). Additionally, the campaign should increase perceived behavioural control to encourage individuals to choose sustainable transport modes by making information on alternative options more accessible. This could be done by spreading information about existing public transport connections in citizens' local environments. Social norms can also be influenced by highlighting how many people already using sustainable transport modes. For example, the campaign could provide statistics on the number of commuters using public or active transport modes for work or highlight the percentage of people choosing not to fly to their travel destinations. This could lead individuals to reconsider their current behaviour as deviating from the norm, encouraging a shift toward more sustainable choices. An example of such a campaign in another context is shown in Figure 12.



12: Campaign showing the social norm (Impact Norwood, 2021)

Complementarily, the NAM component of the campaign should focus on raising awareness of the negative consequences of unsustainable mobility, such as climate change, local air pollution, and traffic accidents. The focus on traffic accidents can be a valuable addition because many of the respondents who did not support the sustainable mobility goal did express concerns about traffic safety. By linking these issues, the campaign can activate personal moral obligations and a sense of responsibility to act. The effectiveness of these strategies is also supported by literature, which shows that providing information on CO_2 emissions is an effective way to achieve behaviour change (Raux et al., 2021). By integrating these elements of the NAM and TPB, the campaign would not only inform but also motivate individuals to adopt sustainable mobility practices, presenting them as both socially endorsed and morally compelling choices.

When considering specific policies that could gain the most public support, it becomes clear that "carrot" strategies are the most popular, as also seen in previous literature. Affordability of public transportation emerges as the most important factor. This is particularly interesting because demographic and behavioural groups that are generally less supportive of the sustainable mobility goal often express greater concern about the affordability of mobility and products. By focusing on affordability, policymakers can incentivise not only those who already support sustainability but also groups primarily motivated by cost considerations. Making sustainable transport modes more affordable is therefore one of the most socially supported ways to influence citizens' behavioural choices toward more sustainable mobility. This is supported by both the policy ranking results and the qualitative analysis, which show strong public support for public transport affordability. Raising the cost of petrol and diesel, on the other hand, is the least supported policy across all demographic and behavioural clusters. This suggests that while “stick” measures may be effective in theory, they face considerable public resistance and should be introduced cautiously, perhaps in combination with incentives or after extensive engagement.

Another conclusion from this thesis is that demographic and behavioural groups that place less importance on the sustainability goal tend to prioritise accessibility, traffic safety, and affordability. This is reflected in both the differences in mobility goal support and the most used qualitative arguments against prioritising sustainability, such as scepticism about policy impact and affordability concerns. Policymakers can use this insight to frame sustainable mobility measures in terms of their co-benefits, such as safety improvements or local accessibility, rather than solely environmental outcomes. Such targeted framing may increase support from groups that are otherwise hesitant. A proven effective strategy for this is gain-nudging, as described by Raux et al. (2021). For example, when reducing public parking spaces in a neighbourhood, policymakers could add a bus stop and present this change as an improvement in accessibility for all residents. Similarly, when banning cars from city centres, they could justify the measure by emphasising the reduction in traffic accidents and supporting this with statistical evidence. By framing policies in ways that align with the values and concerns of specific demographic and behavioural groups, policymakers can broaden support for new regulations, even among those who do not prioritise sustainability. Strategic messaging is therefore essential to ensuring that sustainable mobility policies gain widespread acceptance and effectiveness. The findings of this thesis suggest that gain-framing, especially when tied to the concrete experiences of different user groups, has the potential to bridge value gaps and increase support, even among less sustainability-motivated citizens.

Scientific contribution

The scientific contribution of this thesis lies in the analysis of how demographic and behavioural variables jointly shape public support for sustainable mobility policies in the Dutch context. Whereas previous studies have often examined these factors in isolation, this thesis demonstrates how their interaction provides a more nuanced understanding of sustainability goal preferences. Through a combination of correlation analysis and cluster identification, the research shows that support is not only driven by demographic or behavioural variables individually, but that they are interdependent, and that interactions between them also correlate with support for sustainable mobility goals.

This integrated perspective is particularly important in the context of sustainable mobility transitions, where opposition to or support for specific policies often clusters around socio-behavioural profiles, not just individual characteristics. This insight extends the academic understanding of sustainable mobility support by moving beyond literature that analyses only the associations between demographic or behavioural variables and policy support. By taking a more comprehensive approach, this thesis offers a framework that can inform better policy design and citizen segmentation.

In addition, the thesis contributes to the literature by combining this quantitative analysis with qualitative insights derived from open-ended responses in the Participatory Value Evaluation. These responses reveal not only whether certain groups tend to support specific goals and policies, but also why they do so, surfacing underlying values, motivations, and points of resistance that are often lost in purely statistical approaches. This mixed-methods design enriches the existing literature by grounding abstract correlations in lived experiences. As such, the thesis highlights the value of integrating citizen narratives into sustainability research and offers a replicable model for combining large-scale survey data with in-depth qualitative reasoning.

Limitations thesis

While this thesis provides valuable insights into the relationship between demographic and behavioural variables with support for sustainable mobility goals and policies, there are some limitations that should be acknowledged.

The first limitation is sample representation bias. The dataset used in this research is not fully representative of Dutch society, with older age groups, women, and individuals with lower education levels underrepresented. This could limit the generalisability of the results. However, since the analysis focuses on different demographic and behavioural variables, the potential biases are somewhat mitigated in the results. The second limitation is the small sample size of specific groups. Some groups in the dataset, such as respondents younger than 17, non-binary respondents, and frequent users of shared transport, were excluded or too small to allow for meaningful conclusions. This limits the ability to draw broader societal insights from these groups, as their responses are not able to accurately reflect larger patterns.

The third limitation relates to Spearman's rank correlation analysis, which only captures monotonic relationships. As a result, some patterns in attitudes toward sustainability may have been oversimplified or overlooked. This issue is partially addressed by including a descriptive analysis, which helps identify potential non-monotonic patterns, allowing for the detection of more nuanced relationships that correlation analysis alone might miss.

A fourth limitation is the exclusion of regression analysis as a method to investigate the combined effect of multiple variables on support for sustainable mobility goals. Regression models can estimate the relative strength of individual predictors and identify interactions while controlling for other factors. However, several methodological concerns led to its exclusion: many variables were ordinal and not normally distributed, relationships were expected to be non-linear, and some variables exhibited considerable overlap, raising concerns about multicollinearity. While techniques exist to mitigate multicollinearity, these require additional preprocessing and complex interpretation, which may not align with the broader goal of identifying general patterns in attitudes toward sustainability. Moreover, correlation analysis, which was used instead, can only measure the relationship between two variables at a time and does not account for the combined impact of multiple predictors. To address these limitations, cluster analysis was chosen as an alternative approach. Unlike regression, clustering does not require assumptions about causal relationships and can reveal underlying structures in the data.

The final limitation is the narrow conceptualisation of behaviour in this thesis, which may not fully capture the complexity of individuals' mobility patterns. The study primarily measures behaviour through self-reported transport mode usage. While this offers valuable insights, it does not consider other behavioural factors that could correlate with support for sustainable mobility policies. For example, the context behind the frequency of transport mode usage, such as the purpose of specific trips or the availability of certain transport modes, could significantly impact decisions and, in turn, shape attitudes toward sustainable mobility goals. Despite focusing mainly on transport mode frequency, this method remains a strong approach for assessing general mobility patterns and offers meaningful insights into how behaviour correlates with attitudes toward sustainability goals.

Suggestions for further research

Further research could first address the limitations of this study by exploring demographic groups that were not covered in this thesis. Understanding the concerns and priorities of these groups could help policymakers design more targeted and effective interventions. For frequent shared transport users, additional research could provide insights into their motivations, key considerations, and the mobility goals they prioritise, helping to determine what is needed to further facilitate this more sustainable transport mode. Additionally, studying younger age groups (under 17 years old) could be valuable in understanding how a generation that will soon face impactful mobility choices perceives sustainable transport policies and mobility goals. Exploring their perspectives could provide early insights into future mobility trends and policy preferences.

Since this thesis focuses on support for sustainable mobility goals at a specific point in time, it does not capture how attitudes and behaviour evolve over time. This presents an interesting opportunity for future research, as it could reveal the impact of implementing proposed policies and how these changes influence behaviour. Future studies could therefore monitor shifts in mobility behaviour and policy support over time, particularly after the introduction of specific policies. Another promising avenue for research is to explore generational shifts in attitudes, examining how the views of younger age groups change as they age and encounter different life circumstances. Will these groups maintain their current views on policies, or will their attitudes evolve to reflect those observed in this thesis? Answering this question would offer valuable insights into the future of support for sustainability goals and help inform the development of long-term sustainability plans.

Further research could also delve deeper into regional and cultural differences within the Netherlands. This thesis identified a clear urban–rural divide in support for mobility goals. Conducting case studies focused on specific regions could uncover unique cultural, economic, or political factors that shape support for sustainable mobility. Such insights would help regional policymakers design policies better suited to their residents and environmental contexts. In addition, future research could explore the divide between higher- and lower-educated individuals. As this thesis found this gap to be significant, it would be valuable to investigate how education influences beliefs and support for specific mobility goals. The findings from such research could inform educational programmes aimed at fostering a broader societal consensus on sustainability issues.

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Appendix

Appendix A: Participatory Value Evaluation

Text explanation video
In a moment, you are going to give your advice.
You will soon see a number of things the government can pay more or less attention to.
For each thing, you will see a slider that you can move.
Do you think the government should pay more attention? Then move the slider to the right.
Do you think the government should pay less attention? Then move the slider to the left.
On your laptop, you see a meter at the top right of the screen. On your phone you see this meter at the bottom of your screen.
If the meter is in red, you cannot advise the government to make more effort. The government won't have enough time or money to do that.
Want to know more? Then click on the pink i-button.
After giving your advice, you can explain your choices.

First task

Making sure people have to travel less.

No extra attention

Improve connections with other countries.

No extra attention

Ensuring that people can travel more pleasantly and comfortably.

No extra attention

Making sure people travel more sustainably.

No extra attention

Ensuring that important products are available. For example, food in the supermarket, fuel, and medicine from abroad.

No extra attention

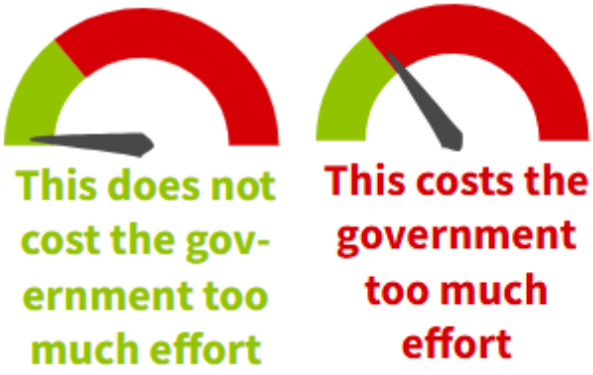
Ensuring that people with reduced mobility can reach places they want to reach.

No extra attention

Ensuring that people can easily reach important facilities (such as schools, a supermarket, the doctor, and a hospital) regardless of the means of transportation people own.

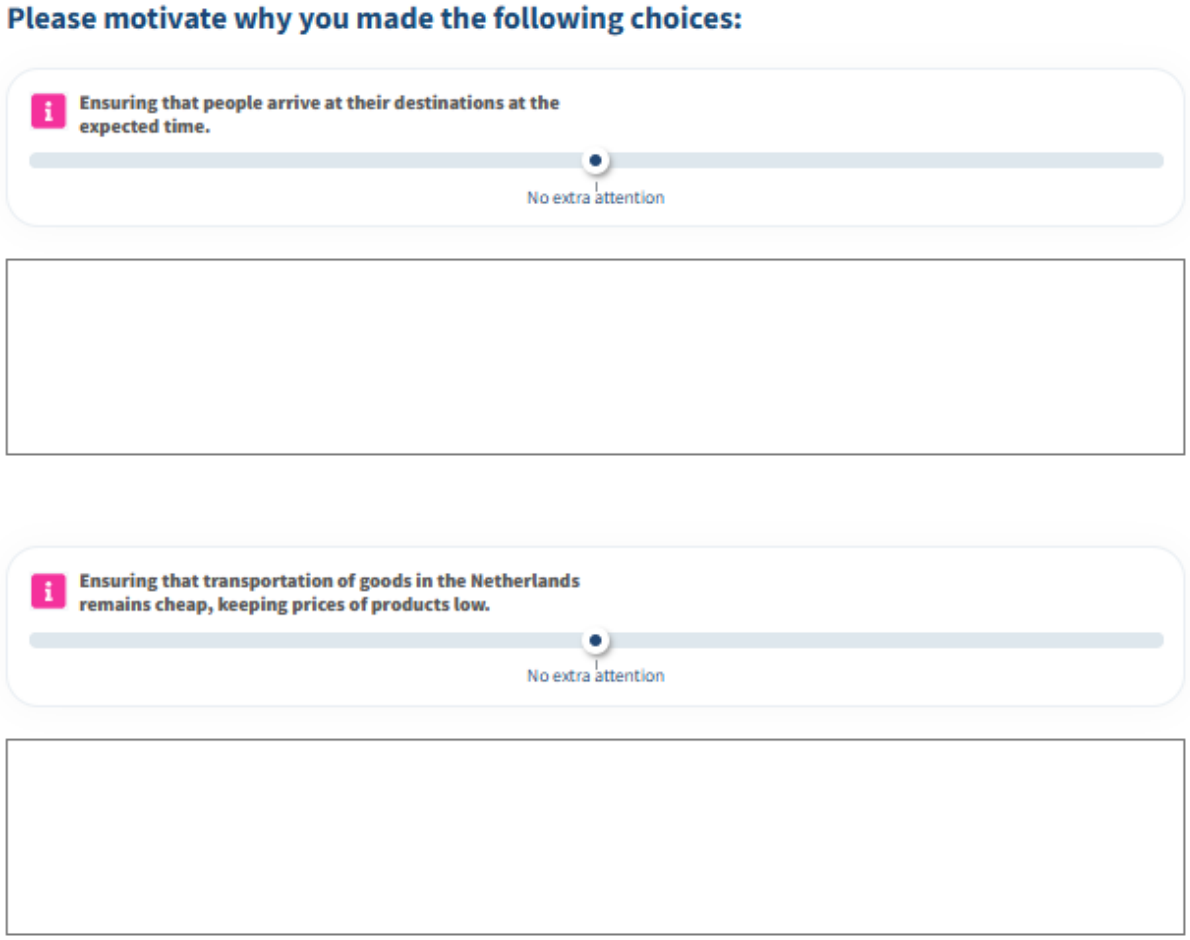
No extra attention

Next →



Second task

Motivation of all choices made in Task1



Third task

Policy ranking based on choices Task1

If the Dutch government has to choose, which facilities should they make sure more residents have good access to? Drag the facility you consider most important to the top and drag the facility you consider least important to the bottom. * (1/10)

- Primary school
- Secondary school
- MBO/HBO/University
- Supermarket
- General Practitioner (GP)
- Hospital/emergency room
- ATM
- Sports venues

If the Dutch government has to choose what connections with foreign countries should be improved? Drag the connection you consider most important to the top and drag the connection you consider least important to the bottom. * (2/10)

- Going abroad by train
- Going abroad by car
- Going abroad by plane
- Going abroad by boat

If the Dutch government has to choose, how above all should it ensure, that travellers can travel more pleasantly and comfortably? Drag the measure you think is most important to the top and drag the measure you think is least important to the bottom. * (3/10)

- Longer trains so there is more chance of getting a seat
- More trains, buses, trams, and metros per hour so that there is more chance of a seat and the next train arrives faster
- Better facilities at public transport stops/junctions. For example, more toilets
- Better facilities at petrol stations. For example, more toilets
- Increasing safety near train stations
- Comfortable express cycle routes

If the Dutch government has to choose, what kind of measures should it take above all to ensure that people have to travel less? Drag the measure you think is most important to the top and drag the measure you think is least important to the bottom. * (4/10)

- Encourage working from home
- Making travel more expensive
- Promote cycling and walking to work
- Reduce parking in congested areas around workplaces and encourage public transport in those areas
- Supporting shared mobility
- Encourage working closer to home

If the Dutch government has to choose which differences in accessibility between areas should be reduced in particular? Drag the place you think is most important to the top and drag the place you think is least important to the bottom. * (5/10)

- Rural areas
- The area outside the Randstad
- Districts in cities that are currently not easily accessible

If the Dutch government has to choose, how should it especially ensure that mobility is more accessible for people with reduced mobility? Drag the measure you think is most important to the top and drag the measure you think is least important to the bottom. * (6/10)

- Give subsidies to taxis that transport people with reduced mobility
- More and better busses on demand
- Making more bus stops/stations accessible to people with reduced mobility, e.g. through physical counters in addition to digital options
- Making information more understandable, e.g. at B1 level or making travel information more accessible for the visually or hearing impaired
- Accessibility of bicycle sheds for adapted bicycles

If the Dutch government has to choose, which destinations should people be able to reach, in the expected time? Drag the place you think is most important to the top and drag the place you think is least important to the bottom. * (7/10)

- Work and school
- Important facilities such as hospital, GP, or supermarket
- Leisure activities such as sports, visiting friends/family, or a cultural centre

If the Dutch government has to choose, how to make sure that journey times are reduced? Drag the measure you think is most important to the top and drag the measure you think is least important to the bottom. (8/10)

- Being able to drive faster by car
- Faster trains
- Faster bicycle connections
- Faster bus, tram, and metro connections

If the Dutch government has to choose, how should it ensure that people travel more by public transport, cycling or walking, rather than by car? Drag the measure you think is most important to the top and drag the measure you think is least important to the bottom. * (9/10)

- Encourage car sharing
- Encourage buying an electric car
- Make public transport tickets cheaper
- Increase the quality of public transport
- Encourage car-free neighborhoods with few parking spaces
- Making petrol and diesel more expensive
- Investing in express cycle routes
- Building more housing near public transport

Fourth task

What is your age?* (1/11)

- 17 years or younger
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65 or older
- I rather not say

Which suits you best?* (2/11)

- I am a man
- I am a woman
- Other
- I would rather not see

What is the highest education you have completed?* (3/11)

- Primari school
- Vmbo
- Havo/vwo class 1, 2 or 3
- Havo/vwo class 4, 5 or 6
- MBO level 1
- MBO level 2, 3, or 4 (the basic vocational programme, the vocational programme or the middle management and specialist programme
- University
- I would rather not say/Don't know

What do you mainly do in daily life? If several options suit you, choose the one that suits you most* (4/11)

- I do paid work
- I go to school or study
- I am a stay at home mother/father
- I do volunteering
- I am retired
- Other
- I would rather not say

In which province do you live?* (5/11)

Select

How would you describe the surroundings you live in? (6/11)

- A big city
- A small city
- A small municipality
- A rural area

Does your household have a car? (7/11)

- No, no car
- Yes, one car
- Yes, multiple cars

How often do you use the following means of transport (on average in the past few months)?* (8/11)

	4 times per week or more	1-3 days per week	1-3 days per month	1-11 days per year	(Almost) never	I rather not say or do not know
Car						
Train						
Bus/Tram/Metro						
Bicycle						
Shared transport						

Which means of transport do you use to reach important facilities such as the hospital, GP, or supermarket? (Multiple answers possible) (9/11)

- [ ] Car
- [ ] Bicycle
- [ ] By foot
- [ ] Train
- [ ] Tram, bus, or metro
- [ ] Plane
- [ ] Motorbike or scooter
- [ ] Wheelchair
- [ ] Skateboard, skates or rollerblades
- [ ] Other

Which means of transport do you use to reach leisure activities such as sports, friends/family, or a cultural centre? (Multiple answers possible) (10/11)

- [ ] Car
- [ ] Bicycle
- [ ] By foot
- [ ] Train
- [ ] Tram, bus and metro
- [ ] Plane
- [ ] Motorbike or scooter
- [ ] Wheelchair
- [ ] Skateboard, skates or rollerblades
- [ ] Other

How often did you have problems with accessibility? For example, because the train was delayed, you were in a traffic jam, or a road was closed. (11/11)

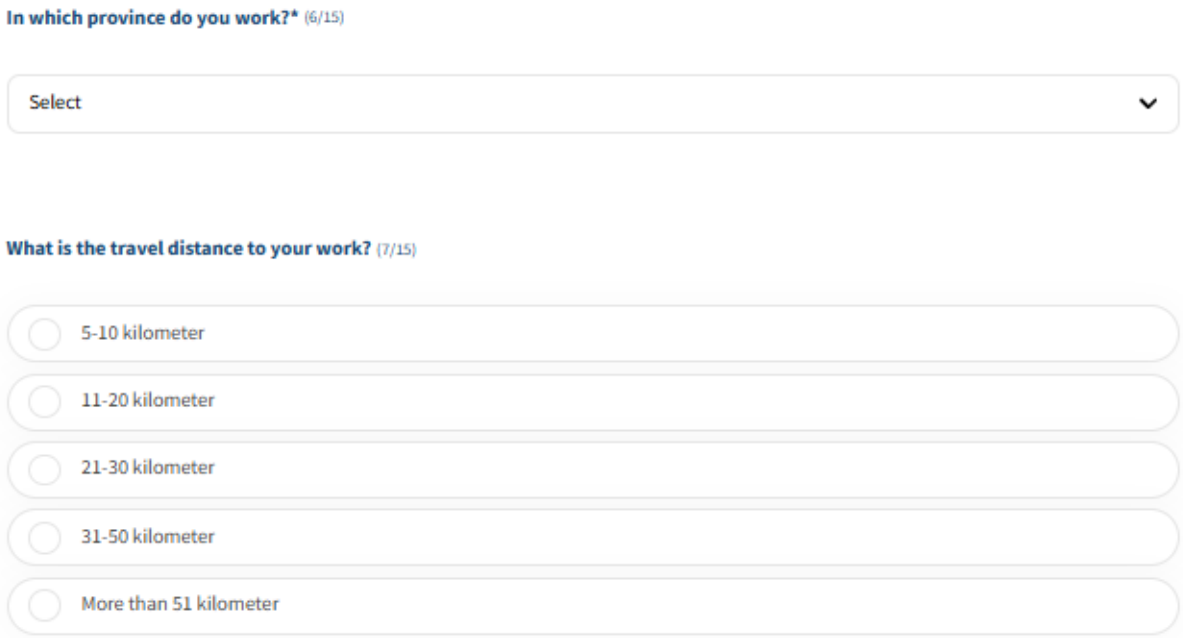
- ( ) Occasionally (a few times a year)
- ( ) Regularly (a few times a month)
- ( ) Often (a few times a week)
- ( ) Very often (every day)

What industry are you working in?* (5/15)

- Transport and logistics
- Engineering, manufacturing, and construction
- Agriculture and fishery
- Trade (wholesale, import, export, retail)
- ICT
- Healthcare and welbeing
- Services
- Justice, security, and public administration
- Media and communication
- Education, culture, and science
- Tourism and recreation
- Another sector
- I do not work
- I would rather not say/ I don't know

In which province do you work?* (6/15)

Select



Appendix B: Education level, English equivalents

Education level (Dutch system)	Education level (English equivalent)
University	University
HBO	University of Applied Sciences
MBO 2,3,4	Secondary Vocational Education (Higher levels)
HAVO/VWO 4,5,6	High School A-levels (Upper grades)
VMBO	Pre-Vocational Secondary Education
MBO 1	Secondary Vocational Education (Entry level)
HAVO/VWO 1,2,3	High School A-levels (Lower grades)
Rather not say / I don't know	Rather not say/I don't know
Primary School	Primary school

Appendix C: Descriptive statistics demographics and behaviour

Car usage by Age	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
18-24	18.245614	8.771930	14.385965	28.070175	28.771930
25-34	16.603295	11.026616	16.603295	25.095057	29.657795
35-44	12.052506	3.460621	10.978520	32.816229	40.095465
45-54	12.310606	2.840909	12.784091	33.522727	37.594697
55-64	13.596138	3.137570	11.423974	36.765889	34.754626
65 or older	11.882606	3.507516	10.952040	43.664996	29.706514

Train usage by Age	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
18-24	19.298246	11.929825	18.596491	24.912281	24.561404
25-34	21.039290	19.391635	16.223067	27.883397	14.955640
35-44	33.293556	23.031026	17.780430	18.973747	6.324582
45-54	37.784091	25.000000	14.583333	17.329545	4.356061
55-64	42.960579	23.169751	15.687852	13.676589	4.022526
65 or older	51.109520	26.986399	13.672155	7.444524	0.429492

Bus, tram, and metro usage by Age	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
18-24	19.649123	11.228070	18.947368	25.614035	24.210526
25-34	24.334601	18.124208	24.841572	22.433460	9.759189
35-44	40.214797	22.315036	20.525060	13.007160	3.341289
45-54	45.170455	23.390152	14.299242	12.026515	4.356061
55-64	49.879324	21.962993	14.561545	9.573612	3.539823
65 or older	55.189692	21.045097	13.528991	8.160344	1.503221

Bike usage by Age	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
18-24	15.438596	4.912281	7.719298	21.403509	49.473684
25-34	10.012674	4.689480	11.406844	24.588086	48.922687
35-44	11.097852	5.250597	10.859189	26.730310	45.704057
45-54	14.299242	5.113636	8.712121	21.212121	50.284091
55-64	14.561545	5.470636	7.803701	24.215607	47.465809
65 or older	15.962777	3.507516	6.800286	21.474588	51.181102

Shared transport usage by Age	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
18-24	77.192982	6.666667	4.210526	3.508772	1.403509
25-34	73.764259	11.280101	7.351077	4.562738	0.380228
35-44	78.758950	7.995227	6.205251	3.937947	0.596659
45-54	86.079545	6.060606	3.314394	1.515152	0.094697
55-64	87.771521	4.424779	2.896219	1.448109	0.160901
65 of ouder	90.264853	3.435934	1.574803	1.002147	0.071582

Car usage by gender	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
Man	10.802469	4.351852	11.635802	36.450617	36.419753
Woman	16.666667	4.991319	13.368056	33.376736	30.512153

Train usage by gender	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
Man	37.098765	23.333333	15.771605	16.944444	6.388889
Woman	40.494792	23.177083	15.321181	14.626736	5.642361

Bus/Tram/Metro usage by gender	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
Man	44.012346	21.265432	17.469136	12.345679	4.475309
Woman	43.576389	20.616319	15.842014	13.498264	5.685764

Bike usage by gender	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
Man	11.203704	5.216049	9.876543	24.876543	48.395062
Woman	17.230903	4.123264	7.204861	21.093750	49.522569

Shared transport usage by gender	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
Man	83.919753	5.802469	4.166667	2.746914	0.339506
Woman	84.548611	6.553819	3.342014	1.649306	0.217014

Car usage by education	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
HAVO/VWO/MBO 2,3,4	13.642298	3.524804	7.637076	34.595300	39.751958
HBO/University	11.819464	5.444288	14.922426	35.909732	31.622003

Car usage by education	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
Primary/VMBO/MBO 1	23.214286	2.579365	8.730159	31.349206	31.746032

train usage by education	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
HAVO/VWO/MBO 2,3,4	56.135770	22.127937	9.986945	6.788512	4.177546
HBO/University	26.939351	24.513399	18.984485	21.889986	7.418900
Primary/VMBO/MBO 1	65.277778	17.658730	7.738095	4.563492	2.976190

Bus/Tram/Metro usage by education	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
HAVO/VWO/MBO 2,3,4	55.613577	18.929504	10.704961	9.007833	5.156658
HBO/University	36.473907	22.425952	20.564175	15.176305	5.105783
Primary/VMBO/MBO 1	58.134921	16.865079	9.722222	7.936508	4.960317

Bike usage by education	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
HAVO/VWO/MBO 2,3,4	18.407311	6.005222	9.595300	25.913838	39.295039
HBO/University	9.590973	4.344147	8.519041	22.708039	54.442877
Primary/VMBO/MBO 1	27.777778	3.968254	8.134921	18.849206	40.079365

Shared transport usage by education	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
HAVO/VWO/MBO 2,3,4	87.728460	2.741514	2.610966	1.827676	0.195822
HBO/University	82.566996	8.011283	4.598025	2.482370	0.225670
Primary/VMBO/MBO 1	84.920635	2.777778	2.380952	2.182540	1.190476

Car usage by province of living	(Almost) never	1-11 days/year	1-3 days/month	1-3 days/week	>4 days/week
Drenthe	3.571429	2.142857	10.000000	30.714286	52.857143
Flevoland	11.206897	3.879310	12.068966	26.724138	45.689655
Friesland	16.071429	3.125000	8.482143	29.464286	42.410714
Gelderland	9.339775	4.830918	10.789050	39.130435	35.104670

Groningen	15.837104	4.977376	12.669683	34.389140	31.674208
Limburg	10.389610	2.272727	8.766234	32.467532	45.454545
Noord-Brabant	8.754209	3.030303	11.111111	36.700337	39.057239
Noord-Holland	17.860963	5.347594	13.582888	33.155080	29.411765
Overijssel	10.591900	4.361371	12.461059	38.006231	33.644860
Utrecht	15.325670	5.747126	15.900383	37.739464	24.904215
Zeeland	7.200000	1.600000	7.200000	38.400000	44.800000
Zuid-Holland	15.694744	5.759539	13.894888	35.421166	28.725702

Train usage by province of living	**(Almost) never**	**1-11 days/year**	**1-3 days/month**	**1-3 days/week**	**>4 days/week**
Drenthe	57.857143	19.285714	14.285714	5.714286	2.857143
Flevoland	41.810345	25.862069	15.948276	9.482759	6.034483
Friesland	50.446429	25.000000	10.267857	9.821429	3.571429
Gelderland	35.748792	24.476651	15.942029	17.552335	5.636071
Groningen	39.366516	26.244344	15.384615	10.407240	8.144796
Limburg	49.350649	28.571429	11.363636	5.194805	5.194805
Noord-Brabant	47.474747	24.242424	11.784512	12.289562	3.535354
Noord-Holland	30.695187	22.994652	18.823529	20.213904	6.524064
Overijssel	44.236760	25.545171	8.411215	17.445483	3.738318
Utrecht	25.670498	18.965517	20.881226	24.329502	9.770115
Zeeland	57.600000	22.400000	10.400000	6.400000	1.600000
Zuid-Holland	35.205184	21.670266	16.774658	18.358531	7.487401

Bus/tram/metro usage by province of living	**(Almost) never**	**1-11 days/year**	**1-3 days/month**	**1-3 days/week**	**>4 days/week**
Drenthe	65.000000	13.571429	12.857143	7.142857	1.428571
Flevoland	50.431034	23.706897	13.362069	6.896552	4.310345
Friesland	61.160714	18.750000	8.482143	8.035714	2.678571
Gelderland	49.275362	20.933977	17.230274	8.534622	3.059581
Groningen	48.416290	21.719457	17.647059	7.692308	4.072398
Limburg	65.584416	16.883117	9.090909	4.545455	2.922078
Noord-Brabant	56.734007	20.707071	11.111111	7.912458	2.861953
Noord-Holland	31.764706	21.711230	22.245989	17.860963	5.775401
Overijssel	65.420561	16.822430	8.411215	6.230530	2.492212
Utrecht	33.524904	24.329502	23.371648	13.601533	4.789272

Zeeland	64.800000	18.400000	9.600000	4.800000	1.600000
Zuid-Holland	28.797696	21.814255	19.438445	20.446364	9.143269

Bike usage by province of living	**(Almost) never**	**1-11 days/year**	**1-3 days/month**	**1-3 days/week**	**>4 days/week**
Drenthe	20.000000	5.000000	9.285714	23.571429	41.428571
Flevoland	21.120690	8.189655	10.344828	26.293103	33.189655
Friesland	12.946429	5.357143	6.250000	25.000000	49.553571
Gelderland	9.822866	4.186795	9.339775	24.798712	51.529791
Groningen	14.027149	4.524887	10.407240	21.719457	47.963801
Limburg	22.402597	6.818182	12.337662	25.000000	32.792208
Noord-Brabant	15.993266	4.713805	9.427609	24.410774	45.117845
Noord-Holland	11.016043	4.598930	7.700535	21.711230	54.438503
Overijssel	9.345794	4.361371	7.788162	23.987539	53.582555
Utrecht	9.961686	3.448276	7.854406	21.647510	56.704981
Zeeland	13.600000	4.800000	8.000000	26.400000	47.200000
Zuid-Holland	14.758819	4.463643	8.495320	22.246220	49.172066

Car usage by living environment	**(Almost) never**	**1-11 days/year**	**1-3 days/month**	**1-3 days/week**	**>4 days/week**
Big city	20.850086	7.696726	15.278576	32.107984	23.607122
Small municipality	7.170694	2.260327	9.664848	39.049104	41.153546
Small city	13.747861	4.677695	13.804906	35.596121	31.260696
Rural environment	6.507304	1.726428	6.241700	33.864542	51.261620

Train usage by living environment	**(Almost) never**	**1-11 days/year**	**1-3 days/month**	**1-3 days/week**	**>4 days/week**
Big city	26.479035	21.883975	21.079839	22.171166	8.098794
Small municipality	47.856586	25.720966	12.003118	10.288387	3.741231
Small city	35.710211	23.160297	14.774672	17.912151	7.586994
Rural environment	55.511288	23.505976	9.561753	8.233732	2.390438

Bus/tram/metro usage by living environment	**(Almost) never**	**1-11 days/year**	**1-3 days/month**	**1-3 days/week**	**>4 days/week**
Big city	26.479035	20.907524	23.894314	20.448018	7.926479
Small municipality	55.183164	21.044427	11.613406	8.339829	3.351520
Small city	43.810610	22.076440	16.942384	11.180833	5.191101

Rural environment	64.143426	17.795485	9.163347	6.374502	1.726428

Bike usage by living environment	**(Almost) never**	**1-11 days/year**	**1-3 days/month**	**1-3 days/week**	**>4 days/week**
Big city	13.555428	3.618610	8.443423	21.137277	52.498564
Small municipality	13.873733	5.222136	8.807482	26.734217	45.206547
Small city	13.576726	4.221335	7.472904	22.019395	51.911010
Rural environment	15.006640	7.171315	12.881806	26.294821	37.981408

Shared transport usage by living environment	**(Almost) never**	**1-11 days/year**	**1-3 days/month**	**1-3 days/week**	**>4 days/week**
Big city	76.507754	9.764503	6.433084	4.365307	0.287191
Small municipality	90.568979	3.039751	2.104443	0.779423	0.000000
Small city	84.711922	6.046777	3.422704	1.654307	0.399315
Rural environment	90.172643	3.054449	1.593625	1.195219	0.531208

Shared transport usage by living environment	**(Almost) never**	**1-11 days/year**	**1-3 days/month**	**1-3 days/week**	**>4 days/week**
Big city	76.507754	9.764503	6.433084	4.365307	0.287191
Small municipality	90.568979	3.039751	2.104443	0.779423	0.000000
Small city	84.711922	6.046777	3.422704	1.654307	0.399315
Rural environment	90.172643	3.054449	1.593625	1.195219	0.531208

Amount	**Car**	**Train**	**Bus/Tram/Metro**	**Bike**	**Sharing transport**
(Bijna) nooit	13.355800	38.293721	43.650231	13.675062	84.178787
1 tot 11 dagen per jaar	4.629301	23.270663	20.929408	4.717985	6.083718
1 tot 3 dagen per maand	12.433487	15.555161	16.832210	8.744236	3.831146
1 tot 3 dagen per week	35.101100	16.122739	12.859170	23.235190	2.252572
4 keer per week of meer	33.806314	6.154665	5.108194	48.989003	0.301525
Zeg ik liever niet/ Weet ik niet	0.673998	0.603051	0.620788	0.638524	3.352253

Appendix D: Correlation analysis demographics and behaviour

Ind variable	Dep variable	Correlation (r)	P-value
age	car	0,04608	0.00091
age	train	-0,29934	0.00000
age	bus/tram/metro	-0,26346	0.00000
age	bike	-0,00835	0.54800
age	sharing transport	-0,17682	0.00000
gender	car	-0,08939	0.00000
gender	train	-0,04262	0.00216
gender	bus/tram/metro	0,0108	0.43724
gender	bike	-0,01496	0.28159
gender	sharing transport	-0,02017	0.14662
education	car	-0,03558	0.01044
education	train	0,33439	0.00000
education	bus/tram/metro	0,19297	0.00000
education	bike	0,17394	0.00000
education	sharing transport	0,10937	0.00000
province	car	-0,12383	0.00000
province	train	0,14069	0.00000
province	bus/tram/metro	0,28468	0.00000
province	bike	0,02702	0.05180
province	sharing transport	0,04987	0.00033
environment	car	-0,26028	0.00000
environment	train	0,25046	0.00000
environment	bus/tram/metro	0,30565	0.00000
environment	bike	0,08474	0.00000
environment	sharing transport	0,18369	0.00000

Appendix E: Descriptive statistics demographics and goal support

#	Government goal
1	Ensuring that people arrive at their destination on time.
2	Ensuring that freight transport in the Netherlands remains inexpensive, keeping product prices low.
3	Ensuring that people travel more sustainably.
4	Ensuring that people need to travel less.
5	Ensuring shorter travel times.
6	Ensuring that people can travel more pleasantly and comfortably.
7	Improving connections with other countries.
8	Ensuring that essential products are available, such as food in supermarkets, fuel, and medicine from abroad.
9	Ensuring that people can access various jobs that suit them, regardless of the transport modes they own.
10	Ensuring that people can access key facilities (such as schools, supermarkets, GPs, and hospitals), regardless of the transport modes they own.
11	Reducing disparities in accessibility between regions.
12	Ensuring that it is affordable for people to reach the places they want to go.
13	Ensuring that people with disabilities can reach the places they want to go.
14	Ensuring greater safety in traffic.

Age	1	2	3	4	5	6	7
18-24	0.128070	0.214035	0.189474	-0.059649	0.114035	0.040351	0.210526
25-34	0.082383	0.034221	0.375792	0.055133	0.061470	0.054499	0.234474
35-44	0.097255	0.063246	0.272673	0.091885	0.063842	0.035203	0.146181
45-54	0.095644	0.080966	0.230114	0.125473	0.053977	0.016572	0.117898
55-64	0.108206	0.057522	0.273130	0.132743	0.056718	0.010056	0.079244
>65	0.129563	0.104152	0.268432	0.127416	0.045455	0.037938	0.103794

Age	8	9	10	11	12	13	14
18-24	0.278947	0.110526	0.408772	0.108772	0.429825	0.284211	0.222807
25-34	0.245247	0.107731	0.432826	0.182510	0.420152	0.252852	0.232573
35-44	0.265513	0.071599	0.380072	0.170048	0.330549	0.251193	0.238067
45-54	0.277936	0.066288	0.402936	0.160985	0.335227	0.289299	0.250947
55-64	0.283588	0.015286	0.396621	0.196299	0.325422	0.319791	0.261062
>65	0.274159	0.021117	0.418397	0.200072	0.310308	0.360773	0.306013

Gender	1	2	3	4	5	6	7
Man	0.125617	0.054475	0.263272	0.133025	0.075154	0.037500	0.158951
Woman	0.078559	0.121094	0.282552	0.056858	0.033420	0.018663	0.087891

Gender	8	9	10	11	12	13	14
Man	0.253241	0.041358	0.396914	0.183333	0.317284	0.267130	0.233642
Woman	0.300130	0.066840	0.419054	0.172960	0.377387	0.350477	0.302300

Education level	1	2	3	4	5	6	7
HAVO/VWO/ MBO 2,3,4	0.113577	0.248042	0.100522	0.031984	0.078655	0.025131	0.047324
HBO/ University	0.104513	-0.022567	0.384908	0.137659	0.047391	0.026375	0.188011
Primary/VMBO/ MBO 1	0.097222	0.278770	0.028770	0.081349	0.065476	0.063492	-0.018849
Education level	8	9	10	11	12	13	14
HAVO/VWO/ MBO 2,3,4	0.331593	0.037206	0.388381	0.149151	0.365535	0.321149	0.275457
HBO/ University	0.238787	0.060931	0.417913	0.211425	0.332440	0.281946	0.248237
Primary/VMBO/ MBO 1	0.320437	0.029762	0.381944	0.050595	0.347222	0.388889	0.307540

Province	1	2	3	4	5	6	7
Drenthe	0.092857	0.217857	0.117857	0.132143	0.050000	0.014286	0.100000
Flevoland	0.176724	0.159483	0.165948	0.094828	0.103448	0.021552	0.084052
Friesland	0.062500	0.125000	0.227679	0.042411	0.035714	-0.022321	0.071429
Gelderland	0.099839	0.025765	0.295491	0.116747	0.046699	0.042673	0.119163
Groningen	0.063348	0.092760	0.264706	0.081448	0.054299	0.018100	0.194570
Limburg	0.146104	0.163961	0.173701	0.043831	0.063312	-0.004870	0.159091
Noord-Brabant	0.098485	0.127946	0.228956	0.093434	0.078283	0.030303	0.106902
Noord-Holland	0.096257	0.041176	0.344385	0.128877	0.070053	0.057219	0.162567
Overijssel	0.088785	0.096573	0.236760	0.143302	0.017134	-0.007788	0.060748
Utrecht	0.100575	-0.003831	0.373563	0.150383	0.024904	0.025862	0.147510
Zeeland	0.104000	0.172000	0.220000	0.084000	0.056000	0.016000	0.024000
Zuid-Holland	0.116631	0.065515	0.278978	0.087833	0.060115	0.035277	0.143629

Province	8	9	10	11	12	13	14

Drenthe	0.296429	0.025000	0.446429	0.257143	0.307143	0.310714	0.175000
Flevoland	0.325431	0.081897	0.400862	0.142241	0.381466	0.295259	0.187500
Friesland	0.299107	0.064732	0.424107	0.200893	0.372768	0.281250	0.245536
Gelderland	0.248792	0.069243	0.397746	0.215781	0.351047	0.314815	0.247987
Groningen	0.282805	0.018100	0.380090	0.276018	0.323529	0.287330	0.199095
Limburg	0.241883	0.040584	0.413961	0.219156	0.353896	0.301948	0.206169
Noord-Brabant	0.306397	0.034512	0.404040	0.150673	0.320707	0.286195	0.267677
Noord-Holland	0.240642	0.074332	0.405882	0.149198	0.329412	0.313904	0.283957
Overijssel	0.305296	0.009346	0.420561	0.197819	0.323988	0.308411	0.295950
Utrecht	0.252874	0.068008	0.406130	0.189655	0.324713	0.298851	0.246169
Zeeland	0.244000	0.092000	0.396000	0.304000	0.420000	0.292000	0.256000
Zuid-Holland	0.279338	0.042477	0.406767	0.145788	0.357811	0.303456	0.290497

Living environment	1	2	3	4	5	6	7
Big city	0.096209	0.019242	0.345204	0.127800	0.035899	0.049110	0.189833
Small municipality	0.125877	0.133671	0.227592	0.096259	0.079891	0.019096	0.084957
Small city	0.108956	0.090702	0.256988	0.074444	0.056760	0.029378	0.129207
Rural environment	0.089641	0.119522	0.212483	0.115538	0.071049	0.009296	0.069057

Living environment	8	9	10	11	12	13	14
Big city	0.238943	0.076393	0.392016	0.141011	0.357840	0.303561	0.274555
Small municipality	0.304365	0.007015	0.411535	0.199922	0.340218	0.297350	0.261496
Small city	0.280662	0.069595	0.414718	0.162578	0.341700	0.308329	0.258129
Rural environment	0.273572	0.035193	0.411023	0.263612	0.333997	0.291501	0.227756

Appendix F: Correlation analysis demographics and goal support

Ind variable	Dep variable	Correlation (r)	p-value
age	goal1	0,02475	0.06926
age	goal2	0,0112	0.41108
age	goal3	-0,03608	0.00807
age	goal4	0,06929	0.00000
age	goal5	-0,03208	0.01850
age	goal6	-0,01763	0.19578
age	goal7	-0,09742	0.00000
age	goal8	0,00691	0.61222
age	goal9	-0,0133	0.32895
age	goal10	-0,09237	0.00000
age	goal11	0,02267	0.09615
age	goal12	-0,09713	0.00000
age	goal13	0,09222	0.00000
age	goal14	0,05659	0.00003
gender	goal1	-0,06552	0.00000
gender	goal2	0,06754	0.00000
gender	goal3	0,00353	0.79569
gender	goal4	-0,08297	0.00000
gender	goal5	-0,06224	0.00000
gender	goal6	-0,03139	0.02118
gender	goal7	-0,08288	0.00000
gender	goal8	0,05707	0.00003
gender	goal9	0,03061	0.02464
gender	goal10	0,03629	0.00771
gender	goal11	-0,01527	0.26240
gender	goal12	0,07822	0.00000
gender	goal13	0,11043	0.00000
gender	goal14	0,08308	0.00000
education	goal1	-0,01495	0.27237
education	goal2	-0,28747	0.00000
education	goal3	0,28289	0.00000
education	goal4	0,09463	0.00000
education	goal5	-0,03039	0.02567
education	goal6	-0,01245	0.36066
education	goal7	0,16955	0.00000
education	goal8	-0,11718	0.00000
education	goal9	0,04114	0.00252
education	goal10	0,03137	0.02130
education	goal11	0,10998	0.00000
education	goal12	-0,03116	0.02218
education	goal13	-0,088	0.00000
education	goal14	-0,05748	0.00002
province	goal1	0,00985	0.46955
province	goal2	-0,04603	0.00073

province	goal3	0,05394	0.00007
province	goal4	0,00187	0.89071
province	goal5	0,01471	0.28035
province	goal6	0,03327	0.01460
province	goal7	0,03567	0.00883
province	goal8	-0,0201	0.14015
province	goal9	-0,00727	0.59363
province	goal10	0,00216	0.87418
province	goal11	-0,07985	0.00000
province	goal12	0,00567	0.67745
province	goal13	0,00324	0.81229
province	goal14	0,04838	0.00038
environment	goal1	-0,02122	0.11933
environment	goal2	-0,09052	0.00000
environment	goal3	0,09209	0.00000
environment	goal4	0,01173	0.38934
environment	goal5	-0,03925	0.00395
environment	goal6	0,03962	0.00362
environment	goal7	0,09553	0.00000
environment	goal8	-0,05264	0.00011
environment	goal9	-0,0188	0.16758
environment	goal10	0,05762	0.00002
environment	goal11	-0,09159	0.00000
environment	goal12	0,01917	0.15939
environment	goal13	0,0046	0.73585
environment	goal14	0,03449	0.01133

Appendix G: Descriptive statistics behaviour and goal support

car	goal1	goal2	goal3	goal4	goal5	goal6	goal7
(Almost) never	0,086321	0,001992	0,373838	0,096282	0,021912	0,043825	0,154714
1 to 11 days per year	0,070881	-0,08812	0,511494	0,149425	0,01341	0,051724	0,252874
1 to 3 days per month	0,049929	-0,07275	0,483595	0,178317	0,007846	0,040656	0,194009
1 to 3 days per week	0,112178	0,0667	0,31051	0,143254	0,048509	0,031329	0,126579
4 times per week or more	0,132214	0,193861	0,092078	0,031217	0,104669	0,013379	0,083945

car	goal8	goal9	goal10	goal11	goal12	goal13	goal14
(Almost) never	0,229084	0,093625	0,427623	0,188579	0,37583	0,361886	0,289509
1 to 11 days per year	0,181992	0,095785	0,440613	0,250958	0,39272	0,316092	0,245211
1 to 3 days per month	0,206847	0,060628	0,422254	0,186163	0,341655	0,295292	0,297432
1 to 3 days per week	0,268065	0,035119	0,401213	0,170288	0,31809	0,303436	0,283224
4 times per week or more	0,327912	0,045908	0,393757	0,174449	0,349948	0,278332	0,214586

train	goal1	goal2	goal3	goal4	goal5	goal6	goal7
(Almost) never	0,11811	0,215609	0,089393	0,071329	0,081056	0,006948	0,012043
1 to 11 days per year	0,122332	0,078887	0,287348	0,105945	0,069741	0,032774	0,133003
1 to 3 days per month	0,088369	-0,01881	0,40935	0,131129	0,054732	0,037058	0,238883
1 to 3 days per week	0,067107	-0,10561	0,49835	0,174917	-0,01815	0,052255	0,244224
4 times per week or more	0,105187	-0,06196	0,459654	0,050432	0,066282	0,086455	0,283862

train	goal8	goal9	goal10	goal11	goal12	goal13	goal14
(Almost) never	0,34692	0,027327	0,400417	0,143353	0,343909	0,322603	0,264937
1 to 11 days per year	0,278582	0,03468	0,421113	0,211128	0,348704	0,291159	0,266387
1 to 3 days per month	0,209806	0,055302	0,391676	0,212657	0,32041	0,286203	0,268529
1 to 3 days per week	0,182068	0,10121	0,416392	0,183718	0,343784	0,29758	0,256326
4 times per week or more	0,177233	0,132565	0,413545	0,195965	0,371758	0,278098	0,206052

bus/tram/metro	goal1	goal2	goal3	goal4	goal5	goal6	goal7
(Almost) never	0,109508	0,163755	0,155018	0,098131	0,066436	0,003048	0,042056
1 to 11 days per year	0,102542	0,046186	0,316102	0,102966	0,059746	0,038559	0,165254
1 to 3 days per month	0,086407	-0,05374	0,453635	0,155954	0,0353	0,069547	0,247629
1 to 3 days per week	0,113793	-0,00897	0,38	0,101379	0,045517	0,050345	0,181379
4 times per week or more	0,126736	0,107639	0,282986	-0,00174	0,072917	0,041667	0,225694

bus/tram/metro	goal8	goal9	goal10	goal11	goal12	goal13	goal14
(Almost) never	0,322633	0,025599	0,401869	0,172491	0,333604	0,313694	0,258635
1 to 11 days per year	0,272034	0,051695	0,41822	0,184746	0,340678	0,298729	0,267797
1 to 3 days per month	0,197576	0,063751	0,403056	0,206533	0,342993	0,288198	0,255532
1 to 3 days per week	0,208966	0,106207	0,417931	0,18	0,348276	0,307586	0,272414
4 times per week or more	0,244792	0,104167	0,395833	0,138889	0,421875	0,262153	0,232639

bike	goal1	goal2	goal3	goal4	goal5	goal6	goal7
(Almost) never	0,123217	0,256161	0,010376	0,012322	0,088846	0,038262	0,04799
1 to 11 days per year	0,137218	0,178571	0,105263	0,052632	0,107143	0,016917	0,077068
1 to 3 days per month	0,141988	0,172414	0,111562	0,055781	0,13286	0,10142	0,098377
1 to 3 days per week	0,136641	0,098092	0,222137	0,098855	0,073664	0,022137	0,120229
4 times per week or more	0,077661	-0,00941	0,419442	0,145909	0,022448	0,017741	0,168718

bike	goal8	goal9	goal10	goal11	goal12	goal13	goal14
(Almost) never	0,343061	0,044747	0,40013	0,135538	0,38716	0,349546	0,2393
1 to 11 days per year	0,351504	0,114662	0,379699	0,146617	0,330827	0,244361	0,180451
1 to 3 days per month	0,329615	0,034483	0,373225	0,188641	0,352941	0,249493	0,201826
1 to 3 days per week	0,273664	0,04542	0,40229	0,176718	0,326336	0,279771	0,268321
4 times per week or more	0,232802	0,056843	0,419442	0,196959	0,338704	0,314627	0,280956

sharing transport	goal1	goal2	goal3	goal4	goal5	goal6	goal7
(Almost) never	0,112621	0,095343	0,251054	0,095976	0,0689	0,02244	0,117994
1 to 11 days per year	0,052478	-0,15452	0,577259	0,186589	-0,01895	0,065598	0,263848
1 to 3 days per month	0,032407	-0,04167	0,407407	0,1875	-0,02315	0,078704	0,219907
1 to 3 days per week	0,094488	0,03937	0,299213	0,07874	0,011811	0,106299	0,094488
4 times per week or more	0,029412	0,088235	0,147059	0,088235	-0,02941	0,088235	0,088235

sharing transport	goal8	goal9	goal10	goal11	goal12	goal13	goal14
(Almost) never	0,287084	0,04646	0,415192	0,182259	0,351032	0,306995	0,259587
1 to 11 days per year	0,174927	0,074344	0,406706	0,225948	0,323615	0,306122	0,298834
1 to 3 days per month	0,175926	0,113426	0,398148	0,18287	0,296296	0,261574	0,238426
1 to 3 days per week	0,141732	0,133858	0,220472	0,094488	0,26378	0,23622	0,200787
4 times per week or more	-0,11765	-0,05882	0,088235	0,176471	0,176471	0,147059	0,264706

Appendix H: Correlation analysis behaviour and goal support

Ind variable	Dep variable	Correlation (r)	p-value
car	goal1	0,06725	0.00000
car	goal2	0,19166	0.00000
car	goal3	-0,24883	0.00000
car	goal4	-0,08512	0.00000
car	goal5	0,09272	0.00000
car	goal6	-0,03666	0.00832
car	goal7	-0,09381	0.00000
car	goal8	0,13024	0.00000
car	goal9	-0,03036	0.02888
car	goal10	-0,03901	0.00498
car	goal11	-0,01512	0.27663
car	goal12	-0,01898	0.17199
car	goal13	-0,05509	0.00007
car	goal14	-0,06167	0.00001
train	goal1	-0,04814	0.00053
train	goal2	-0,27779	0.00000
train	goal3	0,3067	0.00000
train	goal4	0,06022	0.00001
train	goal5	-0,06235	0.00001
train	goal6	0,06078	0.00001
train	goal7	0,2304	0.00000
train	goal8	-0,1814	0.00000
train	goal9	0,01467	0.29104
train	goal10	0,07465	0.00000
train	goal11	0,05739	0.00004
train	goal12	0,0032	0.81812
train	goal13	-0,03902	0.00497
train	goal14	-0,02304	0.09734
bus/tram/metro	goal1	-0,00496	0.72111
bus/tram/metro	goal2	-0,1661	0.00000
bus/tram/metro	goal3	0,18694	0.00000
bus/tram/metro	goal4	0,00088	0.94968
bus/tram/metro	goal5	-0,01699	0.22146
bus/tram/metro	goal6	0,06494	0.00000
bus/tram/metro	goal7	0,17542	0.00000
bus/tram/metro	goal8	-0,12434	0.00000
bus/tram/metro	goal9	0,01313	0.34470
bus/tram/metro	goal10	0,06831	0.00000
bus/tram/metro	goal11	0,01236	0.37381
bus/tram/metro	goal12	0,03844	0.00566
bus/tram/metro	goal13	-0,02633	0.05810
bus/tram/metro	goal14	0,00221	0.87339
bike	goal1	-0,0707	0.00000
bike	goal2	-0,2137	0.00000

bike	goal3	0,28881	0.00000
bike	goal4	0,10879	0.00000
bike	goal5	-0,08058	0.00000
bike	goal6	-0,02842	0.04079
bike	goal7	0,10373	0.00000
bike	goal8	-0,12744	0.00000
bike	goal9	0,02124	0.12644
bike	goal10	0,00515	0.71115
bike	goal11	0,04588	0.00096
bike	goal12	-0,03273	0.01849
bike	goal13	0,00647	0.64165
bike	goal14	0,04775	0.00059
sharing transport	goal1	-0,04552	0.00105
sharing transport	goal2	-0,12804	0.00000
sharing transport	goal3	0,12973	0.00000
sharing transport	goal4	0,05347	0.00012
sharing transport	goal5	-0,06387	0.00000
sharing transport	goal6	0,05241	0.00016
sharing transport	goal7	0,0731	0.00000
sharing transport	goal8	-0,10586	0.00000
sharing transport	goal9	-0,03869	0.00535
sharing transport	goal10	0,04911	0.00041
sharing transport	goal11	0,00345	0.80411
sharing transport	goal12	-0,04389	0.00158
sharing transport	goal13	-0,02666	0.05504
sharing transport	goal14	0,00586	0.67343

Appendix I: Policy rank analysis demographics

1	Making public transport tickets cheaper.
2	Improving public transport.
3	Investing in fast cycling routes.
4	Encouraging people to use shared cars.
5	Encouraging people to buy an electric car.
6	Encouraging the development of neighbourhoods with little car traffic and few parking spaces.
7	Building more homes near public transport.
8	Making petrol and diesel more expensive.

Cumulative normalized count per policy ranking overall

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	39,7274276	64,53151618	78,33049404	86,5758092	92,6746167	96,62691652	98,94378194	100
2	25,24701874	60,78364566	76,18398637	87,52981261	94,65076661	98,12606474	99,42078365	100
3	7,495741056	16,52470187	35,22998296	51,75468484	64,36115843	77,00170358	91,51618399	100
4	7,086882453	15,29812606	30,59625213	50,86882453	69,26746167	84,15672913	95,50255537	100
5	5,34923339	12,26575809	22,24872232	36,18398637	53,560477	70,52810903	84,77001704	100
6	2,998296422	7,97274276	16,21805792	26,439523	45,45144804	65,89437819	88,27938671	100
7	5,110732538	11,55025554	24,46337308	37,85349233	50,08517888	61,32879046	73,79897785	100
8	6,984667802	11,07325383	16,72913118	22,79386712	29,94889267	46,33730835	67,76831346	100

Age (18-24)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	46.87500	70.31250	82.81250	91.40625	92.96875	96.87500	99.21875	100.0
2	24.21875	58.59375	73.43750	83.59375	90.62500	94.53125	97.65625	100.0
7	7.03125	13.28125	32.81250	45.31250	55.46875	67.18750	77.34375	100.0
4	6.25000	13.28125	27.34375	42.96875	61.71875	75.00000	92.96875	100.0
5	7.81250	16.40625	29.68750	41.40625	58.59375	73.43750	81.25000	100.0
3	3.90625	11.71875	23.43750	42.96875	55.46875	74.21875	89.84375	100.0
6	2.34375	10.93750	18.75000	32.03125	53.90625	69.53125	92.18750	100.0
8	1.56250	5.46875	11.71875	20.31250	31.25000	49.21875	69.53125	100.0

Age (25-34)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	45.435685	65.975104	78.630705	86.721992	92.323651	95.850622	98.340249	100.0
2	21.784232	58.713693	74.066390	86.721992	94.190871	97.510373	99.377593	100.0
7	5.186722	13.485477	31.327801	43.775934	55.394191	67.634855	79.460581	100.0
4	7.053942	15.352697	26.556017	45.228216	62.240664	79.460581	94.190871	100.0
3	5.186722	12.655602	29.045643	43.360996	58.298755	75.518672	90.871369	100.0
6	4.564315	10.788382	20.954357	35.477178	57.053942	73.029046	89.834025	100.0
5	3.734440	10.995851	20.539419	32.157676	44.605809	56.846473	74.896266	100.0
8	7.053942	12.033195	18.879668	26.556017	35.892116	54.149378	73.029046	100.0

Age (35-44)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	37.471783	62.528217	76.523702	84.424379	92.325056	96.388262	98.645598	100.0

2	23.476298	56.659142	73.589165	85.778781	94.808126	97.516930	98.871332	100.0
3	6.772009	16.252822	32.731377	48.081264	60.496614	73.814898	91.422122	100.0
4	8.352144	15.124153	32.054176	51.015801	70.880361	82.167043	95.259594	100.0
5	6.094808	14.672686	25.056433	40.857788	55.981941	74.266366	85.778781	100.0
6	3.160271	9.255079	18.961625	27.539503	45.372460	66.591422	87.584650	100.0
8	7.900677	12.415350	17.607223	25.959368	34.085779	50.564334	73.137698	100.0
7	6.772009	13.092551	23.476298	36.343115	46.049661	58.690745	69.300226	100.0

Age (45-54)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	39.113680	63.776493	75.722543	84.971098	90.751445	95.568401	99.229287	100.0
2	24.277457	60.693642	77.071291	89.595376	95.183044	98.843931	99.421965	100.0
3	9.055877	20.038536	38.921002	56.454721	69.364162	80.924855	93.448940	100.0
4	5.394990	11.946050	27.167630	45.857418	64.932563	82.851638	94.605010	100.0
7	4.238921	9.826590	22.543353	37.957611	52.023121	60.500963	73.603083	100.0
5	5.394990	11.560694	22.157996	35.067437	49.518304	68.400771	84.971098	100.0
6	5.009634	10.404624	18.882466	27.745665	49.132948	67.244701	88.439306	100.0
8	7.514451	11.753372	17.533719	22.350674	29.094412	45.664740	66.281310	100.0

Age (55-64)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	38.532110	63.761468	77.981651	85.626911	92.354740	96.788991	98.929664	100.0
2	25.382263	61.467890	76.452599	86.544343	93.883792	99.082569	99.847095	100.0
3	9.174312	17.737003	38.532110	56.269113	68.042813	78.899083	91.284404	100.0
4	6.422018	15.443425	30.122324	51.834862	70.795107	87.003058	96.483180	100.0
5	6.116208	12.079511	21.559633	37.155963	55.810398	72.477064	85.932722	100.0
6	1.987768	5.810398	13.914373	24.159021	42.966361	62.385321	87.614679	100.0
7	3.822630	11.162080	22.935780	35.321101	48.012232	59.480122	73.241590	100.0
8	8.562691	12.538226	18.501529	23.088685	28.134557	43.883792	66.666667	100.0

Age (65+)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	37.517630	65.021157	80.677010	88.998590	94.781382	97.884344	99.294781	100.0
2	29.478138	64.598025	78.843441	89.280677	95.909732	98.166432	99.717913	100.0
3	7.475317	16.502116	37.376587	53.737659	65.444288	75.881523	91.114245	100.0
4	8.321580	18.053597	35.966150	58.815233	76.163611	88.575458	96.755994	100.0
5	4.795487	11.565585	21.015515	34.978843	58.110014	76.727786	90.267983	100.0
6	1.410437	4.936530	11.001410	19.746121	35.684062	62.200282	87.447109	100.0
7	5.500705	10.578279	21.720733	35.684062	48.519041	59.943583	72.778561	100.0
8	5.500705	8.744711	13.399154	18.758815	25.387870	40.620592	62.623413	100.0

Gender (man)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	33.043981	57.233796	73.611111	83.217593	90.798611	96.006944	98.553241	100.0
2	26.099537	58.506944	74.826389	86.689815	94.039352	98.148148	99.537037	100.0
3	8.506944	18.229167	35.243056	52.083333	65.335648	78.298611	91.724537	100.0

4	7.638889	15.682870	28.472222	47.164352	64.004630	79.513889	93.981481	100.0
7	6.365741	13.599537	27.372685	41.493056	54.108796	64.467593	76.504630	100.0
5	6.712963	14.699074	24.768519	37.557870	53.993056	69.907407	84.085648	100.0
6	3.240741	8.796296	16.608796	26.388889	44.444444	64.351852	87.268519	100.0
8	8.391204	13.252315	19.097222	25.405093	33.275463	49.305556	68.344907	100.0

Gender (woman)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	49.295775	74.979287	85.086993	91.383596	95.360398	97.514499	99.502900	100.0
2	24.026512	64.043082	78.127589	88.732394	95.526098	98.094449	99.254350	100.0
3	6.048053	14.084507	35.211268	51.284176	62.966031	75.144988	91.217896	100.0
4	6.296603	14.747307	33.637117	56.172328	76.801988	90.803645	97.680199	100.0
5	3.396852	8.782104	18.641259	34.217067	52.941176	71.416736	85.749793	100.0
6	2.651201	6.793703	15.658658	26.512013	46.893123	68.102734	89.726595	100.0
7	3.314002	8.616404	20.298260	32.642916	44.324772	56.835128	69.925435	100.0
8	4.971002	7.953604	13.338857	19.055510	25.186413	42.087821	66.942833	100.0

Education (lower)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	52.631579	74.342105	90.789474	96.052632	97.368421	98.026316	100.000000	100.0
2	15.789474	56.578947	77.631579	93.421053	97.368421	100.000000	100.000000	100.0
4	15.131579	26.315789	47.368421	69.078947	84.210526	93.421053	98.026316	100.0
5	5.921053	21.052632	32.236842	50.657895	73.026316	88.157895	96.052632	100.0
3	5.263158	10.526316	23.026316	39.473684	50.000000	63.157895	88.815789	100.0
6	0.000000	1.315789	9.210526	17.763158	48.026316	73.684211	92.105263	100.0
8	2.631579	4.605263	4.605263	6.578947	12.500000	34.868421	63.157895	100.0
7	2.631579	5.263158	15.131579	26.973684	37.500000	48.684211	61.842105	100.0

Education (middle)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	45.242070	68.948247	82.804674	90.818030	94.991653	98.163606	99.666110	100.0
2	22.704508	61.435726	75.125209	87.312187	93.989983	97.495826	99.332220	100.0
4	10.350584	19.699499	39.398998	59.766277	76.293823	88.146912	96.994992	100.0
5	7.178631	16.861436	30.550918	47.579299	65.943239	79.799666	91.485810	100.0
3	5.175292	12.020033	31.552588	46.744574	59.766277	72.954925	92.654424	100.0
6	2.337229	7.512521	13.522538	23.539232	46.410684	69.449082	91.819699	100.0
7	3.672788	8.681135	19.031720	32.220367	43.405676	55.926544	69.282137	100.0
8	3.338898	4.841402	8.013356	12.020033	19.198664	38.063439	58.764608	100.0

Education (high)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	37.316850	62.637363	76.236264	84.752747	91.712454	96.108059	98.672161	100.0
2	26.602564	60.897436	76.373626	87.179487	94.642857	98.168498	99.404762	100.0
3	8.287546	18.177656	37.087912	53.983516	66.620879	79.075092	91.391941	100.0
4	5.631868	13.324176	27.014652	47.161172	66.300366	82.417582	94.917582	100.0
7	5.677656	12.774725	26.602564	40.155678	52.793040	63.690476	75.869963	100.0

5	4.807692	10.393773	19.276557	32.051282	48.809524	66.758242	82.142857	100.0
6	3.388278	8.562271	17.445055	27.838828	45.009158	64.377289	87.042125	100.0
8	8.287546	13.232601	19.963370	26.877289	34.111722	49.404762	70.558608	100.0

Province (Drenthe)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	32.786885	68.852459	81.967213	88.524590	91.803279	96.721311	96.721311	100.0
2	24.590164	52.459016	78.688525	85.245902	95.081967	98.360656	100.000000	100.0
3	8.196721	14.754098	34.426230	47.540984	59.016393	68.852459	90.163934	100.0
4	6.557377	18.032787	27.868852	59.016393	73.770492	85.245902	98.360656	100.0
5	14.754098	19.672131	31.147541	45.901639	62.295082	72.131148	88.524590	100.0
6	0.000000	4.918033	6.557377	18.032787	44.262295	80.327869	93.442623	100.0
7	4.918033	11.475410	26.229508	36.065574	45.901639	54.098361	67.213115	100.0
8	8.196721	9.836066	13.114754	19.672131	27.868852	44.262295	65.573770	100.0

Province (Flevoland)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	36.0	68.0	84.0	95.0	97.0	100.0	100.0	100.0
2	34.0	68.0	80.0	85.0	94.0	96.0	99.0	100.0
7	9.0	17.0	36.0	50.0	64.0	78.0	87.0	100.0
3	7.0	12.0	30.0	50.0	65.0	74.0	88.0	100.0
4	8.0	12.0	30.0	49.0	65.0	79.0	95.0	100.0
5	3.0	9.0	18.0	36.0	62.0	78.0	87.0	100.0
6	1.0	9.0	13.0	25.0	39.0	61.0	80.0	100.0
8	2.0	5.0	9.0	10.0	14.0	34.0	64.0	100.0

Province (Friesland)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	51.239669	83.471074	89.256198	91.735537	95.041322	99.173554	100.000000	100.0
2	25.619835	64.462810	80.165289	89.256198	92.561983	98.347107	100.000000	100.0
3	4.958678	11.570248	38.016529	57.024793	66.115702	74.380165	92.561983	100.0
4	7.438017	14.876033	35.537190	61.983471	79.338843	93.388430	99.173554	100.0
5	4.958678	9.090909	19.834711	35.537190	59.504132	78.512397	90.909091	100.0
6	1.652893	4.132231	11.570248	21.487603	39.669421	63.636364	85.950413	100.0
7	1.652893	7.438017	17.355372	30.578512	47.107438	52.066116	67.768595	100.0
8	2.479339	4.958678	8.264463	12.396694	20.661157	40.495868	63.636364	100.0

Province (Gelderland)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	41.839763	60.237389	76.854599	86.943620	92.878338	96.142433	99.703264	100.0
2	24.035608	57.566766	71.513353	86.646884	93.768546	97.626113	99.406528	100.0
3	7.418398	18.991098	41.246291	57.863501	68.842730	80.415430	93.175074	100.0
4	7.715134	17.507418	31.454006	49.554896	69.436202	84.866469	95.548961	100.0
5	3.857567	13.946588	23.738872	34.718101	52.522255	68.249258	81.899110	100.0
6	3.857567	7.715134	16.023739	26.706231	44.807122	66.468843	90.504451	100.0
7	4.747774	13.353116	24.332344	36.201780	48.961424	58.753709	72.106825	100.0

8	6.528190	10.682493	14.836795	21.364985	28.783383	47.477745	67.655786	100.0

Province (Groningen)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	45.901639	65.573770	77.049180	86.065574	91.803279	96.721311	99.180328	100.0
2	21.311475	65.573770	79.508197	86.065574	94.262295	96.721311	100.000000	100.0
3	5.737705	9.016393	33.606557	50.819672	68.032787	76.229508	90.163934	100.0
4	6.557377	17.213115	30.327869	54.098361	70.491803	88.524590	98.360656	100.0
5	5.737705	14.754098	25.409836	39.344262	59.016393	74.590164	87.704918	100.0
6	1.639344	4.098361	12.295082	22.950820	36.885246	63.114754	85.245902	100.0
7	5.737705	12.295082	22.131148	34.426230	46.721311	57.377049	72.950820	100.0
8	7.377049	11.475410	19.672131	26.229508	32.786885	46.721311	66.393443	100.0

Province (Limburg)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	43.884892	72.661871	84.892086	90.647482	97.122302	100.000000	100.000000	100.0
2	25.899281	64.028777	79.136691	89.208633	94.244604	97.122302	100.000000	100.0
4	6.474820	15.827338	35.251799	58.992806	79.856115	92.805755	94.964029	100.0
3	8.633094	15.827338	32.374101	54.676259	71.223022	80.575540	94.964029	100.0
5	4.316547	12.949640	27.338129	40.287770	60.431655	80.575540	89.208633	100.0
6	2.158273	6.474820	15.107914	25.899281	43.165468	62.589928	89.208633	100.0
7	2.877698	3.597122	14.388489	25.179856	35.251799	50.359712	69.064748	100.0
8	5.755396	8.633094	11.510791	15.107914	18.705036	35.971223	62.589928	100.0

Province (Noord-Brabant)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	40.143369	63.799283	77.060932	86.021505	93.906810	97.132616	98.207885	100.0
2	23.297491	63.082437	77.419355	88.530466	94.982079	98.566308	99.283154	100.0
3	9.677419	18.637993	40.501792	58.064516	70.250896	83.154122	94.982079	100.0
4	8.243728	16.487455	32.616487	53.763441	74.551971	88.172043	96.415771	100.0
5	4.659498	10.394265	22.222222	36.917563	55.197133	72.759857	87.455197	100.0
6	2.867384	8.243728	15.770609	24.014337	43.010753	64.157706	85.304659	100.0
7	4.659498	8.960573	18.637993	32.974910	41.218638	54.480287	69.892473	100.0
8	6.451613	10.394265	15.770609	19.713262	26.881720	41.577061	68.458781	100.0

Province (Noord-Holland)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	35.985533	65.099458	78.119349	86.075949	92.405063	96.383363	98.553345	100.0
2	24.593128	57.685353	75.226040	86.980108	94.032550	98.010850	99.457505	100.0
4	6.871609	15.551537	32.368897	50.632911	67.450271	83.182640	95.479204	100.0
3	7.594937	15.551537	31.103074	44.846293	57.685353	72.694394	88.788427	100.0
5	6.509946	12.477396	21.518987	39.240506	51.717902	68.716094	84.990958	100.0
6	2.531646	8.499096	17.540687	28.933092	50.452080	67.631103	87.884268	100.0
7	7.052441	12.839060	24.050633	37.432188	51.356239	61.844485	73.417722	100.0
8	8.860759	12.296564	20.072333	25.858951	34.900542	51.537071	71.428571	100.0

Province (Overijssel)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	44.585987	65.605096	80.254777	86.624204	91.082803	94.904459	99.363057	100.0
2	26.751592	61.146497	73.885350	85.987261	93.630573	99.363057	99.363057	100.0
3	7.006369	22.292994	39.490446	54.777070	71.974522	80.891720	93.630573	100.0
4	7.643312	12.101911	29.936306	54.777070	68.789809	86.624204	92.993631	100.0
5	3.184713	12.738854	26.114650	38.216561	57.324841	70.700637	88.535032	100.0
6	0.636943	5.095541	13.375796	22.929936	45.222930	65.605096	92.356688	100.0
7	1.273885	8.917197	21.656051	35.031847	43.949045	57.324841	71.337580	100.0
8	8.917197	12.101911	15.286624	21.656051	28.025478	44.585987	62.420382	100.0

Province (Utrecht)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	38.585209	65.273312	77.491961	85.852090	91.639871	97.106109	99.678457	100.0
2	27.974277	63.022508	77.170418	86.816720	95.819936	97.749196	99.356913	100.0
3	8.681672	17.684887	37.620579	54.019293	63.987138	79.421222	92.282958	100.0
4	5.787781	11.575563	24.115756	47.266881	66.237942	80.385852	94.855305	100.0
7	4.823151	10.932476	28.295820	38.263666	51.446945	63.344051	76.527331	100.0
5	3.858521	9.967846	18.649518	29.581994	47.266881	67.202572	80.385852	100.0
6	2.893891	8.360129	18.006431	30.225080	47.909968	64.630225	87.781350	100.0
8	7.395498	13.183280	18.649518	27.974277	35.691318	50.160772	69.131833	100.0

Province (Zeeland)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	52.727273	70.909091	87.272727	94.545455	98.181818	100.000000	100.000000	100.0
2	27.272727	76.363636	90.909091	94.545455	100.000000	100.000000	100.000000	100.0
4	10.909091	23.636364	43.636364	67.272727	76.363636	87.272727	94.545455	100.0
5	1.818182	10.909091	25.454545	47.272727	67.272727	78.181818	96.363636	100.0
3	3.636364	7.272727	20.000000	38.181818	52.727273	70.909091	92.727273	100.0
6	0.000000	1.818182	7.272727	20.000000	47.272727	81.818182	96.363636	100.0
7	1.818182	5.454545	20.000000	27.272727	40.000000	49.090909	63.636364	100.0
8	1.818182	3.636364	5.454545	10.909091	18.181818	32.727273	56.363636	100.0

Province (Zuid-Holland)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	37.428571	59.428571	75.428571	85.142857	91.428571	95.714286	98.428571	100.0
2	24.428571	59.142857	74.428571	86.857143	94.857143	98.142857	99.000000	100.0
3	7.000000	17.285714	33.857143	50.428571	62.571429	75.857143	90.571429	100.0
4	6.714286	15.142857	28.571429	45.428571	65.571429	80.428571	94.857143	100.0
7	5.571429	13.428571	28.285714	45.000000	57.142857	68.571429	77.428571	100.0
5	6.571429	12.857143	21.285714	33.714286	50.428571	67.714286	82.000000	100.0
6	5.000000	10.285714	19.000000	27.428571	45.571429	65.285714	88.857143	100.0
8	7.285714	12.428571	19.142857	26.000000	32.428571	48.285714	68.857143	100.0

Living environment (Big city)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	37.512148	61.127308	75.704568	83.867833	90.864917	95.529640	98.445092	100.0

2	23.712342	57.628766	73.663751	85.325559	93.391642	97.862002	99.514091	100.0
3	6.899903	16.326531	34.207969	51.117590	63.751215	76.967930	90.573372	100.0
4	7.385811	14.674441	29.348882	46.550049	64.334305	80.855199	94.752187	100.0
7	6.802721	14.674441	27.891156	41.010690	54.616132	65.208941	77.453839	100.0
6	3.304179	10.398445	19.047619	31.000972	48.979592	66.277940	88.046647	100.0
5	5.442177	11.467444	19.047619	32.653061	48.299320	65.403304	80.369291	100.0
8	8.940719	13.702624	21.088435	28.474247	35.762877	51.895044	70.845481	100.0

Living environment (Small city)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	40.919037	65.207877	79.102845	86.761488	92.450766	96.280088	99.124726	100.0
2	24.945295	61.706783	77.024070	88.730853	95.733042	98.358862	99.124726	100.0
3	7.658643	17.177243	34.792123	51.531729	63.457330	75.929978	91.247265	100.0
4	5.470460	14.442013	29.102845	49.671772	68.271335	84.135667	95.185996	100.0
7	4.923414	11.269147	25.382932	39.715536	51.750547	62.472648	73.632385	100.0
5	5.470460	11.378556	21.553611	35.010941	51.203501	69.256018	84.135667	100.0
6	3.829322	7.877462	16.849015	26.805252	47.592998	67.943107	89.824945	100.0
8	6.783370	10.940919	16.192560	21.772429	29.540481	45.623632	67.724289	100.0

Living environment (Small municipality)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	41.853035	67.412141	79.712460	88.817891	93.450479	97.284345	98.881789	100.0
2	27.156550	64.057508	78.274760	88.178914	95.047923	97.923323	99.520767	100.0
3	7.667732	15.654952	34.664537	51.597444	64.856230	76.996805	91.853035	100.0
4	7.507987	16.453674	33.386581	56.389776	75.559105	86.741214	96.325879	100.0
5	4.952077	12.619808	25.559105	40.255591	60.383387	77.635783	89.616613	100.0
6	2.076677	5.910543	13.099042	22.044728	41.214058	63.897764	87.380192	100.0
7	3.833866	9.424920	22.523962	34.504792	44.888179	56.389776	70.447284	100.0
8	4.952077	8.466454	12.779553	18.210863	24.600639	43.130990	65.974441	100.0

Living environment (Rural area)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	39.344262	67.486339	81.420765	89.890710	96.994536	99.453552	100.000000	100.0
2	27.049180	61.748634	77.595628	89.617486	94.808743	98.633880	99.726776	100.0
3	8.469945	16.939891	40.163934	54.371585	67.486339	79.781421	94.262295	100.0
4	9.562842	17.213115	33.060109	56.557377	74.863388	89.071038	96.994536	100.0
5	5.464481	16.120219	27.322404	42.076503	62.568306	75.956284	90.437158	100.0
6	1.639344	4.918033	12.021858	20.218579	37.431694	63.114754	86.612022	100.0
7	3.005464	7.103825	15.846995	30.054645	42.076503	56.010929	69.672131	100.0
8	5.464481	8.469945	12.568306	17.213115	23.770492	37.978142	62.295082	100.0

Appendix J: Policy rank analysis behaviour

1	Making public transport tickets cheaper.
2	Improving public transport.
3	Investing in fast cycling routes.
4	Encouraging people to use shared cars.
5	Encouraging people to buy an electric car.
6	Encouraging the development of neighbourhoods with little car traffic and few parking spaces.
7	Building more homes near public transport.
8	Making petrol and diesel more expensive.

Cumulative normalized count per policy ranking overall

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	39,7274276	64,53151618	78,33049404	86,5758092	92,6746167	96,62691652	98,94378194	100
2	25,24701874	60,78364566	76,18398637	87,52981261	94,65076661	98,12606474	99,42078365	100
3	7,495741056	16,52470187	35,22998296	51,75468484	64,36115843	77,00170358	91,51618399	100
4	7,086882453	15,29812606	30,59625213	50,86882453	69,26746167	84,15672913	95,50255537	100
5	5,34923339	12,26575809	22,24872232	36,18398637	53,560477	70,52810903	84,77001704	100
6	2,998296422	7,97274276	16,21805792	26,439523	45,45144804	65,89437819	88,27938671	100
7	5,110732538	11,55025554	24,46337308	37,85349233	50,08517888	61,32879046	73,79897785	100
8	6,984667802	11,07325383	16,72913118	22,79386712	29,94889267	46,33730835	67,76831346	100

Car usage ((Almost) never)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	41.083521	64.559819	76.749436	84.424379	91.647856	96.613995	98.645598	100.0
2	25.056433	59.819413	76.297968	88.261851	95.485327	97.968397	100.000000	100.0
3	7.900677	16.252822	34.988713	51.467269	63.656885	76.297968	89.841986	100.0
4	4.514673	11.963883	24.604966	42.889391	60.270880	78.329571	96.162528	100.0
6	2.934537	10.609481	22.347630	38.826185	58.916479	76.297968	93.905192	100.0
7	5.191874	11.060948	25.959368	38.374718	52.370203	65.688488	73.814898	100.0
8	11.286682	18.735892	26.185102	34.085779	41.760722	55.981941	75.169300	100.0
5	2.031603	6.997743	12.866817	21.670429	35.891648	52.821670	72.460497	100.0

Car usage (1-11 times a year)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	41.621622	59.459459	71.891892	83.243243	89.729730	95.135135	98.378378	100.0
2	24.324324	61.621622	72.972973	82.702703	92.432432	96.756757	98.918919	100.0
3	5.945946	16.216216	32.972973	48.108108	61.621622	80.000000	93.513514	100.0
7	6.486486	15.135135	32.432432	47.027027	60.000000	68.108108	80.540541	100.0
6	8.648649	16.756757	30.270270	44.864865	63.783784	75.135135	91.891892	100.0
4	3.783784	12.432432	23.783784	39.459459	58.378378	73.513514	92.972973	100.0
8	7.567568	14.054054	24.324324	35.135135	42.162162	62.162162	78.378378	100.0
5	1.621622	4.324324	11.351351	19.459459	31.891892	49.189189	65.405405	100.0

Car usage (1-3 times a month)

Policy	#1	#2	#3	#4	#5	#6	#7	#8

1	37.634409	62.365591	77.204301	85.376344	90.752688	94.623656	98.924731	100.0
2	24.946237	60.645161	75.913978	86.666667	93.333333	98.494624	99.569892	100.0
3	10.752688	20.430108	38.064516	57.204301	69.247312	81.720430	92.473118	100.0
4	4.731183	11.612903	26.451613	46.451613	66.666667	81.290323	95.913978	100.0
7	6.021505	13.763441	27.741935	40.000000	53.548387	64.086022	75.913978	100.0
6	4.086022	10.967742	20.430108	31.612903	47.741935	66.666667	88.602151	100.0
5	1.720430	5.591398	12.688172	24.301075	42.580645	62.365591	77.849462	100.0
8	10.107527	14.623656	21.505376	28.387097	36.129032	50.752688	70.752688	100.0

Car usage (1-3 times a week)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	39.338235	65.716912	78.492647	86.672794	92.647059	96.599265	98.529412	100.0
2	25.551471	61.764706	77.297794	87.408088	94.485294	97.794118	99.080882	100.0
3	8.180147	18.014706	38.327206	55.055147	67.095588	77.849265	91.452206	100.0
4	6.801471	15.165441	31.893382	52.022059	72.058824	86.488971	95.496324	100.0
7	6.433824	11.856618	22.150735	38.327206	56.801471	74.908088	89.430147	100.0
6	2.849265	7.169118	14.522059	22.977941	40.900735	62.500000	88.051471	100.0
5	4.779412	11.213235	23.621324	38.235294	50.459559	61.213235	73.253676	100.0
8	6.066176	9.099265	13.694853	19.301471	25.551471	42.647059	64.705882	100.0

Car usage (>4 times a week)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	40.318302	65.384615	81.299735	89.257294	95.225464	98.275862	99.867374	100.0
2	25.331565	59.814324	75.464191	88.992042	95.755968	98.806366	99.602122	100.0
4	11.273210	20.424403	36.472149	59.416446	74.801061	88.594164	95.490716	100.0
5	8.885942	22.015915	36.472149	53.050398	71.352785	84.880637	94.297082	100.0
3	4.641910	12.201592	29.708223	44.694960	58.488064	72.546419	91.511936	100.0
6	1.193634	3.580902	9.018568	16.445623	38.196286	61.936340	84.217507	100.0
7	4.641910	10.079576	20.822281	33.421751	43.633952	55.570292	71.618037	100.0
8	3.713528	6.498674	10.742706	14.721485	22.546419	39.389920	63.395225	100.0

Train usage ((Almost) Never)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	41.176471	67.156863	81.985294	88.848039	95.098039	98.406863	99.509804	100.0
2	22.426471	59.436275	74.877451	87.377451	94.975490	98.284314	99.632353	100.0
4	10.784314	20.343137	38.970588	62.622549	79.044118	91.176471	97.058824	100.0
5	8.946078	19.852941	34.926471	54.044118	72.426471	84.436275	93.995098	100.0
3	8.088235	16.299020	33.946078	48.774510	62.009804	73.406863	91.911765	100.0
6	1.348039	4.289216	9.313725	15.931373	38.112745	64.093137	89.215686	100.0
7	3.431373	7.107843	17.401961	30.392157	41.299020	53.186275	68.504902	100.0
8	3.799020	5.514706	8.578431	12.009804	17.034314	37.009804	60.171569	100.0

Train usage (1-11 times a year)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	42.524005	66.529492	80.932785	89.163237	93.964335	97.393690	99.176955	100.0
2	24.417010	60.905350	77.777778	87.379973	94.101509	98.353909	99.725652	100.0

3	9.190672	19.067215	40.054870	57.201646	68.312757	79.835391	93.415638	100.0
4	7.407407	15.226337	31.001372	52.537723	71.193416	86.145405	95.473251	100.0
5	5.624143	14.403292	23.045267	36.762689	56.515775	75.994513	89.711934	100.0
6	1.920439	6.035665	14.266118	24.142661	40.329218	61.728395	84.910837	100.0
7	3.703704	9.465021	19.615912	34.293553	48.834019	60.493827	73.113855	100.0
8	5.212620	8.367627	13.305898	18.518519	26.748971	40.054870	64.471879	100.0

Train usage (1-3 times a month)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	37.105751	63.636364	77.551020	86.641929	93.692022	96.660482	99.443414	100.0
2	29.128015	64.935065	79.591837	90.723562	96.846011	98.515770	99.072356	100.0
3	6.307978	14.656772	36.178108	52.133581	64.935065	76.994434	89.795918	100.0
4	5.009276	12.987013	28.014842	46.011132	65.677180	80.333952	94.619666	100.0
7	6.307978	14.100186	25.602968	38.589981	50.463822	62.523191	74.211503	100.0
6	3.153989	8.163265	18.181818	31.168831	49.536178	66.790353	87.940631	100.0
5	3.896104	7.235622	14.471243	26.901670	43.413729	65.491651	80.705009	100.0
8	9.090909	14.285714	20.408163	27.829314	35.435993	52.690167	74.211503	100.0

Train usage (1-3 times a week)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	35.84	59.04	71.52	80.64	87.84	93.92	97.60	100.0
2	25.60	57.12	71.52	84.96	93.12	97.60	99.20	100.0
7	7.52	16.64	34.24	46.56	58.08	67.84	78.08	100.0
3	6.56	17.28	32.32	49.92	63.84	78.24	90.72	100.0
4	5.44	13.12	25.12	42.56	61.44	79.04	94.56	100.0
6	6.08	14.24	25.28	35.84	53.60	70.56	89.76	100.0
7	2.72	6.56	14.72	25.44	41.60	57.28	76.16	100.0
8	10.24	16.00	25.28	34.08	40.48	55.52	73.92	100.0

Train usage (> 4 times a week)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	42.477876	65.929204	77.433628	86.283186	90.707965	95.132743	98.672566	100.0
2	27.876106	65.486726	80.530973	88.053097	94.247788	97.345133	99.115044	100.0
7	6.194690	14.159292	35.840708	50.442478	62.831858	72.566372	82.300885	100.0
3	5.309735	11.504425	30.088496	49.115044	60.176991	77.433628	90.265487	100.0
4	2.212389	8.849558	20.353982	37.610619	57.964602	75.663717	94.690265	100.0
6	3.539823	9.734513	17.699115	34.513274	56.194690	70.796460	92.477876	100.0
8	10.176991	18.584071	24.778761	32.300885	44.690265	59.734513	73.451327	100.0
7	2.212389	5.752212	13.274336	21.681416	33.185841	51.327434	69.026549	100.0

Bus/Tram/Metro usage ((Almost) Never)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	40.500463	65.152919	80.352178	88.600556	94.531974	97.775718	99.258573	100.0
2	22.150139	59.314180	75.347544	86.098239	94.717331	98.702502	99.814643	100.0
3	9.267841	18.257646	36.700649	53.846154	66.821131	78.313253	93.512512	100.0
4	9.360519	18.535681	35.681186	57.460612	76.088971	89.712697	96.848934	100.0

5	7.506951	16.867470	29.842447	45.505097	63.021316	78.683967	91.102873	100.0
6	2.224282	5.838740	12.511585	21.501390	40.778499	64.226135	88.229842	100.0
7	3.429101	7.692308	17.330862	30.398517	41.890639	53.846154	70.342910	100.0
8	5.560704	8.341057	12.233550	16.589435	22.150139	38.739574	60.889713	100.0

Bus/Tram/Metro usage (1-11 times a year)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	38.609467	65.532544	78.698225	86.390533	92.751479	96.745562	99.408284	100.0
2	25.147929	60.355030	77.662722	88.609467	93.934911	98.076923	99.408284	100.0
3	9.023669	18.491124	39.053254	53.994083	65.088757	77.514793	91.568047	100.0
4	6.508876	13.461538	27.958580	51.183432	70.414201	84.615385	96.301775	100.0
5	5.473373	11.538462	19.526627	33.284024	54.142012	72.485207	85.355030	100.0
7	5.325444	12.130178	25.295858	39.201183	51.775148	63.461538	74.112426	100.0
6	3.402367	7.100592	15.828402	25.591716	41.863905	61.390533	85.207101	100.0
8	6.508876	11.390533	15.976331	21.745562	30.029586	45.710059	68.639053	100.0

Bus/Tram/Metro usage (1-3 times a month)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	37.540984	61.803279	75.409836	83.606557	90.000000	94.590164	98.032787	100.0
2	27.868852	61.475410	75.245902	88.196721	94.918033	97.704918	99.344262	100.0
3	5.573770	16.229508	35.573770	52.786885	65.573770	77.540984	91.803279	100.0
4	4.754098	12.622951	26.721311	45.081967	62.295082	77.377049	92.459016	100.0
7	6.721311	14.426230	29.180328	42.295082	55.409836	65.901639	75.901639	100.0
6	4.098361	10.000000	18.688525	28.688525	49.016393	68.524590	88.852459	100.0
5	3.606557	8.196721	16.393443	28.688525	43.442623	63.114754	79.836066	100.0
8	9.836066	15.245902	22.786885	30.655738	39.344262	55.245902	73.770492	100.0

Bus/Tram/Metro usage (1-3 times a week)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	42.068966	65.287356	76.321839	85.517241	91.954023	97.011494	99.310345	100.0
2	27.586207	61.149425	75.862069	87.356322	94.712644	97.471264	99.080460	100.0
7	6.206897	15.402299	31.724138	46.206897	59.310345	68.045977	75.862069	100.0
3	5.517241	12.183908	29.425287	45.977011	58.850575	73.333333	88.965517	100.0
4	6.206897	14.942529	30.114943	45.287356	63.908046	82.068966	95.172414	100.0
6	2.758621	11.954023	22.298851	34.712644	54.942529	71.724138	91.954023	100.0
5	2.988506	8.505747	15.632184	28.045977	43.448276	58.620690	76.091954	100.0
8	6.666667	10.574713	18.620690	26.896552	32.873563	51.724138	73.563218	100.0

Bus/Tram/Metro usage (>4 times a week)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	41.481481	64.444444	80.000000	88.148148	91.851852	94.814815	97.037037	100.0
2	31.111111	70.370370	80.740741	91.111111	96.296296	97.777778	97.777778	100.0
7	6.666667	14.074074	32.592593	43.703704	53.333333	68.148148	83.703704	100.0
4	5.185185	11.851852	22.222222	40.740741	57.777778	74.814815	95.555556	100.0
6	2.962963	7.407407	17.037037	33.333333	54.074074	71.111111	89.629630	100.0
3	0.740741	8.148148	21.481481	37.777778	53.333333	73.333333	82.222222	100.0

5	2.962963	9.629630	22.962963	36.296296	53.333333	67.407407	81.481481	100.0
8	8.888889	14.074074	22.962963	28.888889	40.000000	52.592593	72.592593	100.0

Bike usage ((Almost) Never)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	49.609375	69.531250	82.812500	91.406250	95.312500	98.046875	98.437500	100.0
2	20.312500	64.453125	78.125000	91.406250	97.265625	99.218750	100.000000	100.0
4	9.765625	21.875000	41.406250	64.062500	79.687500	90.625000	97.656250	100.0
5	9.375000	17.578125	31.250000	51.562500	71.875000	85.156250	96.093750	100.0
3	2.343750	7.812500	23.437500	35.156250	50.390625	65.625000	89.453125	100.0
6	0.781250	5.859375	12.500000	20.703125	46.484375	70.312500	85.937500	100.0
7	4.687500	7.421875	22.265625	32.031250	41.796875	50.781250	67.578125	100.0
8	3.125000	5.468750	8.203125	13.671875	17.187500	40.234375	64.843750	100.0

Bike usage (1-11 times a year)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	33.653846	58.653846	73.076923	85.576923	91.346154	97.115385	100.000000	100.0
2	24.038462	52.884615	72.115385	90.384615	97.115385	99.038462	100.000000	100.0
5	7.692308	28.846154	49.038462	62.500000	80.769231	88.461538	94.230769	100.0
4	18.269231	27.884615	42.307692	61.538462	76.923077	87.500000	96.153846	100.0
3	1.923077	5.769231	16.346154	33.653846	55.769231	71.153846	89.423077	100.0
6	10.576923	17.307692	27.884615	35.576923	47.115385	61.538462	72.115385	100.0
7	0.961538	4.807692	9.615385	17.307692	29.807692	53.846154	84.615385	100.0
8	2.884615	3.846154	9.615385	13.461538	21.153846	41.346154	63.461538	100.0

Bike usage (1-3 times a month)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	43.981481	69.907407	83.796296	89.351852	94.907407	97.685185	99.537037	100.0
2	27.777778	62.962963	76.388889	90.277778	95.370370	99.537037	100.000000	100.0
4	12.500000	19.444444	37.037037	56.944444	78.240741	89.351852	95.833333	100.0
5	5.555556	18.055556	33.796296	51.851852	70.370370	85.185185	93.055556	100.0
3	1.851852	8.333333	24.537037	39.814815	53.703704	72.685185	90.740741	100.0
6	1.851852	5.092593	11.111111	18.055556	37.962963	59.722222	86.111111	100.0
7	2.314815	9.722222	22.222222	38.888889	47.222222	59.259259	74.074074	100.0
8	4.166667	6.481481	11.111111	14.814815	22.222222	36.574074	60.648148	100.0

Bike usage (1-3 times a week)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	39.619651	67.194929	81.616482	89.381933	94.928685	97.939778	99.683043	100.0
2	29.477021	63.232964	78.129952	87.321712	94.770206	98.256735	99.366086	100.0
4	7.131537	16.481775	33.122029	54.199683	72.424723	86.053883	96.196513	100.0
3	5.705230	12.519810	30.903328	49.445325	63.549921	77.654517	90.491284	100.0
5	6.497623	16.006339	26.941363	41.996830	59.112520	75.118859	87.480190	100.0
6	2.060222	4.912837	13.787639	22.662441	41.204437	64.342314	87.004754	100.0
7	3.803487	10.618067	20.919176	34.548336	45.958796	56.735341	71.790808	100.0
8	5.705230	9.033281	14.580032	20.443740	28.050713	43.898574	67.987322	100.0

Bike usage (>4 times a week)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	38.136574	62.500000	76.099537	84.548611	91.261574	95.775463	98.611111	100.0
2	24.189815	59.548611	75.405093	86.516204	93.981481	97.685185	99.247685	100.0
3	9.953704	20.949074	41.030093	57.638889	68.576389	79.340278	92.418981	100.0
4	5.324074	12.615741	26.562500	46.296296	64.988426	81.655093	94.849537	100.0
7	5.671296	12.384259	26.157407	39.930556	53.356481	64.814815	75.520833	100.0
6	3.935185	9.953704	18.692130	30.266204	48.726852	67.303241	89.583333	100.0
5	4.166667	8.391204	16.145833	28.240741	45.081019	63.773148	80.497685	100.0
8	8.622685	13.657407	19.907407	26.562500	34.027778	49.652778	69.270833	100.0

Sharing transport ((Almost) Never)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	40.943929	66.720452	80.758370	88.140379	93.868495	97.458653	99.112545	100.0
2	25.776523	62.242840	77.652279	88.221057	94.675272	98.346107	99.596612	100.0
3	7.624042	16.780960	35.699879	52.763211	65.510286	77.490924	91.851553	100.0
4	6.817265	14.562324	29.891085	50.383219	69.140783	83.945139	95.199677	100.0
5	5.526422	12.626059	23.114159	38.321904	56.434046	73.295684	86.889875	100.0
6	2.258975	6.534893	14.360629	23.840258	43.001210	63.977410	87.293263	100.0
7	4.759984	10.488100	23.154498	37.232755	49.455426	60.830980	73.618395	100.0
8	6.292860	10.044373	15.369100	21.097217	27.914482	44.655103	66.438080	100.0

Sharing transport (1-11 days a year)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	34.126984	53.968254	64.285714	77.380952	85.714286	92.460317	98.015873	100.0
2	24.206349	58.333333	71.825397	82.936508	95.238095	98.412698	99.206349	100.0
7	7.539683	18.650794	35.317460	45.634921	56.746032	68.253968	78.174603	100.0
4	5.555556	14.285714	30.158730	52.380952	68.253968	83.333333	96.825397	100.0
6	7.936508	16.269841	28.174603	44.444444	62.301587	77.380952	94.444444	100.0
3	7.539683	15.476190	33.730159	48.412698	60.317460	76.587302	90.079365	100.0
8	9.126984	16.269841	24.603175	30.555556	40.079365	54.365079	73.412698	100.0
5	3.968254	6.746032	11.904762	18.253968	31.349206	49.206349	69.841270	100.0

Sharing transport (1-3 days a week)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	32.8125	54.6875	73.4375	85.9375	92.1875	96.8750	100.0000	100.0
2	25.0000	42.1875	56.2500	82.8125	89.0625	92.1875	98.4375	100.0
4	20.3125	37.5000	51.5625	62.5000	76.5625	92.1875	98.4375	100.0
5	6.2500	20.3125	32.8125	45.3125	59.3750	75.0000	89.0625	100.0
6	1.5625	10.9375	21.8750	31.2500	54.6875	78.1250	95.3125	100.0
3	1.5625	12.5000	32.8125	35.9375	48.4375	62.5000	81.2500	100.0
8	6.2500	10.9375	14.0625	26.5625	39.0625	51.5625	73.4375	100.0
7	6.2500	10.9375	17.1875	29.6875	40.6250	51.5625	64.0625	100.0

Sharing transport (>4 days a week)

Policy	#1	#2	#3	#4	#5	#6	#7	#8
4	28.571429	28.571429	57.142857	71.428571	85.714286	100.000000	100.000000	100.0

1	14.285714	57.142857	71.428571	85.714286	85.714286	100.000000	100.000000	100.0
2	14.285714	42.857143	57.142857	57.142857	71.428571	71.428571	71.428571	100.0
3	0.000000	14.285714	42.857143	57.142857	57.142857	57.142857	100.000000	100.0
6	28.571429	28.571429	28.571429	42.857143	85.714286	100.000000	100.000000	100.0
5	14.285714	14.285714	28.571429	42.857143	57.142857	71.428571	71.428571	100.0
8	0.000000	14.285714	14.285714	28.571429	42.857143	57.142857	85.714286	100.0
7	0.000000	0.000000	0.000000	14.285714	14.285714	42.857143	71.428571	100.0

Appendix K: Descriptive statistics clusters

Cluster 0

Sustainability goal support	Cluster #	Cluster %	Total #	Total %
-1.0	125	5.446623	289	5.579151
-0.5	326	14.204793	614	11.853282
0.0	708	30.849673	1330	25.675676
0.5	849	36.993464	1858	35.868726
1.0	287	12.505447	1089	21.023166

Age	Cluster #	Cluster %	Total #	Total %
65 of ouder	717	31.241830	1280	24.710425
55-64	522	22.745098	1148	22.162162
45-54	430	18.736383	982	18.957529
35-44	341	14.858388	781	15.077220
25-34	211	9.193900	739	14.266409
18-24	74	3.224401	250	4.826255

Gender	Cluster #	Cluster %	Total #	Total %
Man	1403	61.132898	3028	58.455598
Woman	892	38.867102	2152	41.544402

Education	Cluster #	Cluster %	Total #	Total %
High	1301	56.688453	3316	64.015444
Middle	765	33.333333	1410	27.220077
Low	229	9.978214	454	8.764479

Province	Cluster #	Cluster %	Total #	Total %
Drenthe	74	3.224401	132	2.548263
Flevoland	89	3.877996	210	4.054054
Friesland	119	5.185185	214	4.131274
Gelderland	288	12.549020	579	11.177606
Groningen	88	3.834423	207	3.996139
Limburg	132	5.751634	281	5.424710
Noord-Brabant	289	12.592593	559	10.791506
Noord-Holland	328	14.291939	861	16.621622

Overijssel	168	7.320261	295	5.694981
Utrecht	163	7.102397	483	9.324324
Zeeland	68	2.962963	109	2.104247
Zuid-Holland	489	21.307190	1250	24.13127

Living environment	Cluster #	Cluster %	Total #	Total %
Big city	520	22.657952	1637	31.602317
Small city	708	30.849673	1630	31.467181
Small municipality	668	29.106754	1209	23.339768
Rural area	399	17.385621	704	13.590734

Car use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	81	3.529412	700	13.513514
1-11 days per year	32	1.394336	248	4.787645
1-3 days per month	167	7.276688	634	12.239382
1-3 days per week	990	43.137255	1829	35.308880
4 > days a week	1025	44.662309	1769	34.150579

Train use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	1274	55.511983	1993	38.474903
1-11 days per year	782	34.074074	1221	23.571429
1-3 days per month	190	8.278867	803	15.501931
1-3 days per week	46	2.004357	848	16.370656
4 > days a week	3	0.130719	315	6.081081

Bus/tram/metro use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	1330	57.952070	2290	44.208494
1-11 days per year	552	24.052288	1100	21.235521
1-3 days per month	239	10.413943	878	16.949807
1-3 days per week	135	5.882353	662	12.779923
4 > days a week	39	1.699346	250	4.826255

Bike use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	NaN	NaN	718	13.861004
1-11 days per year	NaN	NaN	250	4.826255
1-3 days per month	228	9.934641	460	8.880309

1-3 days per week	850	37.037037	1212	23.397683
4 > days a week	1217	53.028322	2540	49.034749

Sharing transport use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	2141	93.289760	4514	87.142857
1-11 days per year	65	2.832244	329	6.351351
1-3 days per month	51	2.222222	202	3.899614
1-3 days per week	35	1.525054	121	2.335907
4 > days a week	3	0.130719	14	0.270270

Goal	**Mean**
goal1	0.120915
goal2	0.148366
goal3	0.184532
goal4	0.086492
goal5	0.076035
goal6	0.009150
goal7	0.070370
goal8	0.310240
goal9	0. 024837
goal10	0. 401525
goal11	0.180610
goal12	0.337037
goal13	0.299564
goal14	0.275381

Cluster 1

Sustainability goal support	Cluster #	Cluster %	Total #	Total %
-1.0	23	1.277068	289	5.579151
-0.5	72	3.997779	614	11.853282
0.0	244	13.548029	1330	25.675676
0.5	723	40.144364	1858	35.868726
1.0	739	41.032760	1089	21.023166

Age	Cluster #	Cluster %	Total #	Total %

65 of ouder	279	15.491394	1280	24.710425
55-64	360	19.988895	1148	22.162162
45-54	334	18.545253	982	18.957529
35-44	292	16.213215	781	15.077220
25-34	411	22.820655	739	14.266409
18-24	125	6.940589	250	4.826255

Gender	Cluster #	Cluster %	Total #	Total %
Man	1041	57.801222	3028	58.455598
Woman	760	42.198778	2152	41.544402

Education	Cluster #	Cluster %	Total #	Total %
High	1553	86.229872	3316	64.015444
Middle	214	11.882288	1410	27.220077
Low	34	1.887840	454	8.764479

Province	Cluster #	Cluster %	Total #	Total %
Drenthe	19	1.054969	132	2.548263
Flevoland	53	2.942810	210	4.054054
Friesland	51	2.831760	214	4.131274
Gelderland	197	10.938368	579	11.177606
Groningen	75	4.164353	207	3.996139
Limburg	53	2.942810	281	5.424710
Noord-Brabant	136	7.551360	559	10.791506
Noord-Holland	375	20.821766	861	16.621622
Overijssel	79	4.386452	295	5.694981
Utrecht	249	13.825652	483	9.324324
Zeeland	17	0.943920	109	2.104247
Zuid-Holland	497	27.595780	1250	24.131274

Living environment	Cluster #	Cluster %	Total #	Total %
Big city	820	45.530261	1637	31.602317
Small city	593	32.926152	1630	31.467181
Small municipality	273	15.158245	1209	23.339768
Rural area	115	6.385341	704	13.590734

Car use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	499	27.706830	700	13.513514
1-11 days per year	197	10.938368	248	4.787645
1-3 days per month	418	23.209328	634	12.239382
1-3 days per week	572	31.760133	1829	35.308880
4 > days a week	115	6.385341	1769	34.150579

Train use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	30	1.665741	1993	38.474903
1-11 days per year	213	11.826763	1221	23.571429
1-3 days per month	524	29.094947	803	15.501931
1-3 days per week	739	41.032760	848	16.370656
4 > days a week	295	16.379789	315	6.081081

Bus/tram/metro use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	293	16.268740	2290	44.208494
1-11 days per year	360	19.988895	1100	21.235521
1-3 days per month	547	30.372016	878	16.949807
1-3 days per week	437	24.264298	662	12.779923
4 > days a week	164	9.106052	250	4.826255

Bike use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	18	0.999445	718	13.861004
1-11 days per year	17	0.943920	250	4.826255
1-3 days per month	81	4.497501	460	8.880309
1-3 days per week	362	20.099944	1212	23.397683
4 > days a week	1323	73.459189	2540	49.034749

Sharing transpor use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	1363	75.680178	4514	87.142857
1-11 days per year	230	12.770683	329	6.351351
1-3 days per month	132	7.329262	202	3.899614
1-3 days per week	68	3.775680	121	2.335907
4 > days a week	8	0.444198	14	0.270270

Goal	Mean
goal1	0.069128
goal2	-0.120489
goal3	0.578290
goal4	0.168517
goal5	0.008051
goal6	0.047474
goal7	0.258745
goal8	0.173792
goal9	0. 090505
goal10	0. 425875
goal11	0.210716
goal12	0.344253
goal13	0.298445
goal14	0.269295

Cluster 2

Sustainability goal support	Cluster #	Cluster %	Total #	Total %
-1.0	141	13.007380	289	5.579151
-0.5	216	19.926199	614	11.853282
0.0	378	34.870849	1330	25.675676
0.5	286	26.383764	1858	35.868726
1.0	63	5.811808	1089	21.023166

Age	Cluster #	Cluster %	Total #	Total %
65 of ouder	284	26.199262	1280	24.710425
55-64	266	24.538745	1148	22.162162
45-54	218	20.110701	982	18.957529
35-44	148	13.653137	781	15.077220
25-34	117	10.793358	739	14.266409
18-24	51	4.704797	250	4.826255

Gender	Cluster #	Cluster %	Total #	Total %
Man	584	53.874539	3028	58.455598
Woman	500	46.125461	2152	41.544402

Education	Cluster #	Cluster %	Total #	Total %
High	462	42.619926	3316	64.015444
Middle	431	39.760148	1410	27.220077
Low	191	17.619926	454	8.764479

Province	Cluster #	Cluster %	Total #	Total %
Drenthe	39	3.597786	132	2.548263
Flevoland	68	6.273063	210	4.054054
Friesland	44	4.059041	214	4.131274
Gelderland	94	8.671587	579	11.177606
Groningen	44	4.059041	207	3.996139
Limburg	96	8.856089	281	5.424710
Noord-Brabant	134	12.361624	559	10.791506
Noord-Holland	158	14.575646	861	16.621622
Overijssel	48	4.428044	295	5.694981
Utrecht	71	6.549815	483	9.324324
Zeeland	24	2.214022	109	2.104247
Zuid-Holland	264	24.354244	1250	24.131274

Living environment	Cluster #	Cluster %	Total #	Total %
Big city	297	27.398524	1637	31.602317
Small city	329	30.350554	1630	31.467181
Small municipality	268	24.723247	1209	23.339768
Rural area	190	17.527675	704	13.590734

Car use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	120	11.070111	700	13.513514
1-11 days per year	19	1.752768	248	4.787645
1-3 days per month	49	4.520295	634	12.239382
1-3 days per week	267	24.630996	1829	35.308880
4 > days a week	629	58.025830	1769	34.150579

Train use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	689	63.560886	1993	38.474903

1-11 days per year	226	20.848708	1221	23.571429
1-3 days per month	89	8.210332	803	15.501931
1-3 days per week	63	5.811808	848	16.370656
4 > days a week	17	1.568266	315	6.081081

Bus/tram/metro use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	667	61.531365	2290	44.208494
1-11 days per year	188	17.343173	1100	21.235521
1-3 days per month	92	8.487085	878	16.949807
1-3 days per week	90	8.302583	662	12.779923
4 > days a week	47	4.335793	250	4.826255

Bike use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	700	64.575646	718	13.861004
1-11 days per year	233	21.494465	250	4.826255
1-3 days per month	151	13.929889	460	8.880309
1-3 days per week	NaN	NaN	1212	23.397683
4 > days a week	NaN	NaN	2540	49.034749

Sharing transport use	Cluster #	Cluster %	Total #	Total %
(Almost) Never	1010	93.173432	4514	87.142857
1-11 days per year	34	3.136531	329	6.351351
1-3 days per month	19	1.752768	202	3.899614
1-3 days per week	18	1.660517	121	2.335907
4 > days a week	3	0.276753	14	0.270270

Goal	Mean
goal1	0.138376
goal2	0.260609
goal3	-0.039668
goal4	0.021218
goal5	0.110240
goal6	0.042897
goal7	0.036439
goal8	0.356550

goal9	0. 047509
goal10	0. 394834
goal11	0.141144
goal12	0.365775
goal13	0.309041
goal14	0.220941

Appendix L: Policy rank analysis clusters

1	Making public transport tickets cheaper.
2	Improving public transport.
3	Investing in fast cycling routes.
4	Encouraging people to use shared cars.
5	Encouraging people to buy an electric car.
6	Encouraging the development of neighbourhoods with little car traffic and few parking spaces.
7	Building more homes near public transport.
8	Making petrol and diesel more expensive.

Cluster 0

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	39.788732	66.549296	81.778169	88.644366	94.630282	97.623239	99.471831	100.0
2	25.528169	62.059859	77.024648	87.235915	94.102113	98.063380	99.559859	100.0
3	8.450704	17.869718	37.588028	53.873239	65.845070	76.936620	92.165493	100.0
4	9.242958	17.165493	35.387324	58.626761	75.704225	89.964789	96.214789	100.0
5	7.834507	17.253521	29.489437	47.183099	66.637324	81.778169	92.693662	100.0
6	1.496479	4.753521	10.739437	17.253521	37.323944	61.267606	86.795775	100.0
7	3.521127	8.450704	18.309859	33.538732	45.686620	57.482394	71.742958	100.0
8	4.137324	5.897887	9.683099	13.644366	20.070423	36.883803	61.355634	100.0

Cluster 1

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	38.344828	62.551724	75.241379	84.206897	90.758621	95.517241	98.551724	100.0
2	26.206897	60.344828	75.793103	86.965517	94.413793	97.931034	99.172414	100.0
3	7.931034	17.517241	36.482759	54.068966	66.137931	79.586207	91.517241	100.0
7	6.068966	14.413793	29.586207	42.482759	55.310345	66.068966	76.689655	100.0
4	4.068966	11.655172	23.793103	41.517241	61.517241	78.137931	94.551724	100.0
6	4.758621	11.172414	21.862069	35.655172	53.103448	69.724138	90.068966	100.0
5	2.482759	5.793103	12.965517	22.620690	37.931034	57.586207	75.655172	100.0
8	10.137931	16.551724	24.275862	32.482759	40.827586	55.448276	73.793103	100.0

Cluster 2

Policy	#1	#2	#3	#4	#5	#6	#7	#8
1	45.272206	66.189112	79.942693	89.684814	94.269341	97.994269	98.853868	100.0
2	20.343840	58.452722	75.071633	90.830946	97.421203	99.140401	100.000000	100.0
4	12.607450	24.355301	43.266476	64.469914	80.515759	90.257880	97.134670	100.0
5	9.169054	22.922636	37.249284	56.733524	75.931232	87.679083	96.848138	100.0
3	2.578797	8.022923	22.349570	35.243553	52.148997	66.475645	89.398281	100.0
6	0.573066	5.157593	10.601719	18.051576	40.114613	65.042980	85.673352	100.0
7	6.303725	9.742120	23.209169	32.664756	42.693410	54.154728	68.481375	100.0
8	3.151862	5.157593	8.309456	12.320917	16.905444	39.255014	63.610315	100.0