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**DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING**

**WORKPLACE TRAVEL IN BRASILIA ORGANIZATIONS:  
FACTORS THAT INFLUENCES EMPLOYEES TO PRACTICE  
SUSTAINABLE MOBILITY**

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**DISSERTATION IN TRANSPORTATION**

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“It always seems impossible until it's done.”  
— Nelson Mandela

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## ABSTRACT

The high concentration of jobs in the same region and the preponderance of trips to work by automobiles, present in Brasília DF and in other realities, has led to the development of Workplace Travel Plans (WTP). WTP is a group of sustainable actions for the integrated use of the various means of transportation in the commuting of employees from home to workplace and vice versa. It aims to reduce the adverse effects of prioritizing a mode of transport when commuting to work. In WTP, the participation of managers, employees and the evaluation of the organization's surroundings are fundamental for its implementation and practice. In this context, this dissertation aims to identify policies, actions, initiatives and factors that influence in the practice of WTP in public and private organizations in Brasília, DF. The method consists of 5 steps: *i*) identification of variables that influence in the practice of WTP; *ii*) elaboration of survey instruments; *iii*) identification and contacting of organizations; *iv*) application and internal advertising of the survey instruments to managers, employees and collecting of data related to accessibility and facilities in the area of influence of the Organization; *v*) general analysis of the collected data, analysis using logistic model, spatial accessibility analysis using GIS, and creation of the WTP Index (IWTP). Six organizations were interviewed, 5 are (A, B, D, E, F) located in *Plano Piloto* (DF) and one (C) in the Administrative Region of *Sobradinho*. In total, 6 managers and 1,456 employees participated in the survey. The principal mode used by commuters is automobile (driving alone) with 50.9% (A), 57.6% (B), 54.9% (D), 45.5% (E), 35.3% (F) and public transportation with 36.2% (C). Employees are willing to travel in sustainable ways, should some actions be implemented or improved. Preference for parking spaces and/or splitting of travel cost, to promote the practice of carpooling. Increase in the frequency of bus lines and improvements of bus conditions to promote the use of public transport. Incentives for cyclists, construction and improvement of cycling paths and sidewalks, to promote active modes. The managers of companies A and B encourage the use of active mode by providing bike racks. Chartered buses for employees are provided by companies A, B, C and D. Only company A promotes carpooling and offers reserved parking spaces. With the exception of company E, all companies practice teleworking, with company B having the highest percentage (28%). The results of the logit model show that employees who have a car available “sometimes” or “never”, are more likely to carpool or use public transport than to drive alone, when compared to those who have a car available “always”. Employees who arrive at work between 12:01pm. and 14:00pm., compared to those who arrive between 8:01am. and 10:00am., are more likely to carpool than to drive alone. The location of the residence in respect to workplace shows that the longer the distance, the higher the odd ratio of using public transport or carpooling, when compared to the those who drives alone. The  $I_{MC}$ , which varies from 0 to 1, shows that organizations are below the average (0.5) and when the surrounding area is observed, three of them have a value of 0.76. In conclusion, there is no WTP in the surveyed organizations, but there are actions related to its practice. This shows the potential for developing, implementing and monitoring WTP.

**Keywords:** Workplace Travel; Employees; Organizations; Multinomial Logistic Regressions; Sustainable Mobility

## RESUMO

A alta concentração de empregos numa mesma região e a preponderância de viagens ao trabalho por automóvel, presente em Brasília DF e também em outras realidades, tem levado ao desenvolvimento de planos de Mobilidade Corporativa (MC). A MC é um conjunto de ações sustentáveis para uso integrado dos diversos meios de transporte nos deslocamentos dos funcionários da casa para o local de trabalho. O intuito é a diminuição dos efeitos adversos da priorização de um modo de transporte nos deslocamentos ao trabalho. Na MC a participação dos gestores, funcionários e a avaliação do entorno da Instituição são fundamentais para sua implementação e prática. Nesse contexto esta dissertação tem como objetivo identificar políticas, ações, iniciativas e fatores, que influenciam na prática da mobilidade corporativa em organizações públicas e privadas de Brasília, DF. O método consta de 5 etapas: i) identificação de variáveis que influenciam na prática da MC; ii) elaboração dos instrumentos de pesquisa; iii) identificação e contato com organizações; iv) aplicação e publicidade interna dos instrumentos para os gestores, funcionários e coleta de dados de facilidades de acessibilidade no entorno da Instituição; v) análise geral dos dados coletados, análise usando modelo *logit*, análise espacial de acessibilidade usando SIG, e criação do Índice de MC (Imc). Foram entrevistadas 6 Instituições, 5 (A, B, D E, F) localizadas no Plano Piloto (DF) e uma (C) na Região Administrativa de Sobradinho. No total participaram da pesquisa 6 gestores e 1.456 funcionários. O principal modo utilizado para o deslocamento ao trabalho é o automóvel (dirigindo sozinho) com 50,9% (A), 57,6% (B), 54,9% (D), 45,5%(E), 35,3% (F) e transporte público com 36,2% (C). Os funcionários estão dispostos a viajar de forma sustentável, caso algumas ações fossem implantadas ou melhoradas. Preferência a vagas de estacionamento e/ou divisão do custo da viagem, promovem a prática da carona. O aumento na frequência das linhas de ônibus e melhorias nas condições dos ônibus promovem o uso do transporte público. Incentivos para os ciclistas, construção e melhoria de ciclovias e faixa de pedestres, podem promover modos ativos. Os gestores das empresas A e B incentivam o modo ativo fornecendo bicicletários. Ônibus fretados para funcionários são fornecidos pelas empresas A, B, C e D. Apenas a empresa A promove a pratica de carona e oferece vagas de estacionamento reservadas. Com exceção da empresa E, todas as empresas praticam teletrabalho, com destaque para 28% dos funcionários da empresa B. Os resultados do modelo *logit*, mostram que os funcionários que “às vezes” ou “nunca” têm carro disponível, tem maior probabilidade de pegar carona ou utilizar transporte público do que dirigir sozinho, quando comparado com aquele que tem “sempre” carro disponível. Os funcionários que chegam ao trabalho entre 12h01 e 14h00, em comparação com aqueles que chegam entre 8h01 e 10h00, têm maior probabilidade de andar de carona do que dirigir sozinho. A localização da residência em relação ao local de trabalho, mostra que quanto maior a distância, maior a probabilidade de utilizar o transporte público ou carona, quando comparado com aquele que dirige sozinho. O Imc que varia de 0 a 1 mostra que as organizações estão abaixo da média (0.5) e quando observado o quesito entorno, três delas têm valor de 0,76. Concluindo, não existe um plano de MC nas organizações pesquisadas, mas existem ações relacionadas com a sua prática. Isto mostra a potencialidade para desenvolvimento, implantação e monitoração de um plano de MC.

**Palavras-chave:** Mobilidade Corporativa; Funcionários; Organizações; Regressões Logísticas Multinominais; Mobilidade Sustentável



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# 1. INTRODUCTION

## 1.1 Presentation

Over the years, the role of public transport managers has been to ensure sufficient capacity to meet the growing demand for travel, especially in urban areas. This increment caused by an increase in travel trips made in automobiles (single occupancy of car) has generated an impact on the quality of life of the population such as in productivity, expenses with transportation, provoking several damages on the health of an individual, as well as to society. In view of this, public managers have sought to develop policies for the management of transport demand, broadening their focus, that does not only include individuals and families but which extend to the pole travel generators, such as public and private workplaces sector (OCED, 2010). Thus, Workplace Travel Plan (WTP) has emerged as an alternative in the management of traveling to work with cars to organizations. Workplace Travel Plan is made up of institutional travel plans to workplace that aim to promote active and sustainable mobility to reduce the use of vehicles, most especially single occupant of automobiles (Petrunoff *et al.*, 2015). WTP can also be defined as set of actions that employers promote so that employees travel in a more sustainable way. Furthermore, WTP does not only includes travel plan for employees to workplace, but also other trips to deal with business, visitors, customer service or patients in the case of hospitals (Cairns *et al.*, 2010).

The practice of Workplace Travel Plan is often referred to as Transportation Demand Management (TDM) in North America. TDM seeks to change travel behavior to increase the efficiency of the transportation system and gives priority to the increasing numbers of the vehicle occupancy rate. While in Europe it is known as Mobility Management (MM), which seeks to understand concepts, strategies and techniques to satisfy the need of individuals, institutions and companies mobility, through the promotion of certain means of transportation considered ecological and sustainable. Seeking to make their use efficient from an economic, social and environmental point of view and to raise awareness for the elimination of unnecessary travel. It has a social character based on behavioral changes and voluntary measures (Baum *et al.*, 2017). Therefore, Workplace Travel Plans can be considered as plans/actions that promotes sustainable mobility. Sustainable mobility is a system of transport that is efficient, limit noise pollution and greenhouse gas emissions, cost efficiency, reduces land use, suitable with the health of mankind, improve quality of life (European Commission, 2020).

In general, studies have shown strategies that can be implemented to promote urban mobility through Workplace Travel Plan using institutional travel plans to workplace which aim to promote active and sustainable mobility and reduce the use of cars. Oftentimes it can include policies such as parking management, public transport ticket subsidies by the organization, provision of appropriate facilities for employees (users), provision of maps with information about the transportation systems and behavior change programs such as cycling and walking programs (Enoch, 2012).

There are a lot of benefits attached to the practicing of Workplace Travel Plan, and these benefits are not only extended to institutions involved and their employees, but also spread to the region surrounding the institution. In the case of institutions, these benefits are a reduction in costs associated with transportation (fuel aid, fleet); a reduction in the demand for parking spaces; compliance with achieving sustainability goals; optimization of the use of urban space; reduction of absenteeism for employees; and an increase in accessibility to the workplace. For employees, the benefits are an improvement in the quality of life and health; an increase in productivity; a reduction in transportation costs and time lost in travel. For the region and environment surroundings the institution, there is an expectation in the reduction of local pollution caused by greenhouse gas emissions; reduction of local congestion; reduction of traffic accidents; increase in the supply and promotion of more sustainable and quality transport (Commerce, 2018).

Some examples of countries where the practice of WTP have been successful are in the United Kingdom (UK) and the Netherlands. In the UK, a guide was made for employers who wish to reduce traffic congestion around their workplaces and improve the travel options available to their employees, as well as minimizing costs. This guide was adopted by 20 different organizations obtaining benefits such as a change in the travel patterns of their employees and a 18% reduction in car trips with a single occupant to work. In addition, it also brought advantages to companies such as the annual cost savings for companies, with a decrease in the amount spent on maintenance of parking space, increased accessibility to workplaces and improved travel options for employees, among others (UK, 2002). In the Netherlands, six regions were selected with problems of accessibility and poor air quality. In these regions, actions were taken to create new ways of commuting for car users who uses congested roads during peak hours, this actions include, giving of free pass for people to travel by public transport, encouraging the use of vanpool, carpool, among



others. As a result, there was a 1.5% reduction in the use of the car and the cost of parking (Helmikuuta, 2011). These regions were used as examples and inspiration for other regions to practice Workplace Travel Plan.

Meanwhile, in the year 2015, few studies considered the introduction of Workplace Travel plan in Brazil as a new theme, where private organizations are more proactive in implementing this actions as compared to public organizations (Silva, 2014; Embarq, 2015). Although there are studies that show the potential applicability of the topic, for example, a research done in São Paulo on world car free day, showed that 71% of people are willing to stop using a car if there are better alternative means of transportation (IBOPE, 2014). In the case of Brasília, Federal District (DF), the case study of this dissertation, majority of the institutions and its environment, where there is a high concentration of jobs and car flows, it can often be seen cars parking on the main roads due to lack of parking spaces, obstructing traffic flow. According to Codeplan (2018), in 2014, *Plano Piloto*, DF has 52,2% of the job concentration in this region, with approximately 74,7% of the total salary paid in DF. In 2010, Brasília had a total number of 924,103 automobiles and as at 2016 it has increased to 1,214,589, representing an increase of 31.43% (IBGE, 2018). In addition to this, the research carried out by Metro, in the year 2016, about travel made on a business day in the Federal District (DF) by mode and activities demonstrate that 38% of the trip generated are to workplace, of those that travel to work, 32% travel by public transport and 52% in private cars (Metrô, 2019), generally single occupant. Thus, this growth caused mainly by trips to work and towards the city center at peak times causes congestion, air pollution and other problems. It is therefore urgent to develop studies that enable the practice of travel plans to work.

The benefits obtained, from the adoption of Workplace Travel Plan with organizations can contribute to reducing the use of cars and the number of car trips generated by single occupant, with the potential to reduce costs for both employers and employees, as well as for the company and its region. Although WTP is a practice present in developed countries, in the Brazilian reality, few studies portray the plans/actions aimed at Workplace Travel and little is known about the variables, factors that make it possible to analyze/promote this practice.

## **1.2 Problem of the study**

The general conditions of urban mobility are decisive in carrying out daily activities, limiting or favoring the mobility of the population. Hence, with the growth in people mobility in the urban area, there has been an impact on the quality of people life, with several damages to health caused by the concern of this mobility not only to individuals, but as well as to companies and the society. These problems caused by the excessive use of automobiles to work are air pollution, high cost of construction and maintenance of parking, noise and climatic impacts and even the reduction of the quality of life of people in urban areas.

Furthermore, there are several other difficulties for employees and immediate regions, they are difficulty in accessing workplace areas, low use of other existing modes of transport and the low supply of facilities for other modes of transportations for example bike paths, public transport lines in this region besides the use of automobiles among others. It is noteworthy that in the Brasilia region, more than 50% of the population goes to work by car, with the other modes of transportation considered being secondary.

Thus, the adoption of Workplace Travel plans has the potential to reduce the impacts caused by the excessive use of cars in Brasília, DF. In other countries there are studies that seek to understand the factors that lead organizations to adopt Workplace Travel Plans, however, in Brazil these studies are rare. In view of this, this dissertation aims to answer the following research problem:

What are the factors that influences in the practice of sustainable mode that promotes Workplace Travel Plans in Brazilian organizations?

## **1.3 Objective**

### **1.3.1 Principal Objective**

The objective of this dissertation is to identify factors that influences in the practice of sustainable mobility, through workplace travel plan in Brasilia, DF.

### **1.3.2 Specific objectives:**

- a) Identify the policies, plans, actions and initiatives about Workplace Travel Plan employed by organizations/managers in Brasilia, Brazil.
- b) Identify how employees travel to workplace and the existence of sustainable practices/actions for the integrated use of different modes of transport in Brasilia, Brazil.
- c) Evaluation of information obtained onsite, through interviews and Geographic Information Systems (GIS) relating to accessibility in the area of influence of the Organization in Brasilia, Brazil.
- d) Creating of Workplace Travel Plan Index ( $I_{WTP}$ ) that consist of the Manager's Indicator ( $I_M$ ), Employee's Indicator ( $I_{EM}$ ) and Environment Indicator of the area of influence of the Organization ( $I_{EN}$ ).

### **1.4 Justification**

Travel plan to work has an impact on organizations, employees and the regions where it is implemented. For organizations, there is a reduction in costs associated with transportation (parking, fuel assistance, fleet), reduction in demand for parking spaces, compliance with sustainability goals, optimization of the use of urban space, reduction of absenteeism, improvement in punctuality of services. employees and increased accessibility to the workplace.

For employees, improved quality of life and health, increased productivity, greater job satisfaction, reduced transportation costs and reduced time spent traveling. For the region, reduction of pollution in the area and emissions of greenhouse gases (carbon footprint), reduction of traffic in the area, reduction of traffic accidents associated with the increased usage of individual motorized means of transport and provision of more sustainable and quality mode of transport.

From these benefits, the adoption of Workplace Travel Plan with organizations in the Federal District (DF) would reduce the use of automobiles. These initiatives have the potential to save costs for both organizations and staffs and, in particular, costs related to transportation and the provision of parking spaces to employees and visitors/customers. Whereas in Brazil, apart from having few studies that identify the policies, plans, actions and initiatives about Workplace Travel employed by organizations and what factors or actions will encourage employees to travel in a sustainable way.

## **1.5 Methodology of the Dissertation**

The methodology of the dissertation procedures was divided into four subsequent stages. The purpose is to plan the progress of the project, in order to achieve the outlined objectives.

**Step 1:** This stage includes the introduction, contextualization of the problem, objectives and justification were presented, factors that influences in the practice of sustainable mobility, through workplace travel plan will be analyzed and identified. The survey and logical systematization of bibliographic references was carried out. This allowed the exploration of various articles, reports and technical documents, to become familiar with the concepts and approaches used in these researches. After the selection of selected documents, there was identification of variables using the Systematic Literature Review.

**Step 2:** Through the identified variables, questionnaires were elaborated and applied in the different institutions selected by email and personal interviews with workers were necessary. The surveys were divided into three: A questionnaire for the managers of the company, to know plans, policies and facilities offered by them, to ease and stimulate the practicing of workplace travel plan for employees. A questionnaire for the employees, to know the different mode of transportation used by employees, why and what are the factors or policies that will motivate employees to travel in a more sustainable way and the third questionnaire, to identify available facilities on-site that can encourage employees to travel in a sustainable way. During the mounting of the questionnaires, different managers of companies were contacted, for the evaluation of travel plans in their companies.

**Step 3:** After the application, data were collected, analysis was done using SPSS (Statistical Package for the Social Sciences), creating different model and so also was a general analysis done. Information that could not be obtained through the questionnaires or interview, were collected using ArcGIS for example the distance from the Institution's location to the bus stop and the verification of the existence of a cycling path among others. Also, the calculation of Workplace Travel Plan index, of the different institutions to see the various performance of the managers, employees and environment through their calculated indicators.

**Step 4:** This part contains the conclusion of the project, explaining the principal results obtained from the research and their implications on urban mobility in Brasília, DF apart from discovering factors, actions and facilities that will support workplace travel plans in organizations and for employees to travel using sustainable modes, e.g. bicycles, carpooling, public transport, among others and recommendations were also proposed to mitigate the identified problems and describe the difficulties encountered in the research. Finally, more and further studies were urged, to follow up previous studies.

## **1.6 Structure of the Dissertation**

The present dissertation is divided into five chapters, each chapter bringing the subtopics and a set of reference elements. The chapters are constituted as follows:

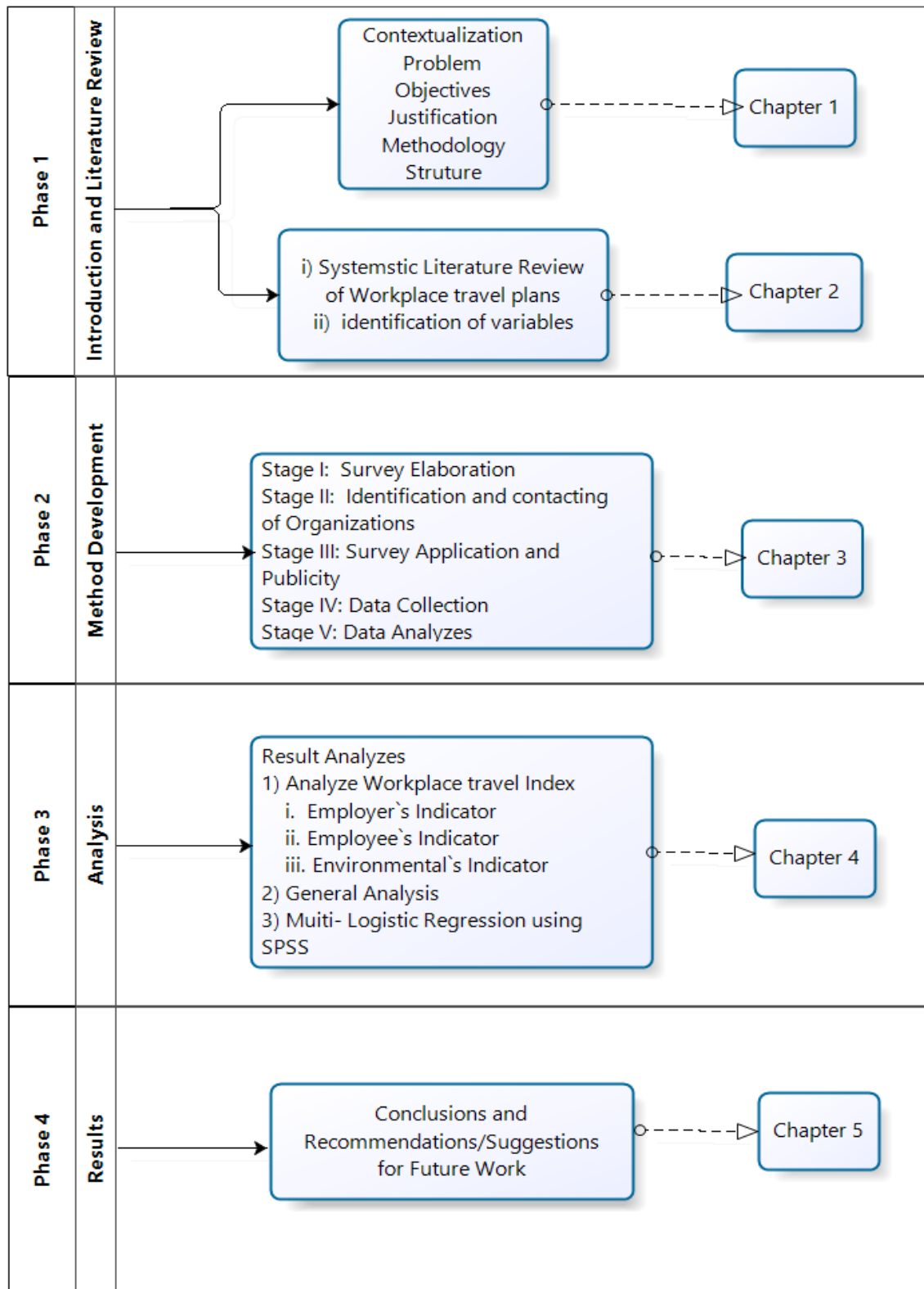
- a) **Introduction:** This chapter begin by making a general reflection of the topic, contextualizing the problem of urban mobility in transport. Afterwards, the objectives that guides the line of scientific investigation were defined, and the project was justified, showing what contributions it will have to transportation planning and urban mobility in Brasília and Brazil. After which the methodology and the structure of the dissertation follows.
  
- b) **Literature Review:** The aim of this chapter is to conduct a Bibliometric Review to identify the factors that influence the practice of Workplace travel plan. Therefore, Web of Science and Scopus were consulted for this purpose. As a result, most relevant articles were selected and variables were identified from the studies on the practice of Workplace Travel Plan. These variables were grouped into categories for the development of survey instrument, to carry out the diagnosis of Workplace Travel Plan in public and private institutions.
  
- c) **Method of the Dissertation:** This chapter detailed the method used in this dissertation. Following the identified variables, three distinct surveys where elaborated, to be to carry out the diagnosis of workplace travel plans in organizations. After which organization were contacted by sending of invitation through email and phones call, meetings were held with the managers interested in the diagnosis of their institutions with the Workplace Travel Plan and three questionnaires were applied in these companies online, through interviews and site visitation of companies. The manager's and employee's surveys were applied online, while the third survey

was applied onsite. For publicity different strategies were used to enhance more data collection online such as publicity on the intranet of the organizations, posters and flyers, some other data were also collected through ArcGIS software and analyzed.

**d) Results and Analysis:** The results obtained from the survey application online, through interviews and onsite were presented and analyzed in this chapter. Analyses of data were done, by creating a model and using Multinomial Logistic Regression in SPSS, calculation of Workplace Travel Plan Index, the use of GIS Software and a general Analysis.

**e) Conclusions and Recommendations:** In the last chapter, there was presentation of the main results obtained and the implications of these on urban mobility in Brazilian Institution and Employees and how these identified problems can be mitigated. The challenges encountered during the research and how the data obtained could be used for further and other studies.

Figure 1 is the flowchart of the dissertation, showing all the different chapters and contents.



**Figure 1.1:** Flowchart of the dissertation.

## 2. LITERATURE REVIEW

### 2.1 Presentation

This chapter aims to carry out a Literature Review to identify the variables and factors that influence in the practice of Workplace Travel Plan (WTP).

### 2.2. Bibliometric Review

Several authors consider the Bibliometric Review as a way to systematize and identify the evolution in the scientific literature studies of a certain topic (Modaka *et al.*, 2019; Merigo *et al.*, 2018; Tang *et al.*, 2018). In the present study, a *Teoria do Enfoque Meta Analítica Consolidada-TEMAC* was used (Mariano and Rocha, 2017) and the Systematic Bibliographic Review (SBR) proposed by Tranfiel *et al.* (2003) to identify the variables that influence in the practice of Workplace Travel Plan. Thus, the method was divided into two steps as shown in Table 2.1, the planning step and Realization step. In the first step, the need for bibliometric review was identified, followed by the proposal to elaborate and develop the review protocols. The second step, Realization, comprises of two sub-steps, the first sub-step which involves the survey of the evolution of the topic, Workplace Travel Plan, over time. Which comprises of collection of data from online databases, like Scopus and Web of Science; the analysis of if articles are related to the research scope; analysis of keywords and the study of the relationships between publications through co-citations, co-authorships and bibliographic coupling.

The second sub-step of Realization is the identification of variables related to workplace travel plan from the selected articles for the elaboration, creation or development of questionnaires. A detailed Bibliographic Review of Workplace Travel Plan can be seen in Aruwajoye and Taco (2019). 17 articles were selected in total for analyze and the Tag-Crowd tool was used to identify keywords and the VOS-viewer software, to identify co-authors, co-citations and bibliographic coupling. In addition, 2 Brazilian dissertations were selected that detailed on the Workplace Travel topic. Although the online databases of Web of Science and Scopus was used to selected articles, it is known that there are Brazilian studies by Petzhold (2016) and Lavieri (2014) that deal in depth with the topic of Workplace Travel.



**Table 2.1 : The division of the Method**

PLANNING	REALIZATION	
	1st Sub-Step	2nd Sub-Step
a) Identify the need for bibliometric review	<b>Evolution of the topic, Workplace Travel, over time</b>	<b>Realization</b>
b) Elaboration and development of the review protocols	a) Collection of data from online databases from Scopus and Web of Science	Identification of variables related to workplace travel plan from the selected articles
	b) Selection of articles related to the research scope	
	c) Analysis of keywords	
	d) Relationships between publications through co-citations, co-authorships and bibliographic coupling	

From the application of this method, best journals, practices, authors, method for data collection and data analysis were selected, in order to be able to identify the variables for survey application and to identify factors that influences in the practice of sustainable mobility, through workplace travel plan in organizations in the Brazilian region of Brasilia, DF. After the bibliometric analysis, we proceeded to analysis the content of each article.

Table 2.2, presents this systematization of the content of the 17 selected articles, the names of the authors, the main method used for data collection was survey, used by 88% of the studies and 94% used statistics quantitative method of analysis. Once the research objectives of the 17 articles were identified, and the compatibility with the Workplace Travel Plan topic was verified, the variables used in the studies were extracted. As a result, 79 identified variables were identified that were used to study the practice of Workplace Travel, whether in direct aspects such as Travel Plans, or in their effects in temporal and inter-institutional contexts.

Table 2.3, shows the 79 variables with the number of time these variables were cited by each authors, for the convenience of presentation these authors were coded from 1 to 17 and their names can be consulted at the end of the Table. The 79 variables were grouped into related categories of their representation and function in relation to Workplace Travel, as found in the literature review of the 17 selected articles. Therefore, they were grouped into nine (9) categories: *i*) socioeconomic variables; *ii*) active mobility; *iii*) the use of car; *iv*) Public Collective Transport; *v*) other modes of transportation; *vi*) information related to transportation; *vii*) general information; *viii*) information related to the institution and its employees; and, *ix*) health.

**Table 2.2: Systematic Summary of the Content of the Articles**

<b>Authors</b>	<b>Summary of the Objective</b>	<b>Sample (N= Organizations; n= Employees/Students)</b>	<b>Method of Analysis</b>
<b>Sims et al (2018)</b>	Examine which variables predict the disagreement between walking and cycling (discrepancy between perceived and actual travel time) for the campus among teachers, staff and students.	University students (n = 252) and faculty and staff (n = 253)	Quantitative Analysis - the kappa statistic
<b>Melia et al (2018)</b>	Assess the impact on travel behavior when parking is restricted at the destination.	(n = 858)	
<b>Adams et al (2017).</b>	Examine the individual, work-related and psychosocial factors associated with walking to work and discuss the implications for the direction and future planning of interventions.	(n= 1544)	Multivariate logistic regression
<b>Page et al (2017)</b>	Describe a behavior change intervention that encourages active commuting using electric bicycles (e-bikes) to promote health in the workplace and presents preliminary conclusions about the impact of the intervention on improving employee well-being and organizational behavior , as an indicator of potential business success.	(n =31)	Pearson's correlations
<b>Khandokar (2017)</b>	Identify the factors that affect the success of hospital travel plans (TP) in changing the behavior of choosing the travel mode in the opinion of the UK National Health Service's PV coordinators.	(n = 47)	Spearman correlation tests
<b>Petrunoff et al (2017)</b>	Describe perceived elements of effective travel plans at work, barriers and facilitators for planning trips to the workplace,	N= 24, 20 in-depth interviews.	Thematic framework and analysis
<b>Petrunoff et al (2016)</b>	Present the main results of the evaluation of a three-year travel plan intervention with increasing the use of active mobility in the workplace temporal study covering the years 2011, 2012, 2013 and 2014	2011(n = 804); 2012(n= 904); 2013(n= 872); 2014(n =687)	Multivariate logistic regression
<b>Morrison et al (2016)</b>	Examine how co-workers influence the choice of travel to work. Show how normative commuting behavior affects whether an individual drives alone to work or hitchhikes.	100 military bases in the period from 2006 to 2013	Multinomial Logit Model
<b>Sperry et al (2016)</b>	The results of a survey that has developed a comprehensive database of workplace travel surveys conducted by the Texas Department of Transportation (DOT) over the past 13 years.	Secondary data – n = 63,000, N= 5,100 nas 15 urban areas in texas	Developed Data tables for the three traditional purposes of travel
<b>Petrunoff et al (2015)</b>	Investigate a global travel plan rather than an individual plan, comparing two hospitals adjacent to each other to demonstrate whether work plans are effective in decreasing driving to work and increasing physical activity.	(2006, n =650, n= 173; 2012, n=1041, 445)	Chi-Square Test
<b>Badland et al (2014)</b>	Investigate relation between commuting behaviors and distance to bus and train stops at home and at workplace and the thresholds and densities of access to Public Transport in Perth, Australia.	(n=238)	Independent sample t-tests
<b>Vanoutrive et al (2014)</b>	Estimate the percentage of carpooling commuting to work.	1 model (Belgium) = 4912, 2 model (Brussels) = 658, 3 model (industry sector) = 879, 4 model (financial sector) = 141.	Quantitative analyses, multiple regression-based
<b>Petrunoff et al (2013)</b>	Assess the reliability and validity of survey questions frequently used to assess the mode and time of commuting to work.	(n= 65)	Spearman's correlation coefficient
<b>Richbell (2012)</b>	Analyze the impact of a public sector organization's sustainable transport policies on the levels of sickness of its employees.	(n = 91)	Quantitative methodology
<b>Brockman et al (2011)</b>	Investigate the effect of travel plan to workplace, mainly focused on restricting parking opportunities, levels of active commuting and its potential to contribute to public health.	1998 (n = 2292), 2001 (n = 2332), 2003 (n = 1950), 2005 (n = 2647) e 2007 (n = 2829).	Z-tests
<b>Roby (2010)</b>	Examine the impacts of an established travel plan on the organization, and the implications this has for supporting long-term travel plans instead of adoption.	N= 25	Qualitative Analysis and data interpretation
<b>Cairns et al (2010)</b>	Identify the factors that appear to be important in determining success in reducing car use and the reasons why organizations became involved in working on travel plans and the costs involved in doing so. It focuses on what travel plans can achieve, in terms of reducing the single car occupant;	N = 20 n=69594	Subjective interpretation, and can be treated as indicative only.

Table 2.3: Categories and Variables that influence Workplace Travel and respective authors

Category	Variables	Authors	Qt
<b>Socio-economic variables</b>	Gender/Sex	1, 2, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17	15
	Age	1, 2, 4, 5, 6, 7, 8, 10, 12, 13, 14, 15, 16	13
	Income	1, 8, 12, 14, 15, 16	6
	Educational Level	5, 8, 12, 14	4
	Profession	5, 7, 9, 13	4
	Residence (state, type e location)	1, 9, 10, 12, 16	5
	Place of origin and destination	9, 12	2
	Height	1	1
	Weight	1	1
<b>Active Mobility</b>	Cycling	1, 3, 4, 5, 6, 7, 10, 13, 14, 15, 16	11
	Pedestrian/Walking	1, 3, 4, 5, 7, 10, 13,14, 15, 16	10
	Active Mobility	1, 3, 6, 7, 10, 13, 15	7
	cycling facilities	1, 4, 10, 16	4
	Bicycle rack	1, 10, 16	3
	cycling path/lane	1, 7, 16	3
	Electronic-bike	6, 10	2
	Confidence in Active Mobility	1	1
	Sidewalk	1	1
<b>Use of Automobile</b>	Use of automobile (Drive Alone)	1, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 16	12
	Carpooling/Car sharing	8, 9, 10, 11, 14, 16	6
	Accessibility to car for work / schools	1, 2, 13	3
	Accessibility to car while on vacation	1, 2	2
	Driver's License	2	1
<b>Public Collective Transit</b>	Public Collective Transport	1, 2, 4, 7, 10, 11, 12, 13, 14, 16	10
	Public Transport Stop	12, 15, 16	3
	Map/information guide	10, 13, 16	3
	Train / Metro	14, 16	2
	Public Transport vouchers	1	1
<b>Other Modes</b>	Motorcycles	15	1
	Cooperate Fleet/Chattered Vans/Buses	17	1
<b>Transport-related information</b>	Parking Policies	1, 2, 3, 4, 5, 7, 10, 11, 13, 14, 15, 16, 17	13
	Travel time / duration	1, 5, 6, 10, 13, 14, 15, 16	8
	Frequently used traveling mode	1, 2, 6, 9, 10, 12, 13	7
	Traffic Jam/Congestion	1, 4, 7, 10, 11, 16, 17	7
	Payment for parking	1, 2, 4, 10	4
	Traveling Facilities	10, 16, 17	3
	Most recently used mode of transport	2, 10	2
	Traveling Cost	9, 16	2
	Secondary mode	10	1

**Authors:** (1) Sims, et al (2018); (2) Melia et al (2018); (3) Petrunoff et al (2017); (4) Khandokar (2017); (5) Adams et al (2017); (6) Page et al (2017); (7) Petrunoff et al (2016); (8) Morrison et al (2016); (9) Sperry et al (2016); (10) Petrunoff et al (2015); (11) Vanoutrive et al (2014); (12) Badland et al (2014); (13) Petrunoff et al (2013); (14) Richbell; (2012); (15) Brockman et al (2011); (16) Cairns et al (2010); (17) Roby (2010). **Journals:** *European journal of operational research; Journal of transport geography; Transportation research part a policy and practice; Plos one; Journal of transport health; Frontiers in psychology; Transportmetrica a transport science; Journal of economic behavior organization; Personnel review; Public health; Journal of environmental and public health; Transportation planning and technology; Transportation research record; Proceedings of the institution of civil engineers urban design and planning; Traffic engineering and control e Case studies on transport policy.*

Table 2.3: cont.: Categories and Variables that influence Workplace Travel and respective authors

Category	Variables	Authors	Qt
<b>Transport-related information</b>	Pollution	16	1
	Safety/Security	16	1
	Velocity	16	1
	Motive of traveling	9	1
	Number of trips per week	1	1
<b>General information</b>	Environment	1, 8, 10, 14, 17	5
	Transport loan	10, 16	2
	Race / Ethnic group / Immigrant	1, 8	2
	Frequency/How often	15	1
	Weather/Climate	4	1
	Psychosocial	5	1
	Visitors	9	1
	Military Base	8	1
	Population/Population density	9	1
	Numbers of People that reside together	1	1
	Self-efficacy	1	1
<b>Institution / Employee Information</b>	Distance to workplace/school	1, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15	12
	Travelling habit/behavior	2, 4, 6, 10, 13, 15, 16, 17	8
	Shift work	4, 5, 11, 13, 14	5
	Have children and their ages	5, 10, 12, 14, 16	5
	Employees	5, 6, 9, 11, 14	5
	Organization building location	8, 10, 15, 16	4
	Full time / Part time	5, 11, 12, 14	4
	Compressed week	8, 9, 11, 12	4
	Financial incentive	7, 11, 16	3
	Public/Private Institution	9, 11, 14	3
	Proximity to workplace (Residence)	8, 16	2
	For how long have employees be working in the institution	1, 8	2
	Home Office	14, 16	2
	Employers/Managers	11	1
	Number of employees	16	1
	Absenteeism	14	1
	Peer influence	8	1
	provision of information to employees	10	1
	Travel Plan Time Period	17	1
	Travel Plan Performance	17	1
Institution Growth	17	1	
<b>Health</b>	Health	3, 4, 5, 6, 7, 13, 14, 15, 16, 17	10
	Physical activities	4, 5, 7, 15	4
	People with special needs (Disabled people)	1, 10	2

**Authors:** Name of cited authors can be seen above

In Table 2.3, it can be observed that variables such as “gender” and “age” are cited by 15 and 13 authors, respectively, which in a certain way occurs in most studies where they are used. In the active mobility category, the most cited variables are “cycling” and “walking / pedestrian” with 11 and 10 authors, respectively. While in the use of automobile “use of automobile (Drive Alone)” was cited by 12 authors and “carpooling/car sharing” by 6. In the Public Collective Transport category, 10 authors cited “Public Collective Transport”. In the Transport-Related Information category, 13 authors cited “parking policies” and 8 “travel time / duration”. In the information related to the institution’s / employee’s category, 12 authors cited “distance to the workplace / Campus” and 8 cited “travel behavior / habit”, and when characteristics related to Employee’s /Organization’s information such as "shift work", "full time / part time", compressed week (race) ", "tele work" were aggregated, they were cited by 9 authors and finally, in the last category, the variable “health” was mentioned by 10 authors.

## **2.2 The Practices of Workplace Travel Plan in Organizations**

Workplace Travel Plan is composed of organizational actions that stimulate modes, such as, walking; the use of bicycle; opting for public transportation; optimizing the use of the car (carpooling and car sharing); changes in travel times to work (flexible working hours) and teleworking and videoconferencing practices that can eliminate the need to travel (EMBARQ, 2015). Other actions may include policies such as parking management; public transport ticket subsidies; adequate infrastructure for active modes; provision of maps with information for cyclists; behavioral change programs for people to use their bicycles and walk (Enoch, 2012). According to the Wokingham Borough Council (2015), depending on the strategy adopted, Workplace Travel plans have the potential to reduce the number of car trips with a single occupant by 10 to 24%.

Travel plan to work creates a corporate culture and environment, where more sustainable modes of travel are actively encouraged. Companies should focus on diversity of existing measures, which expand travel options and offer benefits to employees. These changes in the traveling habit occur gradually, as some people may not be willing to change their commuting habits early on, but in the future, when perceiving colleagues satisfied with new transportation

alternatives, they tend to change (EMBARQ, 2013). Therefore, one way of obtaining support for travelling plan to work and recommendations on implementing Workplace Travel Plan should be to focus on changing the individual's behavior (Roby, 2010).

With the increasing use of automobile, especially single car occupant, there has been a growing interest in managing of car traffic, reduce traffic jam problems, air pollution, greenhouse gas emissions, improve the quality of urban and residential areas and encourage physical activity that helps to improve health. Trip to workplace is the focus of the work, as it represents a significant proportion of traffic generated, and most significantly, these trips take place during peak hours. An approach developed to address work travel traffic is known as "Workplace Travel" (Cairns, 2010), and known as "*Mobilidade Corporativa*" in Portuguese.

### **2.3 Different Categories and Variables identified from the Literature Review**

The different categories and variables identified in the literature about Workplace Travel are explained below:

**a) Active Mobility (walking, cycling):** Workplace Travel Plan is a promising way to increase active travel to workplace, this include walking and cycling. Active travelling helps in the practice of regular physical activity that brings health benefits and, in addition to these, reduces the cost of transportation, reduces pollution and congestion, improves road safety and improves social interactions (Petrunoff, 2016; NZTA, 2011).

Some facilities are necessary to facilitate and encourage employees to commute to work through active mobility. For cyclists, these facilities are accessibility to the workplace by a high-quality cycling path; sufficient bicycle rack (parking for cyclists); having a group for cyclists (system on the web or WhatsApp); financial benefits for maintenance service, repairs and discounts on equipment in the bicycle stores for cyclists; offering of facilities such as bathrooms; provision of map for cyclists and locker; promoting cycling events; offering of better security for bicycles (individual lock for bicycles); loans for cycling equipment (batteries, lights, pumps, locks, helmets, child seats); financial incentives and complementary products such as safety jackets and discounts on bicycle purchases such as electric bicycles (Cairns, 2010).

While for pedestrians, the factors that promote walking are having and improving pedestrians walking path (pavement) for accessibility to workplace; having a high quality or improve conditions at workplace like the quantity and safety of crossing and walking paths; speed limit restrictions and improve street-light and traffic-light in the area, with signal in appropriate location; offering financial incentives for pedestrians; conduct marketing strategies to encourage employees walk to work and provision of maps such as information for pedestrians, security and facilities such as bathroom and wall robes to store equipment (Cairns, 2010). Active mobility helps in the practice of regular physical activity that has health benefits, in addition to reducing transportation costs, improving the environment such as reducing pollution and congestion, improving road safety and helping with social benefits, as well as improving social interactions among workers (Mundorf *et al.*, 2018).

Some of the limitations for the practicing of active mobility are limited accessibility to the organization's locations, such as lack of paved pedestrians path and free parking spaces offered by organizations that encourage people to drive (Curtis and Headicar, 1997; Rye, 1999; Stokes, 1996). Trips to work are often complex for parents with young children, due to the need to take their children to school and other places, thus limiting the use of active mobility to them. Meantime, people with access to bicycles are likely to ride to work if it is close to their work place and the cycling conditions are satisfactory, such as the existence of transport infrastructure for cycling e.g. cycling path, bicycle racks, among other (Root and Schnitzler, 1999; Dft, 2014; Dickinson *et al.*, 2003).

**b) Public Collective Transit (PCT):** PCT is a way of traveling at low cost and does not require the use of parking space, in addition to the opportunity to rest, study and work while commuting. Subways and Buses with exclusive lines are faster ways to travel (NZA, 2011). There are different ways to motivate employees to travel to work through public transit, some of which are, proximity of the needed transportation facilities to working location, such as a bus stop; improved safety at bus stops and inside public transit; with the installation of a camera and protection against the weather (rain); paying part or all of the public transport costs (transportation voucher); well-maintained and well-paved sidewalks; air-conditioned buses; more frequent bus lines and pedestrian access and dedicated lanes for buses (Wokingham Borough Council, 2011).

According to Cairns *et al.*, (2010), in a survey carried out in England, five out of six organizations involved in Workplace Travel Plan, were able to increase the use of public transport because these Organizations offered free and dedicated Cooperate Van/Chartered buses to transport employees to main local cities and / or bus and metro stations and / or bus stops, in addition to this, discounts was offered on tickets (vouchers) to employees that travel to and from work by Public Transit. The quality of service offered by public transport also encourages employees to migrate to it. Besides that, public transport is sometimes considered as active travel, since employees walk certain distance before taking Public Transport, contributing to health. Active mode of transport is healthier than the of car (Banister, 2008; Petrunoff *et al.*, 2013).

**c) Carpooling and Car-sharing:** Carpooling is another way of promoting sustainable travel and it means two or more people (depending on the capacity of the vehicle), not of the same home, sharing a car for commuting to work, while car sharing is the renting of car for a specific period of time (Ciari and Axhausen, 2012). The factors that are important in promoting carpooling/car sharing at the workplace are, exemption from parking fees and preferential vacancies at workplace for those participating; offering incentives e.g. financial; having a vehicle in case of emergency; get benefits (discounts and coupons) from accredited partners, also organizations do not often require employees to commit to carpooling every day (Cairns *et al.*, 2010). The advantages of carpooling are, less cost compared to the single car occupant; less stress and opportunity to socialize with colleagues or people with whom ride are shared and less demand for parking space, among others (NZTA, 2011).

**d) Parking Management Policy:** Another variable, important in determining the success in Workplace Travel Plans and decreasing the use of single occupant car is the parking management policy employed by company. These include, prioritizing parking spaces for drivers who offer lift to employees not necessarily of the same organization, paying for parking by does who drive alone to work. The restriction of parking at workplace can reduce the number of people, who drives to work. (Cairns *et al.*, 2010; Petrunoff *et al.*, 2015). Restricting parking space is a controversial method of managing Workplace Travel Plan and reducing dependency on the car. It is noted that cities or neighborhoods with more parking tend to have



more cars (Melia and Clark, 2018). Furthermore, a study of workplaces in Cambridge, England, found that free parking at workplace increases the likelihood of driving to the workplace (Carse *et al.*, 2013). A research conducted by Riggs (2014) confirmed that cost and availability of parking as two factors among several other that influences the decisions of employees or students to drive to jobs or schools. Besides that, are having a driver's license, car availability and advance parking payment (parking permit).

A survey conducted in Australia of two hospitals, adjacent to each other, (Queen Elizabeth II Medical Center - QEMC and Hollywood Private Hospital - HPH) on employee traveling to work was carried out in both locations at approximately the same time in 2006 and 2012. The result as at 2006, shows that 85% of the staffs drive alone to work at QEMC, while 80% of the staff drive alone to work at HPH. Workplace travel plans were applied to both hospitals with different programs and actions. After the implementation of these actions and programs, another survey was conducted at the hospitals in 2012. According to the survey there was a decrease to 43% and 75% in QEMC and HPH employees who drive alone to work respectively, an eight-time reduction to 42%, in the proportion of employees driving alone to work at the QEMC than the 5% reduction achieved at the adjacent HPH. The significant change or result achieved by QEMC compared to HPH, was due to the fact that the QEMC had a different workplace travel plan implemented compared to the HPH, which are the restriction of parking spaces available to workers and the introduction of payment for parking as part of the implementation of its parking management policy (Petrunoff *et al.*, 2015).

**e) Other Measurements:** Workplace Travel Plan can also be promoted with extensive marketing and communication of the travel plan to employees; display travel information such as web pages; bulletin boards and exhibitors; holding of events; printing of flyer; material and sending them directly to employees about Travel plans; holding meetings; introduce and promoting brand or logo for employees traveling to organization through Workplace Travel Plan, include promotions and team competitions among employees and encourage employees to drive to work fewer days a week, and in return, obtain benefits or practice teleworking; flexible working hour or compressed working hour in which an employee works 4 days a week (Cairns *et al.*, 2010; Petrunoff *et al.*, 2013).

Some main motivations for the adoption of teleworking by organizations are to retain and attract employees, as well as increase their productivity and, thus, reflect on improving the individual's quality of life (Lavieri, 2014). In addition, other ways are giving regular incentive payments to all employees who choose not to drive to work; offering of benefits to employees who live close to workplace; training to facilitate the commuting of employees to work, and the offerings of high-demand and daily services used by employees, close to the organizations, such as restaurants, gym center and Banks/ATM machines (Cairns *et al.*, 2010; Richbell, 2012).

**f) Socioeconomic and Environmental Variables:** these variables that influence in the mode an employee's uses to commute to work are, age; car's ownership; the location of the organization; incomes; the size and numbers of employees working in the organization; gender; where employee resides; proximity to workplace; the weather; among others (Sims *et al.*, 2018; Badland *et al.*, 2014 and Adams *et al.*, 2017).

Therefore, achieving a change in behavior depends critically on the adoption of appropriate strategies and processes in the Workplace Travel Plan, and also employees should be encouraged to change to mode of transportation that suit their needs (Petrunoff *et al.*, 2015). Hence, based on the literature review in this chapter, it was observed that, it is important to identify factors related to sustainable modes of transport encouraged by organizations/employers/managers to practice WTP, factors that will encourage employees to travel in a sustainable way that promotes WTP and factors related to accessibility and facilities in the area of influence of the Organization that can encourage or limit the use of sustainable mode to workplace.

### 3. METHOD FOR ASSESSING WORKPLACE TRAVEL PLAN

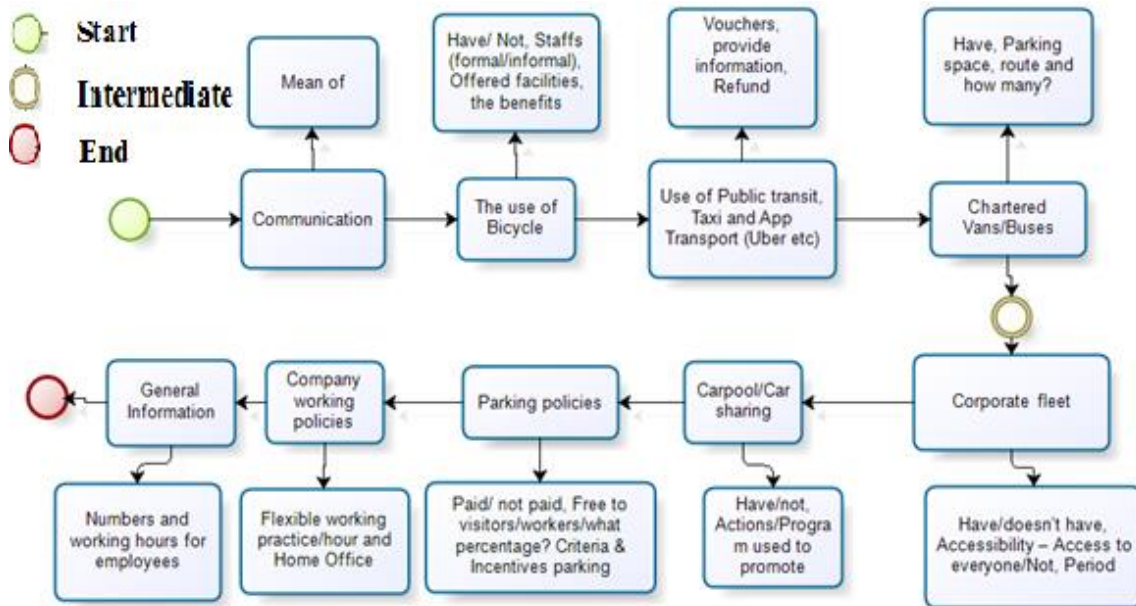
#### 3.1 Presentation

After a detailed Literature Review and the identification of categories and variables that influences the practice of workplace travel plan in organizations, the method used in this project is presented in this chapter as follow: *i)* Survey Elaboration: three distinct surveys where elaborated; *ii)* Identification and Contacting of Organization; *iii)* Survey Application and Publicity; and, *iv)* Data Analyzes.

#### 3.2 Survey Elaboration

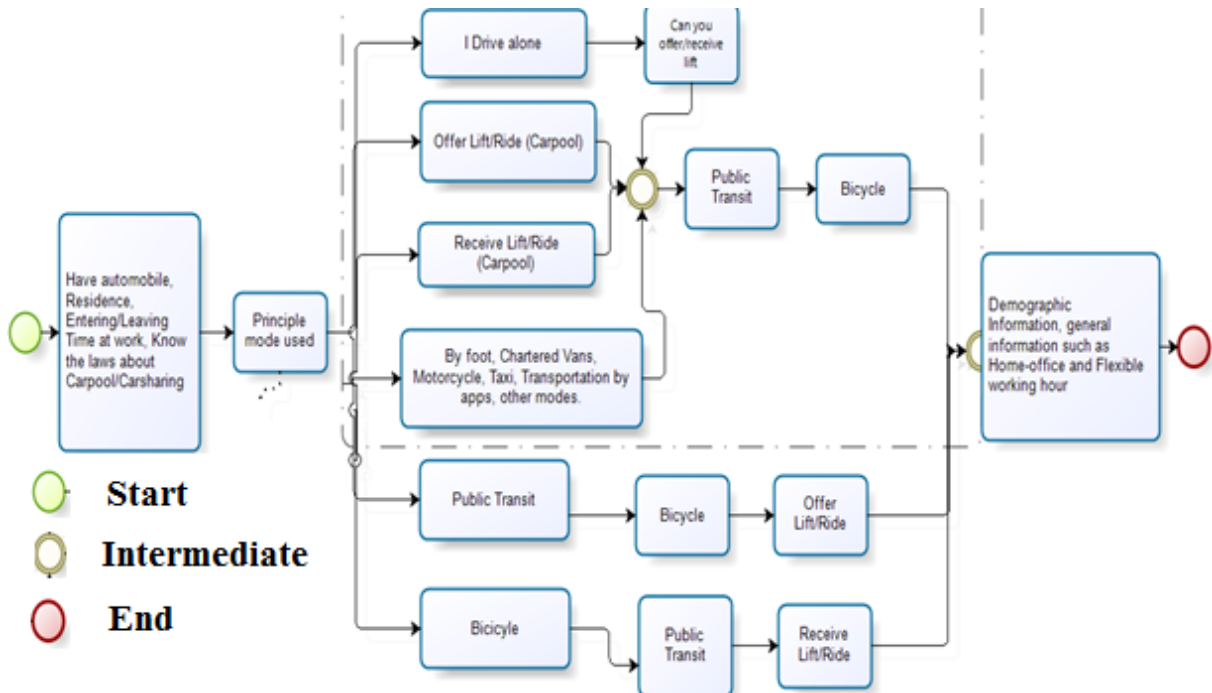
Using the 79 variables identified from the literature review, three distinct surveys were elaborated to be to carry out the diagnosis of workplace travel plans in organizations: a) Diagnosis for workplace travel plan/actions for organizations/managers; b) The diagnosis of workplace travel plans/actions for employees; and, c) Identification and collection of information related to urban mobility in the area of influence of the Organization on site, through interview, using Open Street Map data base and Geographic Information System - GIS. These surveys can be seen in Appendix B.

**3.2.1. The Diagnosis of workplace travel plan/actions for Managers/Organizations:** This survey was structured in a multiple choice format. Where questions such as, does the organization provide information to workers about transportation to staffs to ease their movement to work? Do the organization encourage active mode program, facilities and benefits? do Managers promotes the use of Public Transport, by offering of Vouchers for Public transportation? encouraging the use of Chartered Vans/Buses to link bus stops and stations? what are the Parking Policies of the organization? Is the use of carpooling/car sharing encouraged by Managers and what are the other policies practiced by the organization e.g. flexible working practice/hour and Home Office? if adopted by the organization to promote employees travel to work in a healthy and sustainable way. The flow chart in Figure 3.1 demonstrates the way the survey was structured. This survey for company managers can be found in the Appendix B1- Questionnaire 1: Manager's/Organization's Survey.



**Figure 3.1:** Flowchart of the survey for workplace travel plan/actions for Managers/Organizations.

**3.2.2. Diagnosis for workplace travel for Employees:** In the case of the employees, they were evaluated to know, what is their principal mode used and why? (The principal mode is considered to be the mode used by employee during his/her longest traveling distance to work); what will motivate them to travel to work in a sustainable mode and maintain this traveling mode? Therefore, for those that drive alone, questions to know why they do so were asked, and also what will encourage them to offer and/or receive lift/ride to work (Carpool), go by foot and Chartered Vans to work if available? Also questions like what facilities are needed to be implemented by employers, for employers to be able to travel by bicycles, by foots, and what will motivate employees to commute by Public Transit? The five-point Likert scale was also used to assess the relative importance of variables that influence workplace travel. Demographic and General Information like gender, age, income, position in the company, trip time to work, were all asked. Beside these diagnosis, questions to know how the mode of transport used by an employee to commute to work, influences in his/her productivity and well-being. A flow chart demonstrates the way the survey was structure in Figure 3.2 and the survey is found in Appendix B2 - Questionnaire 2: Employee’s Survey.



**Figure 3.2:** A flowchart of the survey for workplace travel for Employees.

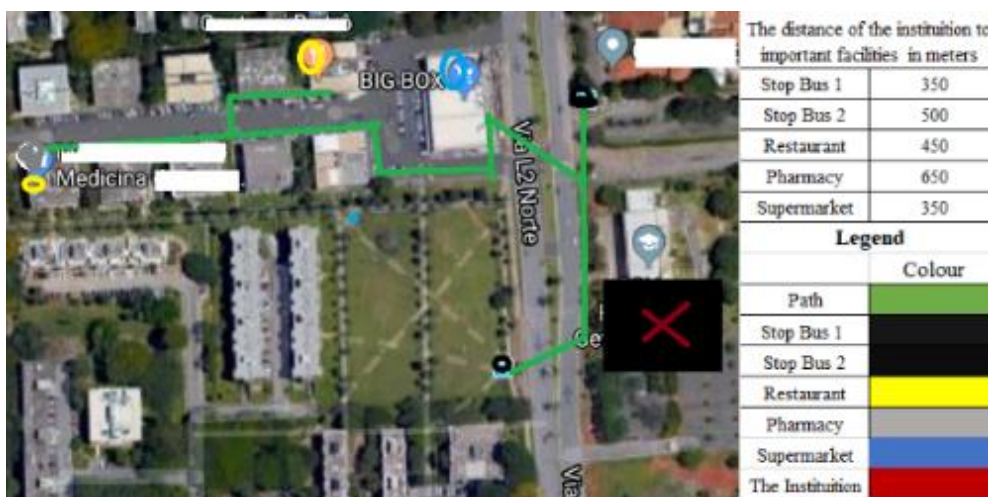
**3.2.3. Identification, collection and evaluation of facilities of accessibility in the area of influence of the Organization:** The third diagnosis is related to the area of influence of the organization. Where facilities that are close to, in, and around the organization were evaluated, that can motivate employees to travel to work in a healthy and sustainable way. These facilities include footpaths for pedestrians; cycling path connecting to the organization; proximity of bus stop to the organization; pedestrian’s path well-lit with street light; safety and security for bicycles and pedestrians around the organization, among others.

In addition to these, the closeness and location of facilities of daily necessities to employees like restaurants, gym and supermarket to the organization were checked. Information that could not be obtained on site were acquired through the use of GIS software (ArcGIS and Google Earth Pro) and Open Street Map data base. Some of information includes distance between the organization and important facilities or services that are of regular use to employees or that can ease the use of sustainable mode e.g. bus stops, metro, bus stations, supermarkets and banks. As shown in Figure 3.3, the cycling path in Brasilia DF, “*Plano Piloto*” in color green obtained from Google Earth Pro.



**Figure 3.3:** Brasília DF “Plano Piloto” Cycling Path obtained from Google Earth Pro

Figure 3.4 shows some of the facilities that will be observed using the organization marked X as an example. We can see the distance of some facilities to the organizations X e.g. the closeness of the bus stops to organizations X, this can encourage the use of public transport, the proximity of two restaurants, distance 450m and 600m, within walking range for employees to have lunch during lunch period, which discourages the use of car during lunch period and probably to work.



**Figure 3.4:** Examples of facilities that was obtained on site using Google Maps for Organization X

### 3.3. Identification and Contacting of Organizations

Both Private and Public organizations were contacted by sending of invitation through email and phones call. A total of 26 organizations were contacted with a feedback received from 5 organizations, with one of the company located in two different site and diagnosed different,

making a total of 6 organizations. In according to Matins (2014), there are different method for organization classifications. However, for this research, organizations were classified accordingly to the number of employees working in an organization given by SEBRAE - *Serviço Brasileiro de Apoio às Micro e Pequenas Empresas* (Table 3.1).

**Table 3.1:** Classification of organization according to the numbers of Employees

Organization	Micro	Small	Medium-size	Large size
Employee size	< 10	10 - 49	50 - 99	> 100

Adopted from SEBRAE (2015) criteria for classifying companies in Brazil

The 6 organizations that replied the surveys were visited and a presentation were done, firstly to the mangers and after to the employees, to explain the objective of the project, partnership both with the employers and employees, and also, to know the need of the employees in respect to transportation and their about the project. In one of the organization, prize draw was done to motivates employees’ participation in the survey. These prizes included, given out of Electric Bicycle, to encourage active mode, and of earphones. Figure 3.5, demonstrate presentation at one of the organization about workplace travel plans. Presentation were done to explain the objectives of the research and encourage organizations and employees to participate.



**Figure 3.5:** Presentation at one of the organization to promote Workplace Travel Plans and Actions

Government organizations where visited, such as, *Secretaria da Casa Civil do Distrito Federal, Governo do Distrito Federal*, where full support were demonstrated to carry out diagnoses in the different public organizations in Brasilia about workplace travel. The support document can be seen in Appendix G. Another organization was visited, “*O Ministério do*

*Desenvolvimento Regional*”, which was formerly known as “*Ministerio das Cidades*”, has a well-advanced plan in respect to workplace travel, known as “*Projeto de Mobilidade ao Redor*”, but these plans are no more effective due to the change in the management of the organization and employees to another location. Before this, actions, such as, carpooling and reserved parking space, active mode, provision of information about transportation to employees, among others (MDR, 2020).

### 3.4. Survey Application and Advertising/Publicity.

Application of survey on the internet is currently favored by the exponential increase in the number of people who have access to computers, the Internet, and e-mail, better internet connection speed; browsers and programs capable of managing the most complex web programming media and languages for survey application (Walter, 2013). Therefore, the survey for the diagnosis for workplace travel plan/actions for employees was applied online using google forms, but exception was made for organizations who do not have asset to the google platform, as lime survey platform (limesurvey.com) was used and there were instances where the survey was adapted into the internal survey platform of organizations for easy access by employers. Posters (can be found in the Appendix F) and flyers were distributed and given to employers and employees, as well as positioned in strategic places in the organization. Intranet was also used for publicity and distribution of survey by organizations (Figure 3.6 and Figure 3.7).



Figure3.6:Distribution of flyers with QR code to employees

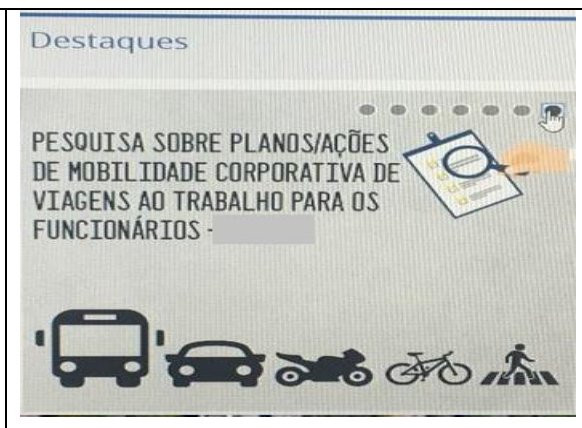


Figure 3.7: Publicity on the company’s intranet



Survey for the diagnosis of Information relating to urban mobility in the area of influence of the Organization on site and some of the survey for the Diagnosis for workplace travel plan/actions for employers was applied on site through observation and interviewing of the person in charge of the mobility planning or Human resources of the organization. Most of data were applied and collected online for easy monitoring and analyzing. For clarification of data, some managers and employees were interviewed.



Figure 3.8: Publicity on website “Grupo de Comportamento em Transportes e Novas Tecnologias”

### 3.5. Data Analyzes

**3.5.1. General Analysis:** A general analysis of the surveys was done from all the data collected, classification of the areas studied based on the number of employees. A general analysis of the Manager’s survey, to know the facilities offered by the organization that encourage employees to practice Workplace Travel Plan for example the management policy in each organization, the use of Chartered Van. Also an analysis of the Employee’s survey, showing result of where majority of the employees reside, arriving and departing time from work and how this influence on their mode of transportation.

A general analysis of the third survey, information obtained onsite, through interviews and ArcGIS software relating to urban mobility in the area of influence of the Organizations, to

know the number of parking spaces, the existence of bicycle racks, cycling path, sidewalks, if organization is Shared with another building and among others.

**3.5.2. Multinomial Logistic Regression - MLR:** The model rates the relationship between a set of independent variables and a Multi-category outcome (Newsom, 2016). Examples can be different modes of transportation, which include “Carpooling”, “Public Transport” and “Chartered vans”. MLR was preferred to other model due to the fact that its help to analyses categorical data, it make use of odd ratios to evaluate variables, which helps to have a better understanding and interpretation of the final model (Petrucci, 2009) and similar work was found in the literature review (Section 2, Table 2.2). They are also used when there are dependents or outcome variables with three or more categories (Hosmer and Lemeshow, 2000). It was used in this project because of its ability to analyze variables (predictors and outcome) of an unordered group, compare and examine relationship between variables. When a baseline is selected, comparison can be made between the baseline and other categories, whether nominal or ordinal. Equation 3.1, is a MLR.

$$P(A) = \frac{1}{1 + e^{-(b_0 + b_1X_{1i} + b_2X_{2i} + \dots + b_nX_{ni})}} \quad \text{Eq. (3.1)}$$

Where  $P(A)$  = Probability of  $A$  occurring,

$b_0$  = Constant

$X_1, X_2 \dots X_n$  = Independent Variables

$b_1, b_2 \dots b_n$  = The coefficients attached to the independent variables

IBM SPSS (Statistical Package for the Social Sciences) was used. This software is use for data management and statistical analysis. It helps to coordinate complex statistical analyses, supply data analysis both for bivariate and descriptive statistics, aid graphing, data transformation among other, it can be used in both academies and applied research (SPSS, 2020; and Frey, 2017).

**3.5.3. Evaluation of facilities of accessibility in the area of influence of the Organization:**

Some of the data relating to urban mobility in the area of influence of the Organization such as the distance and location of the organization to the bus stop or station, the existence of the cycling path and bicycle rental services at the organization's location, Banks, Restaurants and

among others, were all gotten from the GIS using Open Street Map (OSM), Google Earth Pro and ArcGIS.

The procedure to know the distance between organization and existing facilities were carried out has follows: *i*) Mapping of organizations on ArcGIS; *ii*) Data extraction from OSM to ArcGIS; *iii*) Selection of facilities and Point of Interest (POI), on ArcGIS for example ATMs (Automated Teller Machine), Banks, chemists, cafe, pharmacy shop, mall, school etc.; *iv*) Grouping of these facilities that are similar or identical for example, ATMs and Banks, Fast-Food and Restaurants, School and Universities, etc.; and, *v*) In the ArcGIS software, the "generate near table" tool was used to collect Euclidean distances between Organizations and POIs (shortest distance).

**3.5.4. Calculation of Workplace Travel Plan Index – I<sub>WTP</sub>:** For the calculation of Workplace Travel Plan Index, indicators were adopted for each survey Equation (2).

$$I_{WTP} = f(I_M, I_{EM}, I_{EN}) \quad \text{Eq. (3.2)}$$

Where

$I_{WTP}$  = Workplace Travel Plan index

$I_M$  = Manager's Indicator

$I_{EM}$  = Employee's Indicator

$I_{EN}$  = Environment's Indicator

The Workplace Travel Plan Index was calculated using the answers gotten from the three questionnaires; (the managers' survey, employee's survey and on site observations and interview survey). From the employer's survey, organizations were graded based on the facilities available in their respective companies. Grading them as 1 (one) for available facilities, policies or actions and zero (0) for actions, policies or facilities not practiced or available, e.g. active mode actions, carpooling and public transport incentives, parking management policies, among others. Employees were graded on the principal mode of transport used to work, considering only sustainable modes used by employees, classified according to the Traffic Pyramid in Table 3.2; the percentage of staffs that work from home (Home-Office) and the percentage of those that practice flexible working time. The Traffic Pyramid was obtained from the combination of two concepts, the new reverse traffic triangle

figure by BIL- Bicycle Innovation Laboratory (Freudendal-Pedersen, 2015) and the making pedestrians priority on street (iTrans, 2017). The objective was to promote sustainable mobility, priorities active travel to reduces greenhouse effect and congestion. To bring health, economic, environmental and cost benefits. The sustainable travel hierarchy was used in calculating the Workplace Travel Plan Index ( $I_{WTP}$ ). In the computation of the employee's indicator, Sustainable modes of transportation based on the Traffic Pyramid, were considered, they include, active modes, rideable, carpooling, taxi and public transport and these modes should be given more encourage by organizations because they are cost efficiency and are less pollutants to the environment. The classification of Traffic Pyramid can be seen in Table 3.2.

**Table 3.2:** The classification of the Traffic Pyramid

Classification of Mode of Transportation				
<b>PRIORITY MOVEMENT EFFICIENCY</b>	<b>Highest</b>	Active Travel	Wheelchairs	<b>COST</b>
			Walking	
			Cycling	
			Scoters	
			Skating	
			Cargo Bikes	
	Rideable	Electric scooters		
		Segway		
		Hover Boards		
		Mobility Scooters		
	Public Transport	Buses		
		Trains/Subway/Trams		
	Vehicles	Taxi/Trucks Transporter		
		Car sharing/ Carpooling		
		Motorcycles		
		Own Car (Drive Alone)		
<b>Lowest</b>	Air	Airplane		
		Helicopter		
		Drone	<b>Highest</b>	

**Source:** Traffic Pyramid diagram (Freudendal-Pedersen, 2015 and iTrans, 2017)

Onsite observation and interview was based on the third survey about policies, available facilities and its distances on site that encourages the practice of workplace travel plan, these facilities include parking space/parking management, cycling facilities (bicycle path), availability of sidewalks well-paved and well-conserved, bus stops, among another. The final actions, policies or practice for each questionnaire were added. These indicators were graded from 0 (zero) to 1(one), as seen in the Figure 3.8. For 0 to 0.25 scale, they are Beginners, that the concept is new to them or are not aware about Workplace Travel Plan. From 0.25 to 0.50

are aware of the actions and plans but with few/no definite actions. From 0.51 to 0.75 have policies and actions but no Workplace Travel Plan, nothing concentrates and still developing and from 0.76 to 1.00, have a Workplace Travel Plan, well advanced and employees are adhering to this plans, with available facilities around the environments, and group of managers monitoring this plan.

**Table 3.3: Scale of Workplace Travel Plan Index (IWTP)**

	Beginner	Bronze	Silver	Gold
Scale	0 - 0,25	0,26 - 0,50	0,51 -0,75	0,76 -1,00

## 4. RESULTS AND ANALYSES

### 4.1. Presentation

Results obtained from the survey application were presented in the following order in this chapter: *i)* General Analysis, is divided into Description of study area, Manager`s survey analysis, Employee`s survey analysis and Information obtained on-site, through observation, interviews and ArcGIS software relating to Urban Mobility in the area of influence of the Organization; *ii)* Statistical Analysis using Multinomial Logistic Regression; and, *iii).* Regression Calculation of the Indicators, Manager's ( $I_M$ ), Employee`s ( $I_{EM}$ ), Environment`s ( $I_{EN}$ ) and Workplace Travel Plan Index ( $I_{WTP}$ ) for each organization.

### 4.2. General Analysis

#### 4.2.1 Characteristics, Classification and Number of respondent of Study Areas

All interviewed organizations are located in “*Plano Piloto - PP*”, DF of Brazil, with the exception of company D located at an administrative region (RA), outside PP. Table 4.1. shows a medium size organization and five large size organizations, classified according to Table 3.1, number of people that responded the employee`s survey and location of the six (6) different organizations, where the surveys were applied.

**Table 4.1:** Classification of organization according to their Employee`s size

Name of Organization	Total number of Employees	Number of Contracted Employees	Total number of Employees	Classification of Organization	Total number of respondent	Location
Company A	6,000	500	6,500	Large	1,233	Asa Norte (PP)
Company B	450	90	540	Large	33	Asa Norte (PP)
Company C	350	110	460	Large	47	Sobradinho (RA)
Company D	275	87	362	Large	91	Centro (Esplanada - PP)
Company E	143	25	168	Large	33	Asa Sul (PP)
Company F	76	6	82	Medium	17	Asa Sul (PP)

#### 4.2.2. Manager`s Survey Analysis

The results of the manager`s diagnosis was presented in this section (Table 4.2) in accordance with the result obtained from the Questionnaire in Appendix B1 to demonstrate, what actions, policies or plans organizations have, that encourages workplace travel and what are their future expectation in motivating staffs to travel to work in a sustainable way.

### a) Active Travel

Companies A and B are the two organizations out of the six organizations that promote the use of active mobility, with the offering of bicycle racks, wardrobes, dressing room and showers for cyclist, shown in Figure 4.1. In addition to this, they provide security at the bicycle rack (parking site) to prevent theft and monitors the going in and out of cyclists with cameras and giving of badges to employees. For other organization that do not promote active traveling to their employees, the main reason given by them, is that they have never taught about the cycling program/actions. This is a positive sign in that, this applied survey can encourage them to start practicing, as well as motivate them to start promoting these programs.



**Figure 4.1:** Provision of Wardrobe, Dressing room and shower for cyclist by Company A.

Some of the other reasons given by managers is that Active Travel is not promoted due to lack of space in the organization to promote such action, as well as considering the distance and time that employees might spent in traveling, when compared to others modes. It was also interesting to discover that none of the organizations gives incentives to employees who travel to work by Active Mode and according to NTA (2011), giving of incentives such as loans, awards, discount in purchasing and maintenance of bicycle encourage employees to travel to work using an active mode.

According to Cairns *et al.*, (2010), creating group for employees to cycle through the same route, for security purposes, motives employees to cycle to work. But only company A and company F have informal group of staffs that travel to work by bicycle and apart from this, these cyclists do not get incentive from their respective organizations, therefore, this make few employees participate in the program. The number of managers that promotes Active mobility in their organization can be seen in Table 4.2.

**Table 4.2: Workplace Travel Plans and Actions offered by Managers of Organizations A to F**

		<b>Plans/Actions</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
<b>Bicycle</b>	<b>What are they?</b>	Have actions/policies?	Yes	Yes	No	No	No	No
		Bicycle rack	Yes	Yes	No	No	Yes	No
		Changing room and shower	Yes	Yes	Yes	Yes	No	Yes
		Wardrobe	Yes	Yes	Yes	Yes	No	Yes
		Padlocks	No	No	No	No	No	No
		Cyclist clothing / accessories (e.g. helmet, knee pad, etc.)	No	No	No	No	No	No
	<b>Why not?</b>	Time and distance of travel	-	-	Yes	-	Yes	Yes
		Never taught about this actions/policies	-	-	Yes	Yes	Yes	Yes
		Not part of the Organization`s policy	-	-	Yes	-	-	Yes
		Lack of space in the Organization	-	-	-	-	-	-
<b>What is available?</b>	Formal/Informal cycling group	No	Yes	No	No	No	Yes	
	Organizational benefits for the use of bicycle by staffs	No	No	No	No	No	No	
<b>Public Transportation</b>		Offering of Vouchers	Yes	Yes	Yes	Yes	Yes	Yes
		Provision of information to staffs (Maps, bus stops and information)	No	No	No	No	No	No
<b>Chartered Vans/Buses</b>	<b>Actions/Program</b>	Have?	Yes	Yes	Yes	Yes	No	No
		Public transport station (terminals, metro and bus stop)/work and vice versa	Yes	Yes	Yes	Yes	-	-
	<b>Route start and Ends</b>	Home/Work and Vice versa	-	-	Yes	Yes	-	-
		Home/Public Transport Station (Terminal Metro and Bus stops)and vice versa	-	-	-	-	-	-
	<b>Timetable</b>	Period	Always	Always	M & E	M & E	-	-
		<b>Parking space</b>	Have?	Yes	Yes	Yes	Yes	No
<b>Corporate fleet</b>		Have?	Yes	Yes	Yes	Yes	No	Yes
		Accessibility (Access to everyone)	Restricted	Restricted	Restricted	Restricted	-	Restricted
<b>Car sharing/Carpooling</b>	<b>Actions/Program</b>	Available/not?	Yes	No	No	No	No	No
		Web Registration	No	-	-	-	-	-
		Reserved Parking Spaces	Yes	-	-	-	-	-
		Group on social networks (Facebook, whatsApp)	Yes	-	-	-	-	-
		Carpooling Program	Yes	-	-	-	-	-
		Lectures, Events, Workshops	No	-	-	-	-	-
	<b>Know the Laws?</b>	Law No. 5051/2013	No	No	No	No	No	No
		Law No. 6231/2018	No	No	No	No	No	Yes

M=Morning, E=Evening, “-“ = do not apply to this organization.



Cont..Table 4.2:Workplace Travel Plans and Actions offered by Managers of Organizations A to F

Parking Management Policies	Who operate it?	By the Organization	-	-	Yes	Yes	-	-
		By a third party	Yes	Yes	-	-	Yes	Yes
		Public Parking Space	-	-	-	-	-	-
	Free/Paid?	Free Parking for Visitor	-	-	-	-	-	-
		Free Parking for employees	Yes	Yes	Yes	Yes	Yes	Yes
		Space	Sufficient parking space for everyone	No	No	Yes	Yes	No
	Criteria for parking	No criteria	-	-	Yes	Yes	-	-
		By hierarchy	Yes	Yes	No	No	Yes	Yes
		Rotation between employees	Yes	Yes	No	No	No	No
		According to the need of staffs (Mobility difficulties, Elderly)	Yes	Yes	Yes	Yes	Yes	Yes
		Reserved Carpooling Space	Yes	No	No	No	No	No
		Incentives	Incentives for those who let go of their parking space	No	No	No	No	No
		What are this incentives?	-	-	-	-	-	-
Other Programs	Working policies	Flexible working practice/hour	Yes	Yes	Yes	Yes	Yes	Yes
		Compressed working hour (4 working days instead of 5)	No	Yes	No	No	No	No
		Home office (Pratice/not)	Yes	Yes	Yes	Yes	No	Yes
	Home office	Once a week	Yes	Yes	-	-	-	Yes
		2 to 3 times a week	Yes	Yes	-	-	-	-
		4 times a week	-	-	Yes	-	-	-
		Everyday (part-time work at home)	-	Yes	-	Yes	-	-

#### b) Public Collective Transport

Few actions are carried out by employers to inspire employees to travel by public transport. The general incentive given by organization to employees who travel by public transport is the offering of vouchers for Public transport known as “*Vale transporte*” in portuguese and this is mandatory by law according to “Lei nº 7.418/85”. This Law states that the benefit must be granted in advance by employer to an employee. However, it is not a salary replacement. It is for the coverage of commuting expenses by public transport and it is valid for all Brazilian either urban or rural, that are permanent or temporary employees of an organization” (Brasil, 1987).

From the applied surveys it was noted that only Company F provide information to employees about public transport such as giving of maps, bus stops and locations, information related to bus line and frequency. According to NZT (2011), the provision of information to employees about public transport encourages them to travel more often and regularly in it.

#### c) Chartered Vans/Buses

Chartered buses are used by organizations to promote the use of workplace travel plan. Oftentimes with route from home to workplace and vice versa or home to public transport

stations/stops/terminals and vice versa or public transport stations/stops/terminals to work and vice versa. Table 4.3 present the number of Chartered vans offered by each organization and shows that organizations with larger employees offer larger quantities of Vans to transport their staffs. Companies A, B, C and D offers Chartered Vans, with Companies A and B offering within an interval of every 15 minutes, with these vans departing from work to public transport stations/stops/terminals and vice versa. While companies’ C and D offer Chartered vans to employees in the morning (arriving to work) and evening period (leaving from work), as seen in Table 4.2.

**Table 4.3: Number of Chartered Vans/Buses offered by each Organization**

Chartered Vans/Buses for Organization						
Organization	A	B	C	D	E	F
Number of Chartered Vans/Buses	8	4	3	1	0	0

Vans destination for Company C are administrative regions (*Taguatinga, Sobradinho and Planaltina*) to workplace and vice versa, with employees alighting at their residence or bus stops close to regions where they could take another bus. For Company D, this van only takes employees to and from the organization to the administrative region (*Taguatinga*), in the morning and evening period. Employees who do not reside in this region can alight at bus stops.

**d) Corporate Fleet**

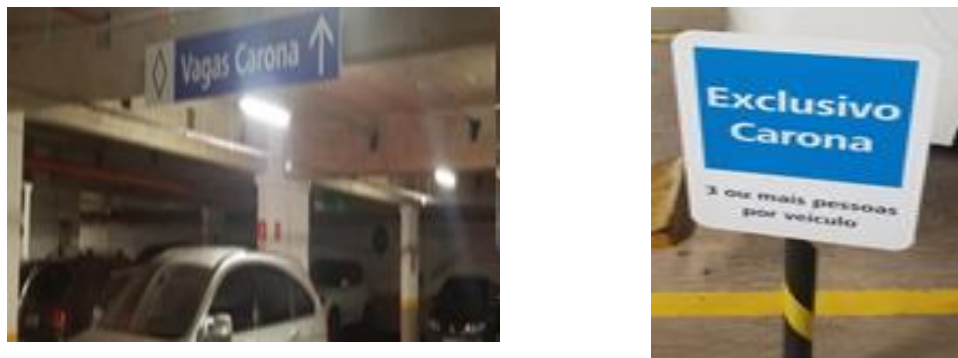
The use of corporate fleet motivates employees to consider using other mode of transportation besides driving to work alone, as this can be used during working time, if the need arises, e.g. meetings at other organizations. Five of the six (6) organizations have corporate fleet (Companies A, B, C, D, F) as shown in Table 4.2. The use of corporate fleets is restricted to some employees and only for specific assignment by all five companies. Companies A and D, “always” permit the use of corporate fleet during the day, companies C and F permit usage during the day “frequently” while in Company permission is only given “sometimes”.

**e) Carpooling/Car sharing**

In the year 2013 and 2018, the laws “No. 5051/2013 - Carpooling Week” and “No. 6231/2018 - Carpooling” were formed respectively by the then Governors of the Federal District during

this period, to support the use of carpooling. The Law “No. 5051/2013” –, has the objective to reduce the number of vehicles on the streets; promote the use of carpooling in Brasilia DF. The Law “No. 6231/2018” –allows the use of lift/ride by application based on network communication technology in the Federal District (FD). This is to give the impression that carpooling is not illegal with the use of Application.

As shown in Table 4.2, the only manager aware about one of the laws, Law “No. 6231/2018” is Company F, as these laws can be used to promote the use of carpooling in organizations. It was noted that only Company A promotes the use of carpooling among employees through the use of applications (Apps) and reserved parking spaces for 3 or more people in an automobile and those that scores high points in the used of the Apps, as shown in Figure 4.2. The other five organizations do not have carpooling programs and are neither participating in any action to encourage carpooling, and according to Transport Canada (2010), carpooling helps to improve socialization among employees, reduces cost and reducing the need for parking space at the organization, therefore managers should support it use.



**Figure 4.2:** Signs and reserved parking spaces for 3 or more people in a car Company A

#### **f) Parking Management**

Table 4.2 shows that majority of the parking space are operated by third parties (companies A, B, E and F) while in companies’ C and D, they are operated by the organization. All the organization where parking is operated by third parties, have limited parking space to employees because the demand for parking space exceed the numbers of space offered. Hereby causing the distribution of parking space to be done by hierarchy, reserved parking spaces to managers and rotation among employees. In addition, Company A have 50 parking space

reserved for those that practice carpooling. Companies C and D, where parking is operated by the proper organization have sufficient parking space and there are no criteria for parking. This might have been caused by the location of both organizations.

It was noted from the survey that neither employees nor visitors pay for parking for all organizations, which has encouraged employees and visitors to travel to work by car. None of the organizations practice incentives (such as giving of financial benefits), to motivate employees to give up their parking spaces and the results collected from the surveys can be seen in Table 4.2. Due to limited space in companies and lack of parking management policies, over spilling of cars into nearby road can be seen, as shown in Figure 4.3, and as well as in Figure 4.4, where cars obstruct the entrance of a parking space and over-congested parking space.



**Figure 4.3:** Over spilling of vehicle obstructing traffic, cyclists and pedestrian’s movement.



**Figure 4.4:** obstruction at the parking entrance and over congested parking space

This over spilling has obstructed movement of pedestrians and cyclists, as well as prevented the use of land for other productive things such as mini-park. This should not be encouraged

by organizations, therefore organizations should charge for hourly or daily for parking spaces as disincentive to single occupant vehicles to work, as this charge can be used to improve pedestrian and cycling paths and other benefits that can improve access to the company's environment, and according to Transport Canada, (2010), employees that drive only to work, should be charged hourly or daily, not monthly or yearly charges, as charging daily or hourly will still encourage employees to drive to work.

**g) Reducing the Need to Travel**

Other alternatives policies that can be employed by organizations to reduce employees that drive to work in single occupancy vehicles are flexible working practice/hour, compressed working hour (working 4 days a week instead of 5 days) and home office.

The labor legislation in Brazil does not provide regulation about flexible working hours but establishes a normal working hours of 8 (eight) hours per day and 44 (forty-four) hours weekly. Therefore, the flexible working hours depends on the agreement between a manager and his/her employee provided that the 8 (eight) hours per day and 44 (forty-four) hours weekly are obeyed (Guia Trabalhista, 2019). The flexible working hours can allow workers to travel by Public Transport at their own convenience and the compressed working hour to take day off with the need not to travel to work. All companies, where the surveys were applied, practice flexible working time, consequently this can motivate companies' employees to travel in a sustainable way, while only company B practice compressed working hours, which reducing the demand for parking spaces.

Another way managers can reduce employees need to travel is by making them work from home (Home-Office). Of all the organizations, only company E do not practice home office (Table 4.4) because it is not part of the organization policy. Other companies' practices with the numbers of days per week varying between companies as shown in Table 4.2.

Employees working from home have helped organizations to reduce cost e.g. in parking space and office cost and it has also improved the quality of life of staffs and the level of services rendered. Table 4.4 shows that apart from company B that has a large percentage of staffs that work from home, the other companies have few percentage of employees that practice Home-Office.

**Table 4.4:** Numbers of employees that practice home-office per organization and their percentages

Practice Home-Office for Organization						
Organization	A	B	C	D	E	F
Numbers of employees that practice Home-Office	270	150	5	12	0	2
Percentage of employees that practice Home-Office	4%	28%	1%	3%	0%	2%

### 4.2.3 Employee's Survey Analysis

The results of the employee's diagnosis was presented in this section in accordance with the result obtained from the Questionnaire in Appendix B2 to show the characteristics, socioeconomic, principal mode used by employees, and why and what will encourage them to practice Workplace Travel Plan.

#### a) Socioeconomic and Characteristics of employees

The background characteristics in Table 4.5, shows that for company A, majority of the respondents are consultant staffs, while in companies B, D, E and F, majority of their staffs are administrative staffs and company C, most staffs are contracted or third party. The age groups of most of the employees for organizations D, E and F are between 18-39, while for organizations A and C, have age limit between 40-59. Majority of the respondents are male in companies A, B and C, while it is the opposite in companies D, E and F. With the exception of company C, majority of the respondents do not have children below the age of sixteen years (16).

The wage of staffs in companies A and B are predominantly higher than the tenth Brazilian minimum wage, while for companies D and E are mainly between the fifth and the tenth Brazilian minimum wage, for companies F is between the third and fifth minimum wages and company C, is between the first and the third minimum wages. The number of people that reside together are shown in Table 4.5, that organizations A and F have majority of the employees have 2 people that reside together, while in organizations B, C and E have 3 people and organization D have 4 people. In most of the organizations, respondents have been working in the company for more than 6 years, with the exception of companies' E and F. Table 4.6 and Figure 4.5, also illustrate that a large percentage of employee drive alone to work in most of the companies, company A (50.9%), B (57.6%), D (54.9) E (45.5%) and F (35.3%) respectively, principally during the peak time, which always lead to road traffic,

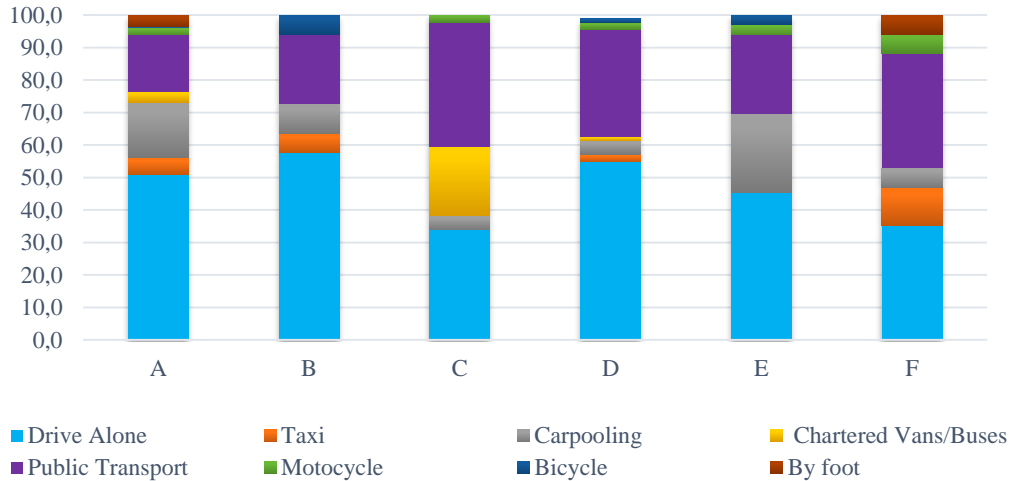
<b>Table 4.5: Demographics and Background Characteristics of Employees in Companies A- F</b>												
<b>Company</b>	<b>A</b>	<b>A (%)</b>	<b>B</b>	<b>B(%)</b>	<b>C</b>	<b>C (%)</b>	<b>D</b>	<b>D (%)</b>	<b>E</b>	<b>E(%)</b>	<b>F</b>	<b>F(%)</b>
<b>Nature of Job</b>												
Board of Directors /Managers/Supervisors	177	14,33	1	3,03	4	8,70	10	10,99	2	6,06	2	11,76
Advisory/Consultant	929	75,22	8	24,24	1	2,17	8	8,79	11	33,33	3	17,65
Administrative staffs/Technician staffs	114	9,23	18	54,55	16	34,78	55	60,44	12	36,36	6	35,29
Auditor/Accountant	13	1,05	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
Contracted Staffs	0	0,00	0	0,00	22	47,83	3	3,30	0	0,00	1	5,88
Interns/Apprentice	0	0,00	4	12,12	0	0,00	10	10,99	8	24,24	1	5,88
Others	2	0,16	2	6,06	3	6,52	5	5,49	0	0,00	4	23,53
<b>Age</b>												
<18	0	0,00	0	0,00	0	0,00	1	1,10	0	0,00	0	0,00
18 - 39	591	47,85	16	48,48	17	36,17	46	50,55	20	60,61	15	88,24
40-59	638	51,66	16	48,48	25	53,19	40	43,96	11	33,33	2	11,76
>60	6	0,49	1	3,03	5	10,64	4	4,40	2	6,06	0	0,00
<b>Sex</b>												
Male	791	64,05	18	54,55	33	70,21	42	46,15	14	42,42	3	17,65
Female	444	35,95	15	45,45	14	29,79	49	53,85	19	57,58	14	82,35
<b>Children below 16</b>												
Yes	615	49,80	14	42,42	26	55,32	34	37,36	16	48,48	3	17,65
No	620	50,20	19	57,58	21	44,68	57	62,64	17	51,52	14	82,35
<b>Income</b>												
</1 minimum wage	2	0,16	4	12,12	4	8,51	11	12,09	3	9,09	3	17,65
Btw 1 to 2 minimum wages	0	0,00	0	0,00	12	25,53	2	2,20	5	15,15	2	11,76
Btw 2 to 3 minimum wages	2	0,16	0	0,00	10	21,28	2	2,20	0	0,00	2	11,76
Btw 3 to 5 minimum wages	37	3,02	0	0,00	1	2,13	9	9,89	1	3,03	8	47,06
Btw 5 to 10 minimum wages	388	31,62	11	33,33	18	38,30	50	54,95	12	36,36	2	11,76
>10 minimum wages	798	65,04	18	54,55	2	4,26	17	18,68	12	36,36	0	0,00
<b>How many people live together in a home, including the respondent</b>												
1	278	22,51	3	9,09	3	6,38	7	7,69	7	21,21	3	17,65
2	318	25,75	6	18,18	2	4,26	22	24,18	5	15,15	9	52,94
3	289	23,40	10	30,30	18	38,30	22	24,18	9	27,27	3	17,65
4	268	21,70	10	30,30	17	36,17	25	27,47	8	24,24	1	5,88
5	62	5,02	4	12,12	5	10,64	14	15,38	2	6,06	1	5,88
>5	20	1,62	0	0,00	2	4,26	1	1,10	2	6,06	0	0,00
<b>For how long have you been working for the company</b>												
<1	1	0,08	4	12,12	2	4,26	8	8,79	11	33,33	3	17,65
From 1 to 3	5	0,40	1	3,03	3	6,38	3	3,30	11	33,33	4	23,53
From 4 to 5	18	1,46	5	15,15	7	14,89	0	0,00	2	6,06	7	41,18
From 6 to 10	171	13,85	9	27,27	21	44,68	50	54,95	9	27,27	3	17,65
>10	1040	84,21	14	42,42	14	29,79	30	32,97	0	0,00	0	0,00

air pollution, tiredness for workers, even at times lateness to work, inadequate use of space, among others. Beside this, Table 4.6, also shows that in case the principal mode used by employees are not available, most of them, will travel to work by Public Transit, Taxi (Uber)

or take a lift (Carpool) in this order, which are all considered sustainable mode in accordance with the traffic pyramid in Section 3 (Table 3.2).

**Table 4.6: Principal and Alternative modes of transportation used by employees for Companies A- F**

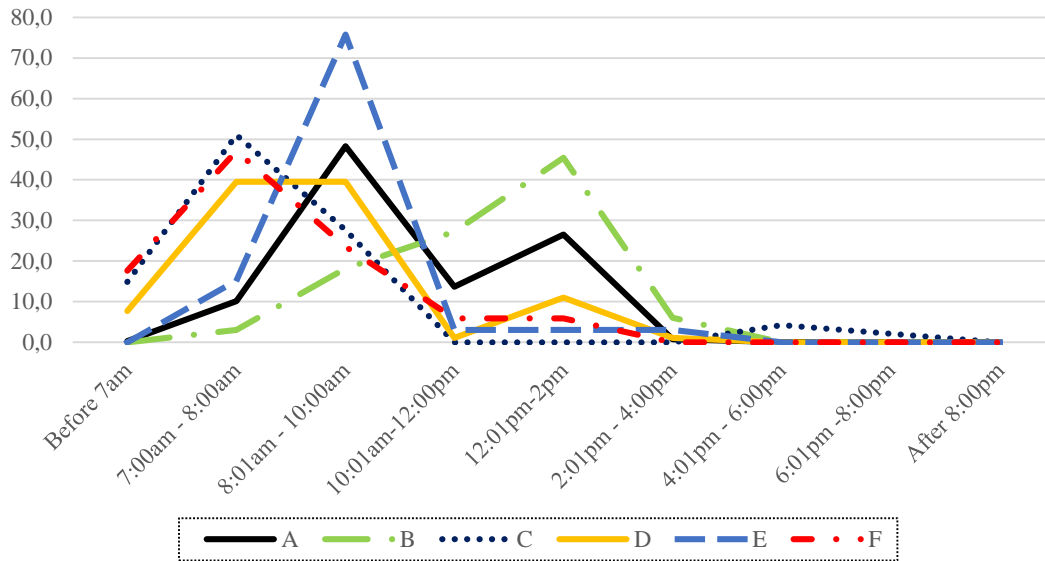
	Companies	Principal mode used by Employees												Alternative mode used by Employees											
		A	A	B	B	C	C	D	D	E	E	F	F	A	A	B	B	C & D	C&D	E	E	F	F		
	Total Number of respondents	1233 (19%)	%	33 (7%)	%	47 (10%)	%	91 (25%)	%	33 (20%)	%	17 (21%)	%	2116	%	33	%	151	%	33 (20%)	%	17 (21%)	%		
	Drive Alone	628	<b>50,9</b>	19	<b>57,6</b>	16	34,0	50	<b>54,9</b>	15	<b>45,5</b>	6	<b>35,3</b>	193	9,1	4	12,1	19	12,6	3	6,3	1	5,9		
Taxi	Conventional	2	0,2	0	0,0	0	0,0	0	0,0	0	0,0	1	5,9	30	1,4	*	*	1	0,7	*	*	1	5,9		
	By app (Uber, 99)	63	5,1	2	6,1	0	0,0	2	2,2	0	0,0	1	5,9	579	<b>27,4</b>	*	*	17	11,3	9	<b>18,8</b>	1	5,9		
Carpooling/ Carsharing	Offer	80	6,5	1	3,0	1	2,1	1	1,1	2	6,1	0	0,0	42	2,0	1	3,0	1	0,7	1	2,1	*	*		
	Receive	103	8,4	0	0,0	1	2,1	1	1,1	4	12,1	0	0,0	296	<b>14,0</b>	2	6,1	16	10,6	8	16,7	1	5,9		
	With Family	27	2,2	2	6,1	0	0,0	2	2,2	2	6,1	1	5,9	*	*	*	*	*	*	*	*	*	*		
	Chartered Vans/Buses	41	3,3	0	0,0	10	21,3	1	1,1	0	0,0	0	0,0	200	9,5	4	12,1	12	7,9	1	2,1	*	*		
Public Transport	Buses	31	2,5	3	9,1	17	<b>36,2</b>	25	27,5	5	15,2	5	29,4	230	<b>10,9</b>	14	<b>42,4</b>	16	<b>10,6</b>	16	<b>33,3</b>	4	<b>23,5</b>		
	Metro	183	14,8	4	12,1	1	<b>2,1</b>	5	5,5	3	9,1	1	5,9	358	<b>16,9</b>	6	<b>18,2</b>	51	<b>33,8</b>	7	<b>14,6</b>	5	<b>29,4</b>		
	Motocycle	28	2,3		0,0	1	2,1	2	2,2	1	3,0	1	5,9	31	1,5	*	*	3	2,0	1	2,1	2	11,8		
Bicycle	Particular	3	0,2	2	6,1	0	0,0	1	1,1	1	3,0	0	0,0	60	2,8	1	3,0	10	6,6	2	4,2	2	11,8		
	Shared	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	24	1,1	*	*	2	1,3	*	*	*	*		
	By foot	42	3,4	0	0,0	0	0,0	0	0,0	0	0,0	1	5,9	45	2,1	1	3,0	3	2,0	*	*	*	*		
	Other	2	0,2	0	0,0	0	0,0	1	1,1	0	0,0	0	0,0	28	1,3	*	*	*	*	*	*	*	*		
	<b>Total</b>	1233	100	33	100	47	100	91	100	33	100	17	100	2116	100	33	100	151	100	48	100	17	100		



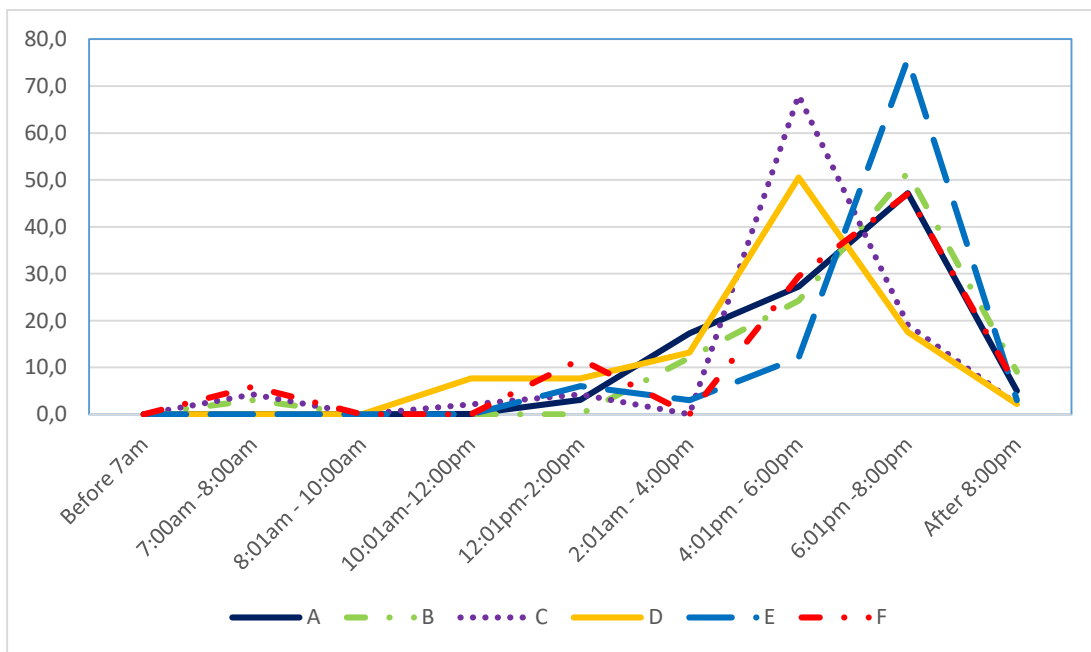
**Figure 4.5:** Principal mode of transportation used by employees for companies A to F

Figures 4.6, shows that majority of the employees arrives and leaves workplace almost at the same time. A large part of employees, goes to work between 7am. to 10am. and leaves between 4pm. to 8pm.



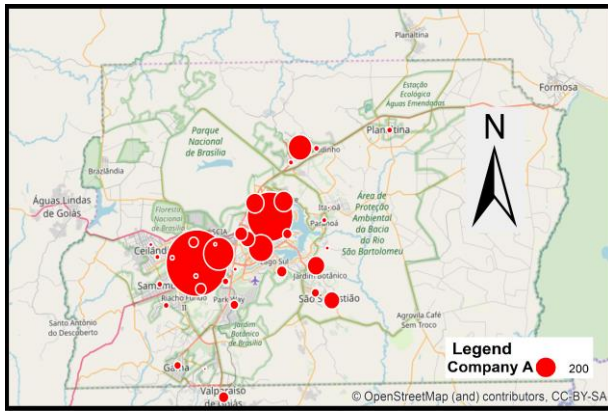


**Figure 4.6:** Arriving time of employees to workplace, companies A to F

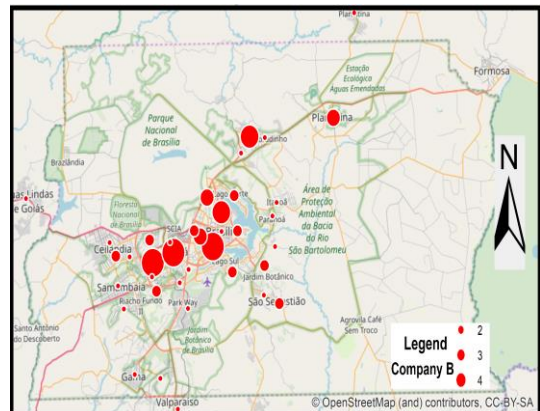


**Figure 4.7:** Leaving time of employees from workplace, companies A to F

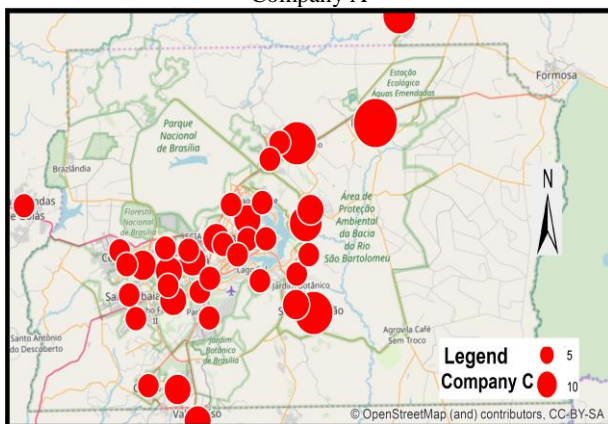
Figure 4.8 to 4.13 show the concentration of where employees, of companies A, B, C, D, E and F resides. A correspondent table can be seen in the Appendix C, Table C1. These diagrams were mounted in ArcGIS.



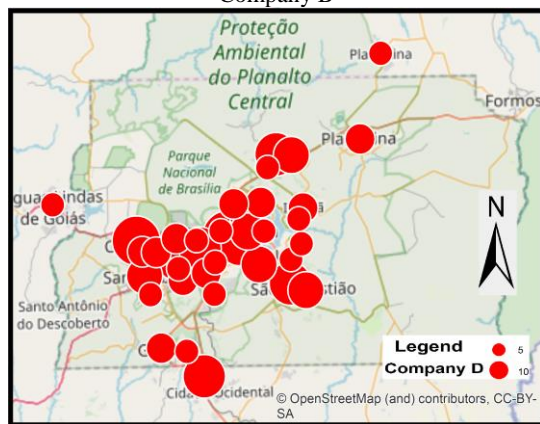
**Figure 4.8:** Concentration of where employees reside for Company A



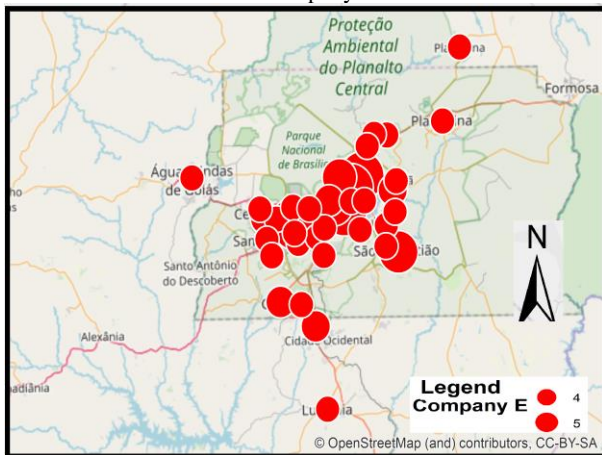
**Figure 4.9:** Concentration of where employees reside for Company B



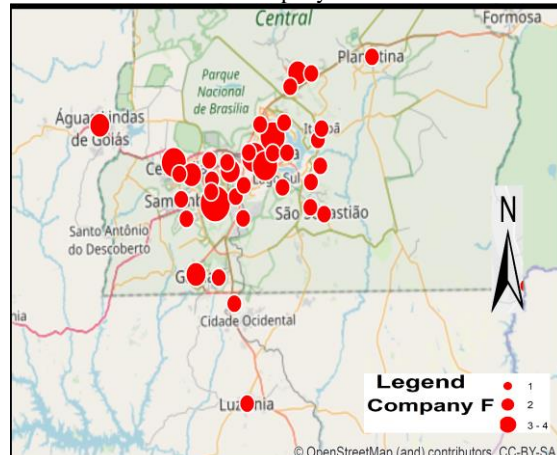
**Figure 4.10:** Concentration of where employees reside for Company C



**Figure 4.11:** Concentration of where employees reside for Company D



**Figure 4.12:** Concentration of where employees reside for Company E



**Figure 4.13:** Concentration of where employees reside for Company F

Majority of the staffs of A and B live in *Águas Claras*, *Asa Norte*, *Guará*, *Sudoeste/Octogonal* and *Asa Sul*. For organization C, employees reside in region like *Planaltina* (DF), *Sobradinho*

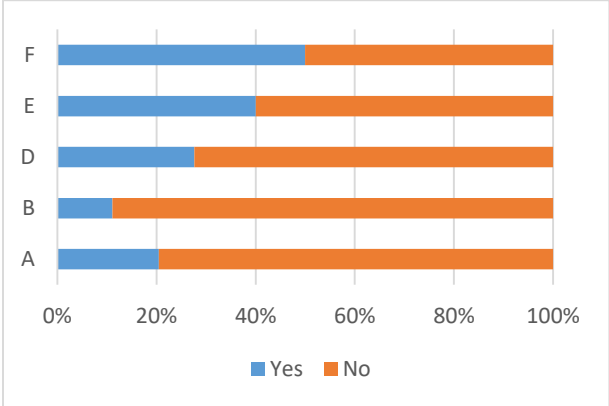
and *Sobradinho II*. These are the regions close to this organization. For company D, where most of the employees resides are *Águas Claras, Ceilândia Norte, Taguatinga* and *Asa Sul*. In the case of company E, majority of the staffs reside in *Águas Claras, Asa Norte, Asa Sul* and *Lago Norte* and for company F most employees live in *Samambaia*, while the same proportion of employees (11.8%) lives in *Asa Sul, Asa Norte, Ceilandia Norte* and *Taguatinga*. It was discovered that majority of the employees of the different companies resides in regions that has an average of 35.8 minutes for all organizations. On average, its takes employees of Organization A (31minutes); B (29 minutes); C (39 minutes); D (44minutes); E (36 minutes) and F (40 minutes) to and from work daily respectively. The name and location of these organizations were not disclosed for confidential reasons.

**b) Drive Alone (Single Occupancy of Automobile)**

From Table 4.6, apart from organization C, it was observed that the principal mode of transportation used by employees is automobile (single occupant). The main reasons given by employees for driving to work alone are shown in the Appendix C, Table C2, and they are unaware of people who take similar routes and similar traveling schedules like them; public transit routes and times are not compatible with their working location; it is the fastest way to get to work and basically because they need a car to perform personal activities before, during or after office hours. These activities include going to the gym, taking courses (specialization, master, language, among others), taking or picking up family members at place of work and/or children in school and the need to frequently go to commerce centers, banks, etc.

For employees that drive only to work, what will encourage them to offer lift (carpooling) to other people (same or different organization's employee, along the route of the employee) are, for companies with limited parking spaces to employees, such as companies A and B, is having preference to parking spaces at the workplace for people carpooling, as seen in Figures 4.15 and 4.16. For other companies including company A, contribute to reducing the need for parking space, environment pollution and splitting of traveling cost between passengers and driver. Employees of companies A, C, D and E are only willing to offer ride to people from the same organization. This analyses can be seen in the Appendix C, Table C2.

Majority of the employees that drive to work are not willing to change their arriving/departing time to be able to offer ride and for those who are willing, A (20%), B (15%), D (30%), E (40%) and F (50%) (Figure 4.14), shows they will only tolerate a maximum time of 10 minutes for waiting and to travel to be able to offer lift.

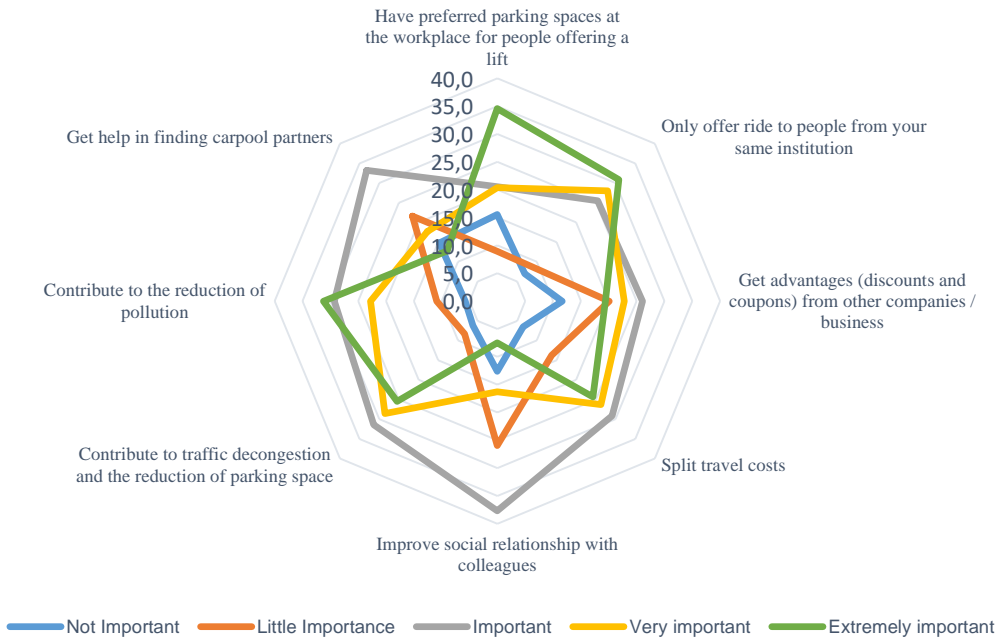


**Figure 4.14:** Percentage of employees willing to change their arrival and /or departure time to offer ride

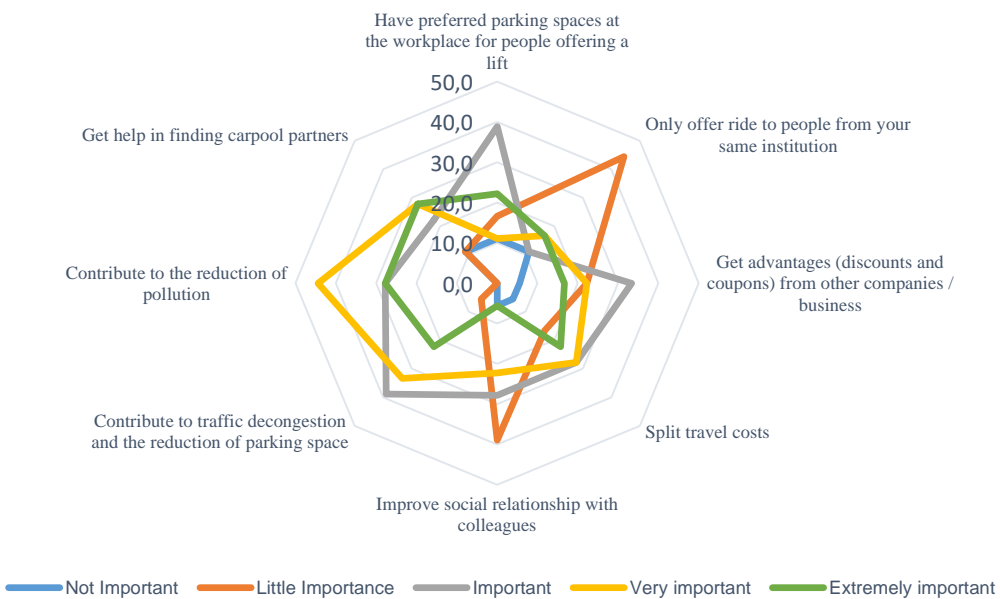
A good number of employees who drive alone, are willing to receive ride, principally if it is safe and secure; to help reduce pollution; reduce traffic congestion; reduce parking spaces; can travel in less time and reduced cost. Other major factors are having comfort and availability of a carpool user group (App, WhatsApp etc.), as seen in Figures 4.17 and 4.18. Most employees who drive alone, will consider going to work by public transport if bus stops are close and safer; if inside of public transports are safe as well; an increase in the frequency of bus lines; better bus conditions (e.g. air conditioning) and improved sidewalk conditions and pedestrian access to public transit. Other include providing more information about public transit lines that pass close to workplace and more flexible working time to enter and leave workplace as seen in Figures 4.19 and 4.20.

The follow factors will motivate more employees in all the companies who drive alone to work, to go by bicycle to work. They are: benefits for whoever uses bicycle (discounts, coupons, etc.); security at the bicycle racks to prevent theft; increase the number of bicycle racks; give discounts on bike purchases and equipment to cyclists (e.g. electric bikes); possibility of taking bike on public transit (bus/subway); installation of public bicycle station close to workplace (+Bike, Yellow); constructing and improving bicycle lanes/cycling paths connecting to workplace; provision of bicycle racks in the building or near workplace; provision of bicycle

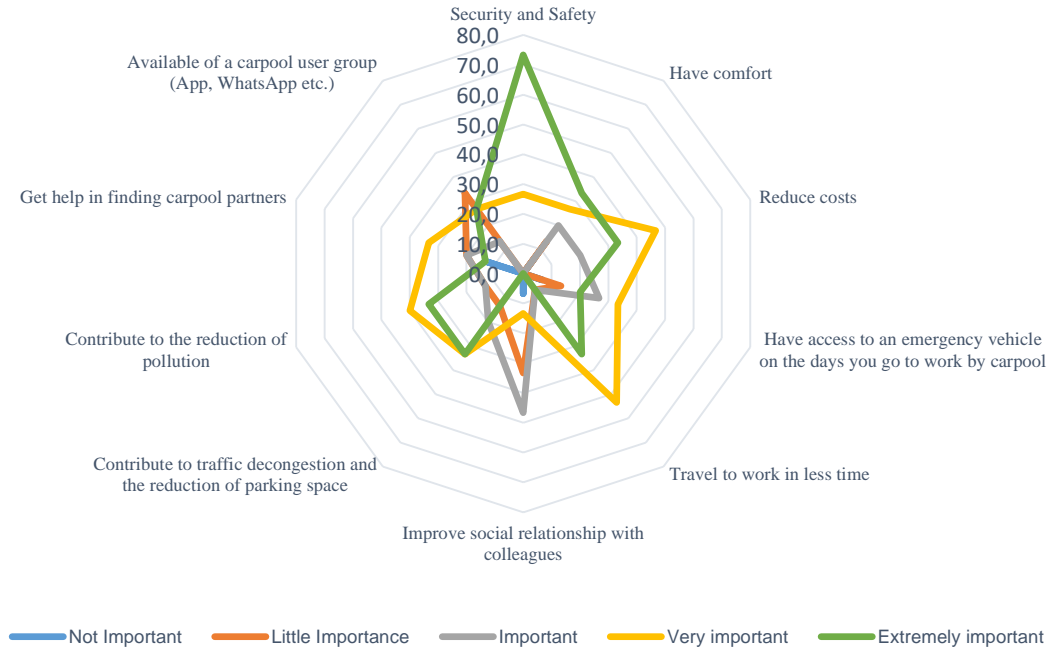
racks close to public transit stations and provision of facilities such as showers and lockers in the building to store belongings (helmet, change clothes). All result can be seen in the Appendices C, Table C2.



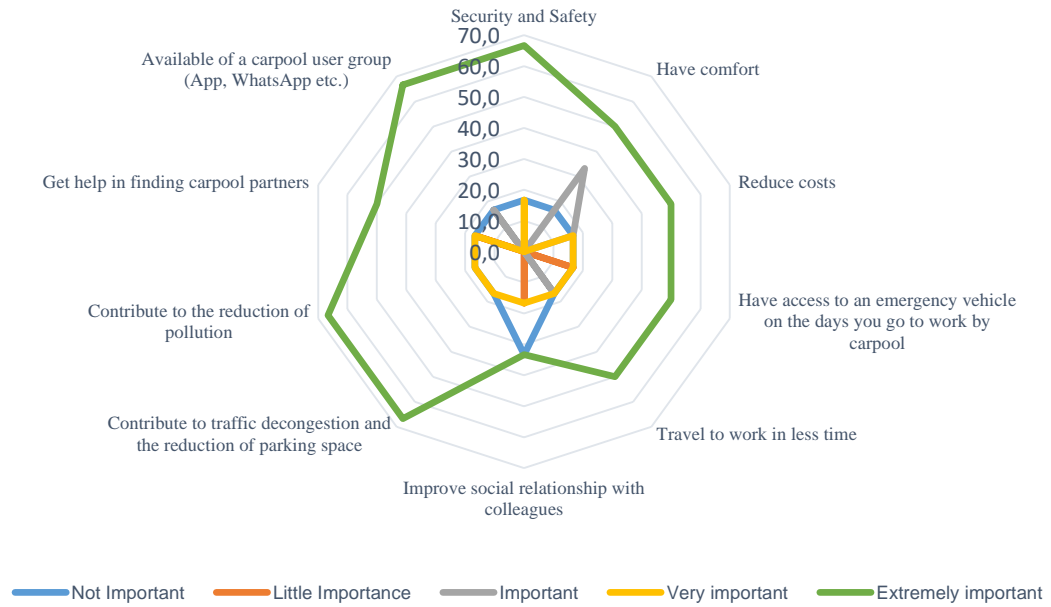
**Figure 4.15 :** Alternatives that will encourage employees to OFFER lift to Work for company A for those that drive alone



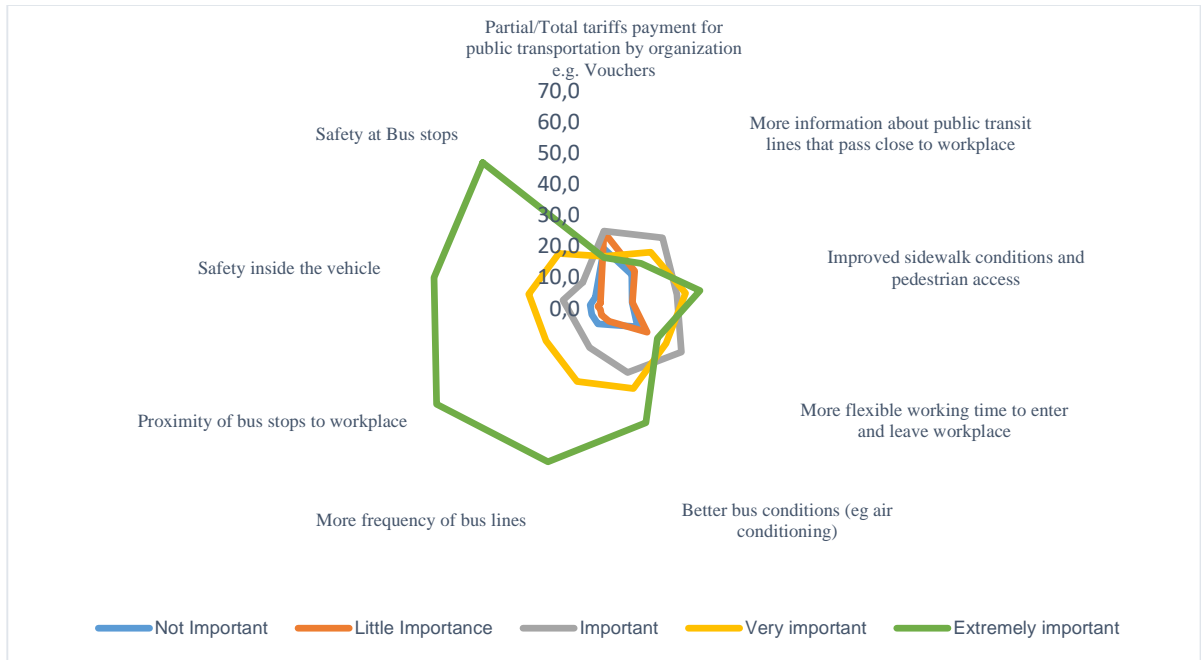
**Figure 4.16 :** Alternatives that will encourage employees to OFFER lift to Work for company B for those that drive alone



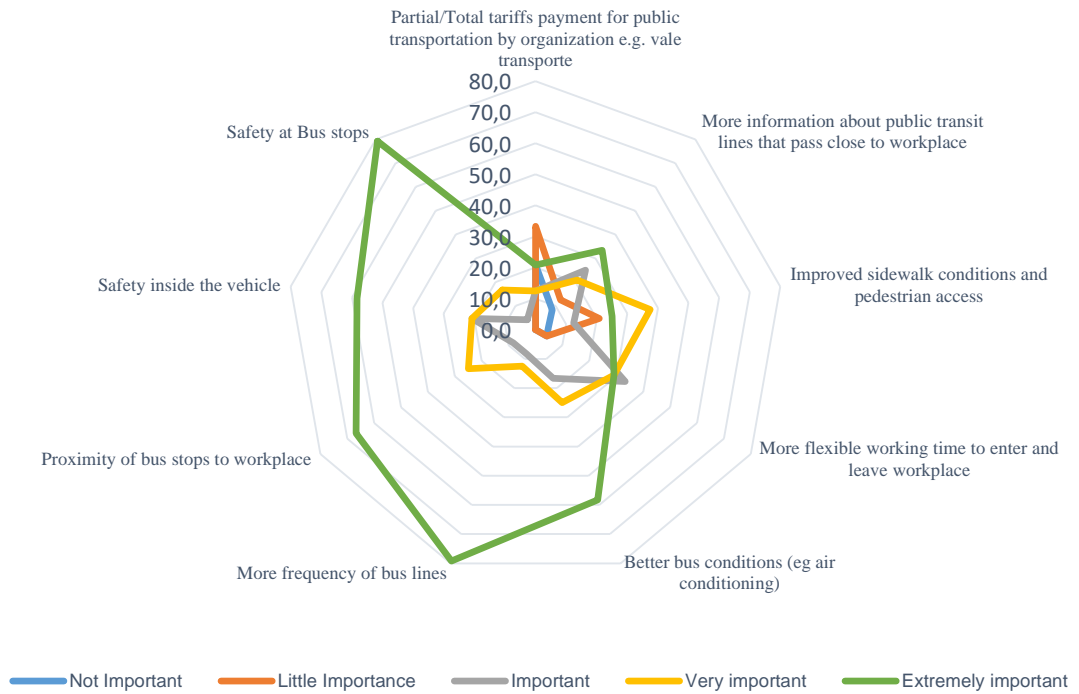
**Figure 4.17:** Classification of alternatives that will lead employees of company E to receive ride to workplace for those that drive alone



**Figure 4.18:** Classification of alternatives that will lead employees of company F to receive ride to workplace for those that drive alone



**Figure 4.19:** Classification of factors that will that encourage employees to travel by public transit system to work for those that drive alone in company A



**Figure 4.20:** Classification of factors that will that encourage employees to travel by public transit system to work for those that drive alone in company B

### c) **Active Mode**

Equally, a diagnosis of what will encourage employees to shift from one sustainable traveling mode to another sustainable mode of transportation to work was done. It can be seen from Table 4.6, that very few employees travel to work by active mode.

#### *By Foot*

From Table 4.6, it was discovered that only organization A and F, have employees who go to work by foot, with 3% and 6%, respectively. Most of these employees that go to work by foot lives close to their organization. It will take them a maximum of 15 minutes to get to work and 41% of them always have car available to themselves for company A. More employees should be encouraged to reside close to their place of work by organizations, to discourage the necessity of mobility. This can be done by giving incentives to employees.

From the survey, it was discovered that approximately 52% of employees that go to work by foot, are disposed to receive lift (carpool) to work. They are willing to receive lift to work, if achieved in lesser time; have traveling flexibility; more comfortable; safe and secured. It was also noted that those who travel to work by foot do not consider important going to work by car lift will reduce to traffic jams; parking space and pollution; this might have been due to the fact that since reside close to workplace. For these employees willing to go to work by carpooling, majority were ready to wait maximum of 5 minutes to get a ride.

The following factors are very important to encourage employees who travel to work by foot to travel by public transit; improving the sidewalk conditions and pedestrian access; improving bus conditions (e.g. air conditioning); increasing bus lines frequency; proximity of bus stops to workplace; provision of information about public transit lines that pass close to employee's workplace; safety inside the vehicle and at bus stops. The following factors are very important to encourage employees who travel to work by foot to travel by bicycles. They are, provision and improvement of facilities such as showers and lockers in the building to store belongings (helmet, change clothes); provision and increasing bicycle racks in the building / near workplace; provision of bicycle racks close to the public transit stations; improving cycling paths/lanes connecting to workplace; improving public bicycle station near work place (+Bike, Yellow); the possibility of taking bicycles on public transit (bus / subway) and safety and security of bicycle racks to prevent theft. All result can be seen in the Appendix C Table C3a.



### *Bicycle*

None of the organizations offer incentives to employees that goes to work by bicycle because of this, very few employees go to work by bicycle. With a percentage of 0.2%, 6%, 1.1% and 3% for companies A, B, D and E, respectively.

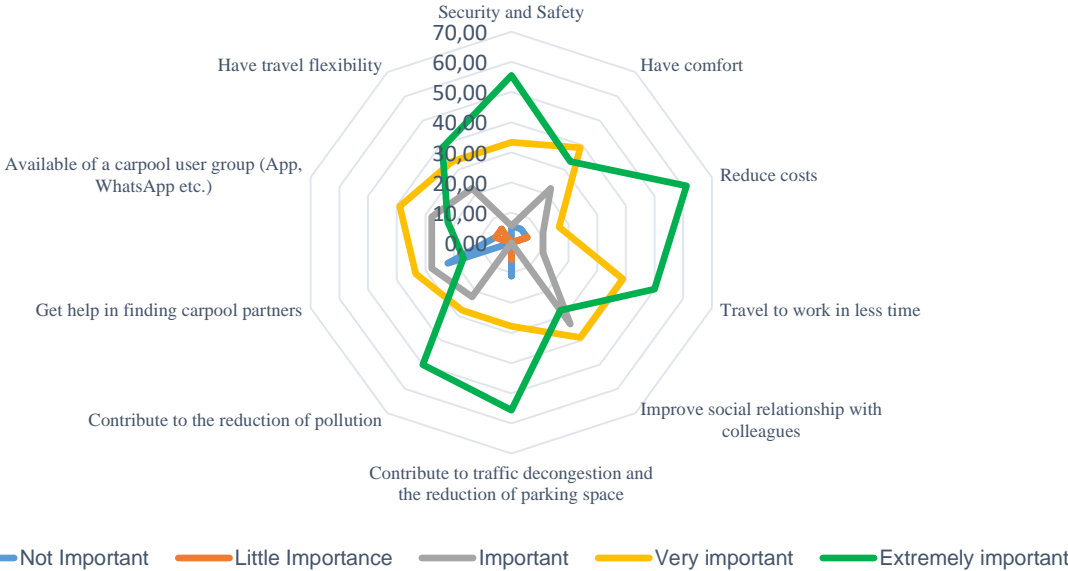
Very few employees in organization A, are willing to travel to work by public transport and the following will motivate them: partial/total tariffs payment for public transportation by organization e.g. vouchers; provision of information about public transit lines that pass close to workplace; improved frequency of bus lines; proximity of bus stops to workplace; travel to work in less time; safety inside the vehicle and at the bus stops. More cyclists are willing to receive ride to work, and the following factors will motivate them: reduce traffic congestion; travel to work in less time; reduce the demand for parking space; reduction of pollution and if it is safe and secured. They are ready to walk/travel maximum of 10 minutes to receive a lift and wait a maximum of 15 minutes to receive a ride. All result can be seen in the Appendix C Table C3b.

#### **d) Public Transport**

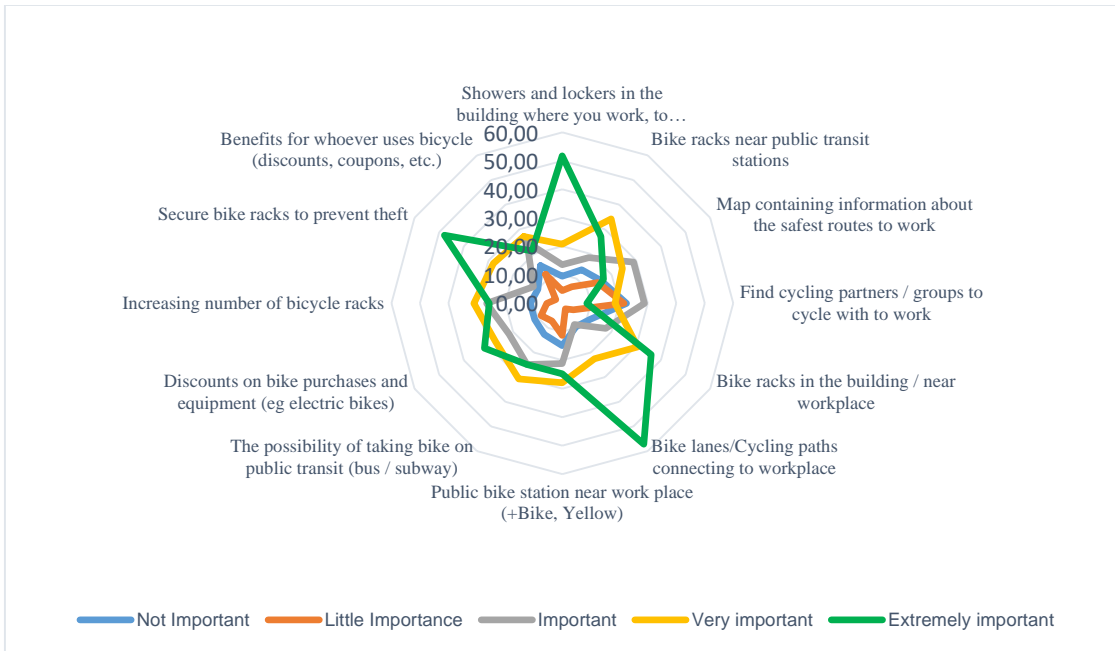
The result from the questionnaires show that public transport is the second most used mode of transport by employees to go to work, with a percentage of 17.4%, 21.2%, 33%, 24.2% and 35.3% for organizations A, B, D, E and F respectively. This is also in accordance with the research of Metro (2019), which show public transport mode as the second principal mode used by employees to work. With the exception of company C (38,3%), the only interviewed company with Public Transport as the principal mode of transport, with majority of its employees paid between first and third minimum wages, located in an administrative region outside Brasilia, DF and most of its employees are contracted.

For employees who goes to work by public transport, the following factors are very important and will motivate most of the employees to receive lift to work, they are, traveling with a reduced cost; feel more comfortable; travel in lesser time; have traveling flexibility; contribute to reducing traffic congestion; contribute to reducing the demand for parking space; as seen in Figure.4.21, security and safety. With the exception of company A, more employees from B, C, D and E, are willing to travel/walk and wait a maximum of 10 minutes to receive a ride.

The following factors are very important and will encourage staffs who travel to work by public transit to go to work by bicycle; they are, availability of facilities such as showers and lockers in the building; to store belongings (helmet, change clothes); availability of bicycle racks near public transit stations; availability and increase in the numbers of bicycle racks in the building or near workplace; provision of map containing information about the safest routes to work, find cycling partners or groups to cycle with to work; improving and constructing of cycling paths connecting to workplace; secured bike racks to prevent theft; provision of public bicycle station near work place (+Bike, Yellow); the possibility of taking bicycle on public transit (bus and/or subway); provision of discounts to purchases bicycles and equipment (e.g. electric bikes) and benefits for employees who ride bicycle to work (discounts, coupons, etc.), as seen in Figures 4.22 and 4.23. Other results can be seen in the Appendix C, Table C8



**Figure 4.21:** Classification of alternatives that will make employees, who goes by public transport to RECEIVE ride to workplace for Company C



**Figure 4.22:** Classification of alternatives that will make employees, who goes by public transport to travel to work by bicycle for Company A



**Figure 4.23:** Classification of alternatives that will make employees, who goes by public transport to travel to work by bicycle for Company B

#### **e) Motorcycle**

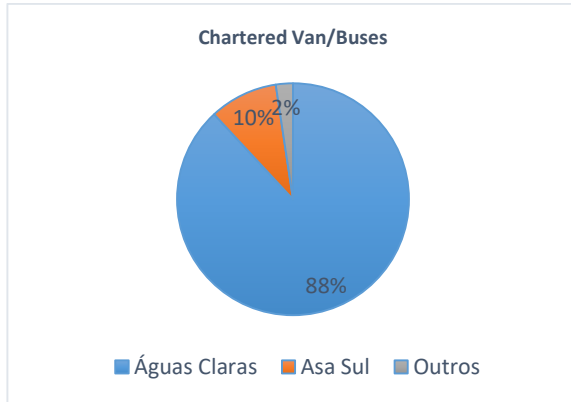
Few employees go to work on a motorcycle. For employees that go to work on motorcycles, employees from companies E and F, are not willing to receive a lift. While for employees of companies A, C and D, the following factors are very important for them to receive ride to workplace. These factors are security; safety; reduced cost; travel to work in less time; contribute to reduced road congestion; reduced the demand for parking space; reduce pollution and availability of a carpool user group such as app, WhatsApp etc. Employees from organizations A, C, E and F are willing to change their arrival and /or departure time to receive ride, with both a maximum waiting and traveling/walking time of 15 minutes.

The following factors will motivate them to go to work by public transport: improving bus conditions (e.g. air conditioning); improving bus lines frequency and proximity of bus stops to workplace. The following factors will encourage them to go on bicycle to work: showers and lockers in the building to store belongings (helmet, change clothes); benefits for those who uses bicycle (discounts, coupons, etc.); provision of bicycle racks close to public transit stations; provision of information about the safest routes to work; improving bicycle lanes or cycling paths connecting to workplace; provision and increasing of cycling racks in the building or near workplace; the possibility of taking bicycle inside public transit (bus and subway); giving discounts on bicycle purchases and equipment (e.g. electric bikes) and having secured bicycle racks to prevent theft. All result can be seen in the Appendix C, Table C5.

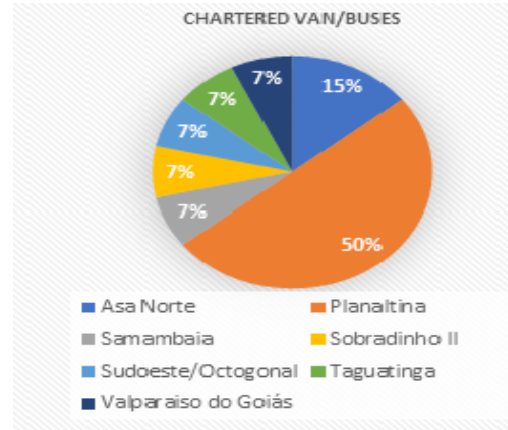
#### **f) Chartered Van/Buses**

Four out of the six organizations, offer chartered buses to employees to work but due to few data collected from company B, no employee was registered. For companies A, C and D, the numbers of employees that travel to work by chartered vans are shown in Table 4.6. It should be noted that in the result analyses, chartered buses and Corporate Transport by the Organization were combined together, due to the fact that, from the interview, it shows that the buses used by organizations A, B, C and D are operated by contracted companies, known as Chartered Buses.

Figures 4.24 and 4.25, show that majority of the employees that use chartered buses to go to work from organizations A and C, and reside in *Águas Claras* and *Planaltina* regions respectively.



**Figure 4.24:** Percentage of employees that use chartered buses to travel to work (organizations A and C)



**Figure 4.25:** where majority of the employees resides that travel to work in Chartered Buses

Majority of the employees that goes to work by chartered van are ready to receive lift to work, and these following factors will encourage staffs them receive lift to workplace: travel in less time; have comfort; guaranteed security and safety; travel at a reduced cost; reduce traffic congestion and the demand for parking space; reduce pollution; availability of a carpool user group (App, WhatsApp etc.) and traveling flexibility and a larger percentage of these employees are not willing to change their arrival and /or departure time to receive this lift. A greater part of the employees will be willing to travel/wait a maximum of 10 minutes to receive a ride to work.

Most of the following factors are very important to employees, who by chartered buses to travel by public transit system to work. They include partial/total tariffs payment for public transportation by organization e.g. vouchers; more information about public transit lines that pass close to workplace; improving sidewalk conditions and pedestrian access; better bus conditions e.g. air conditioning; improved bus lines frequency and bus stops proximity to workplace. The following factors will make majority of these employees go to work by bicycle, they are, provision of facilities like showers and lockers in the building to store belongings (helmet, change clothes); provision of bicycle racks near public transit stations; provision and increase in number of bicycle racks in the building / near workplace; construction and

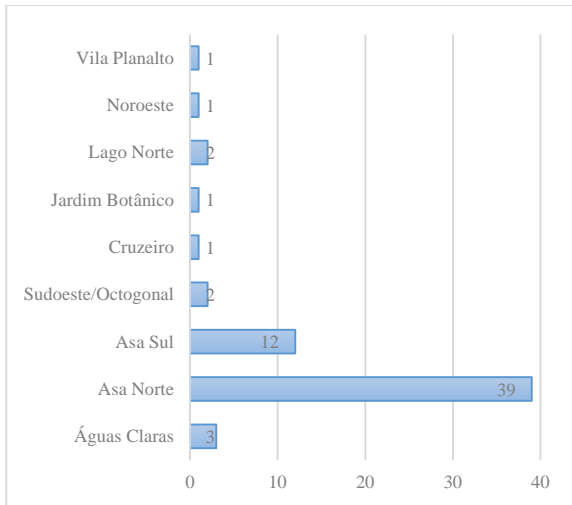
improvement of bicycle lanes and cycling paths connecting to workplace; provision of public bicycle station near work place (+Bike, Yellow); the possibility of taking bike on public transit (bus/subway) and secured bike racks to prevent theft. All results can be seen in the Appendix C, Table C6.

#### **g) Taxi**

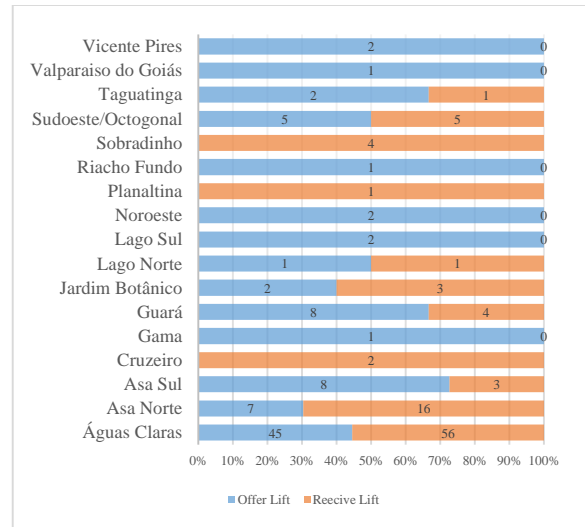
Taxis include conventional taxi and by app (uber and 99). Most of these employees are willing to get a lift to work and the following factors will encourage employees who go to work by taxi to receive ride to workplace: reduced cost compared to their principal mode; travel in lesser time; contribute to reducing traffic jams; contribute to reducing demand for parking space; contribute to reducing pollution; the possibility of traveling flexibility; availability of a carpool user group (App, WhatsApp, etc.); get help in finding carpool partners; and, a safe and secured system of carpooling.

A greater percentage of these employees are willing to change their arrival and /or departure time to receive ride with the majority, tolerating a maximum time of 10 minutes. The following factors will inspire employees that travel to work by taxi, to travel by public transit system to work. If more information about public transit lines that pass close to their workplace are given; improving sidewalk conditions and pedestrian access; more flexible working time to enter and leave workplace; a better bus conditions e.g. air conditioning; increasing bus frequency, proximity of bus stops to workplace; ensuring safety at bus stops, stations and inside vehicles.

Also, the following factors will make these employees to go to work by bicycle, if these facilities are available, they are, showers and lockers in the building, to store belongings (helmet, change clothes); provision of bicycle racks near public transit stations; provision of map containing information about the safest routes to work; provision and increasing number of bicycle racks in the building / near workplace; bicycle lanes or cycling paths connecting to workplace; possibility of public bike station near work place (+Bike, Yellow); giving discounts on bicycle purchases and equipment e.g. electric bikes, secured bicycle racks to prevent theft and giving of benefits to cyclists. Figure 4.26 shows that a large percentage of company A's employees that go to work by taxi reside in *Asa Norte* and *Asa sul*. Appendix C, Table C7.



**Figure 4.26:** Employees that goes to work by Taxi and where they reside, for company A



**Figure 4.27:** Employees that go to work by offer/receive lift and where they reside, for company A

### h) Carpooling/Car sharing

The percentage of employees that give lift to colleagues and receive lift from colleagues that works in the same, close or different organizations and even family's members are approximately 17%, 9.1%, 4.3%, 4.4%, 24.2% and 5.9% for companies A, B, C, D, E and F, respectively.

For organization A, the only organization that promote the use of carpooling, it is the third principal mode of transportation used by employees of this company after those who drive alone and take public transit to work. Majority of these staffs offer and receive lift to/from colleague(s) or people who work in the same building as them and have the similar route. For those offering lift to work, they generally have an average of two people in the car, excluding the driver and for those receiving lift, they are generally two also, excluding the driver and the respondent. With the exception of employees of organization A, that communicate mainly with carpoolers using Carpool Apps, *waze carona*, the other organizations use direct mean of communication. Figure 4.27, shows where the employees of organization A that carpools reside.

For carpoolers (receiving and offering) for all organizations, these followings factors with urge them to go to work by public transit, they are, improved sidewalk conditions and pedestrian access; more flexible working time to enter and leave workplace; better bus conditions e.g. air

conditioning; improving bus frequency; proximity of bus stops to workplace; safety inside the vehicle and at the bus stops. Only those offering lift to work want more information about public transit lines that pass close to their workplace to be able to travel by public transport to work.

The following factors are very important to inspire employees who carpool to work to go to work on bicycle: provision of facilities such as showers and lockers in the building to store belongings like helmet and change clothes; provision of map containing information about the safest routes to work; find cycling partners or groups to cycle with to work; providing and increasing number of bicycle racks in the building / near workplace; construction or improving bicycle lanes or cycling paths connecting to workplace; provision of public bicycle station close to work place (+Bike, Yellow); the possibility of taking bike on public transit (bus / subway); offering of discounts by organization on bicycle purchases and equipment (e.g. electric bikes); secured bike racks to prevent theft and benefits for employees who cyclist to work e.g. discounts, coupons, etc. For employees that offer lift to work provision and increasing number of bicycle racks near public transit stations is more important to them than those that receive lift to work to be able to go by bicycle to work. Result can be seen in Appendix C, Table C.4.

#### **4.2.4 Information obtained onsite relating to urban mobility in the area of influence of the Organizations.**

Information obtained in the section, were collected onsite through visitation and interviewing managers and employees.

##### **a) Shared/Isolated building of Organization**

From the information collected, it shows that only company E shared building with other organizations. The other companies have close organizations to them and this can foster in the use of carpooling between organizations in the same region.

##### **b) Parking space**

Parking site was visited, to know how the parking space were disturbed, and if there are sufficient parking spaces and how many are they. The result can be seen in Table 4.7, showing the numbers of parking spaces in each Organization and how they are distributed. It was



observed that Companies A, B, E and F, do not offer parking space to visitors because they do not have sufficient parking spaces. These companies also have CCTV (Closed-Circuit television camera) and parking access control in their buildings as shown in Figure 4.28. Companies C and D have sufficient space for parking for both employees and managers. In company D, majority of the employees, park in the visitor’s parking space.

**Table 4.7:** Distribution of Parking space in Organizations

Function in the Organization	Numbers of Parking Space in companies					
	A	B	C	D	E	F
Employees	1690	51	346	65	3	19
Employers/Managers	30	300	—*	—*	117	—*
Visitors	0	0	—*	105	0	0
Carpooling/Car sharing	50	0	0	0	0	0
Chartered Vans/Buses	8	4	15	1	0	0
<b>Total Number of Automobiles</b>	<b>1778</b>	<b>355</b>	<b>361</b>	<b>171</b>	<b>120</b>	<b>19</b>
Motorcycles (registered)	129 (506)	87	—*	60	—*	—*
Bicycles (registered)	91 (295)	30	0	10	47 (For Block A, B and C)	0

Note: —\* = is included in the employee’s parking space for employees. Company E, parking space is for Block A, B and C (sharing building with other Organizations).

For Companies that have limited parking space for employees, cars are parked in front or at the back of the organization, as display in Figure 4.29, or sometimes on the closest street. An interviewed employee in company F and in one of the comment in Appendix D, an employee was quoted saying, that employees park at time in neighborhood residencies and on nearby street.



**Figure 4.28:** Parking access control for organization for company A and Company F



**Figure 4.29:** Cars are parked in front (a) and at back (b) of company A building

**c) Cycling**

Companies A, B, D and E have facilities that influence employees to cycles to work. These facilities include bicycle racks as disclose in Figure 4.30 which are safe and secured with camera installed to avoid theft, protection from bad weather conditions and located inside the organizations, for A, B and E, while company D bicycle rack is outdoors without protection from weather condition. Companies C and F are the two that do not have any of these facilities in place as shown in Table 4.8. This table also shows that company A have more employees registered for the parking space both for cyclists and motorcyclists than the number of parking spaces available, because there are available facilities offered by company A, which are of benefits to employees, and these facilities include lockers to keep their belongings, dressing rooms and safety at the parking lot.



**Figure 4.30:** Bicycle rack and Motorcycle parking spaces

**Table 4.8:** Factors Observed in the Organization from interview and visitation

Measured Factors	Companies					
	A	B	C	D	E	F
<b>Shared Building</b>						
Is the building shared with other Organizations?	No	No	No	No	Yes	No
<b>Parking space</b>						
Is there CCTV access and parking building?	Yes	Yes	No	No	Yes	Yes
Is there parking access control?	Yes	Yes	No	No	Yes	Yes
Easy to park nearby on the streets/in front of the building?	Yes	Yes	Sufficient Parking space	Sufficient Parking space	Yes, external parking space	Yes, obstructing pedestrian movement
<b>Cycling</b>						
Bicycle rack (Parking space)	Yes	Yes	No	Yes, Few	Yes	No
Are there Camera at the parking space (Safety)	Yes	Yes	-	No	Yes	-
With signal	Yes	Yes	-	No	Yes	-
Close to the organization	Yes/Inside	Yes/Inside	-	Yes	Yes/Beside	-
<b>Sidewalks</b>						
to the Public Transport	Yes	Yes	Yes	Yes	Yes	Yes
Paved	Yes	Yes	Yes	Yes	Yes	Yes
Well Conserved	Yes	Yes	Yes	No	Yes	Yes
Well- Lit	Yes	Yes	Yes	No	Yes	Yes
<b>Bus Stop</b>						
Camera at the bus point	No	No	No	No	No	No
Sheltered from the weather	Average	Average	Average	Average	Average	Average
Information	No	No	No	No	No	No

**d) Sidewalks**

All organizations, except Company D, have sidewalks well-conserved, well-lit, well paved, leading directly to the bus stop. The pedestrian path and the cycling path are well-lit also for use. Figure 4.31, shows sidewalk for company F well conserved, paved and lit, while company D is in a unconserved state, as seen in Figure 4.32.



**Figure 4.31:** Pedestrian path, well conserved, paved and lit.



**Figure 4.32:** Pedestrian path, in bad state

The state of the pedestrian path in Figure 4.31, well conserved, paved and lit, will encourage the use of this pedestrian path and the use of more sustainable modes.

#### e) Bus Stops

As shown in Table 4.33, none of the organization have camera installed at the bus point, for security purposes; no information provided by organization about public buses that passes and their respective time and all bus stops are partially sheltered from the weather. These bus stops were classified as “average” because people are exposed to weather conditions, such as heavy rain and sunny day. Figure 4.34, show the proximity of a public bicycle station close to company E, that can motivate employees to travel to work by bicycle.



**Figure 4.33:** Bus stop of company D



**Figure 4.34:** Public Bicycle station of company E

#### f) Others Facilities

There are other facilities, that can also motivate employees to travel to work through sustainable mode they are availability of restaurants inside or close to the organization, as seen in Figure 4.36, availability of a resting room, common room and dining room, as seen in Figure 4.37. Figure 4.35, shows parking signs in the parking lots that ease movement of pedestrians inside the parking spaces and all parking positions well-marked.



**Figure 4.35:** Parking space in companies A and B with signs that ease movement



**Figure 4.36:** Restaurants inside organizations



**Figure 4.37:** Facilities available that aid sustainable mobility

**g) Distance of Facilities and modes of transportation to the Organization**

Table 4.9 shows distances of facilities and modes of transportation that organization might need before/during/after work. If these facilities are in close range then it might help employees to cultivate the habit of not driving only to work, they might as well as opt for alternative modes available. In Table 4.9, facilities inside organizations were recorded as Zero (0). Facilities close to the organization were marked green and those that were not close were marked red. It can be seen from Table 4.9, companies A, B and E have facilities closer to them, compared to other organizations.

**Table 4.9:** Distance of Facilities and modes of transportation to the Organization

Facilities close to/inside premises	Distance to Companies (Measured in Meter)					
	A	B	C	D	E	F
Banks/ATMs	0	165	0	0	0	126
Shared bike (Yellow, + Bike)	457	572	7264	869	106	3532
Beauty & Barbering shop	184	359	4394	2116	675	606
Bicycle shop	428	576	6649	2080	2004	574
Kindergarten	1576	1762	5170	1979	2099	3254
Pharmacy	435	582	1154	1820	617	42
Restaurant	0	0	0	497	0	67
Supermarket	919	1093	4059	2212	955	168
Post-Office	813	859	4344	1883	583	2428
Laundry	149	338	4394	1830	686	576
Mall	1095	1163	7169	2164	935	5608
University/School	684	765	2299	474	361	554
Gym	200	400	1500	2000	300	400
Distance of Mode of Transport to workplace (Measured in Meters)						
Bus-Station	1072	1044	2301	3119	1127	934
Metro	1169	1160	10900	3009	843	929
Cycling path	50	40	820	50	200	930
Bus stop (Right)	380	200	800	410	290	240
Bus (Left)	350	160	780	340	250	110
Distance	0 - 500	501-1500	1501 - 2500	2500- 5000	>5000	
Legend						

### 4.3 Multinomial Logistics Regression

#### 4.3.1. Analysis in SPSS

For Analyses in SPSS using Multinomial Logistics Regression, outcome and predictor variables were selected. The dependent variables are the different modes of transportation used by employees to travel to work and they are classified as follow: by feet; bicycle i.e. owned bicycle, shared bicycle (+bike, yellow); public transit (conventional buses and subway); chartered Buses/vans; motorcycle; carpooling/car-sharing (receiving and offering); taxi (conventional and app e.g. uber,99) and drive alone (single occupant of a vehicle). Drive alone as a mode was chosen as the comparison base to other modes because it is the principal mode used by employees and also due to the environmental impacts its causes, such as pollution, road congestion, high demand for parking space, etc... and this mode was compared to sustainable modes of transportation. Sustainable modes are mode that have low impact on the environment (Vaughan, 2019).

The categorical and continuous predictors include availability of car for personal use (M1); arriving time of employees to work (H1); employee leaving time (H2); flexible working time (H3); residing distance to work (R1); travel time to work (TD1); home office (Tele); the impact of productivity (OI1) and stress (OI2) of mode used by employees; age (DS2); genre/sex (DS3); if employee have child below 16 years of age (DS4); income (DS5); quantity of people that reside in a household (DS6) and for how long have an employee been working at that organization (DS7). As shown in Table 4.10.

**Table 4.10:** Division of selected independent variables

<b>Categorical Predictors</b>	<b>Continuous Predictors</b>
Availability of car for personal use (M1)	Residing distance to work (R1)
Arriving time at work (H1)	Travel time to work (TD1)
Employee leaving time (H2),	Age (DS2)
Flexible working time (H3)	Employee have child below 16 years' old (DS4)
Home-Office (Tele)	Income (DS5)
Impact of Productivity(OI1) of mode used by employees	Quantity of people that reside in a household (DS6)
Impact of Stress(OI2) of mode used by employees	For how long have an employee been working at that Organization (DS7)
Genre/Sex (DS3)	

Before data were inserted into SPSS, some variables were excluded such as data wrongly filled, incomplete data and to avoid collinearity between variables e.g. between R1 and TD1, variable

R1 was selected. After this, dependent variables were divided into models as shown in Table 4.10 and inserted into SPSS and analyzed with different independent variables as shown in table 4.11, using Multinomial Logistic Regressions.

Using the first and second models, presented in Table 4.11, the software gave warnings, to improve the quality of the result, avoid discrepancies and errors, some modes of transportation were excluded, modes like motorcycles, taxis due to low response of mode used by employees. Some other modes were combined together e.g. metro and buses, receiving and giving carpool, as shown in Table 4.11. Finally, the outcome variable i.e. mode of transportation used by employees, was divided into three categories, which are carpooling (Receiving and offering), Public Transport and Driving alone (base comparison) as shown in Table 4.11 and model 4 was the selected model. In addition, for improved result, variables with Likert scale such as Never, Rarely, Sometimes, Frequently and Always were transformed into Never, Sometimes and Always and Unimportant, little important, Important, very important and Extremely important, were transformed into Unimportant, Important, and extremely important.

**Table 4.11:** Division of Outcome variables into models

1st Model	2nd Model	3rd Model	(4 <sup>th</sup> Model)
By foot	Active mode	Active mode	
Owned Bicycles			
Drive alone	Drive alone	Drive alone	Drive alone
Metro	Public Transport	Public Transport	Public Transport
Conventional Buses			
Motorcycles	Motorcycles		
Offering Carpool	Offering Carpool		
Receiving Carpool	Receiving Carpool		
Conventional Taxis	Taxi		
Transportation by app (Uber, 99...)			
Chartered Buses	Chartered Buses		

In this project, the stepwise method was used because it includes and eliminates predictor variables. The only set of data analyzed were that of organizations A because of the high amount of data collected. The model collected for organization D can be seen in the Appendix 6, model 7, having “drive alone” and “public transport”, as its dependent variable and independent variables, the same as model 4 (H1, DS7, M1 and R1), but gave a warning because of few data collected. Polytomous (Multinomial) Logistic Regression was used because it has



more than two outcome variables and because the values on the dependent variables represent unordered categories (i.e. the variables are nominal).

#### 4.3.2. Interpreting the Models (Multinomial Logistics Regression result)

For the data interpretation in SPSS, Field, (2017) was used. The 4<sup>th</sup> model was selected for analysis, which contain Carpooling, Drive alone (single occupancy of vehicle) and Public transport (Metro and Conventional Buses). The results obtained from the 4<sup>th</sup> model were analyzed below and other models can be found in Appendix D.

Due to the fact that we used a stepwise analysis, Table 4.12, shows the summary of the independent variables, that were significant of the main effect form Model 1 to Model 4, for variables M1, R1, DS7 and H1 respectively, which are all highly significant and excluding other independent variables that were not significant. Which means that the selected independents variables by the software were all significant on predicting the dependent variables (Carpool, Drive alone and Public Transport).

**Table 4.12:** Step summary of the fitted variables

Step Summary								
Model	Action	Effects	Model Fitting Criteria			Effect Selection Tests		
			AIC	BIC	-2 Log Likelihood	Chi-Square <sup>a</sup>	df	Sig.
0	Entered	Intercept	1869.987	1879.815	1865.987			
1	Entered	M1	1574.110	1603.592	1562.110	303.878	4	0.000
2	Entered	R1	1405.173	1444.483	1389.173	172.937	2	0.000
3	Entered	DS7	1401.064	1450.202	1381.064	8.109	2	0.017
4	Entered	H1	1400.161	1478.780	1368.161	12.904	6	0.045

Stepwise Method: Forward Entry  
a. The chi-square for entry is based on the likelihood ratio test

Another important fact that can be noted is that the Akaike’s information criterion (AIC) and Schwarz’s Bayesian information criterion (BIC) decreases as new variable are added to the model, this mean that each time a variable is added there is an improvement in the fit of model. Table 4.13, shown the model fitting Criteria, which present a log-likelihood ratio also. It can be seen from the table that the chi-squared test measures the decrease in unexplained variance from the baseline model (1865.987) to the final model (1368.81), with a difference of (497.83). It can also be seen that the change is significant, which demotes that the “Final” Model is a better fit than the “Intercept Only” Model (original Model).

**Table 4.13: Model Fitting Criteria**

<b>Model Fitting Criteria</b>						
Model	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC	BIC	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	1869.987	1879.815	1865.987			
Final	1400.161	1478.78	1368.161	497.827	14	0.000

The Goodness of Fit of model describes whether the predicted values of a model vary significantly to the observed values. By comparing the predicted values and the observed values, if they are not significant, then the model is said to be a good fit (Maydeu and Forero, 2010). It can be seen from the model, Table 4.14, that both Pearson and deviance are not significant (i.e.  $P > 0.05$ ), 0.43 and 1.0 respectively, therefore we can say this model is good.

**Table 4.14: Goodness of fit**

<b>Goodness of Fit</b>			
	Chi-Square	df	Sig.
Pearson	1940.673	1930	0.428
Deviance	1352.676	1930	1.000

Table 4.15, the Pseudo R-Square, evaluate the inaccuracy as the independent variables are added, its varies between 0 to 1, (0, means that the independent variables predict nothing about the dependent variables, and 1, means the independent variable predict perfectly well the dependent variables). From Table 4.15, it can be seen that Nagelkerke's value is the highest, which means the independent variable predicted 46% of the dependent variable. Therefore, we have to be careful with the interpretation of the parameter estimated.

**Table 4.15: Pseudo R Square**

<b>Pseudo R Square</b>	
Cox e Snell	0.390
Nagelkerke	0.461
McFadden	0.265

Table 4.16, shows us which independent variables are significant and predicts the dependent variables but does not shows its effect, its effect can be seen in the Parameter Estimates table, Table 4.17.

**Table 4.16: Likelihood Ratio Tests**

Likelihood Ratio Tests						
Effect	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC of Reduced Model	BIC of Reduced Model	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	1400,161	1478,78	1368,161 <sup>a</sup>	0	0	.
M1	1658,875	1717,84	1634,875	266,715	4	0
H1	1401,064	1450,202	1381,064	12,904	6	0,045
R1	1568,829	1637,622	1540,829	172,669	2	0
DS7-SPSS	1404,212	1473,004	1376,212	8,052	2	0,018

Table 4.17, shows the individual parameter estimates and comparison between the dependents variables, Carpool and Public Transport are being compared to Drive alone (reference category). Since the Pseudo R-Square is below 75%, we were careful with the data interpretation. Variables with  $P < 0.05$ , are all significant and means they significantly predict the reference variable.

**Table 4.17: Parameter Estimates**

Dependent/independent variables	Parameter Estimates					
	Carpool			Public Transport		
	B	Sig.	Exp(B)	B	Sig.	Exp(B)
Intercept	-1,106	0,134		-3,879	0.000	
[M1 = Sometimes]	3,576	<b>0.000</b>	35,725	4,225	<b>0.000</b>	68,363
[M1=Never]	3,802	<b>0.000</b>	44,813	4,783	<b>0.000</b>	119,501
[M1 =Always]	0 <sup>b</sup>	.	.	0 <sup>b</sup>	.	.
[H1 =10h01 to 12h00]	0,054	0,852	1,056	0,023	0,939	1,024
[H1 =12h01 to 14h00]	0,545	<b>0,012</b>	1,725	-0,034	0,892	0,966
[H1 =7h00 to 8h00]	-0,456	0,207	0,634	-0,008	0,981	0,992
[H1 =8h01 to 10h00]	0 <sup>b</sup>	.	.	0 <sup>b</sup>	.	.
R1 (Distance)	0,081	<b>0.000</b>	1,085	0,184	<b>0.000</b>	1,202
DS7	-0,21	<b>0,005</b>	0,811	-0,152	0,073	0,859

a. The reference category is: Drive alone.(Comparison base)

b. This parameter is set to zero because it is redundant.

For availability of car for personal use (M1), the odd ratio of an employee that possess car sometimes to those that have car always, have a greater probability of carpooling to work than drive alone, so also is the probability of employees that do not (never) have car available to themselves to those that have always, higher to carpool to work and this probability is higher in those without a car available to them compared to those that have sometimes. Also, the odd ratio of an employee’s that possess car sometimes and never to those that have car always,

have a greater probability of taking a public transport to work than drive alone, only that, those that never have car available to themselves have a higher probability, as seen in Table 4.17. The independent variable, arriving time at work (H1), show that it was only significant for carpooling at time (H1=12h01 to 14h00 compared to 8h01 to 10h00). It shows that, employees that arrives to work between 12h01 to 14h00 compared to those that arrive between 8h01 to 10h00, have a higher probability of carpooling than driving alone to work. This might have been influenced by flexible working hour, has this encourages employees to use sustainable mode, one of the reasons, given by employees that drive alone to travel by sustainable modes.

The odd ratio of the independent variable of distance to workplace (R1), for both employees to take Public Transport or carpool increases when compared to driving alone. Employees have a higher probability to travel by public transport compared to carpooling with a longer distance from work. In summary, for employees that live far away from their workplace, they are likely to travel to work in transport public (highest probability), followed by carpooling than to drive alone to work as seen in Table 4.17. For the independent variable, how long an employee has worked in an Organization (DS7), demonstrates that employees are more likely to drive alone to work than participate in carpooling or take a public transport to work, although it was significant for carpooling, thus employees have a higher probably of driving to work alone compared to carpooling to work with more time spent at the organization.

The third model was not used because of the result presented by the Goodness of fit reflecting that the predicted values of a model vary significantly to the observed values. With ( $P < 0,05$ ) for Pearson model as shown in Table 4,18. The complete model can be seen in the Appendix E.

**Table 4.18:** Goodness of Fit for the 3<sup>rd</sup> Model

<b>Goodness of Fit</b>			
	Chi-Square	df	Sig.
Pearson	3465.026	1602	0,000
Deviance	634.031	1602	1,000

Other Models were tested in the SPSS software but were not significant e.g. the fifth model in the appendices about what will incentive employees to travel to work in a public transport. Although it was noted that safety at the bus stop was the only significant variable, it had no

significant parameter estimates. This can be seen in the Appendix E, 5th Model. The division of the dependent and independent variables can be seen in Table 4.19

Table 4.19 : Division of dependent and independent variables for Model 5

<b>Dependent variables</b>	
Drive Alone	Carpooling (receiving and offering)
<b>Independent variavels</b>	
Safety inside Buses	Public bicycle station close to the workplace
Safety at Bus stop	Possibility to taking bicycle on public transport (bus / subway)
Showers and lockers in the building where he works, to store belongings (helmet, change of clothes)	Discounts on the purchase of bicycles and equipment (for example electric bicycles)
Bicycles racks near public transit stations	Benefits for cyclists (discounts, coupons, etc.)
Map containing information of the safest routes to work	Safety and Security of bicycles, to prevent theft
Find partners / groups to cycle with to work	Higher number of parking spaces
Bicycle racks in the building / near workplace	Increasing frequency of bus lines
Bike lanes connecting to workplace	Proximity of bus stop to workplace
	Better bus conditions (e.g. air conditioning)

#### 4.4. The Workplace Travel Plan index

The workplace travel plan index was calculated and shown in Table 4.24. The Workplace Travel Plan indicator for managers for each organization can be seen in Table 4.20. Organizations A and B have Active Mode practices/actions above 0.5. Only the manager of organization F gives information to employees about transportation, with maximum point of 1 and manager A promote the use of carpooling to employees. Organizations A, B, C and D promote the use of chartered vans with parking spaces. The parking policies encourage by each organization are below average 0.5. The grading of working policies for organizations are above average with the exception of company E.

Table 4.20: Calculation of the Workplace Travel Plan Indicator for Employers

<b>Employers</b>						
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
<b>Communication</b>	No	No	No	No	No	Yes
<b>Points</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Active Mode Program</b>						
Bicycle rack	Yes	Yes	No	Yes	Yes	No
Wardrobe	Yes	Yes	No	No	No	Yes
Dressing room and shower	Yes	Yes	No	No	No	Yes
Facilities: Cyclist Clothing / Accessories (Helmet, Knee Pad)	No	No	No	No	No	No
Active mode user groups	No	Yes	No	No	No	No

Promotion of the usage of electric bicycle	Yes	No	No	No	No	No
Financial incentives for cyclists and pedestrian	No	No	No	No	No	No
<b>Points</b>	<b>0,57</b>	<b>0,57</b>	<b>0</b>	<b>0,14</b>	<b>0,14</b>	<b>0,29</b>
<b>Public Transportation</b>						
Offering of Vouchers	Yes	Yes	Yes	Yes	Yes	Yes
Provision of information to staffs (maps, bus stops and information)	No	No	No	No	No	No
<b>Points</b>	<b>0,5</b>	<b>0,5</b>	<b>0,5</b>	<b>0,5</b>	<b>0,5</b>	<b>0,5</b>
<b>Chartered Vans/Buses</b>						
Have?	Yes	Yes	Yes	Yes	No	No
Parking space	Yes	Yes	Yes	Yes	No	No
<b>Points</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>Corporate fleet</b>	Yes	Yes	Yes	Yes	No	Yes
Accessibility (access to everyone)	Restricted	Restricted	Restricted	Restricted	No	Restri cted
<b>Points</b>	<b>0,75</b>	<b>0,75</b>	<b>0,75</b>	<b>0,75</b>	<b>0</b>	<b>0,75</b>
<b>Carsharing/Carpooling (to Promote carpooling)</b>						
Web Registration	No	No	No	No	No	No
Reserved parking spaces	Yes	No	No	No	No	No
Group on social networks (Facebook, WhatsApp)	Yes	No	No	No	No	No
Carpooling program	Yes	No	No	No	No	No
Lectures, events, workshops	No	No	No	No	No	No
<b>Points</b>	<b>0,6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Parking Management Policies</b>						
Free/Paid by employees	Free	Free	Free	Free	Free	Free
Free/Paid by visitors	Free	Free	Free	Free	Free	Free
Reserved carpooling space	Yes	No	No	No	No	No
Incentives for those who let go of their parking space	No	No	No	No	No	No
According to the need of staffs (mobility difficulties, elderly)	Yes	Yes	Yes	Yes	Yes	Yes
<b>Points</b>	<b>0,4</b>	<b>0,2</b>	<b>0,2</b>	<b>0,2</b>	<b>0,2</b>	<b>0,2</b>
<b>Other working policies</b>						
Flexible working practice/hour	Yes	Yes	Yes	Yes	Yes	Yes
Compressed working hour (4 working days instead of 5)	No	Yes	No	No	No	No
Home office (Practice/not)	Yes	Yes	Yes	Yes	No	Yes
<b>Points</b>	<b>0,67</b>	<b>1</b>	<b>0,67</b>	<b>0,67</b>	<b>0,33</b>	<b>0,67</b>

The employee's indicator was graded on the mode of transportation used to work, the percentage of workers that work from home (Home-Office) and the percentage of those that practice flexible working time, this is shown in Table 4.21. From this table it can be seen that the percentage of employees that use sustainable mode, according to Table 3.2.

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
<b>Percentage of staffs with flexible working time</b>	0,41	0,55	0,34	0,29	0,55	0,41
<b>Percentage of staffs that practice Home office</b>	0,014	0,15	0,04	0,02	0	0,06
<b>Percentage of mode used by Employee</b>	0,47	0,42	0,64	0,42	0,52	0,59
<b>Percentage of mode used by Employee</b>	<b>46,63</b>	<b>42,42</b>	<b>63,83</b>	<b>41,76</b>	<b>51,52</b>	<b>58,82</b>
By foot	3,41	0,00	0,00	0,00	0,00	5,88
Bicycles	0,24	6,06	0,00	1,10	3,03	0,00
Public Transport	17,36	21,21	38,30	32,97	24,24	35,29
Chartered Vans/Buses	3,33	0,00	21,28	1,10	0,00	0,00
Taxi	5,27	6,06	0,00	2,20	0,00	11,76
Carpooling	17,03	9,09	4,26	4,40	24,24	5,88
Motocycle	2,27	0,00	2,13	2,20	3,03	5,88
Drive Alone	50,93	57,58	34,04	54,95	45,45	35,29

The classification of the Traffic Pyramid in Companies C and E are above average few employees practice home-office and the percentage of employees that practice flexible working hour in companies B and E. and the calculation of the onsite observation and interview was based on the third survey about available facilities, as shown in Table 4.22, it was noted that with the exception of company E, located outside *plano piloto* and Company C, located at the center of Brasília (*Esplanda*). All other companies have most daily facilities close to them and for all organizations, the bus stops condition, requires an improvement, as all bus stop condition are below average 0.5.

<b>Parking space/Parking Management</b>						
Is there CCTV access at the parking building?	Yes	Yes	No	No	Yes	Yes
Is there parking access control?	Yes	Yes	No	No	Yes	Yes
Easy to park nearby on the streets/in front of the building?	Yes	Yes	Sufficient Parking space	Sufficient Parking space	Yes	Yes
<b>Points</b>	<b>0,67</b>	<b>0,67</b>	<b>0</b>	<b>0</b>	<b>0,67</b>	<b>0,67</b>
<b>Cycling</b>						
Are there Camera at the parking space (Safety)	Yes	Yes	0	No	Yes	0
With signal	Yes	Yes	0	No	Yes	0
Close to the organization	Yes/Inside	Yes/Inside	0	Yes	Yes/Beside	0
Cycle parking: Provide safe, secure and covered cycle parking close to the entrance of place of work	Yes	Yes	No	No	Yes	0
Distance of cycling path/route to work	Yes	Yes	Yes	No	Yes	No
<b>Points</b>	<b>1</b>	<b>1</b>	<b>0,2</b>	<b>0,2</b>	<b>1</b>	<b>0</b>

<b>Sidewalks</b>						
to the Public Transport	Yes	Yes	Yes	Yes	Yes	Yes
Paved	Yes	Yes	Yes	Yes	Yes	Yes
Well Conversed	Yes	Yes	Yes	No	Yes	Yes
Well- Lit	Yes	Yes	Yes	No	Yes	Yes
<b>Points</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0,5</b>	<b>1</b>	<b>1</b>
<b>Bus stops</b>						
Camera at the bus point	No	No	No	No	No	No
Sheltered from the weather	Average	Average	Average	Average	Average	Average
Information at the buspoint given by Organization	No	No	No	No	No	No
Distance of bus stop to the organization (<500m)	<500m	<500m	>500m	<500m	<500m	<500m
<b>Points</b>	<b>0,38</b>	<b>0,38</b>	<b>0,13</b>	<b>0,38</b>	<b>0,38</b>	<b>0,38</b>

Table 4.23 shows a summary of all the actions, policies and practice by the managers, employees and on-site facilities for each organization

<b>Table 4.23: Final indicator computation</b>						
	<b>Managers</b>					
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
<b>Communication</b>	0	0	0	0	0	1
<b>Active mode program</b>	0,57	0,57	0	0,14	0,14	0,29
<b>Public transport</b>	0,5	0,5	0,5	0,5	0,5	0,5
<b>Chartered vans/buses</b>	1	1	1	1	0	0
<b>Corporate fleet</b>	0,75	0,75	0,75	0,75	0	0,75
<b>Car sharing/Carpooling (to promote carpooling)</b>	0,6	0	0	0	0	0
<b>Parking management policies</b>	0,4	0,2	0,2	0,2	0,2	0,2
<b>Other working policies</b>	0,67	1	0,67	0,67	0,33	0,67
<b>Total Point</b>	<b>0,56</b>	<b>0,50</b>	<b>0,39</b>	<b>0,41</b>	<b>0,15</b>	<b>0,43</b>
<b>Information obtained onsite, through interviews</b>						
<b>Parking space/parking management</b>	0,67	0,67	0	0	0,67	0,67
<b>Cycling</b>	1	1	0,2	0,2	1	0
<b>Sidewalks</b>	1	1	1	0,5	1	1
<b>Bus stop</b>	0,38	0,38	0,13	0,38	0,38	0,38
<b>Total Point</b>	<b>0,76</b>	<b>0,76</b>	<b>0,33</b>	<b>0,27</b>	<b>0,76</b>	<b>0,51</b>
<b>Employees</b>						
<b>Percentage of staffs with flexible working time</b>	0,41	0,55	0,34	0,29	0,55	0,41
<b>Percentage of staffs that practice home office</b>	0,014	0,15	0,04	0,02	0	0,06
<b>Percentage of sustainable mode used by employees</b>	0,47	0,42	0,64	0,42	0,52	0,59
<b>Total Point</b>	<b>0,30</b>	<b>0,37</b>	<b>0,34</b>	<b>0,24</b>	<b>0,36</b>	<b>0,35</b>

Table 4.24, shows the Workplace Travel Plan Index calculated from the various indicators (Managers, Employees and onsite facilities) and classified according to Table 3.3. To know which indicator has the greatest influence on organizations. Organizations that are well located in the *Plano Piloto* have high onsite facilities indicator has seen in Table 4.24 Although the

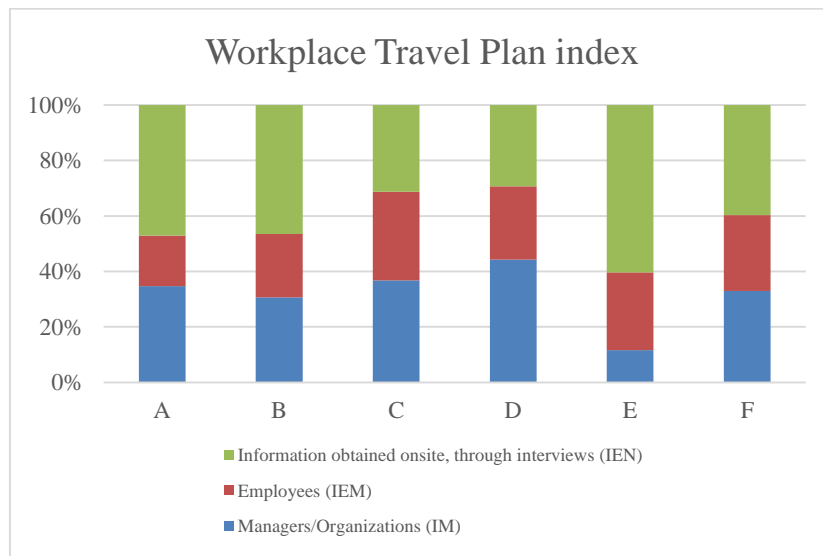


manger’s indicators for companies’ C and D are below average, they are the highest indicators for these companies, with 0.39 and 0.41, respectively.

The Workplace Travel Plan Index for company A  $I_{WTP}$  (0.56, 0.30, 0.76) shows that have actions implemented by manger but do not have Workplace Travel Plan (0,56 - Sliver), why few of the employees are unaware of these actions or are aware and not participating in this actions (0,30–Bronze), and from the onsite facilities, it can be seen that employees have access to facilities (0,76 – Gold). All employees Indicator can be classified as bronze, with the exception of company D, classified as beginner. The manger indicators show that four of the companies (B, C, D and F) are Bronze, while company A is Sliver and Company E is unaware and does not practice workplace travel plans (Beginner).

	A	B	C	D	E	F
<b>Managers/Organizations (<math>I_{WTP}</math>)</b>	0,56	0,50	0,39	0,41	0,15	0,43
<b>Employees (<math>I_{EM}</math>)</b>	0,30	0,37	0,34	0,24	0,36	0,35
<b>Information obtained onsite, through interviews (<math>I_{EN}</math>)</b>	0,76	0,76	0,33	0,27	0,76	0,51

Therefore, organizations should implement plans to encourage employees to travel in sustainable ways. Figure 4.38 and Table 4.25, show that the onsite information’s indicator (onsite facilities) is the major indicator that contribute to the practice of workplace travel plan, compared to other indicators.



**Figure 4.38:** Workplace Travel Plan Index Plot

## 5. CONCLUSION AND FINAL REMARKS

Workplace Travel Plan is a practice adopted in several developed countries such as the United States, United Kingdom and others. With this practice, countries have been able to reduce the use of automobile (single occupancy of a car), bringing benefits to individuals and organizations, such as increasing productivity and promoting active mobility, as well as health benefits for employees. While in developing countries such as Brazil, these practices are still new and growing.

In view of this, this research was developed at the federal capital of Brazil, Brasília, the area of study and from the diagnoses carried out in organizations, it can be said that the objective of the dissertation was attained. Identifying plans, factors, actions and initiatives that influences in the practice of sustainable mobility, through Workplace Travel Plan in Brazilian organizations. They are as follows:

*a) What are the sustainable mode of transportation encouraged by organizations/employers?*

Companies A and B are the only organizations that promote the use of Active mode, with the provision of adequate facilities such as bicycle racks, wardrobe, changing rooms and shower. Managers should therefore encourage employees to travel by active mode by increasing the numbers of bicycle racks, provide safety and security at bicycle stands for companies C, D, and F, provision of padlocks, cyclist clothing / accessories e.g. helmet, knee pad, etc., hosting of events to promote Active Mode, creating and encouraging of formal cycling group in the organization, and incentives to staffs that travel to work by active mode. Also, companies should start giving benefits to employees that cycle or walk to work, include active mode in organization policy, create space to encourage active mode. Organizations preoccupied about time and distance of travel of active mode to work can promote this mode to integrate with other mode of transportation, such as combining with public transport authorities to encourage the transport of bicycles in public transport and for organizations that have never taught about this the active mode actions, managers should start encouraging the practice.

Although all organizations offer public transport vouchers, other actions should be taken to encourage more and frequent use of public transport, this actions includes, provision of

information to staffs; giving of maps about bus lanes and routes and collaborating with public authorities to improve the proximity of bus stops to the organization. Making use of chartered vans/buses to connect strategic locations, public stops and stations, of the cities to aid the use public transport, encourage the use of chartered vans or organization owned buses for organizations that do not have and create a parking space for this vans or buses in the organization. Employers can encourage employees to use chartered vans by getting to know their route to and from work (or where employees reside).

It was noted of all organizations, only organization A, promotes the use of carpooling, by making available to employees who carpool to work, reserved parking spaces, social network group (WhatsApp, Facebook) and using the *waze* carpooling program. Therefore, more companies should be encouraged to practice and implement plans and actions, through web registration; giving lectures; hosting events and workshops; publicity; providing and increasing number of reserved parking spaces and giving of incentives to staffs. Carpooling improves social relationship among staffs and since there are laws supporting the use of carpooling in the Federal District (DF), Law No. 5051/2013 and Law No. 6231/2018, These can ease the implementation by organizations and the use among employees.

At the interviewed organizations, parking spaces were either owned by the organization or by contracted party. For organizations where parking spaces are owned by the company, they have sufficient parking spaces and for organizations owned by contracted party, there are insufficient spaces, thus, they park by hierarchy and rotation among employees. In order to support workplace travel plan using parking management policies, companies should discourage free parking to employees and visitors that drive alone to workplace and promote reserved parking space for carpoolers, employees with mobility difficulties and give incentives to those that forgo their parking spaces.

All organizations have employees that practice home office with the exception of company E, while company B, has the highest percentage of employees that practice home office, 28%, and the only company that practice compressed working hour. Home office, and compressed working hours reduces the necessity of an employee's traveling to workplace. Although, all companies practice flexible working practice/hour, not all employees practice. Hence, the

practice of home office, flexible and compressed working hours should be stimulated by organizations to promote WTP.

***b) What are the modes used by employees and why? what are the factors that can encourages them to travel in a more sustainable way?***

The employee's survey shows that majority of the employees, drive alone to work (single occupant) with the exception of company C (where the principal mode is public transport), principally during the arriving and leaving peak time, between 7am. to 10am. and leaves between 5pm. to 7pm. respectively. While public transport is the second principal mode of transportation used by employees to work. The main reasons given by employees for driving alone to work are: it is the fastest way to get to work; unaware of people who have the similar traveling schedules and routes and need a car to perform personal activities before, during or after office hours, such as, taking or picking up children in school, practice physical activities, need to go frequently to go bank, commerce centers. The following factors will motivate them to travel through sustainable ways.

For a shift in mode to carpooling, they are, contribute to reducing road traffic; contribute to decreasing the need for parking space and reduce environment pollution; having preference in parking spaces for carpooler; splitting travel cost between passengers and driver; safe and secured mode; traveling in less time and reduced cost; possibility of flexible working hour and the availability of a carpool user group. For a shift in mode to public transport by employees, they are, closer and safer bus stops; safety inside of public transport; increase in the frequency of bus lines; better bus conditions (e.g. air conditioning) and dedicated public lanes; improved sidewalk conditions; pedestrian access to public transit and provision of information about public transit lines that pass close to employee's workplace.

For a shift in mode to active mode by employees, the following are necessary: incentives for participating in active mode (discounts, coupons, etc.); security at the bicycle racks to prevent theft; Increase in the number of bicycle racks; giving of discounts on bike purchases and equipment to cyclists (e.g. electric bikes); possibility of taking bike on public transit (bus/subway); installation of public bicycle station close to workplace (+Bike, Yellow); constructing and improving bicycle lanes/cycling paths connecting to workplace; availability

of facilities such as showers and lockers in the building; to store belongings (helmet, change clothes); provision of map containing information about the safest routes to work; find cycling partners or groups to cycle with to work; improving and constructing of cycling paths connecting to workplace; provision of bicycle racks in the building or near workplace; provision of bicycle racks close to public transit stations and provision of facilities such as showers and lockers in the building to store belongings (helmet, change clothes).

***c) What are the available facilities on site that can encourage workplace travel plan?***

The result obtained from the Workplace Travel Plan Index ( $I_{WTP}$ ), shows that the onsite information's indicator (onsite facilities) for companies A, B and E, when compared to other indicators, is the major indicator that promotes workplace travel plans. These facilities include sidewalks that are well-paved and conserved sidewalks; secured bicycles racks among other. But more facilities are still needed, they include, the installation of CCTV (Closed-Circuit television camera) at bus stops and parking access control in companies to encourage the use of sustainable mobility, to make facilities safe and secured. Companies that have limited parking space for employees, and cars are parked around (in front of or/and at the back of) the organization, can promote carpooling program and workplace parking management policies.

There is a need for improvement and maintenance in the pedestrian paths, as shown in Figure 4.23, of pedestrian paths, implantation and repairing of flood light to ease active mobility for company D. For all companies, there is a need for an improvement in bus stops because employees get expose to weather conditions (e.g. heavy rain). Therefore, managers of organizations should discuss with public authorities on how to improve bus stops conditions, as well as, how public bicycle station can be implemented close to their respectively companies, as this will motivate employees to travel more by active mode. The provision and availability of some facilities inside and close to the organizations can as well reduce the need to drive to work and increase the use of sustainable mobility, these facilities include, restaurants; Banks/ATM; beauty & barbering shop; bicycle shop; post-office; university/school; resting room; common room and dining room. If these facilities are in close range, then it will employees to cultivate the habit of not driving only to work and using alternative modes available. The result obtained about distance of facilities to workplace shows that organizations located at *Plano Piloto* have close facilities to their workplace.

The SPSS output model shows, for availability of car for personal use (M1), the odd ratio of an employee that have car “sometimes” and “never” to those that have car “always”, have a greater probability of carpooling or taking public transport than those driving alone to work and this probability is higher for “never” (employees without a car available to them) compared to those that have “sometimes”, as seen in Table 4.17. The independent variable, arriving time at work (H1) shows that, employees that arrives to work between 12:01pm. to 2:00pm. compared to those that arrive between 8:01am. to 10:00am., have a higher probability of carpooling than driving alone to work. This might have well been influenced by the working hour policy of an organization. As it can be seen from Figure 4.6, Arriving time of employees to workplace, companies A to F and Table 4.4, Numbers of employees that practice home-office per organization and their percentages. Companies with higher percentage of working hour policy (e.g. home office), companies B, A and D, have a higher probability of practicing sustainable mode compared to other organizations (e.g. company E), where employees do not practice home office and arrive workplace at a fixed time. Therefore, organizations should encourage more employees to practice working hour policy such as flexible working time, home office and compressed working hour, to promote the use of sustainable mode and also reduce the need of employees to commute.

For employees that live far away from their workplace, they have a higher probability to travel in public transport or carpooling than to drive alone to work as seen in Table 4.17 and the longer an employee works in an Organization (DS7), the probability of driving than take a public transport to work, it was significant for carpooling. This might have been caused by lack Workplace Travel Plan, thereby causing an employee to buy car, the more time he spent in an organization. Therefore, companies should implement actions aimed at new employees, who are less likely to use car in relation to public transport and carpooling and with this, employees that have been working in the organization for a long time, will join when they see the benefits received, from those who are participating. From the diagnoses carried out in organizations, and the calculation of the workplace travel plan index (I<sub>WTP</sub>), it can be seen that most of the indicators are below average (0.50).

In conclusion, from this research, it can be said that none of the organization promote Workplace Travel Plans, but some of the organizations carry out Workplace Travel Actions

and Policies such as, carpooling by Company A, provision of chartered buses by Companies A, B, C and D and the practice of flexible working policies by all organization and practice of home-office by all organizations with the exception of Company E. Therefore, this shows great signs for developing, implementing and monitoring of Workplace Travel Plan. Thus, more actions should be carried out by organizations and Workplace Travel Plan implemented with incentives to stimulate the adhering of employees to reduce travel trips made in automobiles (single occupancy of car) and decrease the impact caused upon the population, as well to the society. This will result in benefits, such as, decrease in the demand for parking lots; reduces in costs associated with transportation (fuel aid, fleet); optimization of the use of urban space; reduction of absenteeism for employees; increase in accessibility to the workplace; an improvement in the quality of life and health and an increase in productivity for employees; reduction of local pollution caused by greenhouse gas emissions; reduction of local congestion; reduction of traffic accidents; increase in the supply and promotion of more sustainable mean of transport.

## **5.1. LIMITATIONS OF THE DISSERTATION**

The limitations of this research are that more data should be collected, principally from organizations were there were few participants for better future analyzes, the on-site facilities, such as cycling path, pedestrian walk, evaluated for accessibility are those around the organization and not expanded to the area of residence of employees. From January, 2020, the Bicycle sharing system (Yellow) does not exist anymore.

## **5.2. SUGGESTIONS FOR FUTURE WORKS**

More and Further studies should be developed, principally in congested cities, to implement and monitor the practice of Workplace Travel Plan in organizations, as well as, sanctioning of laws by public bodies that encourage companies to practice Workplace Travel Plans. If the plans for Workplace Travel are implemented and practiced by organizations counting on employees' adherence, especially in cities with heavy traffic flow, it is expected to generate a sustainable environment, in addition to promoting sustainable modes of transport, which increases employee's productivity and improved quality of life for people that reside in this

region. In addition, to future research, more samples should be collected both for companies and employees and both companies and interviewed employees should be selected and not done randomly.



## BIBLIOGRAPHIC REFERENCES

ADAMS, E. J., ESLIGER, D. W., TAYLOR, I. M., SHERAR, L. B. (2017) *Individual, employment and psychosocial factors influencing walking to work: Implications for intervention design*. PLoS ONE 12(2): e0171374. <https://doi.org/10.1371/journal.pone.0171374>

ARUWAJOYE, O. A., TACO, P. W. G. (2019). *Fatores que influenciam na Prática Da Mobilidade Corporativa: Uma Revisão Bibliométrica*. 33 Congresso de Pesquisa e Ensino em Transporte da ANPET Balneário Camboriú SC

BADLAND, H.; HICKEY, S.; BULL, F.; (2014). Public transport access and availability in the RESIDE study: Is it taking us where we want to go? *Journal of Transport & Health* 1.1 (2014):45-49.

BANISTER, D. (2008). The sustainable mobility paradigm. *Transport Policy*, Vol. 15, (2), Pp. 73-80.

BRASIL, (1987) Decreto nº 95.247 de Vale Transporte, de 17 de novembro de 1987, Available at < [http://www.planalto.gov.br/ccivil\\_03/decreto/D95247.htm](http://www.planalto.gov.br/ccivil_03/decreto/D95247.htm)> accessed on the 3rd of December

BAUM, J., SILVA D., (2017) GIZ Transport Policy Counselor e ITDP Brasil Demand Management Coordinator. Instituto Ethos.

BROCKMAN, R., FOX, K. R. (2011) *Physical activity by stealth? The potential health benefits of a workplace transport plan*. *Public Health*. Volume: 125. Edition: 4. Pages: 210-216

CAIRNS, S., NEWSON, C. E., DAVIS, A. (2010) *Understanding successful work place travel initiatives in the UK.*, *Transportation Research Part A*, V.44, p.473-494.

CIARI, F., AXHAUSEN K.W. (2012) Choosing carpooling or car sharing as a mode: Swiss stated choice experiments. *ETH Zurich Research Collection*. <https://doi.org/10.3929/ethz-b-000091515>

CODEPLAN (2018) Companhia de planejamento do Distrito Federal, Texto para discussão. Aspectos econômicos do Distrito Federal, Brasília-DF, n o 37/abril de 2018 ISSN 2446-7502

COMMERCE (2018): Standards for developing Workplace Travel Plans, Available on <[file:///C:/Users/Oluleke/Downloads/commerce\\_standards\\_12pp\\_eng.pdf](file:///C:/Users/Oluleke/Downloads/commerce_standards_12pp_eng.pdf)>: Accessed on the 6<sup>th</sup> of July, p.3.

CURTIS, C., HEADICAR, P. (1997). *Targeting travel awareness campaigns: Which individuals are more likely to switch from car to other transport for the journey to work?* *Transport Policy* 4, 57–65.

DFT (2014). National travel survey: England. Department for Transport, London, United Kingdom.

DICKINSON, J. E., KINGHAM, S., COPSEY, S., HOUGIE, D. J. P. (2003) *Employer travel plans, cycling and gender: Will travel plan measures improve the outlook for cycling to work in the UK?* 17 Transportation Research Part D: Transport and Environment 8, 53–67

ENOCH M, E RYE T. (2012) *Travel plans: using good practice to inform future policy*. In: Joaquin B, Rietveld P, Westin K, editors. Towards better performing transport networks. London, United Kingdom: Routledge; p. 157 e 77.

EMBARQ. (2013) Saving Lives with Sustainable Transport: traffic safety impacts of sustainable transport policies. Washington DC. United States.

EMBARQ. (2015) *Dots cidades*, Manual de Desenvolvimento Urbano Orientado ao Transporte Sustentável, 2015

EUROPEAN COMMISSION, (2020) A Concept for Sustainable Urban Mobility Plans. Available online: <[https://ec.europa.eu/transport/sites/transport/files/themes/urban/doc/ump/com%282013%29913-annex\\_en.pdf](https://ec.europa.eu/transport/sites/transport/files/themes/urban/doc/ump/com%282013%29913-annex_en.pdf)> accessed on the 10<sup>th</sup> of January.

FIELD, A. (2017), SPSS (software). Discovering Statistics using SPSS, 3<sup>RD</sup> Edition. Sage Publication. ARTMED.

FREUDENDAL-PEDERSEN, M. (2015). Whose commons are mobilities spaces? The case of Copenhagen cyclists. *ACME: An International Journal for Critical Geographies*, 14(2), 598.

FREY, F. (2017). SPSS (software). 10.1002/9781118901731.iecrm0237.

GUIA TRABALHISTA, (2019) Available at <[http://www.guiatrabalhista.com.br/tematicas/resp\\_dto\\_trabalhista.htm](http://www.guiatrabalhista.com.br/tematicas/resp_dto_trabalhista.htm)> Accessed 21th of December, 2019

HOSMER, D. W, LEMESHOW, S. (2000) 2<sup>nd</sup> edition. *Applied Logistic Regression*, The Ohio state University, Columbus, Ohio. New York: John Wiley & Sons. ISBN 0-471-35632-8.

HELMIKUUTA, (2011) Ralph de Jong, *Workplace Travel Planning*, Best European Practices

IBGE (2018): *Dados de população do Distrito Federal*, Available at <<https://cidades.ibge.gov.br/brasil/df/panorama/>> Accessed 18th of de June, 2018.

IBOPE (2014) Inteligência - São Paulo. *Dia Mundial Sem Carro 2014. São Paulo, Brasil*. Available at <<https://www.nossasaopaulo.org.br/dia-mundial-sem-carro/>> Accessed on 6th of July, 2018.

ITRANS (2017) Innovative Transport Solutions Pvt Ltd: Partnering with cities to create low-

carbon, safe and inclusive transport for liveable & climate resilient development

KHANDOKAR, F., PRICE, A., RYLEY, T., (2017), Healthcare representatives' perspectives on hospital travel plans in England. *Case Studies on Transport Policy*. Volume: 5. Edição: 1. Páginas: 61-70.

LAVIERI, P. S. (2014) Impacto do tele trabalho nos padrões individuais de atividades e viagens: estudo exploratório com empresas e tele trabalhadores. Dissertação (Mestrado) - Escola Politécnica da Universidade de São Paulo. Departamento de Engenharia de Transportes. 190 p.

MARIANO, A. E., Rocha S. M. (2017) *Revisão da Literatura: Apresentação de uma Abordagem Integradora*. Anais do XXVI Congresso Internacional Aedem, Reggio di Calabria, v. 1, p. 427-443

MARTINS, J. G. F., (2014) *Proposta de Método para Classificação do Porte das Empresas*. Dissertação (Mestrado em Administração). – Universidade Potiguar. Pró-Reitoria Acadêmica – Núcleo de Pós-Graduação – Natal. (78) f.

MAYDEU, O. A., FORERO, C. (2010). Goodness-of-Fit Testing. 10.1016/B978-0-08-044894-7.01333-6. - International Encyclopedia of Education VL - 7 Pg. 190-196.

MDR (2020) Ministério do Desenvolvimento Regional, (2020); Available on: /<<https://www.mdr.gov.br/mobilidade-e-servicos-urbanos/mobilidade-ao-redor>>/ Accessed on the 25<sup>th</sup> of January, 2020

MELIA, S., CLARK, B. (2018), *what happens to travel behaviour when the right to park is removed?* *Transport Policy*, volume: 72, pages 242-247.

MERIGO, J. M., PEDRYCZ, W., WEBER, R., DE LA SOTTA, C. (2018). Fifty years of Information Sciences: a bibliometric overview. *Inf. Sci.* 432, 245–268.

METRÔ, (2019) Plano de Desenvolvimento do Transporte Público sobre Trilhos d Distrito Federal, PDTT/DF- Relatório Final.

MODAKA, N. M., MERIGOB, J. M., WEBERC, R., MANZORB, F., ORTUZARD, J. D. (2019) Fifty years of Transportation *Research journals*: A bibliometric overview. *Transportation Research Part A*. Vol 120, pages. 188 - 233.

MORRISON, G. M., LAWELL, C. Y., CYNTHIA L. (2016) *Driving in force: The influence of workplace peers on commuting decisions on US military bases*, *Journal Of Economic Behavior & Organization*. Volume: 125; pages: 22-40.

MUNDORF, N., REDDING, C., BAO, S. (2018). Sustainable Transportation and Health. *International Journal of Environmental Research and Public Health*. 15. 542. 10.3390/ijerph15030542.

NEWSOM, (2016) 1 PSY 510/610 Categorical Data Analysis, Fall 2016 Multinomial Logistic Regression Models

NTA, (2011) National Transport Authority, Achieving Effective Workplace Travel Plans, Guidance for Local Authorities.

NZTA, (2011), The NZ Transport Agency's *Workplace travel plan guidelines*, first edition, Amendment Workplace travel plan guidelines

OECD, (2010) Organization for economic co-operation and development effective transport policies for corporate mobility management - ISBN 978-92-821-0249-7

PAGE, N. C., NILSSON, V. O., (2017) *Active Commuting: Workplace Health Promotion for Improved Employee Well-Being and Organizational Behavior*, Frontiers In Psychology. Volume: 7.

PETRUCCI, C. J. (2009) 'A Primer for Social Worker Researchers on How to Conduct a Multinomial Logistic Regression', Journal of Social Service Research, 35: 2, pages193 - 205.

PETRUNOFF, N., XU, H., RISSEL, C., WEN L. M., VAN DER PLOEG, H. (2013). *Measuring workplace travel behavior: validity and reliability of survey questions*. J Environ Public Health 2013.

PETRUNOFF, N., RISSEL, C., WEN, L. M., MARTIN, J. (2015) *Carrots and sticks vs carrots: Comparing approaches to workplace travel plans using disincentives for driving and incentives for active travel*, Journal of Transport & Health 2, p. 563–567.

PETRUNOFF, N., WEN L. M., RISSEL C. (2016) *Effects of a workplace travel plan intervention encouraging active travel to work: outcomes from a three-year time-series study*, Public Health 135 28 - 47

PETRUNOFF, N., RISSEL, C., WEN, L. M. (2017) *"If You Don't Do Parking Management.. Forget Your Behavior Change; It's Not Going to Work."* Health and Transport Practitioner Perspectives on Workplace Active Travel Promotion, PLOS ONE. Volume: 12, Edition: One.

PETZHOLD, G. S. (2016) *Mobilidade Corporativa: Como Engajar Organizações Brasileiras em Prol da Melhoria do Transporte Urbano*. Dissertação (Mestrado) – Programa de Pós-graduação em Engenharia de Produção, Universidade Federal do Rio Grande do Sul, Porto Alegre.

RICHBELL, S. (2012) *Going green: The impact of workplace travel plans on sickness absence in the public sector*. Sheffield University Management School, University of Sheffield, United Kingdom.

RIGGS, W. (2014) *Dealing with parking issues on an urban campus: The case of UC Berkeley*,

Case Studies on Transport Policy Volume 2, Issue 3, December 2014, pages168-176.

ROBY, H. (2010) *Workplace travel plans: past, present and future*, Department of Design, Development, Environment and Materials, Faculty of Maths, computing and Technology, The Open University, Walton Hall, Milton Keynes Mk7 6AA, United Kingdom, *Journal of Transport Geography* pages 18, 23-30.

ROOT, A., SCHINTLER, L. (1999) *Women, motorization and the environment*. *Transportation Research Part D: Transport and Environment* 4, pages 353–355.

RYE, T. (1999) “*Employer attitudes to employer transport plans: a comparison of UK and Dutch experience*”, *Transport Policy*, Vol. 6 No. 3, pages. 183 - 196.

SEBRAE (2015) Serviço Brasileiro de Apoio a Micro e Pequenas Empresas. (2015). Retrieved 20 February 2015. <http://http://www.sebrae-sc.com.br/leis/default.asp?vcduto=4154>.

SILVA, J. C. (2014) *Caracterização e análise do deslocamento “casa-trabalho-casa” em empresas localizadas na Barra da Tijuca-RJ*. 2014. 99p. Dissertação em engenharia de transportes. Rio de Janeiro: COPPE/UFRJ.

SIMS, D., MATTHEWS, S, A., BOPP, M. J. (2018). *Predicting discordance between perceived and estimated walk and bike times among university faculty, staff, and students*. *Journal, Transportmetrica A: Transport Science*, Volume 14, 2018 - Issue 8.

SPERRY, B. R.; CHIGOY, B. T.; GREEN, L. K. (2016), Development of Improved Trip Attraction Rates for Small and Medium-Sized Travel Demand Models. *Transportation Research Record*. Editions: 2568, pages 48-54.

SPSS, (2020) Available at <<https://www.ibm.com/br-pt/analytics/spss-statistics-software>>, accessed on 5<sup>th</sup> of January, 2020

STOKES, G. (1996). *Getting commuters onto public transport - a survey in Merseyside*. Presented at the 24th European Transport Forum, PTRC, London, United Kingdom

TANG, M., LIAO, H., SU, S. (2018). A Bibliometric Overview and Visualization of the International Journal of Fuzzy Systems Between 2007 and 2017. *Int. J. Fuzzy Syst.* 20(5):1403–1422.

TRANFIEL, D., DENYER, D., SMART, P. (2003). *Towards a methodology for developing evidence-informed management knowledge by means of systematic review*. *British Journal of Management*, 14, 207-222.

TRANSPORT CANADA, (2010) *Workplace Travel Plans, Guidance for Canadians Employers*, ACT Canada and Noxon Associates Limited.

UK, (2002) Department of Transport, making travel plans work, Lessons from UK case

studies.

VANOUTRIVE, T. (2014). Workplace travel plans: can they be evaluated effectively by experts? *Transportation Planning and Technology*. Volume: 37 Editions: 8 p: 757-774.

VAUGHAN, (2019) Available at [https://www.vaughan.ca/projects/projects\\_and\\_studies/sustainable\\_transportation/Pages/default.aspx](https://www.vaughan.ca/projects/projects_and_studies/sustainable_transportation/Pages/default.aspx) on the 15<sup>th</sup> of January, 2020

WOKINGHAM BOROUGH COUNCIL (2011) - Workplace Travel Plan Guidance. Wokingham, United Kingdom.

WALTER, O. M. F. C. (2013) - Análise de ferramentas gratuitas para condução de survey online, *Produto & Produção* Universidade Federal de Santa Catarina - UFSC Programa de Pós-Graduação em Engenharia de Produção PPGEP/UFSC vol.14 n.2, pages 44-58.

## **Appendix A: QUESTIONNAIRES**

### **Appendix A1: Questionnaire 1: Manager's/Organization's Survey Appendix**

### **A2: Questionnaire 2: Employee's Survey Appendix**

### **A3: Questionnaire 3: Onsite survey**

# **Survey about Workplace Travel Plans/Actions for Managers/Organizations**

**Dear Directors,**

The objective of this survey is to identify the plans, actions, facilities, factors and initiatives about Workplace Travel Plans/Actions for this Organization. The survey is part of dissertation FOR master in Postgraduate Program in Transport (PPGT), and has the support of the Research Group on Behavior in Transport and New Technologies (CTNT), the Interdisciplinary Center for Transport Studies (Ceftru) of the University of Brasilia (UnB) and **the NAME OF THE COMPANY**.

Workplace Travel Plan aims at the practice of sustainable actions for the integrated use of the various modes of transport in the commuting of employees to work. These actions are car sharing, carpooling, active mobility (cycling and walking), public collective transport (subway, buses and vans), taxis, transport by applications, among others, for the employees to commute to work.

Participation is voluntary, your contributions are very important and responses are confidential. The results will be published in aggregate, keeping all data confidential and without the individual identification of the respondents.

If you have any questions, kindly forward it to:

Researcher: Ayomikun Oluleke Aruwajoye  
Contact: [oluleke4real@gmail.com](mailto:oluleke4real@gmail.com)

Supervisor: Prof. Pastor Willy Gonzales Taco  
Contact: [pwtaco@gmail.com](mailto:pwtaco@gmail.com)

**\*Required**

## **Communication**

**1. Does the Institution provide information about transportation to its employees? \***  
(e.g. bus schedules and lines, subway network, bicycle stations, parking availability, among others)

- a) Yes
- b) No

**2. The Institution communicates with its employees through: \***

- a) Email
- b) Intranet
- c) Printed newsletter
- d) Posters



- e) Others

### **Use of the bicycle as a mean of transport to work**

- 3. Are there plans or action at the Institution to promote the use of bicycles? \***
- a) Yes Go to question 5.
  - b) No Go to question 4.

### **Use of the bicycle as a mean of transport to work**

- 4. If there is no given incentive to ride bicycles, mark the reasons \***
- a) Travel time and / or distance of staffs to the Institution is far
  - b) The Institution had not considered such programs or actions
  - c) It is not part of the institution's policy
  - d) Lack of a specific area in the Institution to promote this action or program
  - e) Other

### **Use of the bicycle as a mean of transport to work**

- 5. Is there a formal or informal group of employees who travel to work by bicycle? \***
- a) Yes
  - b) No
- 6. In case there are facilities offered to employees who travel by bicycle to work, what are they? \***
- a) Changing rooms with shower
  - b) Wall robes/Lockers
  - c) Padlocks
  - d) Bike racks
  - e) Cyclist clothing / accessories (e.g. helmet, knee brace, etc.)
  - f) No facility
  - g) Other
- 7. Does the employee receive any Institutional benefits for commuting to work by bicycle? \***
- a) Yes
  - b) No

### **Public Collective transport as a mean of transport to work**

**8. Are Transport Vouchers paid by the Institution? \***

- a) Yes, fully
- b) Yes, partially
- c) No

**9. Does the Institution provide information about public collective transport to its employees (e.g. map routes, schedules, lines and bus stops)?**

- a) Yes
- b) No

**Chartered bus / van as a mean of transport to work**

**10. Does the Institution provide a chartered bus / van as a way of transporting its employees to work? \***

- a) Yes
- b) No Go to question 16.

**Chartered bus / van as a mean of transport to work**

**11. Where does the chartered bus / van route start and end?**

- a) Residence / Work and vice versa
- b) Residence / Public Transport Station (Terminal, Bus Station, stopping point) and vice versa
- c) versa
- d) Public Transport Station (Terminal, Bus Station, stopping point) / Work and vice versa

**12. Indicate the number of chartered buses / vans that the Institution provides: \***

=====

**13. Indicate what periods the chartered buses / vans are always available, if the company has \***

- a) In the morning
- b) In the afternoon
- c) In the evening

**14. Are there available parking spaces for chartered buses / vans at the Institution? \***

- a) Yes Go to question 15.
- b) No Go to question 16.

**15. What are the number of available parking spaces for chartered buses / vans? \***

=====

### **Taxi, transport by applications as a mean of transport to work**

**16. Does the Institution have a policy on refunding the cost of transport by taxi or by applications? \***

- a) Fully
- b) Partially
- c) No

### **Personal /Corporate fleet as a mean of transport to work**

**17. Does the Institution have its personal / corporate fleet (van, car, others)? \***

- a) Yes
- b) No Go to question 20.

### **Personal /Corporate fleet as a mean of transport to work**

**18. The use personal / corporate fleet at the Institution are for: \***

- a) General use
- b) Restricted use

**19. The use of the personal / corporate fleet during the day is carried out: \***

- a) Rarely
- b) Sometimes
- c) Often
- d) Always

### **Carpooling as a mean of transport to work**

**20. Which of the following actions does the Institution use to promote the use of carpooling? \***

- a) Web registration system
- b) Reserved parking spaces
- c) Group on carpoolers on social networks (Facebook, WhatsApp)
- d) Lectures, events, workshops
- e) Carpooling Program
- f) No action
- g) Others

**21. Do you know or have you heard about Law No. 5051/2013 that instituted the *Semana da Carona Solidária* within the Federal District (DF)? \***

- a) Yes
- b) No

**22. Do you know or have you heard about Law No. 6231/2018 that instituted *Carona Solidária* through the use of an application in DF? \***

- a) Yes
- b) No

### **Institution Parking Space (at workplace)**

**23. Who operate the Institution's car park? \***

- a) By the institution
- b) By contracted party/third party
- c) Public parking      Go to question 27.
- d) No parking space      Go to question 27.

### **Institution Parking Space (at workplace)**

**24. Are parking free for visitors? \***

- a) Yes
- b) No

**25. Does the Institution offer free parking spaces for its employees? \***

- a) Yes
- b) No      Go to question 27.

### **Institution Parking Space (at workplace)**

**26. What percentage of free parking spaces are offered to employees? \***

- a) Classify each alternative by percentage (25%; 50%; 75%; 100%)
- b) Less than 25%
- c) From 25% to 49%
- d) From 50% to 74%
- e) From 75% to 100%

### **Institution Parking Space (at workplace)**

**27. How are the Institution's parking spaces are distributed? \***

- a) No criteria (first come, first have)
- b) As needed by the employees (elderly, disabled)
- c) According to hierarchy
- d) Priority to employees offering lift
- e) The Institution does not have parking spaces
- f) Other

**28. Does the offer for parking spaces exceed the demand for parking? \***

- a) Yes, Go to question 31.
- b) No Go to question 29.

### **Institution Parking Space (at workplace)**

**29. Are there any benefits for employees that forfeit their parking space? \***

- a) Yes, Go to question 30.
- b) No Go to question 31.

### **Institution Parking Space (at workplace)**

**30. If the previous answer was yes, please state the benefits? \***

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### **Working Hours Policies**

**31. Does the Institution currently permit flexible entering/leaving working hours? \***

- a) Yes
- b) No

**32. Does the Institution allow a compressed working week? \***

(e.g. employees work 4 days a week instead of 5 days)

- a) Yes
- b) No

**33. Does the institution practice Home-Office? \***

- a) Yes Go to question 34.
- b) No Go to question 36.

### **Working Hours Policies**

**34. What are the reasons for not practicing Home-office? \***

- a) It is not part of the Institution policy
- b) There is no way to measure employee productivity
- c) The Institution understands that employees tends to produces more in the office than at home
- d) The Institution does not have technological equipment and infrastructure

**35. Does the Institution have plans to implement Home- office? \***

- a) Yes
- b) No

**Go to question 38.**

### **Working Hours Policies**

**36. How many employees telework? \***

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=====

**37. How often do employees practice home-office? \***

- a) Once a week
- b) 2 to 3 times a week
- c) 4 times a week
- d) Every day (only part-time work at home)
- e) Other: \_\_\_\_\_

### **Institutional Data**

**38. Number of employees \***

\_\_\_\_\_

**39. Number of Third Party employees/ contracted employees \***

\_\_\_\_\_

**40. Institution working hour \***

\_\_\_\_\_

### **Idea / Suggestion / Contribution**

**41. In case you want to give us any idea / suggestion / contribution about Workplace Travel Plan in the Federal District (DF), fill in below**

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=====

# Survey about Workplace Travel Plans/Actions for Employees

Dear Participant

The objective of this survey is to identify the plans, actions, facilities, factors and initiatives about Workplace Travel Plans/Actions for this Organization. The survey is part of dissertation FOR master in Postgraduate Program in Transport (PPGT), and has the support of the Research Group on Behavior in Transport and New Technologies (CTNT), the Interdisciplinary Center for Transport Studies (Ceftru) of the University of Brasilia (UnB) and **the NAME OF THE COMPANY**.

Workplace Travel Plan aims at the practice of sustainable actions for the integrated use of the various modes of transport in the commuting of employees to work. These actions are car sharing, carpooling, active mobility (cycling and walking), public collective transport (subway, buses and vans), taxis, transport by applications, among others, for the employees to commute to work.

Participation is voluntary, your contributions are very important and responses are confidential. The results will be published in aggregate, keeping all data confidential and without the individual identification of the respondents.

If you have any questions, kindly forward it to:

Researcher: Ayomikun Oluleke Aruwajoye

Contact: [oluleke4real@gmail.com](mailto:oluleke4real@gmail.com)

Supervisor: Prof. Pastor Willy Gonzales Taco

Contact: [pwtaco@gmail.com](mailto:pwtaco@gmail.com)

**\*Required**

## Residence, working hours, mode of transport to workplace

**1. Do you have a car available for personal use? \***

	Never	Seldom	Sometimes	Often	Always
Availability of Automobile					

**2. What time do you usually start work on a normal working day? \***

	Before 7 am
	7:00 am to 8:00 am
	8:01 am to 10:00 am
	10:01 am to 12:00 pm
	12:01 pm to 2:00 pm
	2:01 pm to 4:00 pm

	4:00 pm to 6:00 pm	
	6:01 pm to 8:00 pm	
	After 8:00 pm	
	Other:	-

**3. What time do you usually finish work on a normal working day? \***

	Before 7 am	
	7:00 am to 8:00 am	
	8:01 am to 10:00 am	
	10:01 am to 12:00 pm	
	12:01 pm to 2:00 pm	
	2:01 pm to 4:00 pm	
	4:00 pm to 6:00 pm	
	6:01 pm to 8:00 pm	
	After 8:00 pm	
	Other:	-

**4. Do you have flexibility working time, at the start / end of work, on a typical work day? \***

	Never	Seldom	Sometimes	Often	Always
Flexibility working time					

**5. Where do you live? \***

- a) Águas Claras
- b) Águas Lindas do Goiás
- c) Areal
- d) Asa Norte
- e) Asa Sul
- f) Brasilândia
- g) Candangolândia
- h) Ceilândia Norte
- i) Ceilândia Sul
- j) Cidade Ocidental
- k) Cruzeiro
- l) Fercal
- m) Formosa
- n) Gama
- o) Granja do Torto e Floresta Nacional (FLONA)
- p) Guará
- q) Itapoã
- r) Jardim Botânico
- s) Jardins Mangueiral
- t) Lago Norte
- u) Lago Sul
- v) Luziânia



- w) Noroeste
- x) Núcleo Bandeirante
- y) Paranoá
- z) Park Way
- aa) Planaltina
- bb) Plano Piloto
- cc) Recanto das Emas
- dd) Riacho Fundo
- ee) Riacho Fundo II
- ff) Samambaia
- gg) Santa Maria
- hh) Santo Antônio do Descoberto
- ii) São Sebastião
- jj) SCIA
- kk) SIA
- ll) Sobradinho
- mm) Sobradinho II
- nn) Sudoeste/Octogonal
- oo) Taguatinga
- pp) Valparaíso do Goiás
- qq) Varjão
- rr) Vicente Pires
- ss) Vila Planalto
- tt) Others

**6. Considering a typical working week, what principal mode of transport do you use to/from work? \***

- a) By foot After the last question in this section, go to question 17
- b) Personal bicycle After the last question in this section, go to "Bicycle section."
- c) Shared bicycle (+ Bike, Yellow) After the last question in this section, go to "Bicycle section."
- d) Conventional public buses After the last question in this section, go to "Public Transport Section."
- e) Metro After the last question in this section, go to "Public Transport Section."
- f) Chartered vans After the last question in this section, go to question 17
- g) Corporate Transport of the Institution After the last question in this section, go to question 17.
- h) Motorcycle After the last question in this section, go to question 17
- i) Offer ride After the last question in this section, go to question 21
- j) Receive ride After the last question in this section, go to question 26
- k) Conventional taxi After the last question in this section, go to question 17
- l) Transport by app (Uber, 99 ....) After the last question in this section, go to question 17
- m) Drive alone After the last question in this section, go to question 10
- n) Other: \_\_\_\_\_ After the last question in this section, go to question 17

**7. If the means of transport chosen in the previous question is not available to you, what other means would you choose to go to work? (Which is used less often)**

- a) By foot
- b) Personal bicycle
- c) Shared bicycle (+ Bike, Yellow)
- d) Conventional Public Buses
- e) Metro
- f) Chartered Vans
- g) Corporate Transport of the Institution
- h) Motorcycle
- i) Offer ride
- j) Receive ride
- k) Conventional Taxi
- l) Transport by app (Uber, 99 ....)
- m) Drive alone
- n) Other:

**8. Do you know or have you heard of Law No. 50501/2013 that instituted *Semana da Carona Solidária* within the scope of the Federal District (DF)? \***

- a) Yes
- b) No

**9. Do you know or have you heard of Law No. 6231/2018 that instituted *Carona Solidária* through the use of an application in DF? \***

- a) Yes
- b) No

### **Commuting to work -Single car occupant**

The questions in this section should only be responded by people who answered that they “drive alone” to work.

**10. Mark the alternatives that explain the main reasons why You drive alone to work? (Choose a maximum of 3 options) \***

- a) Enjoy comfort (such as air conditioning)
- b) Enjoy privacy and / or prefer to be alone
- c) Be the fastest way to get to work
- d) Have flexible working time
- e) Need a car to perform personal activities before, during or after office hours
- f) Need a car to do work-related tasks during office hours
- g) Need a car in case of any emergency incident
- h) Feel unsecured with other modes of transport
- i) No public transit routes and times compatible with my work location
- j) Dislike using public transit
- k) Unaware of people who take similar routes like mine to work
- l) Unaware of people who have the similar traveling schedules like mine
- m) Other:

**11. What personal activities do you do before, during or after working hours that require the use of a car? (Choose a maximum of 3 options) \***

- a) Take or pick up my children in school
- b) Offer lift to my wife / husband
- c) Offer lift to friends / neighbors
- d) Taking a course (specialization, master, language, among others)
- e) Practice physical activities
- f) Have lunch at home or in a specific place
- g) Need it frequently to go bank, commerce centers, church etc...

**12. Classify how much the following alternatives would lead you to OFFER lift to work? \***

	Not Important	Little Importance	Important	Very important	Extremely important
Have preferred parking spaces at the workplace for people offering a lift					
Only offer ride to people from your same institution					
Get advantages (discounts and coupons) from other companies / business					
Split travel costs					
Improve social relationship with colleagues					
Contribute to traffic decongestion and the reduction of parking space					
Contribute to the reduction of pollution					
Get help in finding carpool partners					

**13. Is it easy to park close to workplace? \***

- a) Yes
- b) No

**14. Would you be willing to change your arrival and / or departure times to OFFER a lift? \***

- a) Yes Go to question 15
- b) No Go to question 16

### **Offering lift for commuting to work**

**15. How much additional minutes would you be willing to travel / wait to offer a ride? \***

	None	Up to 5 minutes	6 minutes to 10 minutes	10 minutes to 15 minutes	More than 15 minutes
--	------	-----------------	-------------------------	--------------------------	----------------------

Travel time					
Waiting Time					

**16. Classify how much the following alternatives would lead you to RECEIVE a ride to work: \***

	Not Important	Little Importance	Important	Very important	Extremely important
Security and Safety					
Have comfort					
Reduce costs					
Have access to an emergency vehicle on the days you go to work by carpool					
Travel to work in less time					
Improve social relationship with colleagues					
Contribute to traffic decongestion and the reduction of parking space					
Contribute to the reduction of pollution					
Get help in finding carpool partners					
Available of a carpool user group (App, WhatsApp etc.)					

**Go to question 30.**

### **Lift for commuting to work**

**17. Would you RECEIVE lift to work? \***

- a) Yes Go to question 18
- b) No Go to question 30

**18. Classify how much the following alternatives would lead you to RECEIVE a ride to work: \***

	Not Important	Little Importance	Important	Very important	Extremely important
<b>Security and Safety</b>					
<b>Have comfort</b>					
<b>Reduce costs</b>					
<b>Travel to work in less time</b>					
<b>Improve social relationship with colleagues</b>					

Contribute to traffic decongestion and the reduction of parking space					
Contribute to the reduction of pollution					
Get help in finding carpool partners					
Available of a carpool user group (App, WhatsApp etc.)					
Have travel flexibility					

**19. Would you be willing to change your arrival and / or departure time to RECEIVE a lift? \***

- a) Yes Go to question 20
- b) No Go to question 30

### Lift to Work

**20. How many additional minutes would you be willing to Travel / Wait to RECEIVE a ride? \***

	None	Up to 5 minutes	6 minutes to 10 minutes	10 minutes to 15 minutes	More than 15 minutes
Travel time					
Waiting Time					

**Go to question 30**

### Offers lift to work

**21. Who do you offer lift, when commuting to work? \***

- a) Colleague (s) / people who work in the same building that have the same route to work like I do
- b) People that work near the Institution / Building, who have the same route as I do to work
- c) People who work elsewhere (not close to the organization) that do not have the same route as I do to work
- d) Family (Husband, Wife and Children)
- e) Other

**22. How many people other than you were in your car on the days you offered lift? \***

- a) 1 Person
- b) 2 people
- c) 3 People

- d) 4 People
- e) More than 4 People

**23. Is it easy to park close to workplace? \***

- a) Yes
- b) No

**24. What means of communication did you use to offer lift? \***

- a) Direct communication (face-to-face, telephone conversation) Go to question 30
- b) Using Carpooling Application Go to question 30
- c) Social Network (Facebook, messenger, Instagram, WhatsApp, telegram, others)  
Go to question 30
- d) Web system (email, blog, forums, websites) Go to question 30

**Go to question 30**

**Application used to OFFER ride for commuting to work**

**25. Which of these apps did you use to OFFER lift? \***

**Mark all that apply.**

- a) BlablaCar
- b) Bynd
- c) Carona Phone
- d) Carona Uber (Uber Juntos)
- e) Meleva
- f) Mobiag
- g) Waze Carona
- h) Wunder
- i) Zumpy
- j) Other:

**Go to question 30**

**Receives lift to work**

**26. From who do you receive lift, when commuting to work? \***

**Mark all that apply.**

- a) Colleague (s) / people who work in the same building that have the same route to work like I do
- b) People that work near the Institution / Building, who have the same route as I do to work
- c) People who work elsewhere (not close to the organization) that do not have the same route as I do to work
- d) Family (Husband, Wife and Children)
- e) Other

**27. How many people other than you were in your car on the days you received lift?**

\*

- a) None
- b) 1 Person
- c) 2 people
- d) 3 People
- e) More than 3 People

**28. What means of communication did you use to receive lift? \***

*Mark all that apply.*

- a) Direct communication (face-to-face, telephone conversation) Go to question 30
- b) Using Carpooling Application Go to question 30
- c) Social Network (Facebook, messenger, Instagram, WhatsApp, telegram, others) Go to question 30
- d) Web system (email, blog, forums, websites) Go to question 30

**Go to question 30**

**29. Which of these apps did you use to RECEIVE lift?**

*Mark all that apply.*

- a) BlablaCar
- b) Bynd
- c) Carona Phone
- d) Carona Uber (Uber Juntos)
- e) Meleva
- f) Mobiag
- g) Waze Carona
- h) Wunder
- i) Zumpy
- j) Other:

### **Public Collective Transport for commuting to work**

**30. Classify how the following alternatives will ENCOURAGE you to use the public transport to go to work? \***

	Not Important	Little Importance	Important	Very important	Extremely important
Partial/Total tariffs payment for public transportation by organization e.g. voucher					
More information about public transit lines that pass close to workplace					
Improved sidewalk conditions and pedestrian access					
More flexible working time to enter and leave workplace					

Better bus conditions (e.g. air conditioning)					
More frequency of bus lines					
Proximity of bus stops to workplace					
Safety inside the vehicle					
Safety at Bus stops					

### Use bicycle to commute to work

**31. Classify the following alternatives that would make you to consider the option of going to work by bicycle? \***

	Not Important	Little Importance	Important	Very important	Extremely important
Classification of factors that will make an employee to go work by bicycle					
Showers and lockers in the building where you work, to store belongings (helmet, change clothes)					
Bike racks near public transit stations					
Map containing information about the safest routes to work					
Find cycling partners / groups to cycle with to work					
Bike racks in the building / near workplace					
Bike lanes/Cycling paths connecting to workplace					
Public bike station near work place (+Bike, Yellow)					
The possibility of taking bike on public transit (bus / subway)					
Discounts on bike purchases and equipment (e.g. electric bikes)					
Increasing number of bicycle racks					
Secure bike racks to prevent theft					
Benefits for whoever uses bicycle (discounts, coupons, etc.)					

**Go to question 43.**

### Public Transport Section

For those who travel by Public Transport and Bicycle to work



## Lift to work

**32. Classify how the following alternatives would lead you to RECEIVE a ride to work? \***

	Not Important	Little Importance	Important	Very important	Extremely important
Security and Safety					
Have comfort					
Reduce costs					
Travel to work in less time					
Improve social relationship with colleagues					
Contribute to traffic decongestion and the reduction of parking space					
Contribute to the reduction of pollution					
Get help in finding carpool partners					
Available of a carpool user group (App, WhatsApp etc.)					
Have travel flexibility					

**33. Would you be willing to change your arrival and / or departure time to RECEIVE a lift? \***

- a) Yes
- b) No Go to question 35

## Lift to Work

**34. How many additional minutes would you be willing to Travel / Wait to RECEIVE a ride? \***

	None	Up to 5 minutes	6 minutes to 10 minutes	10 minutes to 15 minutes	More than 15 minutes
Travel time					
Waiting Time					

## Use bicycle to commute to work

**35. Classify the following alternatives that would make you to consider the option of going to work by bicycle? \***

	Not Important	Little Importance	Important	Very important	Extremely important

Classification of factors that will make an employee to go work by bicycle					
Showers and lockers in the building where you work, to store belongings (helmet, change clothes)					
Bike racks near public transit stations					
Map containing information about the safest routes to work					
Find cycling partners / groups to cycle with to work					
Bike racks in the building / near workplace					
Bike lanes/Cycling paths connecting to workplace					
Public bike station near work place (+Bike, Yellow)					
The possibility of taking bike on public transit (bus / subway)					
Discounts on bike purchases and equipment (e.g. electric bikes)					
Increasing number of bicycle racks					
Secure bike racks to prevent theft					
Benefits for whoever uses bicycle (discounts, coupons, etc.)					

**Go to question 43**

## **Bicycle Section**

### **The use of the bicycle for commuting to work**

**36. Does the company offer any discount / benefit for those who use bicycle to work?**

\*

- a) Yes
- b) No

**37. Would you change your way of commuting to work by bicycle for public transit?**

\*

- a) Yes
- b) No    Go to question 39

**38. Classify how the following alternatives will ENCOURAGE you to use the public transport to go to work? \***

	Not Important	Little Importance	Important	Very important	Extremely important
Partial/Total tariffs payment for public transportation by organization e.g. voucher					
More information about public transit lines that pass close to workplace					
Improved sidewalk conditions and pedestrian access					
More flexible working time to enter and leave workplace					
Better bus conditions (e.g. air conditioning)					
More frequency of bus lines					
Proximity of bus stops to workplace					
Safety inside the vehicle					
Safety at Bus stops					

### Lift to work

**39. Would you change your way of commuting to work by bicycle to RECEIVE a ride? \***

- a) Yes
- b) No Go to question 43

**40. Classify how the following alternatives would lead you to RECEIVE a ride to work? \***

	Not Important	Little Importance	Important	Very important	Extremely important
Security and Safety					
Have comfort					
Reduce costs					
Travel to work in less time					
Improve social relationship with colleagues					
Contribute to traffic decongestion and the reduction of parking space					
Contribute to the reduction of pollution					
Get help in finding carpool partners					
Available of a carpool user group (App, WhatsApp etc.)					
Have travel flexibility					

**41. Would you be willing to change your arrival and / or departure time to RECEIVE a lift? \***

- a) Yes
- b) No Go to question 43

### **Lift to Work**

**42. How many additional minutes would you be willing to Travel / Wait to RECEIVE a ride? \***

	None	Up to 5 minutes	6 minutes to 10 minutes	10 minutes to 15 minutes	More than 15 minutes
Travel time					
Waiting Time					

### **Travel time to workplace**

**43. How long does take you to travel to work on a typical day? \***

- a) up to 15 minutes
- b) 16 to 30 minutes
- c) 31 to 45 minutes
- d) 46 minutes to 1 hour
- e) 1 hour to 1 hour and 30 minutes
- f) More than 1 hour and 30 minutes

### **Use car during your working hours**

**44. Do you usually need to use a vehicle during work hours to perform work-related tasks? \***

- a) Yes
- b) No Go to question 46

### **Type of Vehicle**

**45. If you answered yes in the previous question, what type of vehicle do you use to perform this task? \***

- a) Personal Car
- b) workplace Vehicle
- c) Conventional taxi
- d) Transport by application (Uber, 99 ....)
- e) Public Collective Transport (bus, subway)
- f) Shared bike (+ Bike, Yellow bike)
- g) Owned Bicycle
- h) Other:

### Home- Office

**46. How often do you practice home office (work from home)? \***

	Never	Seldom	Sometimes	Often	Always
Home-Office					

### Other information

**47. Classify the impact that commuting has on productivity, stress and well-being in your day-to-day? \***

	Strong Negative impact	Negative impact	No impact	Positive Impact	Strong Positive Impact
Productivity					
Stress					
Well-being					

**48. Do you have temporary or permanent physical conditions that limit your ability to use public transport, to drive, walk or cycle? \***

- a) Yes
- b) No

### Socioeconomic Data

**49. Nature of occupation \***

- a) Board of Directors
- b) Advisory
- c) Administrative / technician
- d) Contacted Workers
- e) Intern/Trainee

**50. How old are you? \***

=====

**51. Gender \***

- a) Feminine
- b) Male

**52. Do you have children under 16 years old? \***

- a) Yes, from 0 to 5 years.
- b) Yes, from 6 to 10 years old.
- c) Yes, from 10 to 15 years
- d) No, I do not have any child below 16 years' old

**53. What is your Income \***

- a) ≤ to 1 minimum wage (up to R \$ 998.00)
- b) Between 1 and up to 2 minimum wages (R \$ 998.01 to R \$ 1996.00)
- c) Between 2 and up to 3 minimum wages (R \$ 1996.01 to R \$ 2994.00)
- d) Between 3 and up to 5 minimum wages (R \$ 2994.01 to R \$ 4990.00)
- e) Between 5 and up to 10 minimum wages (R \$ 4990.01 to R \$ 9980.00)
- f) 10 minimum wages (more than R \$ 9980.00)

**54. How many people, including you, live in your household? \***

- a) A person
- b) Two people
- c) Three people
- d) Four people
- e) Five people
- f) More than five people

**55. How long (in years) have you been working at the institution? \***

- a) Less than a year
- b) From 1 to 3 years
- c) From 3 to 5 years
- d) From 5 to 10 years
- e) More than 10 years

**Ideas / Suggestions / Contributions**

**56. In case you want to give us any idea / suggestion / contribution about Workplace Travel Plan in the Federal District (DF), fill in below**

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# Pesquisa sobre Planos/Ações de Mobilidade Corporativa de Viagens ao Trabalho para o GESTOR

Prezado(a) Diretor(a),

O objetivo da presente pesquisa é identificar os programas, planos, ações e iniciativas sobre Mobilidade Corporativa dessa Instituição. A pesquisa faz parte de uma dissertação de mestrado do programa de Pós-graduação em Transportes (PPGT), e tem o apoio do Grupo de Pesquisa Comportamento em Transportes e Novas Tecnologias (CTNT), do Centro Interdisciplinar de Estudos em Transportes (Ceftru) da Universidade de Brasília (UnB).

A Mobilidade Corporativa objetiva a prática de ações sustentáveis para uso integrado dos diversos modos de transportes nas viagens dos funcionários ao trabalho. Essas ações envolvem o uso compartilhado do automóvel, a mobilidade ativa (bicicleta e caminhada), o transporte público coletivo (metrô, ônibus e vans), táxis, transporte por aplicativos, entre outros, para os funcionários se deslocarem ao trabalho.

A participação é voluntária, sua contribuição é muito importante e as respostas são confidenciais. As publicações dos resultados serão feitas de forma agregada, mantendo o sigilo dos dados e sem a identificação individual dos respondentes.

Caso o Sr.(a) tenha alguma dúvida, estas poderão ser dirimidas junto a:

Pesquisador: Ayomikun Oluleke Aruwajoye

Contato: [oluleke4real@gmail.com](mailto:oluleke4real@gmail.com)

Orientador: Prof. Pastor Willy Gonzales Taco

Contato: [pwtaco@gmail.com](mailto:pwtaco@gmail.com)

**\*Obrigatório**

## Comunicação

1. A Instituição disponibiliza informações sobre transporte para seus funcionários?

\*

(Como por exemplo, horários e linhas de ônibus, rede de metrô, estações de bicicletas, disponibilidade de estacionamento, entre outros).

*Marcar apenas uma oval.*

Sim

Não

## 2. A Instituição se comunica com os funcionários através de: \*

(pode marcar mais de uma opção)

*Marque todas que se aplicam.*

- E-mail
- Intranet
- Boletim de notícias impresso
- Cartazes

Outro:  \_\_\_\_\_

## Uso da Bicicleta como modo de transporte ao trabalho

## 3. Existe na Instituição algum programa ou ação para promover o uso da bicicleta? \*

*Marcar apenas uma oval.*

- Sim *Pular para a pergunta 5*
- Não *Pular para a pergunta 4*

## Uso da Bicicleta como modo de transporte ao trabalho

## 4. Caso não haja algum tipo de incentivo para o uso de bicicletas, marque quais as razões. \*

*Marque todas que se aplicam.*

- O tempo e/ou distância de viagem dos trabalhadores para a Instituição são longos
- A Instituição não tinha pensado tais programas ou ações
- Não faz parte da política da Instituição
- Falta de uma área específica na Instituição para a promoção dessa ação ou programa

Outro:  \_\_\_\_\_

## Uso da Bicicleta como modo de transporte ao trabalho



5. Existe um grupo formal ou informal de funcionários que se deslocam de bicicleta para o local de trabalho? \*

*Marcar apenas uma oval.*

Sim

Não

6. Caso existam facilidades oferecidas aos funcionários que se deslocam de bicicleta para o trabalho, quais são elas? \*

*Marque todas que se aplicam.*

Vestiários com chuveiro

Armários

Cadeados

Bicicletários ou paraciclos

Vestimenta/acessórios para ciclistas (ex: capacete, joelheira, etc)

Nenhuma facilidade

Outro:  \_\_\_\_\_

7. O funcionário recebe algum benefício Institucional pelo uso da bicicleta nos deslocamentos ao trabalho? \*

*Marcar apenas uma oval.*

Sim

Não

#### Transporte público coletivo como modo de transporte ao trabalho

8. O Vale Transporte é custeado pela Instituição? \*

*Marcar apenas uma oval.*

Sim, Integralmente

Sim, Parcialmente

Não

9. A Instituição oferece informações sobre transporte público coletivo aos seus funcionários (por exemplo mapa das rotas, horários, linhas e paradas de ônibus)?

*Marcar apenas uma oval.*

Sim

Não

Ônibus/Van fretado como modo de transporte ao trabalho

10. A Instituição disponibiliza ônibus/van fretado como modo de transporte ao trabalho dos seus funcionários? \*

*Marcar apenas uma oval.*

Sim

Não *Pular para a pergunta 16*

Ônibus/Van fretado como modo de transporte ao trabalho

11. Onde a rota do ônibus/van fretado começa/termina?

*Marcar apenas uma oval.*

Residência/Trabalho e vice-versa

Residência/Estação de Transporte Público (Terminal, Rodoviária, ponto de parada) e vice versa

Estação de Transporte Público (Terminal, Rodoviária, ponto de parada)/Trabalho e vice versa

Outro: \_\_\_\_\_

12. Indique o número de ônibus/vans fretados que a Instituições disponibiliza: \*

\_\_\_\_\_

13. Sinalize em quais períodos são disponibilizados os ônibus/vans fretados, caso sua resposta tenha sido afirmativa na questão anterior. \*

*Marque todas que se aplicam.*

De manhã

À tarde

À noite

14. Tem estacionamento na Instituição para o ônibus/van fretados? \*

*Marcar apenas uma oval.*

Sim *Pular para a pergunta 15*

Não *Pular para a pergunta 16*

Ônibus/Van fretado como modo de transporte ao trabalho

15. Qual o número de vagas de estacionamento para ônibus/van fretado? \*

---

Táxi, transporte por aplicativo como modo de transporte ao trabalho

16. A Instituição possui alguma política sobre ressarcimento do custo do transporte por táxi ou aplicativo? \*

*Marcar apenas uma oval.*

Integralmente

Parcialmente

Não

Frota própria/corporativa como modo de transporte ao trabalho

17. A Instituição tem frota própria/corporativa (van, automóvel, outros)? \*

*Marcar apenas uma oval.*

- Sim  
 Não *Pular para a pergunta 20*

#### Frota própria/corporativa como modo de transporte ao trabalho

18. O uso da frota própria/corporativa na Instituição é de uso: \*

*Marcar apenas uma oval.*

- Geral  
 Restrito

19. O uso da frota própria/corporativa durante o dia é realizada: \*

Classifique cada alternativa como Raramente; Às vezes; Frequentemente; Sempre

*Marcar apenas uma oval.*

- Raramente  
 Às vezes  
 Frequentemente  
 Sempre

#### Carona solidária como forma de transporte ao trabalho

20. Quais das seguintes ações a Instituição utiliza para promover o uso da carona solidária? \*

*Marque todas que se aplicam.*

- Programa de Carona  
 Sistema de cadastro via Web  
 Grupo de carona em redes sociais (Facebook, whatsApp)  
 Vagas reservadas em estacionamentos  
 Palestras, eventos, workshops  
 Nenhuma ação

Outro:  \_\_\_\_\_

21. Você conhece/ouviu falar a Lei nº 5051/2013 que instituiu a Semana da Carona Solidária no âmbito do DF? \*

*Marcar apenas uma oval.*

- Sim  
 Não

22. Você conhece/ouviu falar a Lei nº 6231/2018 que instituiu a Carona Solidária por meio de uso de aplicativo no DF? \*

*Marcar apenas uma oval.*

- Sim  
 Não

Estacionamento da Instituição para automóvel (no local de trabalho)

23. O estacionamento da Instituição é operado por quem? \*

*Marcar apenas uma oval.*

- Pela própria Instituição
- Por empresa terceirizada
- O estacionamento é público *Pular para a pergunta 27*
- Não tem estacionamento *Pular para a pergunta 27*

Estacionamento da Instituição para automóvel (no local de trabalho)

24. O estacionamento é gratuito para os visitantes? \*

*Marcar apenas uma oval.*

- Sim
- Não

25. A Instituição oferece vagas gratuitas de estacionamento para os seus funcionários? \*

*Marcar apenas uma oval.*

- Sim
- Não *Pular para a pergunta 27*

Estacionamento da Instituição para automóvel (no local de trabalho).

26. Qual a porcentagem de vagas de estacionamento gratuitas são oferecidas para os funcionários? \*

Classifique cada alternativa em porcentagem (25%; 50%; 75%; 100%)

*Marcar apenas uma oval.*

- Menos de 25%
- De 25% até 49%
- De 50% até 74%
- De 75% até 100%

Estacionamento da Instituição para automóvel (no local de trabalho).

27. Como as vagas de estacionamento da Instituição são distribuídas: \*

*Marque todas que se aplicam.*

- Sem critério (o primeiro a chegar fica com a vaga)
- Conforme a necessidade do funcionário (idoso, cadeirante)
- De acordo com a hierarquia
- Prioridade para funcionário oferecendo carona
- A Instituição não dispõe de estacionamento

Outro:  \_\_\_\_\_

28. A oferta de vagas atende a demanda por estacionamento? \*

*Marcar apenas uma oval.*

- Sim *Pular para a pergunta 31*
- Não *Pular para a pergunta 29*

Estacionamento da Instituição para automóvel (no local de trabalho)

29. Há algum benefício para os funcionários que abdicam de sua vaga de estacionamento? \*

*Marcar apenas uma oval.*

Sim *Pular para a pergunta 30*

Não *Pular para a pergunta 31*

#### Estacionamento da Instituição para automóvel (no local de trabalho)

30. Caso a resposta anterior tenha sido afirmativa, indique qual o benefício? \*

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#### Políticas de Jornada de Trabalho

31. A Instituição atualmente permite horário flexível de entrada/saída? \*

*Marcar apenas uma oval.*

Sim

Não

32. A Instituição permite semana corrida de trabalho? \*

Por exemplo o funcionário pode comprimir seu tempo de trabalho em 4 dias em vez de 5 dias por semana

*Marcar apenas uma oval.*

Sim

Não



33. A Instituição pratica Teletrabalho? \*

*Marcar apenas uma oval.*

Sim *Pular para a pergunta 36*

Não *Pular para a pergunta 34*

#### Políticas de Jornada de Trabalho

34. Quais são os motivos para não praticar o Teletrabalho? \*

*Marcar apenas uma oval.*

Não é uma política da Instituição

Não tem como verificar a produtividade do funcionário

A Instituição entende que o funcionário produz mais no escritório do que em casa

A Instituição não tem equipamentos tecnológicos e infraestruturas

Outro: \_\_\_\_\_

35. A Instituição tem planos para implementar o Teletrabalho? \*

*Marcar apenas uma oval.*

Sim

Não

*Pular para a pergunta 38*

#### Políticas de Jornada de Trabalho

36. Quantos funcionários praticam o Teletrabalho? \*

\_\_\_\_\_

37. Com que frequência os funcionários praticam o Teletrabalho? \*

*Marcar apenas uma oval.*

- 1 vez por semana
- 2 a 3 vezes por semana
- 4 vezes por semana
- Todos os dias (trabalho somente meio-período em casa)
- Outro: \_\_\_\_\_

### Dados Institucionais

38. Número de Funcionários \*

\_\_\_\_\_

39. Número de Funcionários Terceirizados \*

\_\_\_\_\_

40. Horário de Funcionamento da Instituição \*

\_\_\_\_\_

### Ideia/Sugestão/Contribuição

41. Caso queria nos dar alguma ideia/sugestão/contribuição sobre a Mobilidade Corporativa no Distrito Federal, preencha a seguir

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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Google Formulários

# Pesquisa sobre Planos/Ações de Mobilidade Corporativa de Viagens ao Trabalho para os FUNCIONÁRIOS

Prezado Participante,

O objetivo da presente pesquisa é identificar os programas, planos, ações e iniciativas sobre Mobilidade Corporativa dessa Instituição. A pesquisa faz parte de uma dissertação de mestrado do programa de Pós-graduação em Transportes (PPGT), e tem o apoio do Grupo de Pesquisa Comportamento em Transportes e Novas Tecnologias (CTNT), do Centro Interdisciplinar de Estudos em Transportes (Ceftru) da Universidade de Brasília (UnB).

A Mobilidade Corporativa objetiva a prática de ações sustentáveis para uso integrado dos diversos modos de transportes nas viagens dos funcionários ao trabalho. Essas ações envolvem o uso compartilhado do automóvel, a mobilidade ativa (bicicleta e caminhada), o transporte público coletivo (metrô, ônibus e vans), táxis, transporte por aplicativos, entre outros, para os funcionários se deslocarem ao trabalho.

A participação é voluntária, sua contribuição é muito importante e as respostas são confidenciais. As publicações dos resultados serão feitas de forma agregada, mantendo o sigilo dos dados e sem a identificação individual dos respondentes.

Caso o Sr.(a) tenha alguma dúvida, estas poderão ser dirimidas junto a:

Pesquisador: Ayomikun Oluleke Aruwajoye

Contato: [oluleke4real@gmail.com](mailto:oluleke4real@gmail.com)

Orientador: Prof. Pastor Willy Gonzales Taco

Contato: [pwgtaco@gmail.com](mailto:pwgtaco@gmail.com)

**\*Obrigatório**

Residência, horário de expediente, modo de transporte ao trabalho

1. Você possui um automóvel disponível para uso pessoal? \*

*Marcar apenas uma oval por linha.*

	Nunca	Raramente	Às vezes	Frequentemente	Sempre
Disponibilidade de automóvel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. A que horas, geralmente, Você começa o seu expediente de trabalho? \*

*Marcar apenas uma oval.*

- Antes das 7h00
- 7h00 àte 8h00
- 8h01 àte 10h00
- 10h01 àte 12h00
- 12h01 àte 14h00
- 14h01 àte 16h00
- 16h01 àte 18h00
- 18h01 àte 20h00
- Depois das 20h00
- Outro: \_\_\_\_\_

3. A que horas, geralmente, você termina o seu expediente de trabalho? \*

*Marcar apenas uma oval.*

- Antes das 7h00
- 7h00 àte 8h00
- 8h01 àte 10h00
- 10h01 àte 12h00
- 12h01 àte 14h00
- 14h01 àte 16h00
- 16h01 àte 18h00
- 18h01 àte 20h00
- Depois das 20h00
- Outro: \_\_\_\_\_

4. Você tem flexibilidade, no horário de início/término do expediente, em um dia típico de trabalho? \*

*Marcar apenas uma oval por linha.*

	Nunca	Raramente	Às vezes	Frequentemente	Sempre
Flexibilidade de horário	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 5. Onde você mora? \*

*Marcar apenas uma oval.*

- Águas Claras
- Águas Lindas do Goiás
- Areal
- Asa Norte
- Asa Sul
- Brazlândia
- Candangolândia
- Ceilândia Norte
- Ceilândia Sul
- Cidade Ocidental
- Cruzeiro
- Fercal
- Formosa
- Gama
- Granja do Torto e Floresta Nacional (FLONA)
- Guará
- Itapoã
- Jardim Botânico
- Jardins Mangueiral
- Lago Norte
- Lago Sul
- Luziania
- Noroeste
- Núcleo Bandeirante
- Paranoá
- Park Way
- Planaltina
- Plano Piloto
- Recanto das Emas
- Riacho Fundo
- Riacho Fundo II
- Samambaia

- Santa Maria
- Santo Antonio do Descoberto
- São Sebastião
- SCIA
- SIA
- Sobradinho
- Sobradinho II
- Sudoeste/Octogonal
- Taguatinga
- Valparaíso do Goiás
- Varjão
- Vicente Pires
- Vila Planalto
- Outros



6. Considerando uma semana típica nos seus deslocamentos de IDA PARA O TRABALHO, qual o modo de transporte principal utilizado? \*

(Ou seja, aquele com o qual você realiza o deslocamento mais longo em relação à distância (km) total até o local de trabalho)

*Marcar apenas uma oval.*

- A pé *Pular para a pergunta 17*
- Bicicleta própria *Pular para a seção 19 ( Seção para a Bicicleta)*
- Bicicleta compartilhada (+Bike, Yellow)  
*Pular para a seção 19 ( Seção para a Bicicleta)*
- Ônibus convencional  
*Pular para a seção 15 ( Seção para o Transporte Publico Coletivo)*
- Metrô *Pular para a seção 15 ( Seção para o Transporte Publico Coletivo)*
- Vans fretadas *Pular para a pergunta 17*
- Transporte Corporativo da própria Instituição *Pular para a pergunta 17*
- Motocicleta *Pular para a pergunta 17*
- Ofereço carona *Pular para a pergunta 21*
- Recebo carona *Pular para a pergunta 26*
- Táxi convencional *Pular para a pergunta 17*
- Transporte por aplicativo (Uber, 99....) *Pular para a pergunta 17*
- Dirijo sozinho *Pular para a pergunta 10*
- Outro: \_\_\_\_\_

7. Se o meio de transporte escolhido na pergunta anterior não estivesse disponível para você, quais outros meios você escolheria para ir ao trabalho? \*

(Que é utilizado com menor frequência)

*Marque todas que se aplicam.*

- A pé
- Bicicleta própria
- Bicicleta compartilhada (+Bike, Yellow)
- Ônibus convencional
- Metrô
- Vans fretadas
- Transporte Corporativo da própria Instituição
- Motocicleta
- Ofereço carona
- Recebo carona
- Táxi convencional
- Transporte por aplicativo (Uber, 99...)
- Dirijo sozinho

Outro:  \_\_\_\_\_

8. Você conhece ou já ouviu falar da Lei nº 50501/2013 que instituiu a Semana da Carona Solidária no âmbito do DF? \*

*Marcar apenas uma oval.*

- Sim
- Não

9. Você conhece ou já ouviu falar da Lei nº 6231/2018 que instituiu a Carona Solidária por meio de uso de aplicativo no DF? \*

*Marcar apenas uma oval.*

- Sim
- Não

Único ocupante de  
automóvel em  
deslocamento ao trabalho

As perguntas desta seção devem ser feitas apenas para as pessoas que responderam que dirigem sozinhas para o trabalho.

10. Marque as alternativas que explicam as principais razões pelas quais Você dirige sozinho ao trabalho? (Escolha no máximo 3 opções) \*

*Marque todas que se aplicam.*

- Desconhecer pessoas que façam horários parecidos com o meu
- Gostar do conforto (como ar condicionado)
- Prezar pela privacidade e/ou preferir estar sozinho(a)
- Ser a maneira mais rápida de chegar ao trabalho
- Ter horários de trabalho variáveis
- Precisar de um carro para realizar atividades pessoais antes, durante ou depois do expediente
- Precisar de um carro para realizar tarefas relacionadas ao trabalho durante o expediente
- Precisar de um carro para eventuais emergências
- Ter insegurança com outros modos de transporte
- Não existir rotas e horários de transporte público coletivo compatíveis com o local do meu trabalho
- Não gostar de usar o transporte público coletivo
- Desconhecer pessoas que façam percursos parecidos com o meu

Outro:  \_\_\_\_\_

11. Quais atividades pessoais Você realiza antes, durante ou depois do expediente que precisam do uso de automóvel? (Escolha no máximo 3 opções) \*

*Marque todas que se aplicam.*

- Levar ou buscar filhos na escola
- Dar carona para minha mulher/meu marido
- Dar carona para meus amigos/vizinhos
- Fazer um curso (de especialização, mestrado, de idioma, entre outros)
- Praticar atividades físicas
- Almoçar em casa ou em um lugar específico
- Ir frequentemente a estabelecimentos bancários, de comércio, entre outros

Outro:  \_\_\_\_\_

12. Classifique o quanto as alternativas a seguir que o levariam a OFERECER carona para deslocamento ao trabalho: \*

Marcar apenas uma oval por linha.

	Sem importância	Pouco importante	Importante	Muito importante	Extremamente importante
Ter vagas preferenciais no estacionamento do local de trabalho para pessoas que oferecem carona	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dar carona somente para pessoas da mesma Instituição	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Obter vantagens (descontos e cupons) junto com outras empresas/negócios	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dividir custos da viagem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relacionar-se socialmente com colegas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribuir para o descongestionamento do trânsito e para a diminuição do espaço destinado a estacionamento.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribuir para a diminuição da poluição	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receber ajuda na procura de parceiros de carona	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. É fácil estacionar próximo ao local de trabalho? \*

Marcar apenas uma oval.

Sim

Não

14. Você estaria disposto a alterar seu horário de entrada e/ou saída para OFERECER carona? \*

Marcar apenas uma oval.

Sim *Pular para a pergunta 15*

Não *Pular para a pergunta 16*

#### Carona para o deslocamento ao trabalho

15. Quantos minutos adicionais estaria disposto a se Deslocar/Esperar para OFERECER carona? \*

Marcar apenas uma oval por linha.

	Nenhum	Até 5 minutos	De 6 minutos até 10 minutos	De 11 minutos e 15 minutos	Mais de 15 minutos
Tempo de deslocamento	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tempo de esperar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### Carona para o deslocamento ao trabalho

Ir para o trabalho de carona

16. Classifique o quanto as alternativas a seguir o levariam a RECEBER carona para o deslocamento ao trabalho: \*

Marcar apenas uma oval por linha.

	Sem importância	Pouco importante	Importante	Muito importante	Extremamente importante
Ter segurança	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ter conforto	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduzir custos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ter acesso ao um veículo para casos de emergência nos dias em que for de carona	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deslocar ao trabalho em menos tempo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relacionar-se socialmente com colegas de carona	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribuir para o descongestionamento do trânsito e para a diminuição do espaço destinado a estacionamento.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribuir para a diminuição de poluição	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receber ajudar na procura de parceiros de carona	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Existir um grupo de usuários de carona (Aplicativo, Whatsapp etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Pular para a pergunta 30

Carona para o deslocamento ao trabalho

Ir para o trabalho de carona

17. Você RECEBERIA carona para deslocamento ao trabalho? \*

*Marcar apenas uma oval.*

Sim *Pular para a pergunta 18*

Não *Pular para a pergunta 30*

Carona para o deslocamento ao trabalho

18. Classifique o quanto as alternativas a seguir o levariam a RECEBER carona para o deslocamento ao trabalho: \*

Marcar apenas uma oval por linha.

	Sem importância	Pouco importante	Importante	Muito importante	Extremamente importante
Ter segurança	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ter conforto	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduzir custos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deslocar ao trabalho em menos tempo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relacionar-se socialmente com colegas de carona	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribuir para o descongestionamento do trânsito e para a diminuição do espaço destinado a estacionamento.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribuir para a diminuição de poluição	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receber ajuda na procura de parceiros de carona	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Existir um grupo de usuários de carona (Aplicativo, Whatsapp etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ter flexibilidade no deslocamento	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



19. Você estaria disposto a alterar seu horário de entrada e/ou saída para RECEBER carona? \*

Marcar apenas uma oval.

- Sim *Pular para a pergunta 20*
- Não *Pular para a pergunta 30*

### Carona para o deslocamento ao trabalho

20. Quantos minutos adicionais Você estaria disposto a se Deslocar/Esperar para RECEBER carona? \*

Marcar apenas uma oval por linha.

	Nenhum	Até 5 minutos	De 6 minutos até 10 minutos	De 11 minutos até 15 minutos	Mais de 15 minutos
Tempo de deslocamento	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tempo de esperar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Pular para a pergunta 30*

### Oferece Carona para o deslocamento ao trabalho

21. No seu deslocamento ao trabalho para quem Você OFERECE carona? \*

Marque todas que se aplicam.

Colega(s) do trabalho/Pessoas que trabalham no mesmo prédio que faz(em) a mesma rota que faço para o trabalho

Pessoa(s) próximo da Instituição/prédio que faz(em) a mesma rota que faço para o trabalho

Pessoa(s) que trabalha(m) em outros lugares que faz(em) a mesma rota que faço para o trabalho

Outro:  \_\_\_\_\_

22. Em média, quantas pessoas, além de Você, foram no seu carro nos dias em que OFERECIU carona? \*

*Marcar apenas uma oval.*

- Uma Pessoa
- Duas Pessoas
- Três Pessoas
- Quatro pessoas
- Mais de quatro pessoas

23. É fácil estacionar próximo ao local de trabalho? \*

*Marcar apenas uma oval.*

- Sim
- Não

24. Quais as formas de comunicação Você utilizou para oferecer carona \*

*Marcar apenas uma oval.*

- Comunicação direta (conversa face-a-face, por telefone)  
*Pular para a pergunta 30*
- Utilizando Aplicativo Carona
- Rede Social (facebook, messenger, instagram, whatsapp, telegram, outros)  
*Pular para a pergunta 30*
- Sistema via Web (email, blog, foruns, websites) *Pular para a pergunta 30*
- Outro: \_\_\_\_\_

*Pular para a pergunta 30*

Aplicativo utilizado para OFERECER carona para o deslocamento ao trabalho

25. Quais destes aplicativos Você utilizou para OFERECER carona? \*

*Marque todas que se aplicam.*

- BlablaCar  
 Bynd  
 Carona Phone  
 Carona Uber (Uber Juntos)  
 Meleva  
 Mobiag  
 Waze Carona  
 Wunder  
 Zumpy

Outro:  \_\_\_\_\_

*Pular para a pergunta 30*

Recebe carona para deslocamento ao trabalho

26. No seu deslocamento ao trabalho de quem Você RECEBE carona? \*

*Marque todas que se aplicam.*

- Colega(s) do trabalho/Pessoas que trabalham no mesmo prédio que faz(em) a mesma rota que faço para o trabalho  
 Pessoa(s) próximo da Instituição/prédio que faz(em) a mesma rota que faço para o trabalho  
 Pessoa(s) que trabalha(m) em outros lugares que faz(em) a mesma rota que faço para o trabalho

Outro:  \_\_\_\_\_

27. Em média, quantas pessoas, além de Você e o motorista, foram no veículo nos dias em que RECEBEU carona? \*

*Marcar apenas uma oval.*

- Nenhuma pessoa  
 Uma pessoa  
 Duas pessoas  
 Três pessoas  
 Mais de três pessoas

## 28. Quais as formas de comunicação que você utilizou para RECEBER carona \*

*Marcar apenas uma oval.*

- Comunicação direta (conversa face-a-face, por telefone)  
*Pular para a pergunta 30*
- Utilizando Aplicativo Carona
- Rede Social (facebook, messenger, instagram, whatsapp, telegram, outros)  
*Pular para a pergunta 30*
- Sistema via Web (email, blog, foruns, websites) *Pular para a pergunta 30*
- Outro: \_\_\_\_\_

*Pular para a pergunta 30*

Aplicativo utilizado para RECEBER carona para o deslocamento ao trabalho

## 29. Quais destes aplicativos Você utilizou para RECEBER carona? \*

*Marque todas que se aplicam.*

- BlablaCar
- BYND
- Carona Phone
- Carona Uber (Uber Juntos)
- Meleva
- Mobiag
- Waze Carona
- Wunder
- Zumpy

Outro:  \_\_\_\_\_

Transporte Público Coletivo para deslocamento ao trabalho

30. Classifique o quanto as alternativas a seguir o ENCORAJARIAM a usar o sistema de transporte público coletivo para ir ao trabalho? \*

Marcar apenas uma oval por linha.

	Sem importância	Pouco importante	Importante	Muito importante	Extremamente importante
A Instituição custear com as tarifas do transporte público coletivo (por exemplo vale transporte)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mais informação sobre as linhas de transporte público coletivo que passam próximas ao local de trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Melhores condições das calçadas e acesso para pedestres	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Horários mais flexíveis de entrada e saída do trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Melhores condições dos ônibus (por exemplo, ar condicionado)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maior frequência das linhas de ônibus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Proximidade  
do ponto de  
embarque e  
desembarque  
do local de  
trabalho

---

Segurança  
dentro do  
veículo

Segurança nas  
paradas

Uso de bicicleta para deslocamento ao trabalho

31. Classifique as alternativas a seguir o levariam a considerar a opção de ir ao trabalho de bicicleta? \*

Marcar apenas uma oval por linha.

	Sem importância	Pouco importante	Importante	Muito importante	Extremamente importante
Chuveiros e armários no prédio onde trabalha, para guardar pertences (capacete, muda de roupa)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicicletários próximos às estações de transporte público coletivo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mapa contendo informações das rotas mais seguro até o trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encontrar parceiros/grupos para pedalar junto no trajeto até o trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicicletários no prédio/próximo do local de trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ciclovias ou ciclofaixas conectando o local de trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Estação de bicicletas públicas próximas ao local de trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Possibilidade de	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

levar a bicicleta  
no transporte  
público coletivo  
(ônibus/metrô)

---

Descontos na  
compra das  
bicicletas e nos  
equipamentos  
(por exemplo  
bicicletas  
elétricas)

Maior número de  
vagas nos  
bicicletários

Segurança nos  
bicicletários,  
para evitar  
roubos

Benefícios para  
quem usa a  
bicicleta  
(descontos,  
cupons etc)

*Pular para a pergunta 43*

Seção para o Transporte Público  
Coletivo

Para quem anda de Transporte Coletivo, Bicicleta ao  
trabalho

Carona para o deslocamento ao trabalho



## 32. Classifique o quanto as alternativas que o levariam a RECEBER carona para o trabalho?

\*

*Marcar apenas uma oval por linha.*

	Sem importância	Pouco importante	Importante	Muito importante	Extremamente importante
Ter segurança	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ter conforto	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduzir custos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deslocar ao trabalho em menos tempo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relacionar-se socialmente com colegas de carona	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribuir para o descongestionamento do trânsito e para a diminuição do espaço destinado a estacionamento.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribuir para a diminuição de poluição	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ajudar na procura de parceiros de carona	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Existir um grupo de usuário de carona (Aplicativo, Whatsapp etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ter flexibilidade no deslocamento	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

33. Você estaria disposto a alterar seu horário de entrada e/ou saída para RECEBER carona? \*

*Marcar apenas uma oval.*

Sim

Não *Pular para a pergunta 35*

### Carona para o deslocamento ao trabalho

34. Quantos minutos adicionais Você estaria disposto a se Deslocar/Esperar para RECEBER carona ? \*

*Marcar apenas uma oval por linha.*

	Nenhum	Até 5 minutos	De 6 minutos até 10 minutos	De 11 minutos e 15 minutos	Mais de 15 minutos
Tempo de deslocamento	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tempo de esperar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### O uso da bicicleta para o deslocamento ao trabalho

35. Classifique as alternativas a seguir o levariam a considerar a opção de ir ao trabalho de bicicleta? \*

Marcar apenas uma oval por linha.

	Sem importância	Pouco importante	Importante	Muito importante	Extremamente importante
Chuveiros e armários no prédio onde trabalha, para guardar pertences (capacete, muda de roupa)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicicletários próximos às estações de transporte coletivo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mapa contendo informações das rotas mais seguro até o trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encontrar parceiros/grupos para pedalar junto no trajeto até o trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicicletários no prédio/próximo do local de trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ciclovias ou ciclofaixas conectando o local de trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Estação de bicicletas públicas próximas ao local de trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Possibilidade de	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

levar a bicicleta  
no transporte  
coletivo  
(ônibus/metrô)

---

Descontos na  
compra das  
bicicletas e nos  
equipamentos  
(por exemplo  
bicicletas  
elétricas)

Maior número de  
vagas nos  
bicicletários

Segurança nos  
bicicletários para  
evitar roubos

Benefícios para  
quem usa a  
bicicleta  
(cupons,  
descontos etc)

*Pular para a pergunta 43*

### Seção para a Bicicleta

O uso da Bicicleta para o deslocamento ao trabalho

Bicicleta ao trabalho

36. A empresa oferece algum desconto/benefício para quem utiliza bicicleta? \*

*Marcar apenas uma oval.*

Sim

Não

37. Você mudaria o seu modo de deslocar ao trabalho de bicicleta para transporte público coletivo? \*

*Marcar apenas uma oval.*

Sim

Não *Pular para a pergunta 39*

Transporte Público Coletivo para o deslocamento ao trabalho

38. Classifique o quanto as alternativas a seguir que o ENCORAJARIAM a usar o sistema de transporte público coletivo para ir ao trabalho? \*

Marcar apenas uma oval por linha.

	Sem importância	Pouco importante	Importante	Muito importante	Extremamente importante
A Instituição custar com as tarifas do transporte coletivo (por exemplo vale transporte)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maior informação sobre as linhas de transporte coletivo que passam próximas ao local de trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Melhores condições das calçadas e acesso para pedestres	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Horários mais flexíveis de entrada e saída do trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Melhores condições dos ônibus (por exemplo, ar condicionado)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maior frequência das linhas de ônibus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proximidade do ponto de	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

embarque e  
desembarque  
do local de  
trabalho

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### Carona para a deslocamento ao trabalho

39. Você mudaria o seu modo de deslocar ao trabalho de bicicleta para RECEBER carona? \*

*Marcar apenas uma oval.*

Sim

Não *Pular para a pergunta 43*

### Carona para a deslocamento ao trabalho

40. Classifique o quanto as alternativas a seguir que o levariam a RECEBER carona para o trabalho? \*

Marcar apenas uma oval por linha.

	Sem importância	Pouco importante	Importante	Muito importante	Extremamente importante
Ter segurança	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ter conforto	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduzir custos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deslocar ao trabalho em menos tempo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relacionar-se socialmente com colegas de carona	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribuir para o descongestionamento do trânsito e para a diminuição do espaço destinado a estacionamento.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribuir para a diminuição de poluição	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Existir um grupo de usuários de carona (Aplicativo, Whatsapp etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receber ajuda na procura de parceiros de carona	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



41. Você estaria disposto a alterar seu horário de entrada e/ou saída para RECEBER carona? \*

*Marcar apenas uma oval.*

- Sim  
 Não *Pular para a pergunta 43*

### Carona para o deslocamento ao trabalho

42. Quantos minutos adicional Você estaria disposto a se DESLOCAR/ESPERAR para RECEBER carona ao seu colega de trabalho? \*

*Marcar apenas uma oval por linha.*

	Nenhum	Até 5 minutos	De 6 minutos até 10 minutos	De 11 minutos e 15 minutos	Mais de 15 minutos
Tempo de deslocamento	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tempo de esperar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Tempo de deslocamento para o local de trabalho

43. Quanto tempo você leva para chegar ao trabalho em um dia típico? \*

*Marcar apenas uma oval.*

- até 15 minutos  
 de 16 a 30 minutos  
 de 31 a 45 minutos  
 de 46 minutos a 1 hora  
 de 1 hora a 1 hora e 30 minutos  
 mais de 1 hora e 30 minutos

### Uso de carro durante o seu expediente

44. Você geralmente precisa usar um veículo durante o expediente para realizar tarefas relacionadas ao trabalho? \*

*Marcar apenas uma oval.*

- Sim  
 Não *Pular para a pergunta 46*

### Tipo de veículo

45. Caso você tenha respondido sim na questão anterior, qual o tipo de veículo utilizado para realizar a tarefa? \*

*Marcar apenas uma oval.*

- Automóvel de uso pessoal  
 Um veículo do local de trabalho  
 Táxi convencional  
 Transporte por aplicativo (Uber, 99....)  
 Transporte Público Coletivo (ônibus, metrô)  
 Bicicleta compartilhada (+Bike, Yellow bike)  
 Bicicleta Pessoal  
 Outro: \_\_\_\_\_

### Teletrabalho

46. Com que frequência Você pratica Teletrabalho (trabalha em casa)? \*

*Marcar apenas uma oval por linha.*

	Nunca	Raramente	As vezes	Frequentemente	Sempre
Teletrabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Outras Informações

47. Classifique o impacto que o deslocamento ao trabalho tem na produtividade, estresse e bem-estar no seu dia-a-dia? \*

Marcar apenas uma oval por linha.

	Forte Impacto negativo	Impacto negativo	Sem Impacto	Impacto positivo	Forte Impacto positivo
Produtividade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Estresse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bem-estar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

48. Você tem condições físicas temporárias ou permanentes que limitam sua capacidade para usar o transporte público, para dirigir, caminhar ou pedalar? \*

Marcar apenas uma oval.

Sim

Não

#### Dados Socioeconômicos

49. Natureza da ocupação: \*

Marcar apenas uma oval.

Direção

Assessoria

Técnico / Administrativo

Trabalhador Terceirizado

Estagiário

Outro: \_\_\_\_\_

50. Qual a sua idade ? \*

\_\_\_\_\_

## 51. Sexo \*

*Marcar apenas uma oval.*

Feminino

Masculino

## 52. Você tem filhos abaixo de 16 anos ? \*

*Marcar apenas uma oval.*

Sim, de 0 a 5 anos.

Sim, de 6 a 10 anos.

Sim, de 10 a 15 anos

Não tenho filho abaixo de 16 anos

## 53. Qual é o seu salário \*

*Marcar apenas uma oval.*

Até 1 salário mínimo (até R\$ 998,00)

Entre 1 e Até 2 salários mínimos (R\$998,01 a R\$ 1996,00)

Entre 2 e 3 salários mínimos (R\$ 1996,01 a R\$ 2994,00)

Entre 3 e 5 salários mínimos (R\$ 2994,01 a R\$ 4990,00)

Entre 5 e 10 salários mínimos (R\$ 4990,01 a R\$ 9980,00)

Mais de 10 salários mínimos (mais de R\$ 9980,00)

54. Quantas pessoas, incluindo Você, moram no seu domicílio? \*

*Marcar apenas uma oval.*

- Uma pessoa
- Dois pessoas
- Três pessoas
- Quatro pessoas
- Cinco pessoas
- Mais de cinco pessoas

55. Há quanto tempo (anos) Você trabalha na Instituição? \*

*Marcar apenas uma oval.*

- Menos de 1 ano
- De 1 à 3 anos
- De 3 à 5 anos
- De 5 à 10 anos
- Mais de 10 anos

Ideia/Sugestão/Contribuição

56. Caso queira nos dar alguma ideia/sugestão/contribuição sobre a Mobilidade Corporativa no Distrito Federal, preencha a seguir

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Este conteúdo não foi criado nem aprovado pelo Google.

Google Formulários



**Information obtained onsite, through interviews and ArcGIS software relating to Urban Mobility in the area of influence of the Organizations**

<b>Responsável pela avaliação</b>				
<b>Nome da Instituição</b>				
<b>Localização da Instituição</b>				
O prédio é compartilhado com outros Instituições?	Sim		Não	
Há CFTV nos acessos e estacionamento de prédio ?	Sim		Não	
As calçadas são iluminada à noite?	Sim		Não	
É fácil estacionar em ruas próximas ?	Sim		Não	
Há controle de acesso ao estacionamento?	Sim		Não	

**Os seguintes são oferecidos nas dependências/ Próximo da própria Instituição**

<b>Distância</b>	<b>Proximo</b>	<b>5kM</b>	<b>10kM</b>	<b>Não Tem</b>
Academia				
Bancos, terminais de autoatendimento				
Correios				
Farmácia				
Lavadeira, serviço de costura				
Supermercado/Mercado				
Refeitórios, Restaurante, máquina de salgadinhos				
Salão de beleza				
Outros serviços importantes				

**As calçadas até pontos de transporte coletivo são**

<b>Diretas</b>	<b>Algumas Pavimentadas</b>	<b>Pavimentas</b>	<b>Bem conversadas</b>	

**Estacionamento para o Carro: Número de Vagas**

<b>Diretoria</b>		<b>Funcionários</b>		<b>Motos</b>
<b>Carona</b>		<b>Visitante</b>		<b>Ônibus fretado</b>
<b>Bicicletas formal</b>		<b>Bicicleta Informal</b>		<b>Custo (caso fosse pago)</b>

**O estacionamento tem quais dessas características**      **De bicicleta**      **De ônibus**

<b>Sinalizado</b>			
<b>Próximos à entrada do prédio</b>			
<b>Com Informações</b>			
<b>Protegido de intempéries</b>			
<b>Seguro</b>			

**Que modos servem as imediações do local do trabalho (até 1kM)**      **Se fosse Pago**

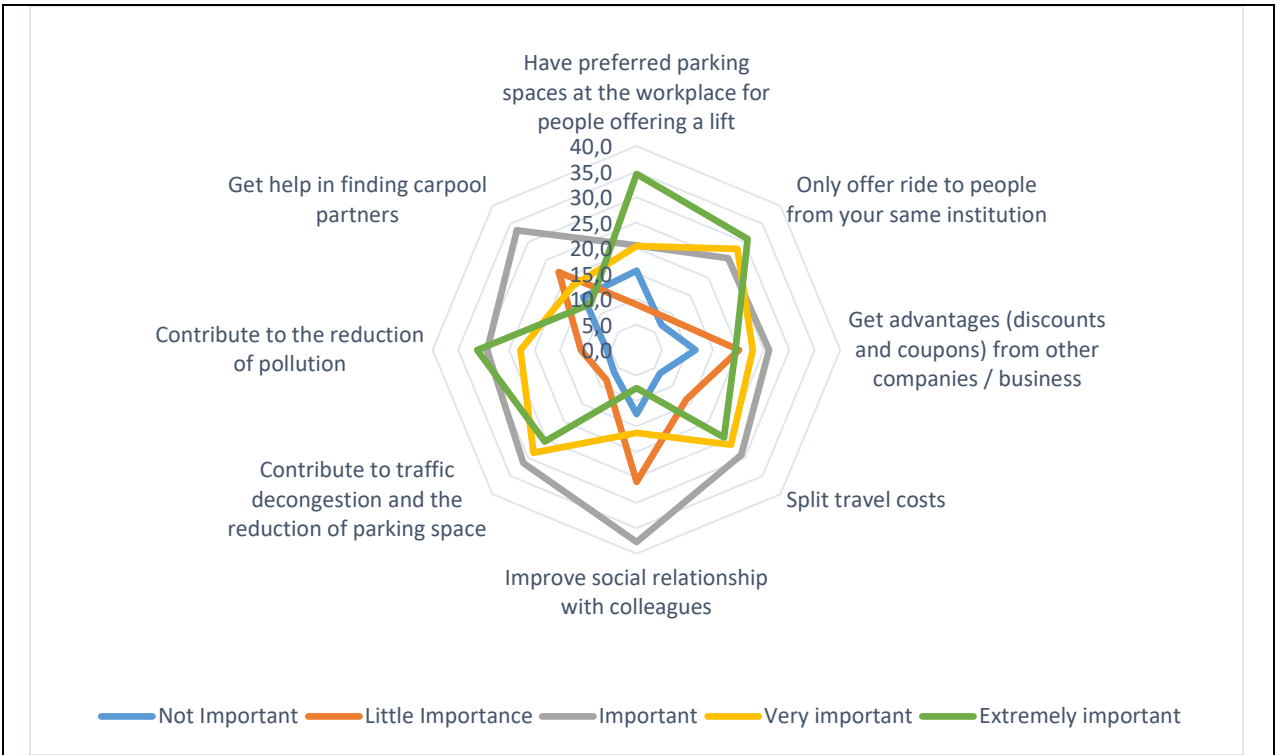
<b>Ônibus convencional metropolitano</b>				
<b>Ônibus seletivo</b>				
<b>Metrô</b>				
<b>Parada de ônibus</b>				
<b>Ciclovía</b>				
<b>Paraciclo</b>				
<b>Bicicleta compartilhada da Instituição</b>				
<b>Bicicleta compartilhada (Yellow, +Bike)</b>				
<b>Estacionamento/Garagem próximo</b>				

## Appendix B

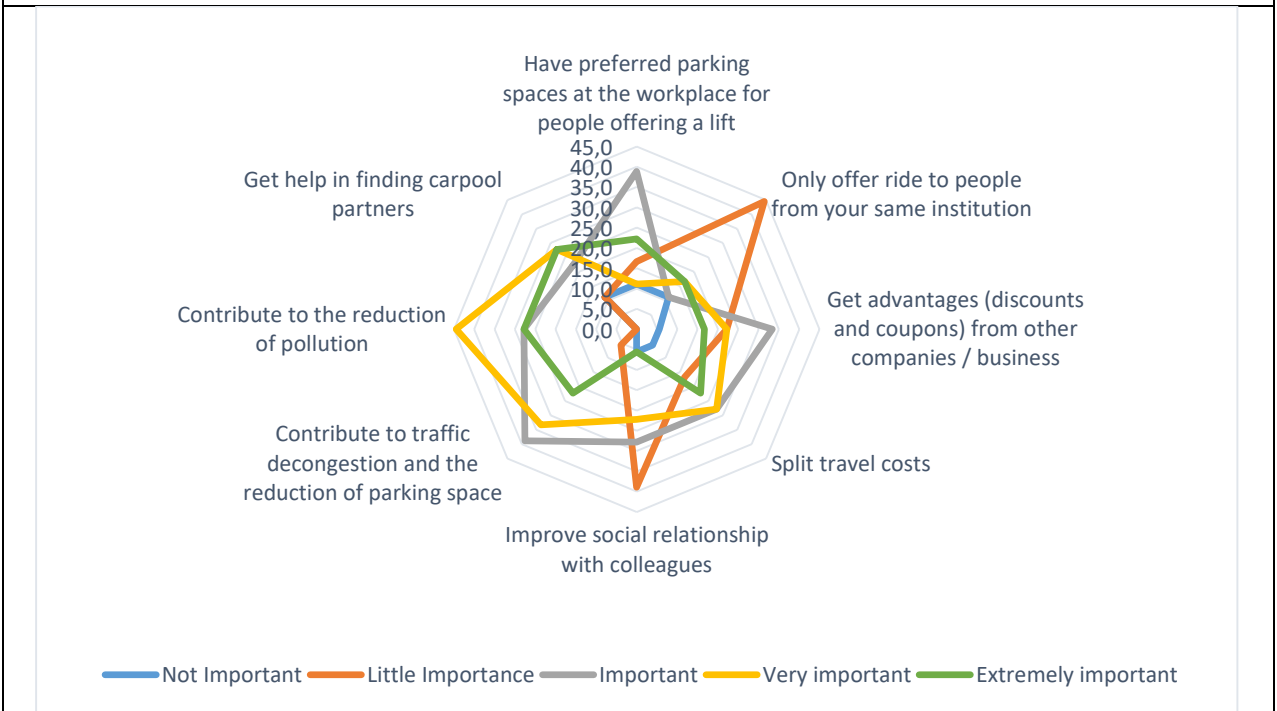
**Table B.1:** Concentration of where employees reside for Companies A to F

Residência	A	A%	B	B%	C	C%	D	D%	E	E%	F	F%
Águas Claras	430	34,79	4	12,12	1	2,13	10	10,99	5	15,15	0	0
Altiplano Leste	2	0,16	0	0,00	0	0	0	0,00	0	0,00	0	0
Águas Lindas	0	0,00	0	0,00	0	0	0	0,00	0	0,00	1	5,88
Areal	2	0,16	0	0,00	0	0	0	0,00	0	0,00	0	0
Asa Norte	237	19,17	3	9,09	1	2,13	4	4,40	4	12,12	2	11,8
Asa Sul	72	5,83	4	12,12	0	0	6	6,59	4	12,12	2	11,8
Candangolândia	2	0,16	0	0,00	0	0	0	0,00	0	0,00	0	0
Ceilândia Norte	2	0,16	0	0,00	0	0	9	9,89	0	0,00	2	11,8
Ceilândia Sul	3	0,24	1	3,03	0	0	2	2,20	1	3,03	0	0
Cruzeiro	19	1,54	1	3,03	2	4,26	0	0,00	1	3,03	0	0
Gama	7	0,57	0	0,00	0	0	2	2,20	1	3,03	1	5,88
Grande colorado	3	0,24	0	0,00	0	0	0	0,00	0	0,00	0	0
Guará	106	8,58	4	12,12	2	4,26	5	5,49	2	6,06	1	5,88
Itapoã	1	0,08	0	0,00	1	2,13	1	1,10	0	0,00	0	0
Jardim Botânico	35	2,83	1	3,03	0	0	0	0,00	0	0,00	0	0
Jardim Magueiral	8	0,65	0	0,00	1	2,13	5	5,49	0	0,00	0	0
Lago Norte	41	3,32	1	3,03	0	0	2	2,20	4	12,12	0	0
Lago Sul	13	1,05	1	3,03	0	0	4	4,40	0	0,00	0	0
Luziânia	0	0,00	0	0,00	0	0	1	1,10	0	0,00	0	0
Lúcio Costa	1	0,08	0	0,00	0	0	0	0,00	0	0,00	0	0
Noroeste	39	3,16	2	6,06	0	0	1	1,10	2	6,06	0	0
Núcleo Bandeirante	5	0,40	0	0,00	0	0	1	1,10	0	0,00	0	0
Paranoá	3	0,24	0	0,00	4	8,51	0	0,00	1	3,03	0	0
Park Way	9	0,73	0	0,00	0	0	0	0,00	0	0,00	0	0
Planaltina (DF)	4	0,32	2	6,06	15	31,9	2	2,20	0	0,00	0	0
Planaltina de Goiás	0	0,00	0	0,00	3	6,38	0	0,00	0	0,00	0	0
Recanto das Emas	0	0,00	0	0,00	0	0	3	3,30	0	0,00	0	0
Riacho Fundo	4	0,32	0	0,00	0	0	0	0,00	0	0,00	0	0
Samambaia	13	1,05	1	3,03	1	2,13	2	2,20	0	0,00	4	23,5
Santa Maria	4	0,32	0	0,00	0	0	3	3,30	0	0,00	0	0
São Sebastião	1	0,08	0	0,00	1	2,13	0	0,00	0	0,00	0	0
Sobradinho	30	2,43	1	3,03	7	14,9	4	4,40	3	9,09	0	0
Sobradinho II	4	0,32	0	0,00	6	12,8	3	3,30	0	0,00	0	0
Sudoeste/Octogonal	65	5,26	3	9,09	0	0	5	5,49	0	0,00	1	5,88
Taguatinga	25	2,02	2	6,06	0	0	9	9,89	3	9,09	2	11,8
Valparaíso de Goiás	2	0,16	0	0,00	1	2,13	1	1,10	0	0,00	1	5,88
Vicente Pires	13	1,05	0	0,00	1	2,13	5	5,49	1	3,03	0	0
Vila Planalto	10	0,81	1	3,03	0	0	1	1,10	0	0,00	0	0
Outros	21	1,70	1	3,03	0	0	0	0,00	1	3,03	0	0
<b>Total</b>	1236	100,00	33	100,00	47	100	91	100,00	33	100,00	17	100





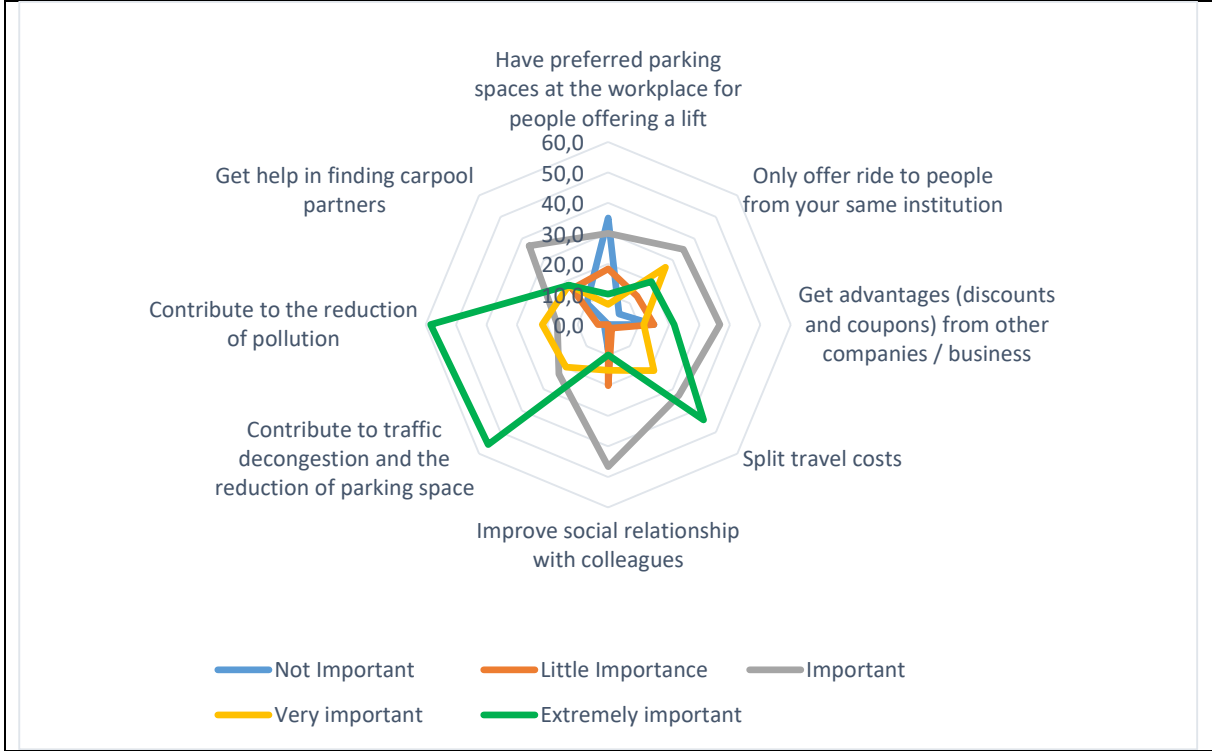
**Figure B.1 :** Alternatives that will encourage employees to OFFER lift to Work for Company A for those that Drive alone



**Figure B.2 :** Alternatives that will encourage employees to OFFER lift to Work for Company B for those that Drive alone



**Figure B.3 :** Alternatives that will encourage employees to OFFER lift to Work for Company C for those that Drive alone



**Figure B.4 :** Alternatives that will encourage employees to OFFER lift to Work for Company D for those that Drive alone

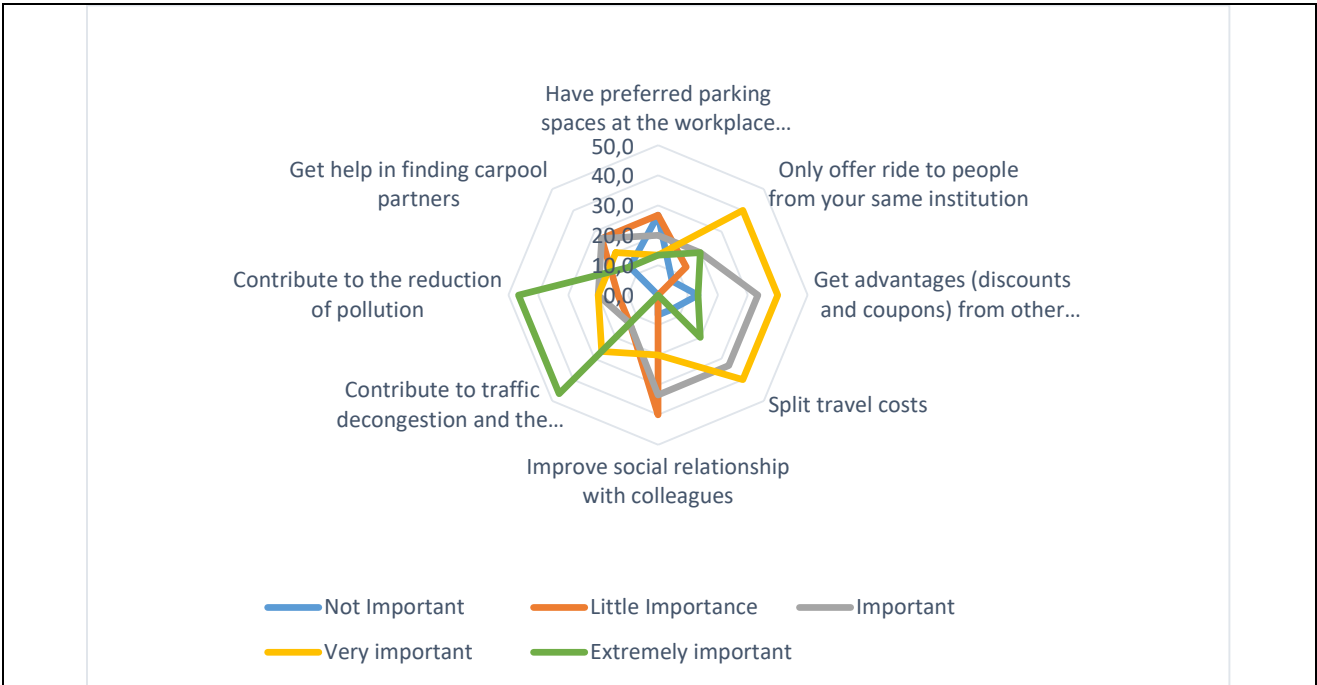


Figure B.5 : Alternatives that will encourage employees to OFFER lift to Work for Company E for those that Drive alone

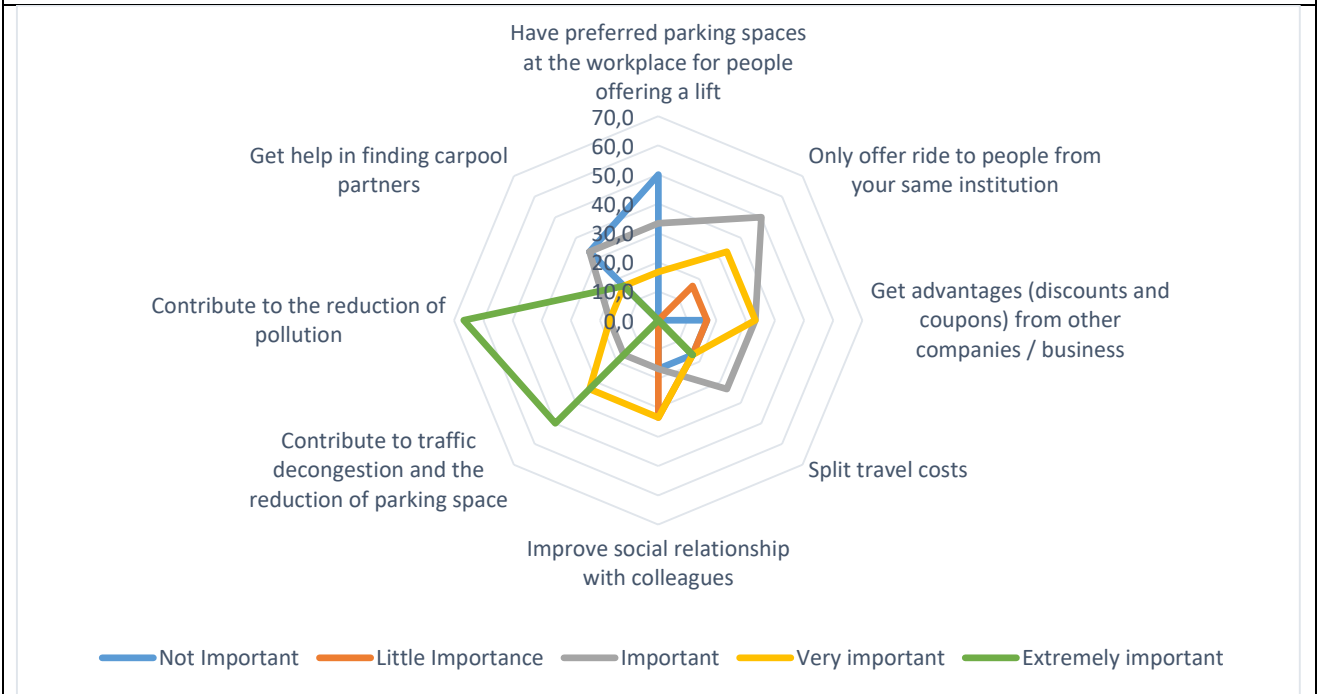
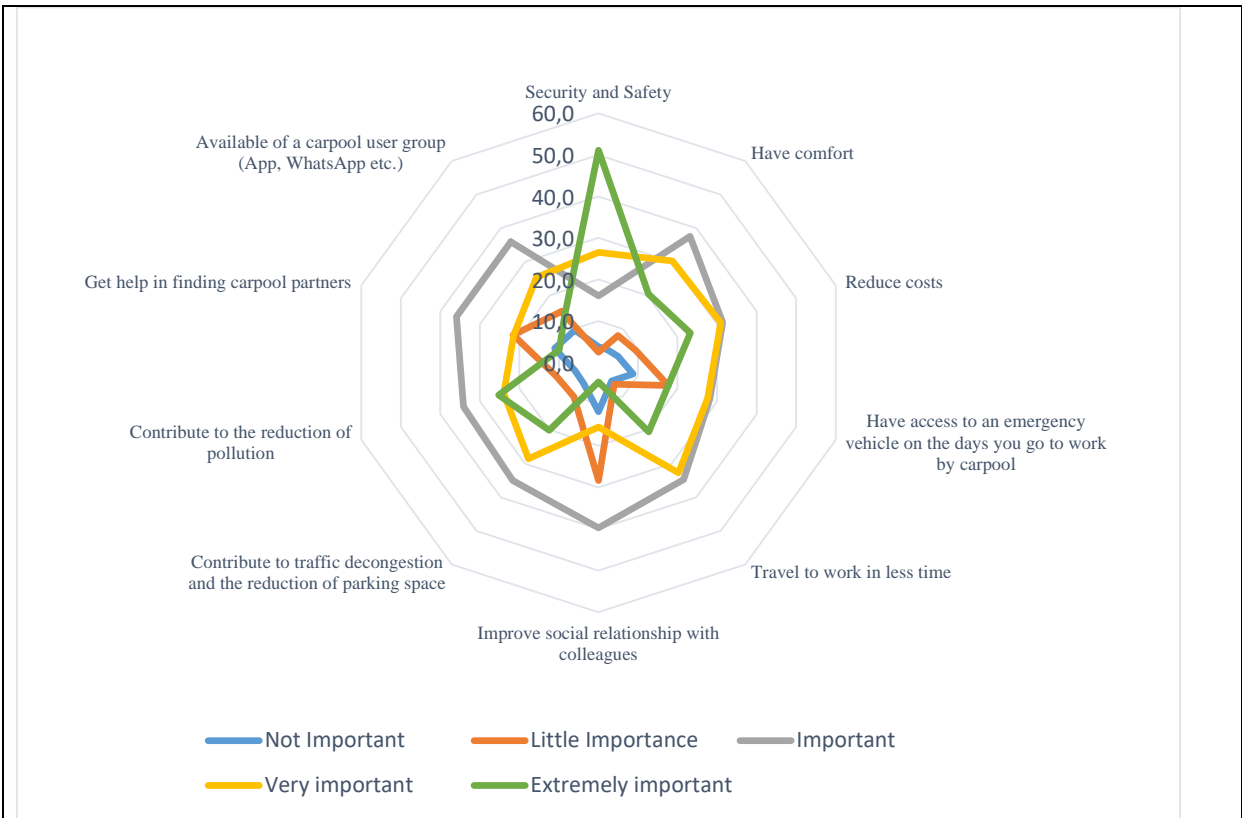
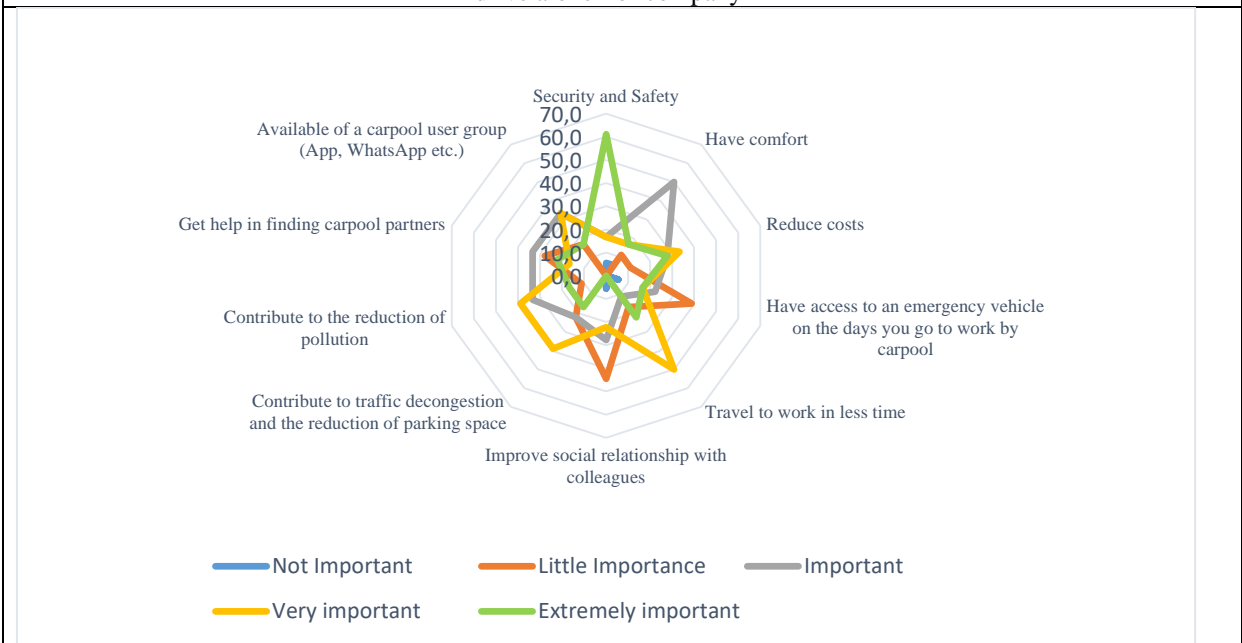


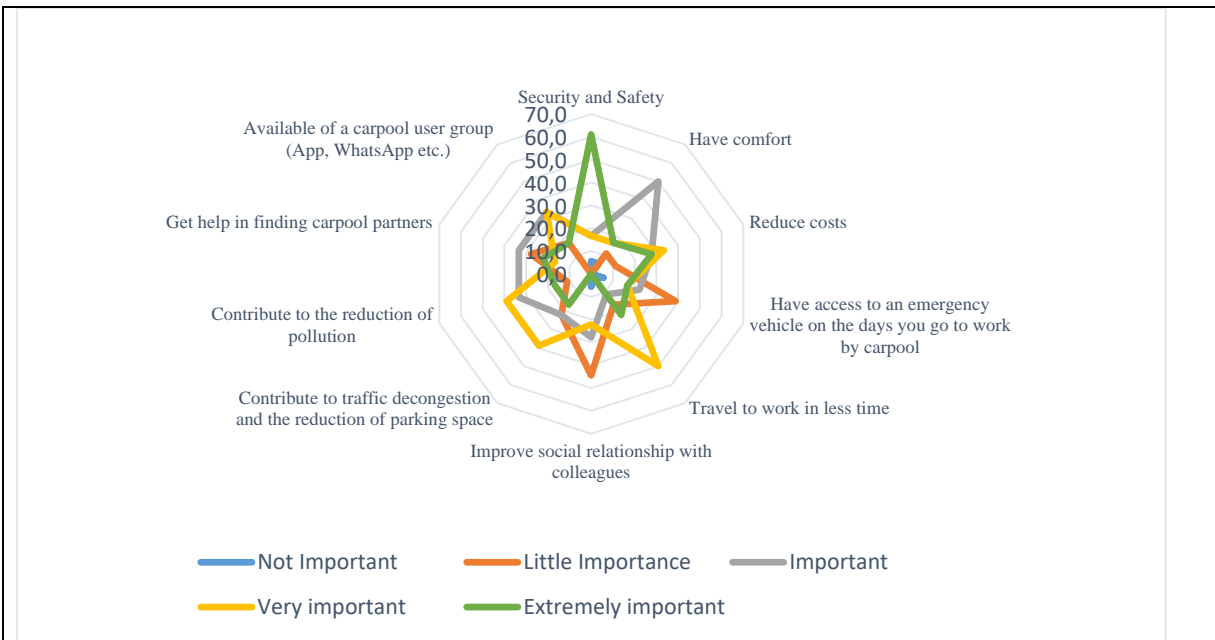
Figure B.6 : Alternatives that will encourage employees to OFFER lift to Work for Company F for those that Drive alone



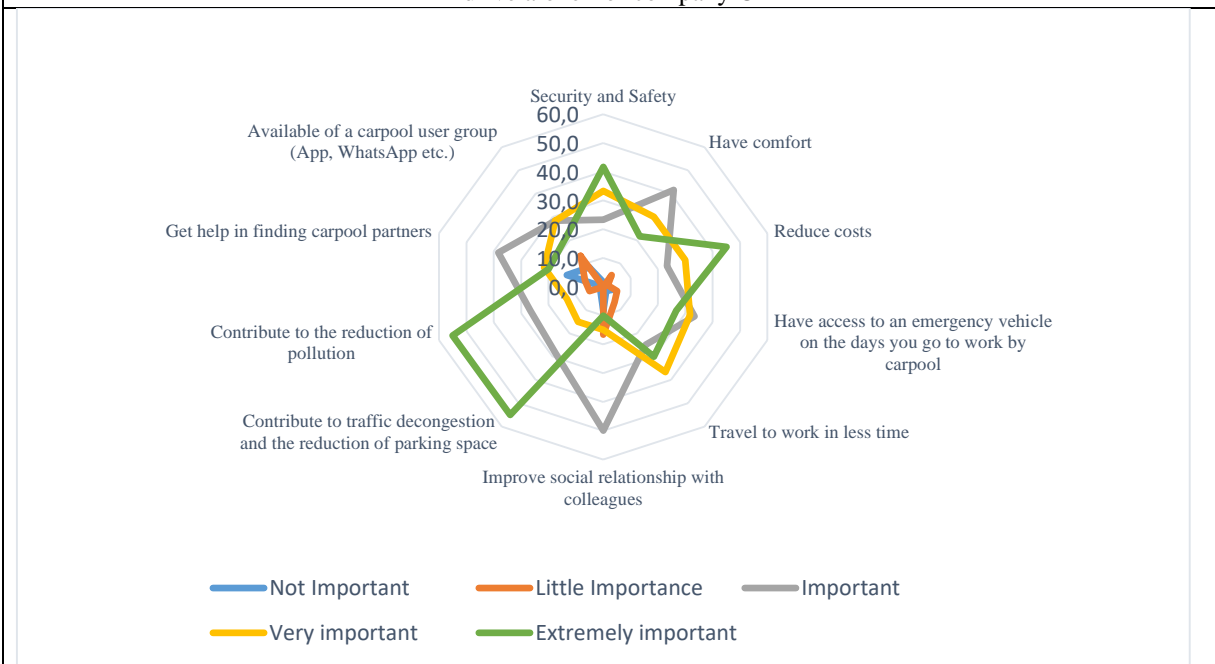
**Figure B.7:** Classification of alternatives that will lead employees to receive ride to workplace for those that drive alone for company A



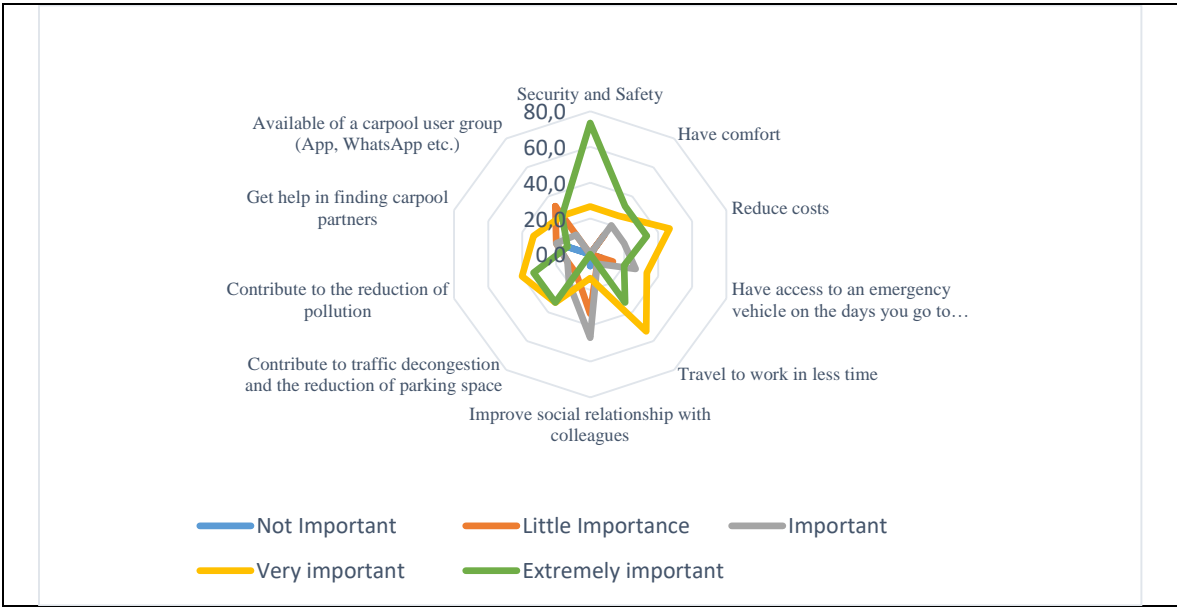
**Figure B.8:** Classification of alternatives that will lead employees to receive ride to workplace for those that drive alone for company B



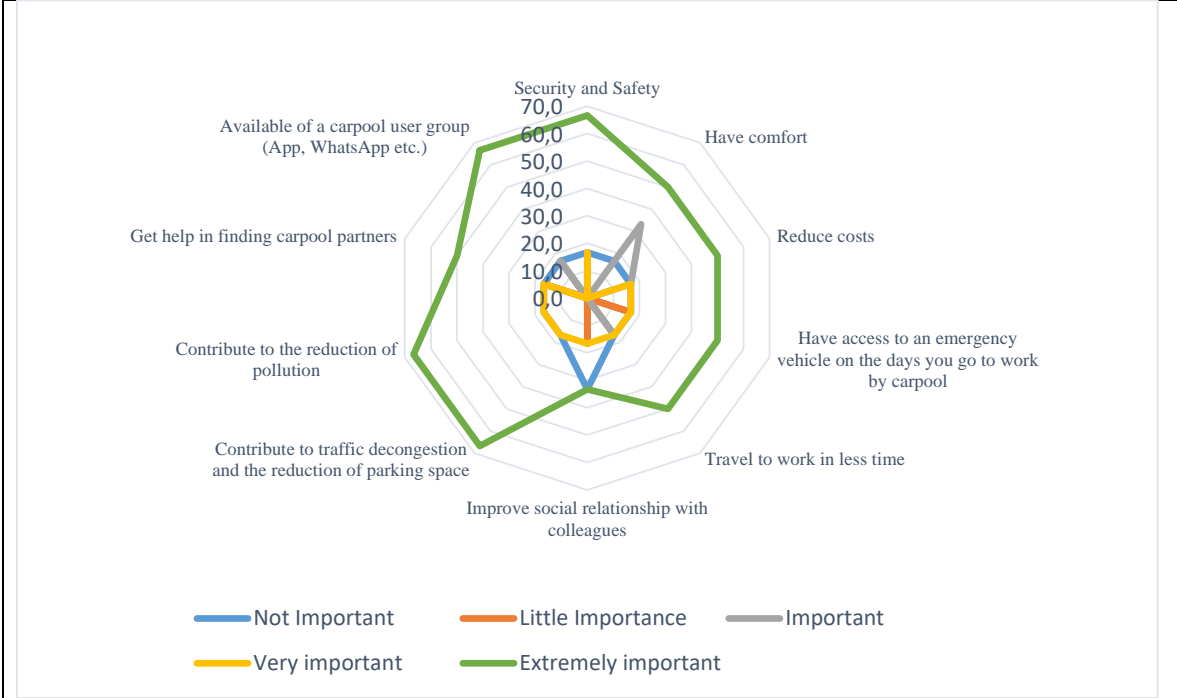
**Figure B.9:** Classification of alternatives that will lead employees to receive ride to workplace for those that drive alone for company C



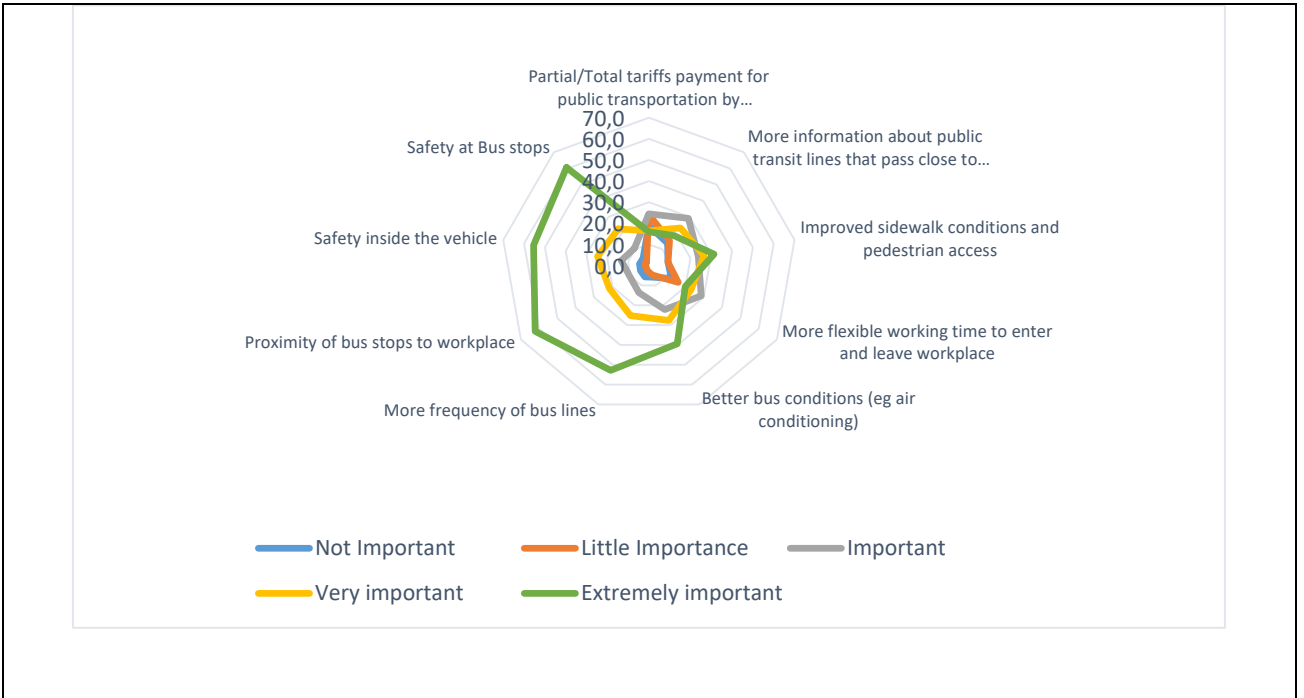
**Figure B.10:** Classification of alternatives that will lead employees to receive ride to workplace for those that drive alone for company D



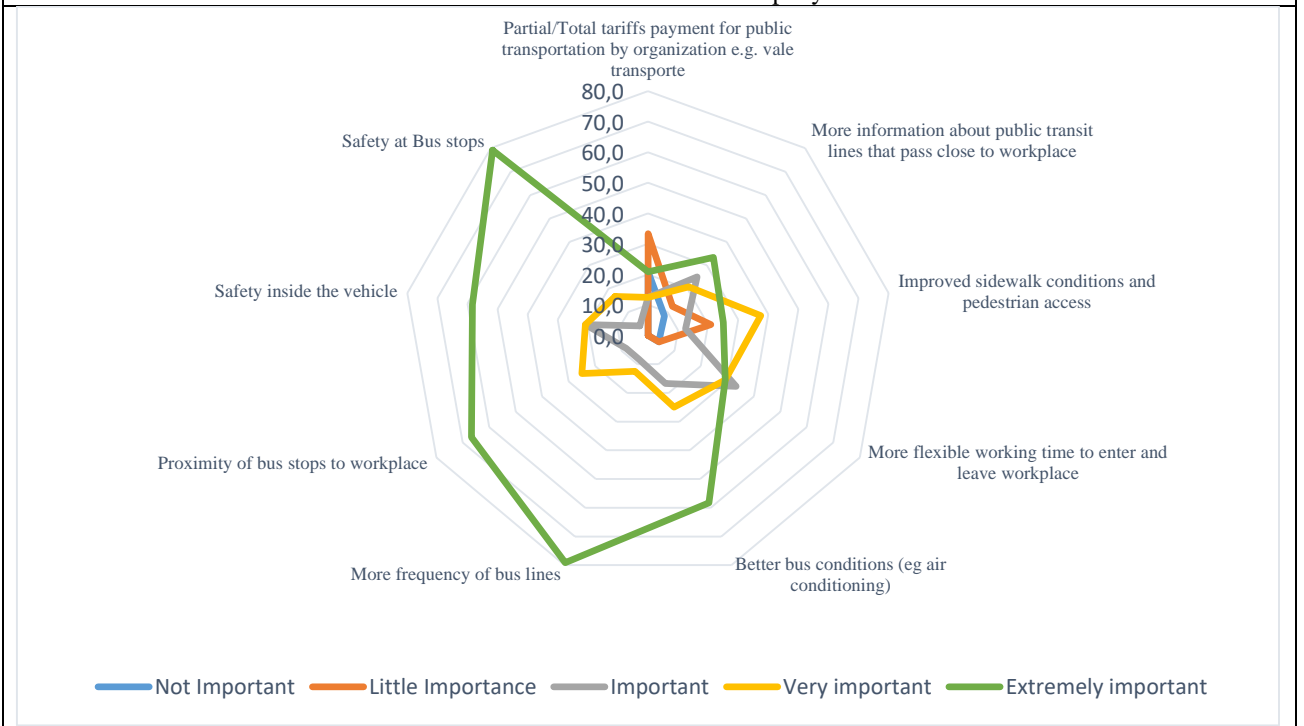
**Figure B.11:** Classification of alternatives that will lead employees to receive ride to workplace for those that drive alone for company E



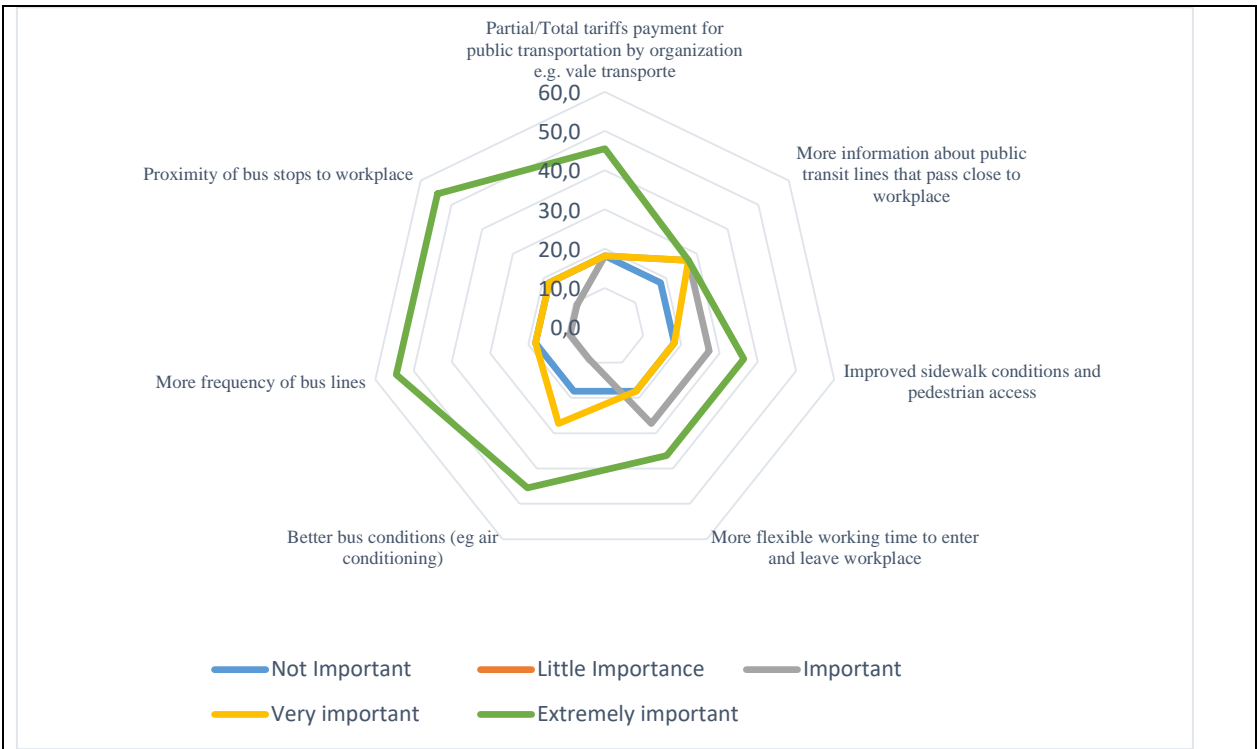
**Figure B.12:** Classification of alternatives that will lead employees to receive ride to workplace for those that drive alone for company F



**Figure B.13:** Classification of factors that will that encourage employees to travel by public transit system to work for those that drive alone for company A



**Figure B.14:** Classification of factors that will that encourage employees to travel by public transit system to work for those that drive alone for company B

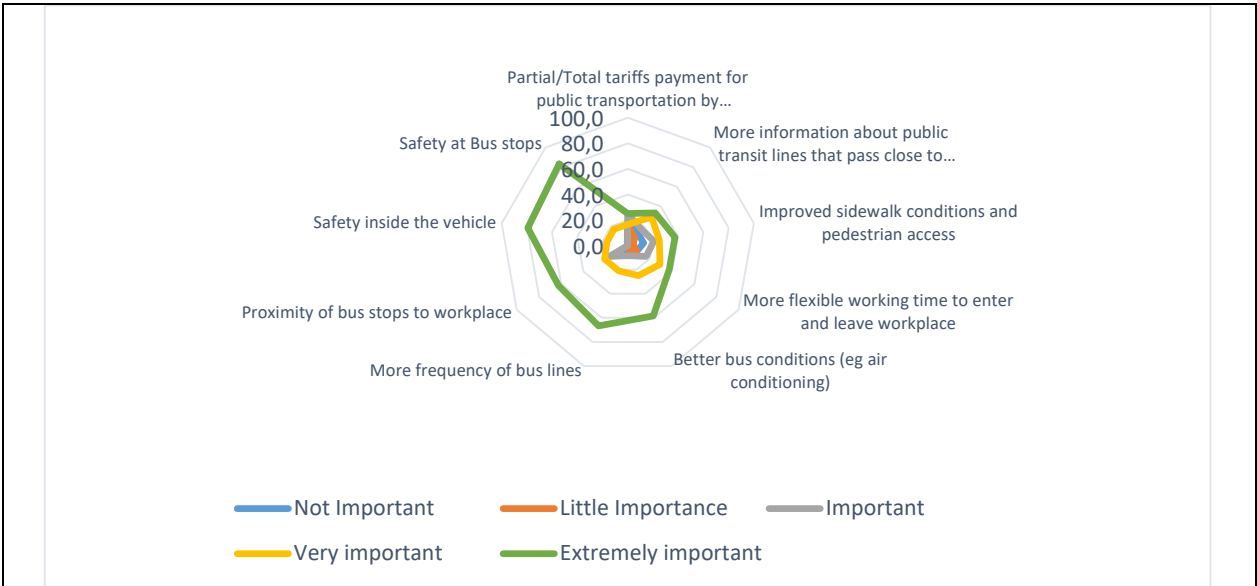


**Figure B.15:** Classification of factors that will that encourage employees to travel by public transit system to work for those that drive alone for company C

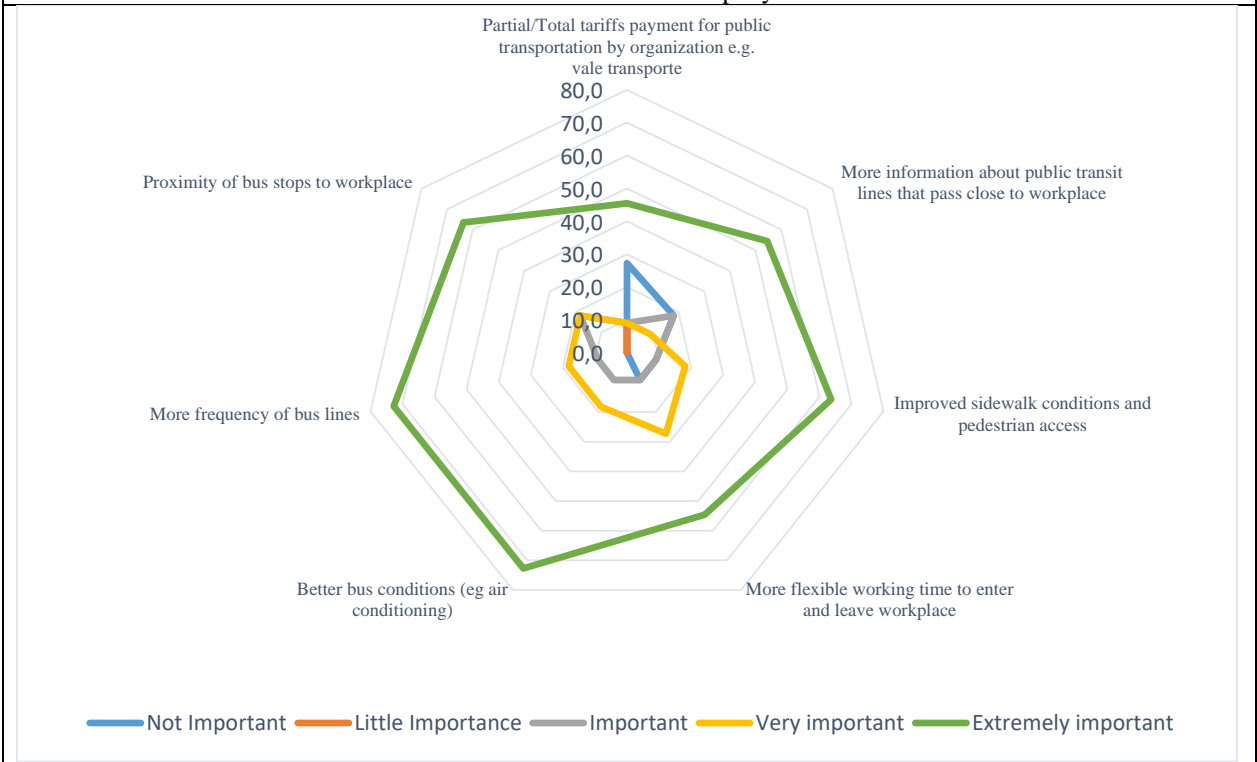


**Figure B.16:** Classification of factors that will that encourage employees to travel by public transit system to work for those that drive alone for company D

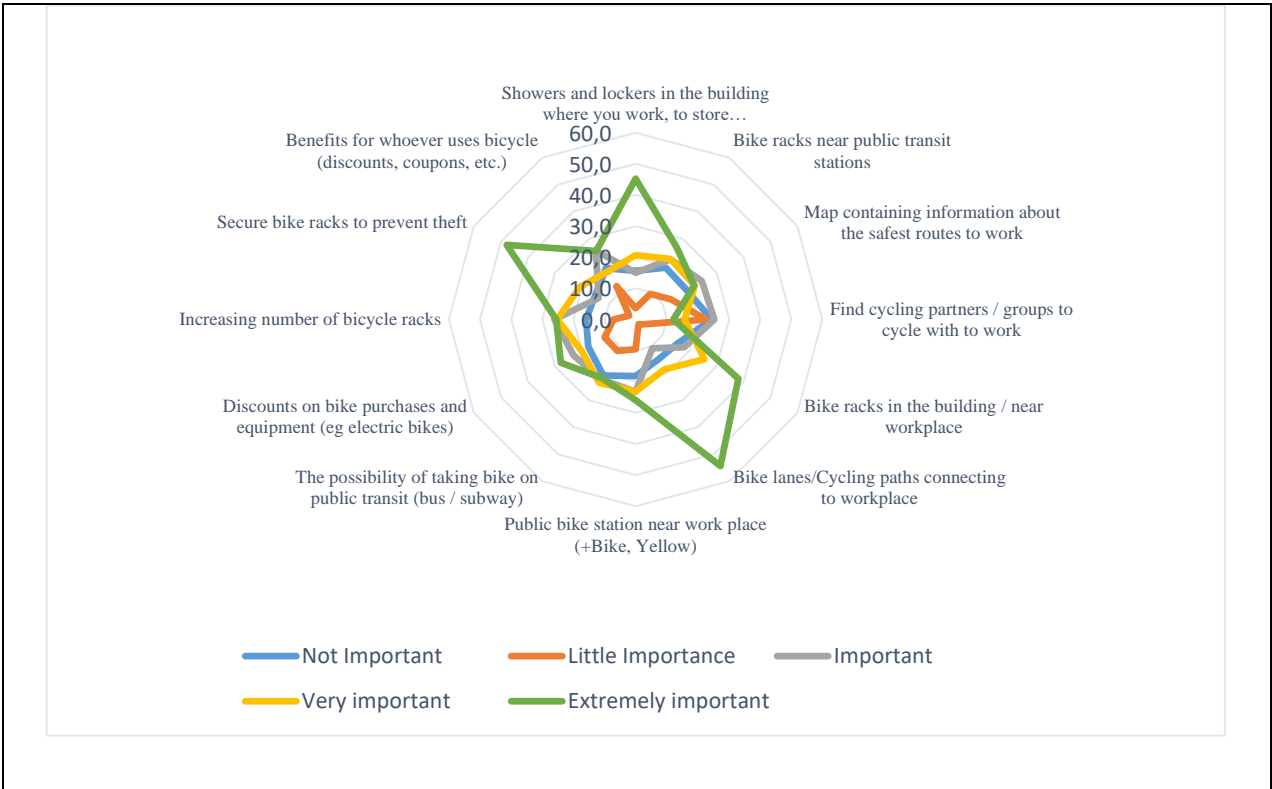




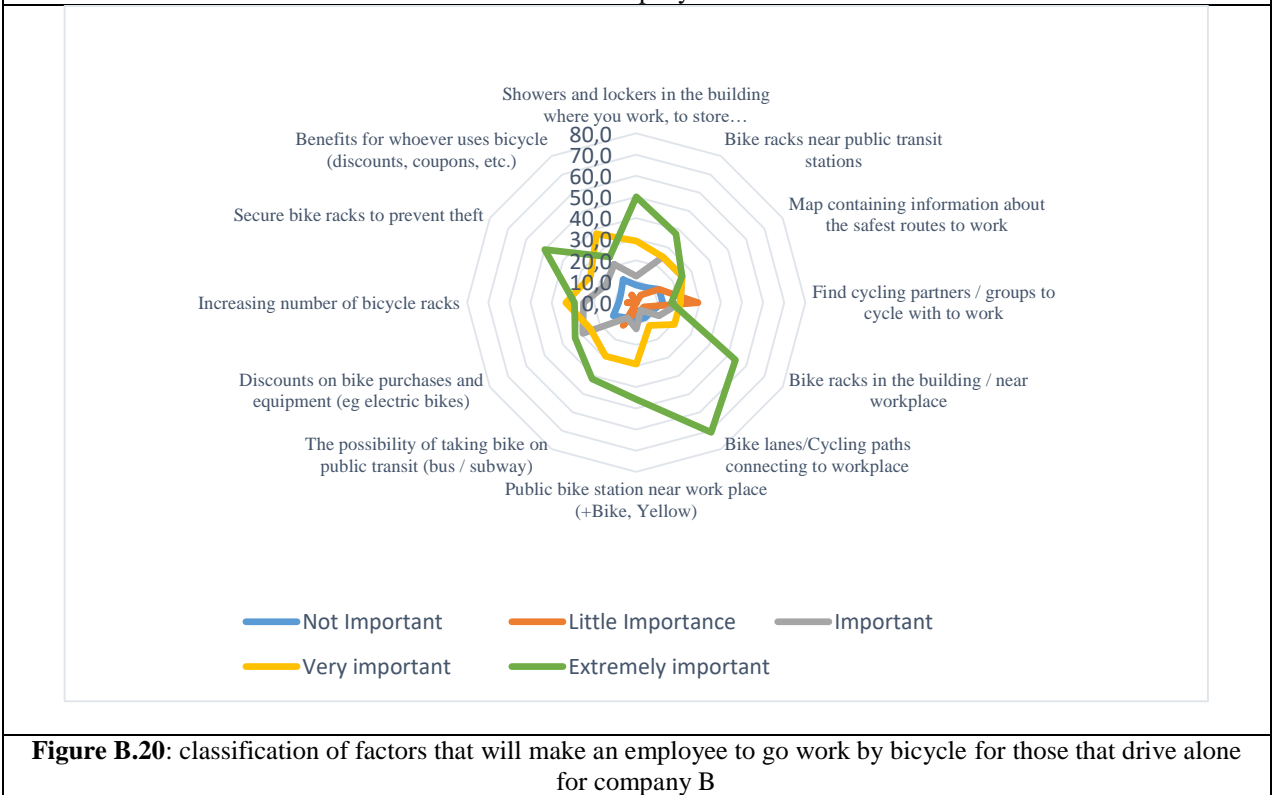
**Figure B.17:** Classification of factors that will that encourage employees to travel by public transit system to work for those that drive alone for company E



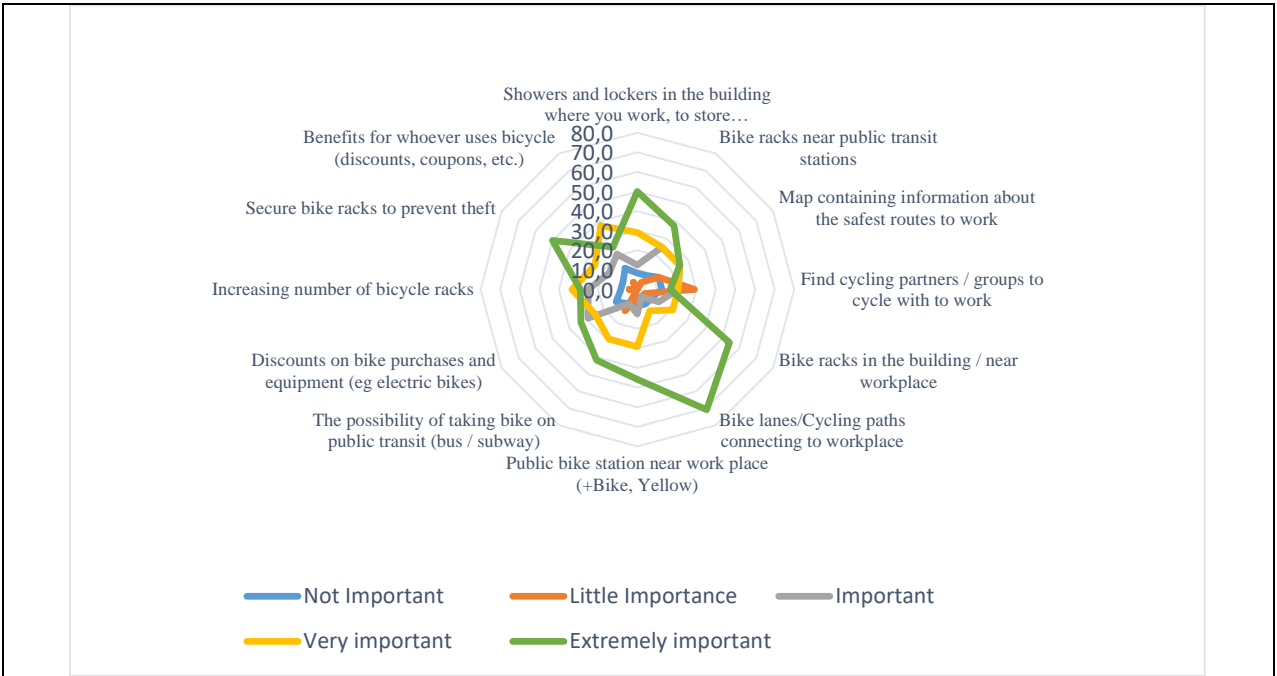
**Figure B.18:** Classification of factors that will that encourage employees to travel by public transit system to work for those that drive alone for company F



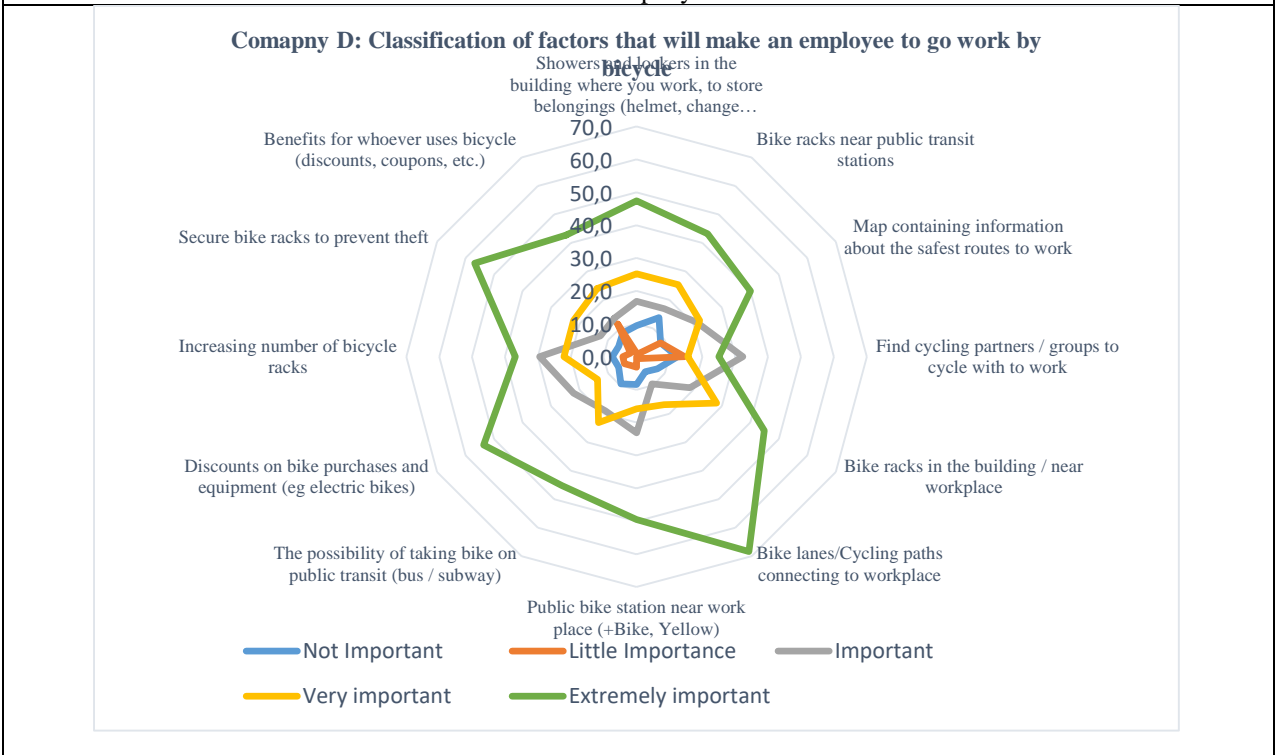
**Figure B.19:** classification of factors that will make an employee to go work by bicycle for those that drive alone for company A



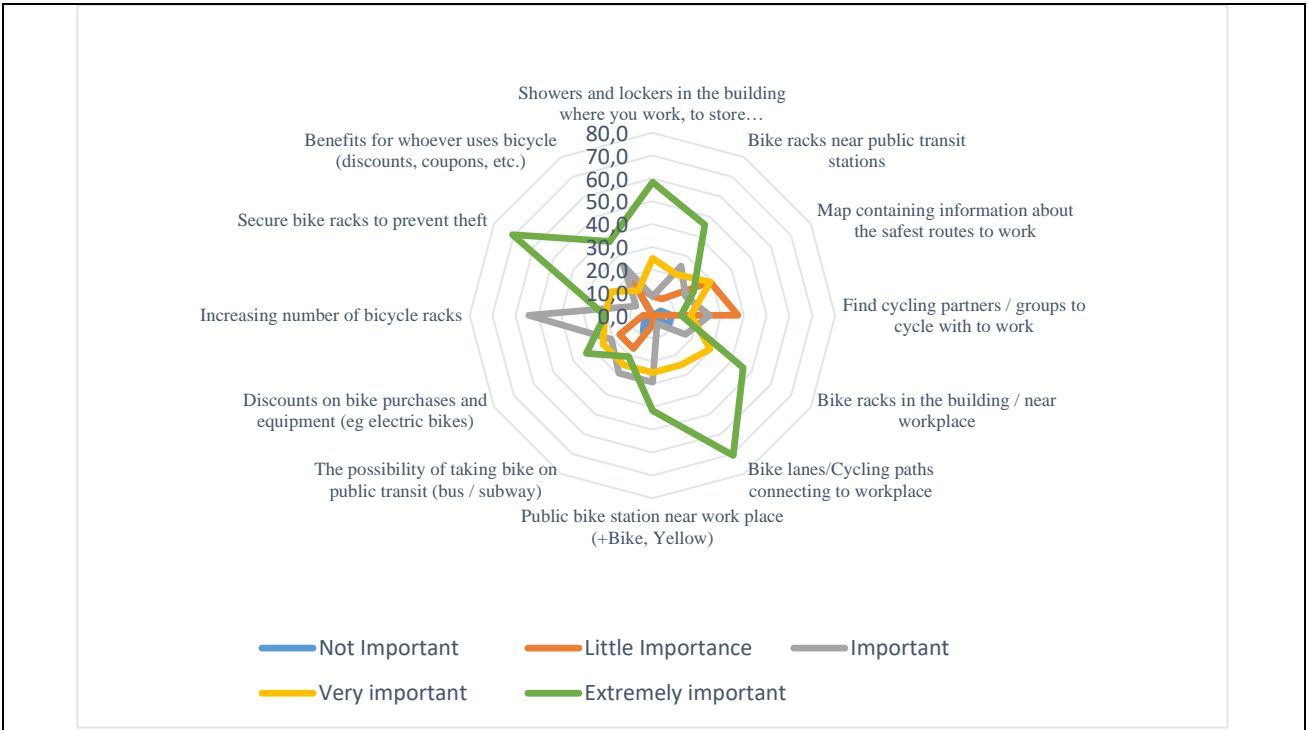
**Figure B.20:** classification of factors that will make an employee to go work by bicycle for those that drive alone for company B



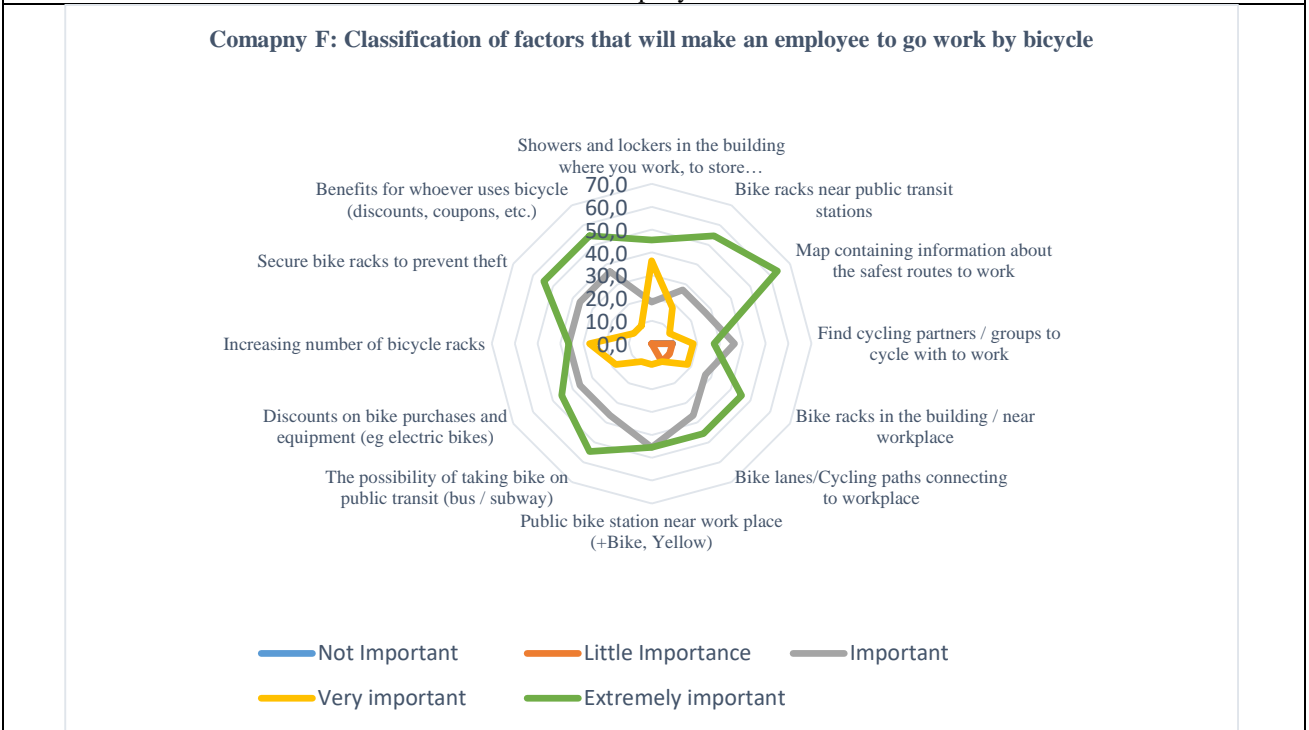
**Figure B.21:** classification of factors that will make an employee to go work by bicycle for those that drive alone for company C



**Figure B.22:** classification of factors that will make an employee to go work by bicycle for those that drive alone for company D



**Figure B.23:** classification of factors that will make an employee to go work by bicycle for those that drive alone for company E



**Figure B.24:** classification of factors that will make an employee to go work by bicycle for those that drive alone for company F

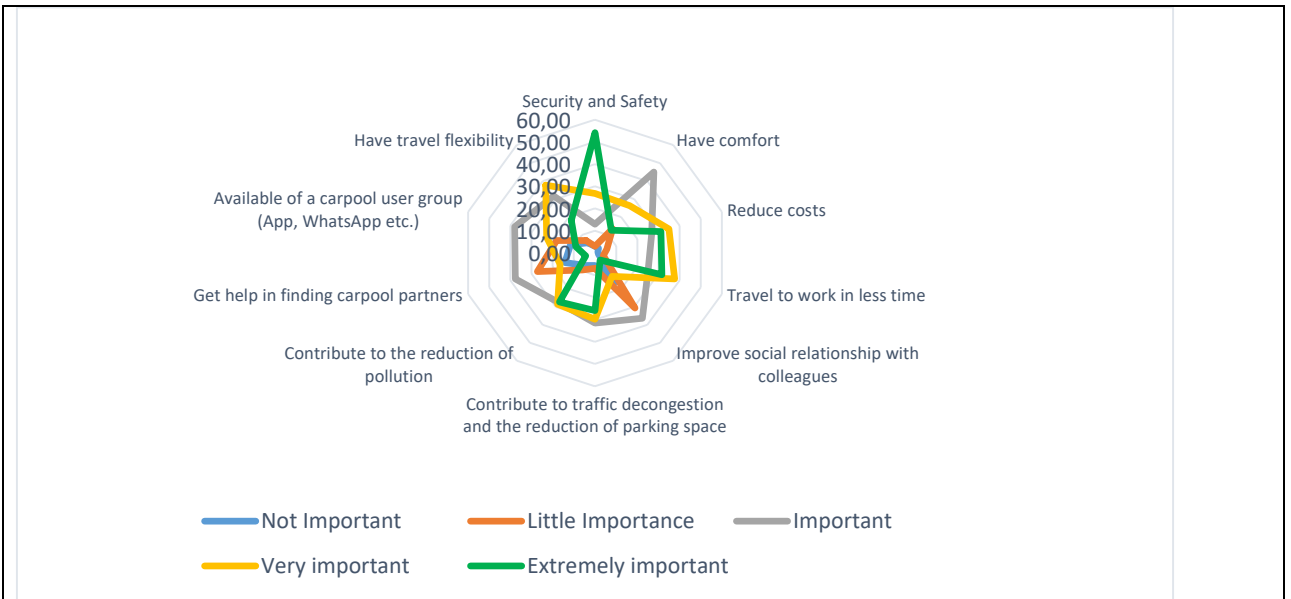


Figure B.25: Classification of alternatives that will make employees, who goes by public transport to RECEIVE ride to workplace

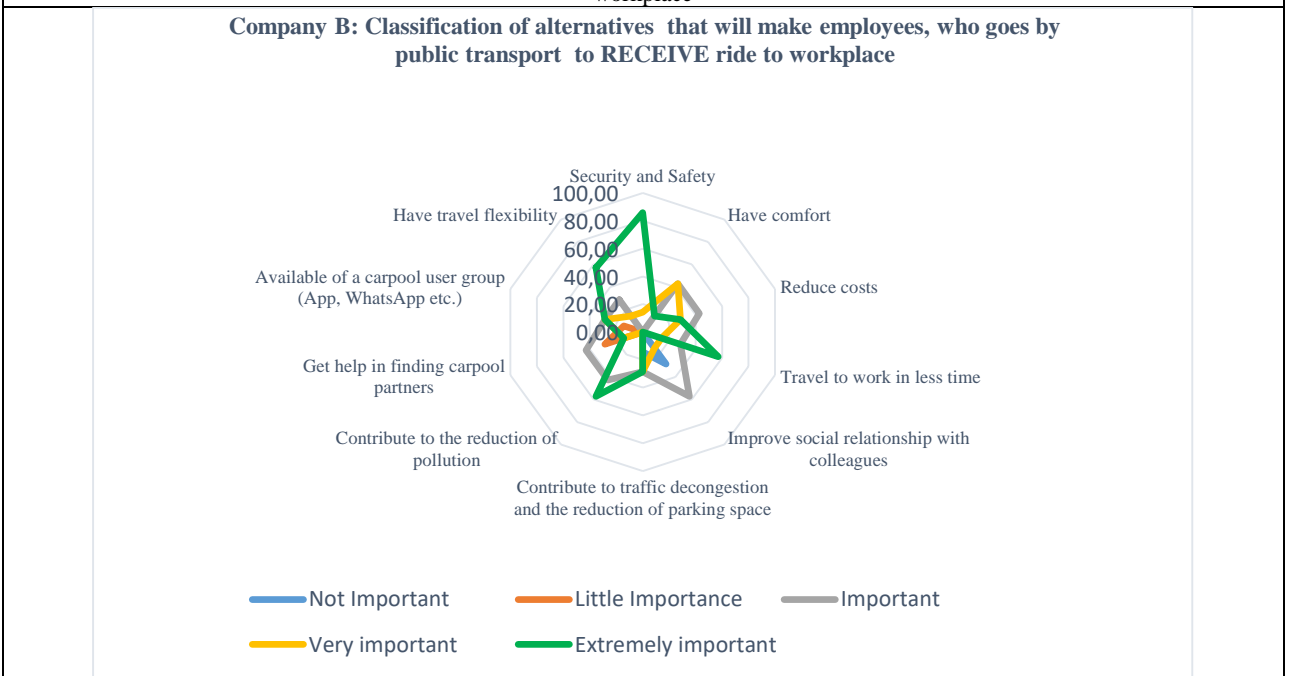
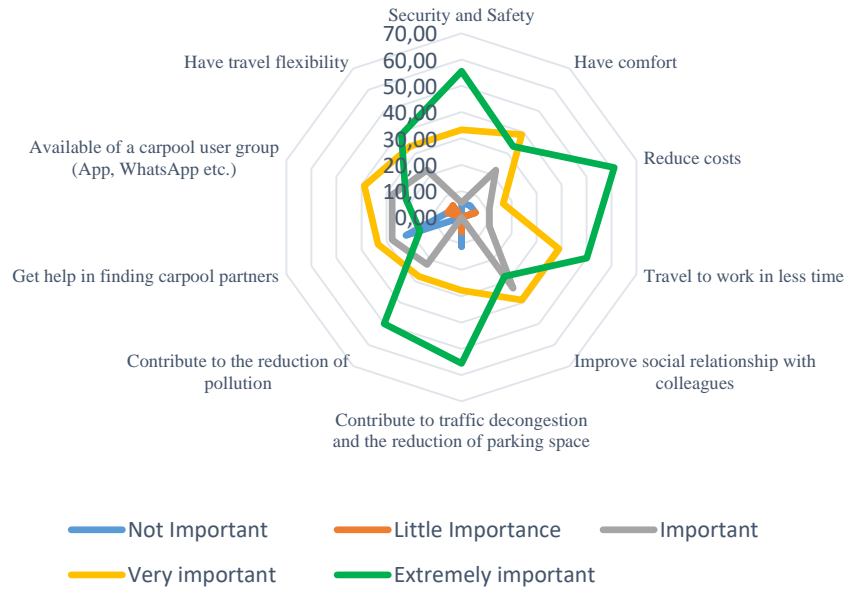
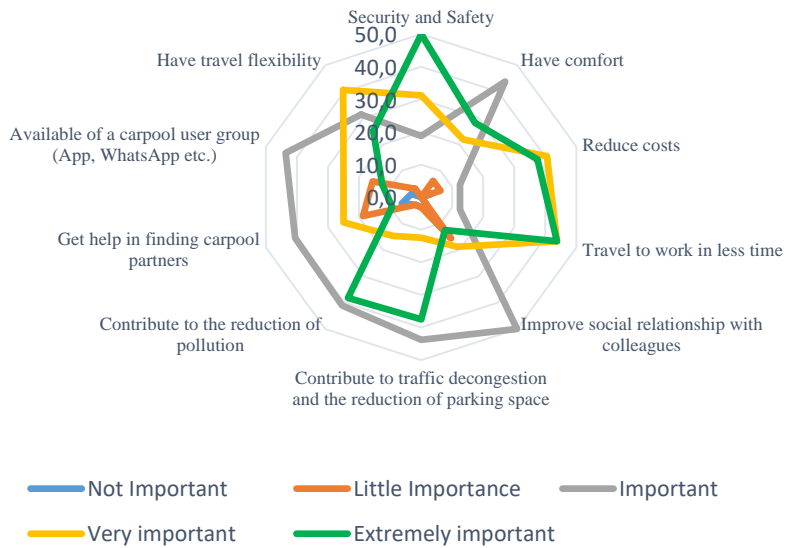


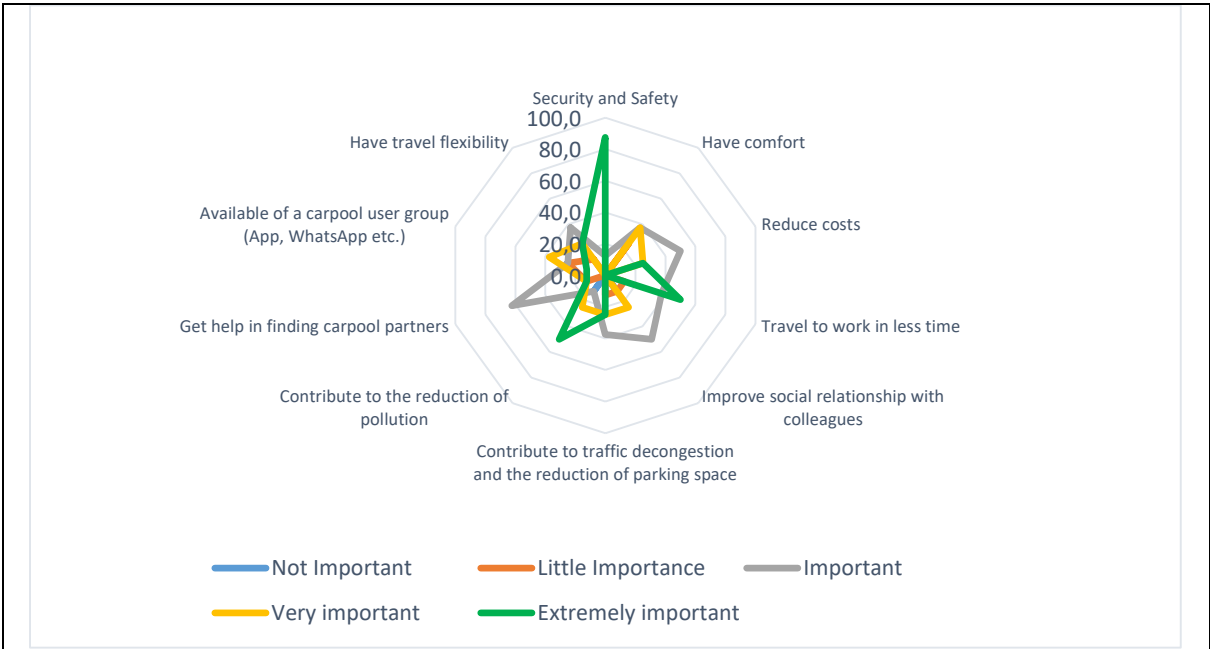
Figure B.26: Classification of alternatives that will make employees, who goes by public transport to RECEIVE ride to workplace



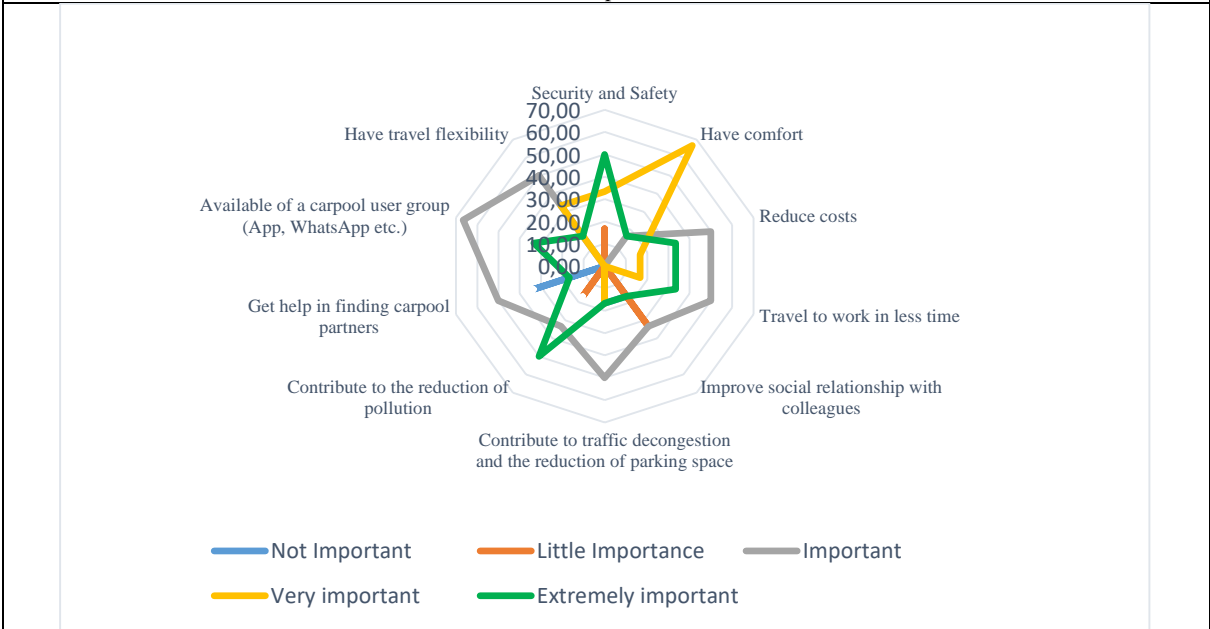
**Figure B.27:** Classification of alternatives that will make employees, who goes by public transport to RECEIVE ride to workplace



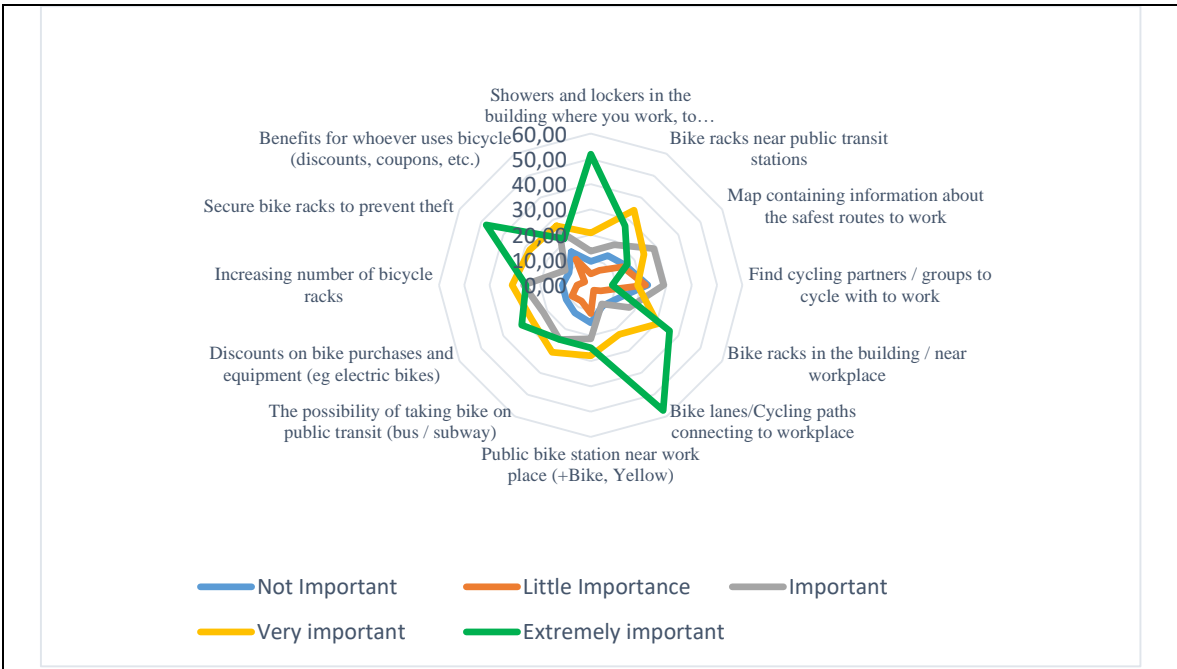
**Figure B.28:** Classification of alternatives that will make employees, who goes by public transport to RECEIVE ride to workplace



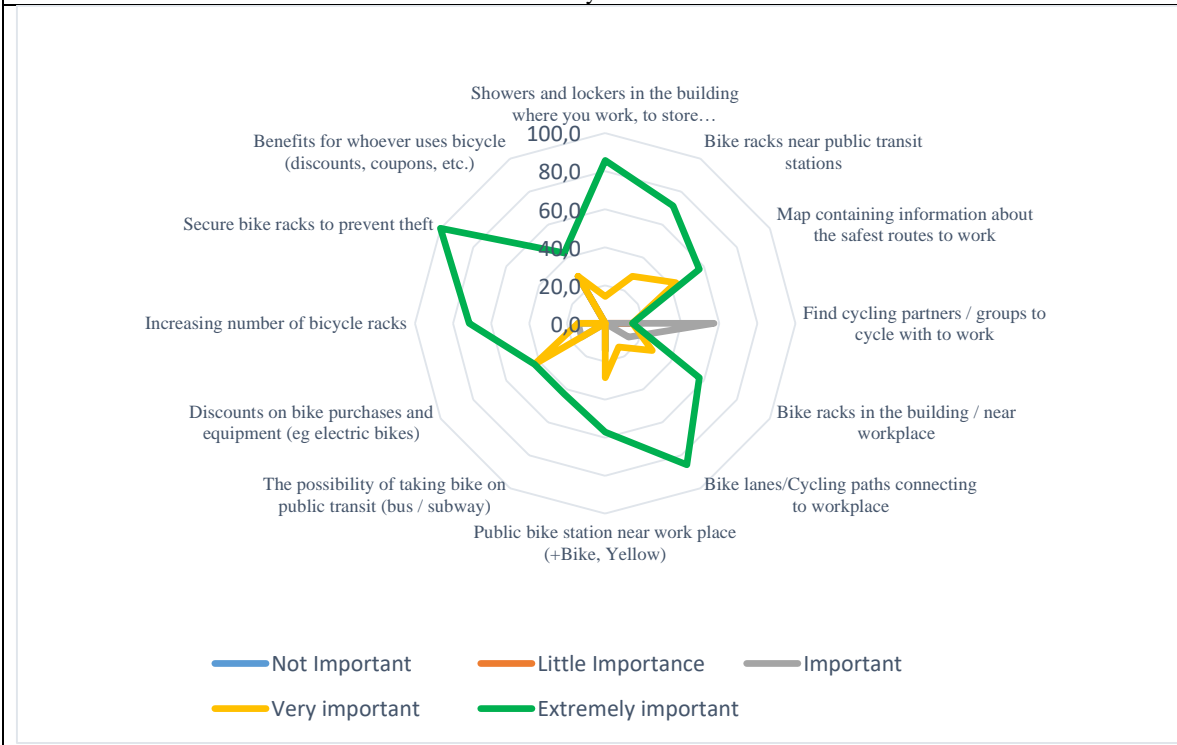
**Figure B.29:** Classification of alternatives that will make employees, who goes by public transport to RECEIVE ride to workplace



**Figure B.30:** Classification of alternatives that will make employees, who goes by public transport to RECEIVE ride to workplace

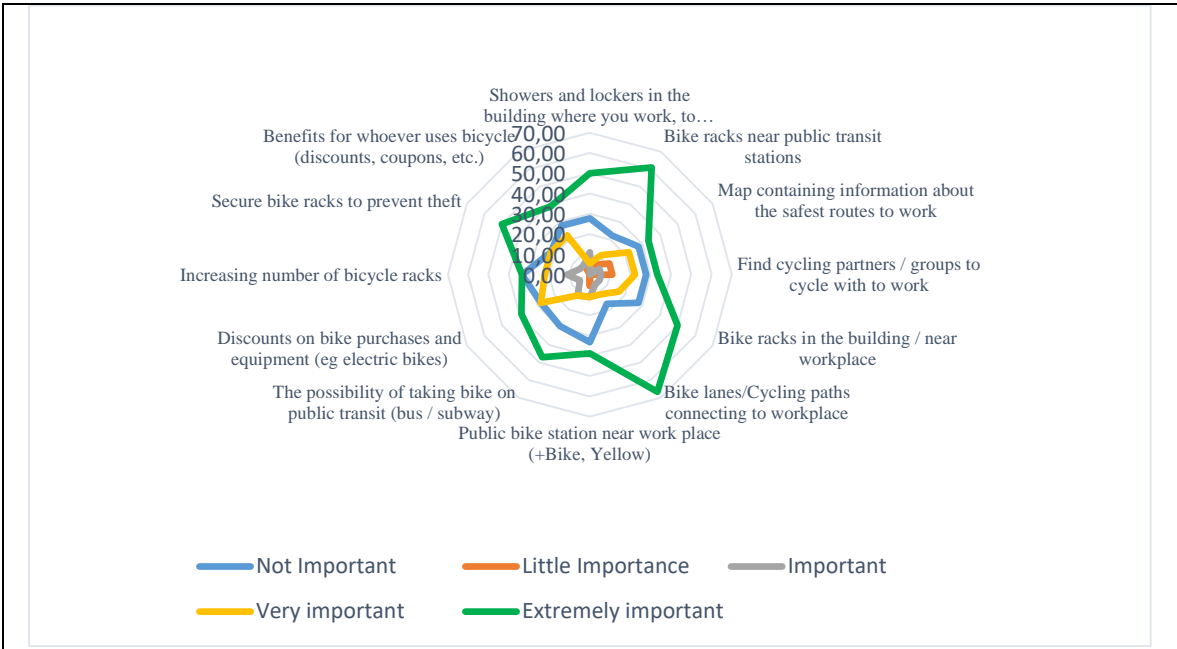


**Figure B.31:** Classification of alternatives that will make employees, who goes by public transport to travel to work by bicycle

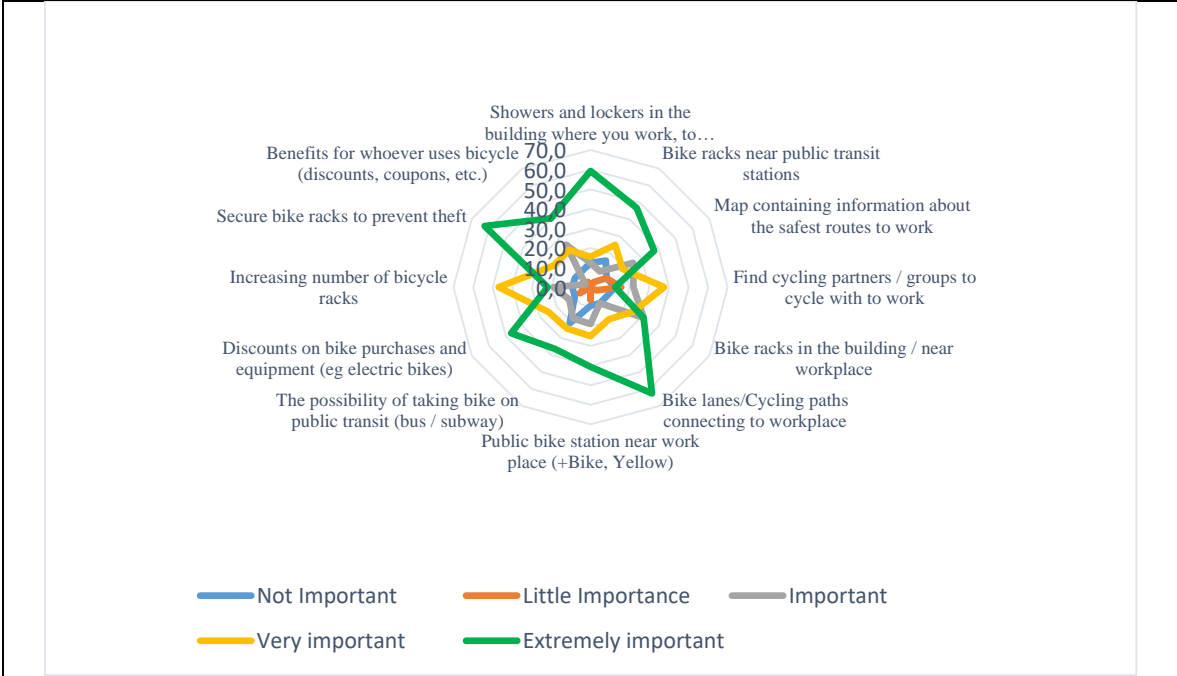


**Figure B.32:** Classification of alternatives that will make employees, who goes by public transport to travel to work by bicycle

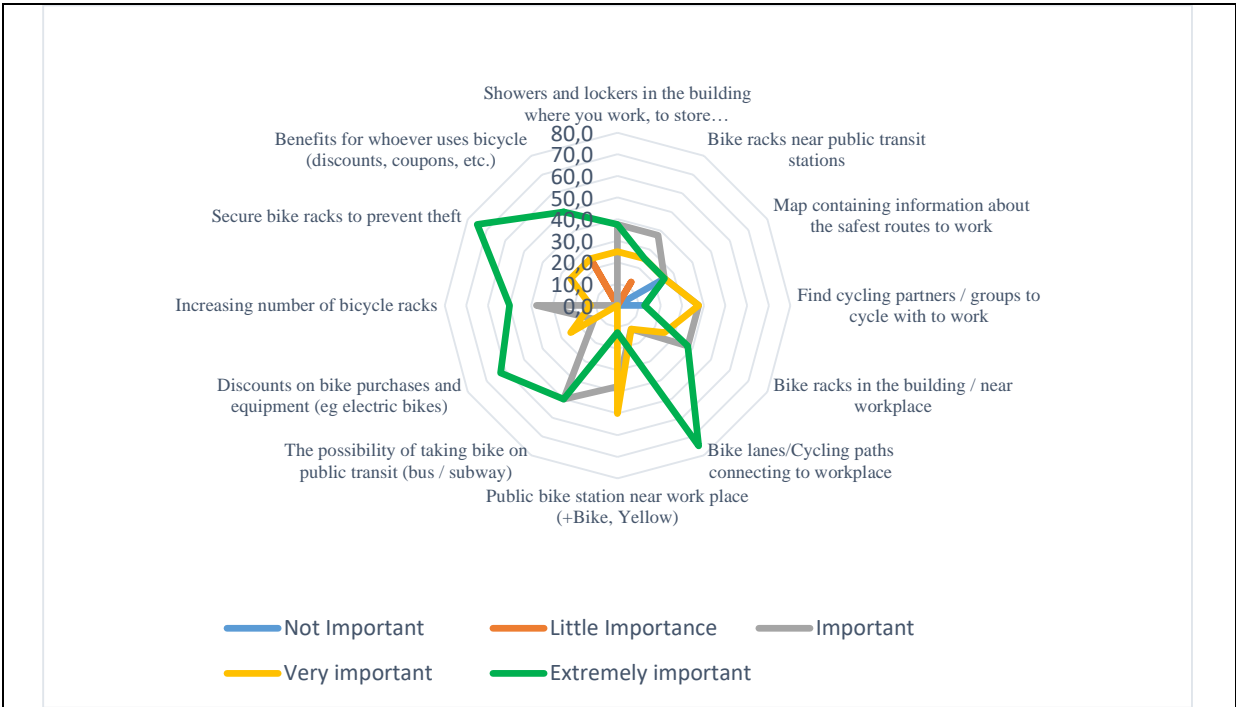




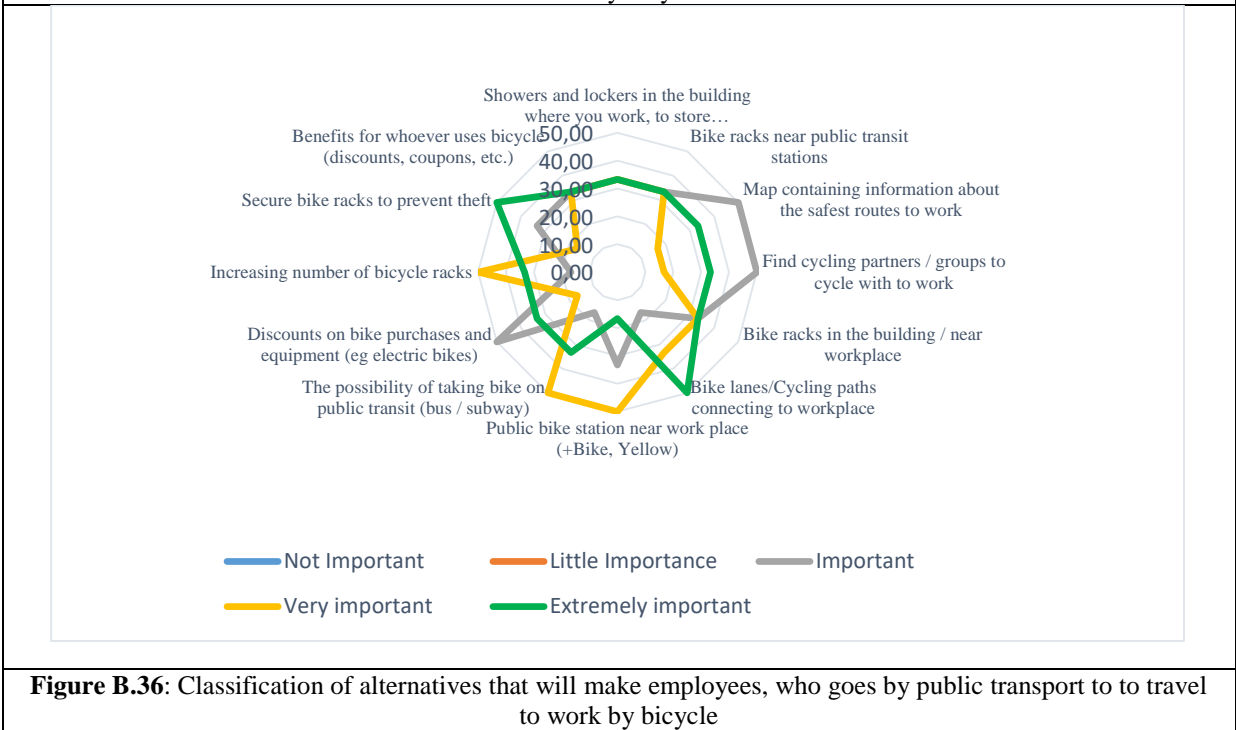
**Figure B.33: Classification of alternatives that will make employees, who goes by public transport to travel to work by bicycle**



**Figure B.34 Classification of alternatives that will make employees, who goes by public transport to travel to work by bicycle**



**Figure B.35:** Classification of alternatives that will make employees, who goes by public transport to travel to work by bicycle



**Figure B.36:** Classification of alternatives that will make employees, who goes by public transport to travel to work by bicycle

**Table B.2: Employees that Drive Alone, Factors that influences those that drive alone.**

Factors	Drive Alone												
	A	A%	B	B%	C	C%	D	D%	E	E%	F	F%	
Main reasons why employees drive to work alone													
Enjoy comfort (such as air conditioning)	197	9,40	3	5,26	3	6,67	16	7,80	3	6,67	1	6,67	
Enjoy privacy and / or prefer to be alone	166	7,92	2	3,51	3	6,67	7	3,41	2	4,44	3	20,00	
Be the fastest way to get to work	382	18,23	13	22,81	2	4,44	34	16,59	9	20,00	0	0,00	
Have flexible working time	209	9,98	7	12,28	2	4,44	9	4,39	2	4,44	3	20,00	
Need a car to perform personal activities before, during or after office hours	442	21,10	8	14,04	8	17,78	31	15,12	7	15,56	1	6,67	
Need a car to do work-related tasks during office hours	26	1,24	1	1,75	3	6,67	0	0,00	1	2,22	0	0,00	
Need a car in case of any emergency incident	118	5,63	2	3,51	5	11,11	13	6,34	1	2,22	0	0,00	
Feel unsecured with other modes of transport	53	2,53	3	5,26	2	4,44	11	5,37	2	4,44	0	0,00	
No public transit routes and times compatible with my work location	202	9,64	3	5,26	1	2,22	17	8,29	2	4,44	0	0,00	
Dislike using public transit	103	4,92	3	5,26	2	4,44	13	6,34	3	6,67	1	6,67	
Unaware of people who take similar routes like mine to work	108	5,16	6	10,53	7	15,56	27	13,17	3	6,67	3	20,00	
Unaware of people who have the similar traveling schedules like mine	89	4,25	6	10,53	7	15,56	27	13,17	10	22,22	3	20,00	
<b>Activities employees do before, during or after work that require car use</b>													
Take or pick up my children in school	288	24,20	11	34,38	8	26,67	25	23,58	4	11,11	0	0,00	
Offer lift to my wife / husband	100	8,40	4	12,50	1	3,33	7	6,60	2	5,56	0	0,00	
Offer lift to friends / neighbors	9	0,76	0	0,00	2	6,67	3	2,83	1	2,78	0	0,00	
Taking a course (specialization, master, language, among others)	178	14,96	2	6,25	5	16,67	8	7,55	7	19,44	4	40,00	
Practice physical activities	308	25,88	4	12,50	5	16,67	24	22,64	9	25,00	3	30,00	
Have lunch at home or in a specific place	107	8,99	2	6,25	3	10,00	19	17,92	8	22,22	1	10,00	
Need it frequently to go bank, commerce centers, church etc...	200	16,81	9	28,13	6	20,00	20	18,87	5	13,89	2	20,00	
Percentage of employees willing to change their arrival and /or departure time to offer ride	Drive Alone												
	A	A%	B	B%	C	C%	D	D%	E	E%	F	F%	
Yes	145,0	20,5	2,0	11,1	5,0	31,3	16,0	26,7	6,0	40,0	3,0	50,0	
No	563,0	79,5	16,0	88,9	11,0	68,8	44,0	73,3	9,0	60,0	3,0	50,0	
<b>Total</b>	<b>708,0</b>	<b>100,0</b>	<b>18,0</b>	<b>100,0</b>	<b>16,0</b>	<b>100,0</b>	<b>60,0</b>	<b>100,0</b>	<b>15,0</b>	<b>100,0</b>	<b>6,0</b>	<b>100,0</b>	
<b>How many minutes' employees will be willing to Travel/Wait to OFFER a ride?</b>													
None	5,0	3,4	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,0	66,7	
Up to 5 minutes	45,0	31,0	1,0	50,0	0,0	0,0	5,0	31,3	2,0	33,3	0,0	0,0	
From 6 minutes to 10 minutes	48,0	33,1	0,0	0,0	3,0	60,0	5,0	31,3	4,0	66,7	0,0	0,0	
From 11 minutes to 15 minutes	37,0	25,5	1,0	50,0	0,0	0,0	3,0	18,8	0,0	0,0	1,0	33,3	
More than 15 minutes	10,0	6,9	0,0	0,0	2,0	40,0	3,0	18,8	0,0	0,0	0,0	0,0	
<b>Total</b>	<b>145,0</b>	<b>100,0</b>	<b>2,0</b>	<b>100,0</b>	<b>5,0</b>	<b>100,0</b>	<b>16,0</b>	<b>100,0</b>	<b>6,0</b>	<b>100,0</b>	<b>3,0</b>	<b>100,0</b>	
<b>Waiting time</b>													
None	6,0	4,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,0	33,3	
Up to 5 minutes	52,0	35,9	0,0	0,0	3,0	60,0	6,0	37,5	2,0	33,3	0,0	0,0	
From 6 minutes to 10 minutes	47,0	32,4	1,0	50,0	0,0	0,0	5,0	31,3	3,0	50,0	1,0	33,3	
From 11 minutes to 15 minutes	33,0	22,8	1,0	50,0	0,0	0,0	4,0	25,0	1,0	16,7	1,0	33,3	
More than 15 minutes	7,0	4,8	0,0	0,0	2,0	40,0	1,0	6,3	0,0	0,0	0,0	0,0	
<b>Total</b>	<b>145</b>	<b>100</b>	<b>2</b>	<b>100</b>	<b>5</b>	<b>100</b>	<b>16</b>	<b>100</b>	<b>6</b>	<b>100</b>	<b>3</b>	<b>100</b>	

<b>Alternatives that will encourage employees to OFFER lift to Work</b>	<b>A</b>	<b>A%</b>	<b>B</b>	<b>B%</b>	<b>C</b>	<b>C%</b>	<b>D</b>	<b>D%</b>	<b>E</b>	<b>E%</b>	<b>F</b>	<b>F%</b>
<b>Have preferred parking spaces at the workplace for people offering a lift</b>												
Not Important	110	15,58	2	11,11	9	52,94	21	35,00	4	26,67	3	50,00
Little Importance	63	8,92	3	16,67	2	11,76	11	18,33	4	26,67	0	0,00
Important	145	20,54	7	38,89	2	11,76	18	30,00	3	20,00	2	33,33
Very important	144	20,40	2	11,11	3	17,65	4	6,67	2	13,33	1	16,67
Extremely important	244	34,56	4	22,22	1	5,88	6	10,00	2	13,33	0	0,00
<b>Only offer ride to people from your same institution</b>												
Not Important	49	6,93	2	11,11	1	5,88	3	5,00	1	6,67	0	0,00
Little Importance	62	8,77	8	44,44	2	11,76	8	13,33	2	13,33	1	16,67
Important	180	25,46	2	11,11	4	23,53	21	35,00	3	20,00	3	50,00
Very important	198	28,01	3	16,67	8	47,06	16	26,67	6	40,00	2	33,33
Extremely important	218	30,83	3	16,67	2	11,76	12	20,00	3	20,00	0	0,00
<b>Get advantages (discounts and coupons) from other companies / business</b>												
Not Important	82	11,61	1	5,56	4	23,53	9	15,00	2	13,33	1	16,67
Little Importance	142	20,11	4	22,22	1	5,88	9	15,00	0	0,00	1	16,67
Important	184	26,06	6	33,33	4	23,53	22	36,67	5	33,33	2	33,33
Very important	161	22,80	4	22,22	4	23,53	7	11,67	6	40,00	2	33,33
Extremely important	137	19,41	3	16,67	4	23,53	13	21,67	2	13,33	0	0,00
<b>Split travel costs</b>												
Not Important	46	6,53	1	5,56	3	18,75	0	0,00	1	6,67	1	16,67
Little Importance	97	13,78	3	16,67	1	6,25	1	1,64	0	0,00	1	16,67
Important	205	29,12	5	27,78	5	31,25	20	32,79	5	33,33	2	33,33
Very important	185	26,28	5	27,78	3	18,75	13	21,31	6	40,00	1	16,67
Extremely important	171	24,29	4	22,22	4	25,00	27	44,26	3	20,00	1	16,67
<b>Improve social relationship with colleagues</b>												
Not Important	89	12,61	1	5,56	1	5,88	5	8,33	1	6,67	1	16,67
Little Importance	183	25,92	7	38,89	2	11,76	12	20,00	6	40,00	2	33,33
Important	266	37,68	5	27,78	7	41,18	28	46,67	5	33,33	1	16,67
Very important	115	16,29	4	22,22	6	35,29	9	15,00	3	20,00	2	33,33
Extremely important	53	7,51	1	5,56	1	5,88	6	10,00	0	0,00	0	0,00
<b>Contribute to traffic decongestion and the reduction of parking space</b>												
Not Important	44	6,22	0	0,00	1	6,25	1	1,64	0	0,00	0	0,00
Little Importance	59	8,35	1	5,56	2	12,50	0	0,00	2	13,33	0	0,00
Important	222	31,40	7	38,89	5	31,25	14	22,95	2	13,33	1	16,67
Very important	202	28,57	6	33,33	6	37,50	12	19,67	4	26,67	2	33,33
Extremely important	180	25,46	4	22,22	2	12,50	34	55,74	7	46,67	3	50,00
<b>Contribute to the reduction of pollution</b>												
Not Important	41	5,80	0	0,00	1	5,88	0	0,00	0	0,00	0	0,00
Little Importance	77	10,89	0	0,00	4	23,53	2	3,33	2	13,33	0	0,00
Important	207	29,28	5	27,78	1	5,88	10	16,67	3	20,00	1	16,67
Very important	161	22,77	8	44,44	6	35,29	13	21,67	3	20,00	1	16,67
Extremely important	221	31,26	5	27,78	5	29,41	35	58,33	7	46,67	4	66,67
<b>Get help in finding carpool partners</b>												
Not Important	104	14,75	2	11,11	2	12,50	6	10,00	2	13,33	2	33,33
Little Importance	152	21,56	2	11,11	2	12,50	10	16,67	4	26,67	0	0,00
Important	234	33,19	4	22,22	7	43,75	22	36,67	4	26,67	2	33,33
Very important	125	17,73	5	27,78	5	31,25	11	18,33	3	20,00	1	16,67
Extremely important	90	12,77	5	27,78	0	0,00	11	18,33	2	13,33	1	16,67

	Drive Alone											
	A	A%	B	B%	C	C%	D	D%	E	E%	F	F%
<b>Classification of alternatives that will lead employees to RECEIVE ride to workplace</b>												
<b>Security and Safety</b>												
Not Important	26	3,80	1	5,56	1	6,25	1	1,67	0	0,00	1	16,67
Little Importance	17	2,48	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
Important	110	16,06	3	16,67	5	31,25	14	23,33	0	0,00	0	0,00
Very important	182	26,57	3	16,67	4	25,00	20	33,33	4	26,67	1	16,67
Extremely important	350	51,09	11	61,11	6	37,50	25	41,67	11	73,33	4	66,67
<b>Have comfort</b>												
Not Important	26	3,80	1	5,56	1	6,25	1	1,67	1	6,67	1	16,67
Little Importance	55	8,03	2	11,11	0	0,00	3	5,00	2	13,33	0	0,00
Important	257	37,52	9	50,00	10	62,50	25	41,67	3	20,00	2	33,33
Very important	207	30,22	3	16,67	3	18,75	18	30,00	4	26,67	0	0,00
Extremely important	140	20,44	3	16,67	2	12,50	13	21,67	5	33,33	3	50,00
<b>Reduce costs</b>												
Not Important	34	4,96	0	0,00	1	6,25	0	0,00	0	0,00	1	16,67
Little Importance	65	9,49	2	11,11	0	0,00	1	1,67	0	0,00	0	0,00
Important	215	31,39	5	27,78	5	31,25	14	23,33	3	20,00	1	16,67
Very important	212	30,95	6	33,33	3	18,75	18	30,00	7	46,67	1	16,67
Extremely important	159	23,21	5	27,78	7	43,75	27	45,00	5	33,33	3	50,00
<b>Have access to an emergency vehicle on the days you go to work by carpool</b>												
Not Important	60	8,77	1	5,56	1	6,25	2	3,33	1	6,67	1	16,67
Little Importance	121	17,69	7	38,89	3	18,75	3	5,00	2	13,33	1	16,67
Important	193	28,22	4	22,22	7	43,75	20	33,33	4	26,67	0	0,00
Very important	189	27,63	3	16,67	2	12,50	19	31,67	5	33,33	1	16,67
Extremely important	121	17,69	3	16,67	3	18,75	16	26,67	3	20,00	3	50,00
<b>Travel to work in less time</b>												
Not Important	37	5,41	0	0,00	1	6,25	1	1,67	0	0,00	1	16,67
Little Importance	44	6,43	3	16,67	1	6,25	4	6,67	1	6,67	0	0,00
Important	238	34,80	2	11,11	6	37,50	15	25,00	1	6,67	1	16,67
Very important	224	32,75	9	50,00	5	31,25	22	36,67	8	53,33	1	16,67
Extremely important	141	20,61	4	22,22	3	18,75	18	30,00	5	33,33	3	50,00
<b>Improve social relationship with colleagues</b>												
Not Important	81	11,82	1	5,56	2	12,50	5	8,33	1	6,67	2	33,33
Little Importance	194	28,32	8	44,44	2	12,50	10	16,67	5	33,33	1	16,67
Important	272	39,71	5	27,78	7	43,75	30	50,00	7	46,67	0	0,00
Very important	106	15,47	4	22,22	5	31,25	9	15,00	2	13,33	1	16,67
Extremely important	32	4,67	0	0,00	0	0,00	6	10,00	0	0,00	2	33,33
<b>Contribute to traffic decongestion and the reduction of parking space</b>												
Not Important	42	6,13	0	0,00	1	6,25	1	1,67	0	0,00	1	16,67
Little Importance	69	10,07	4	22,22	1	6,25	0	0,00	2	13,33	0	0,00
Important	240	35,04	4	22,22	7	43,75	17	28,33	3	20,00	0	0,00
Very important	196	28,61	7	38,89	5	31,25	9	15,00	5	33,33	1	16,67
Extremely important	138	20,15	3	16,67	2	12,50	33	55,00	5	33,33	4	66,67
<b>Contribute to the reduction of pollution</b>												
Not Important	41	5,99	0	0,00	1	6,25	0	0,00	0	0,00	1	16,67
Little Importance	73	10,66	2	11,11	2	12,50	3	5,00	2	13,33	0	0,00
Important	234	34,16	6	33,33	4	25,00	16	26,67	2	13,33	0	0,00
Very important	164	23,94	7	38,89	5	31,25	8	13,33	6	40,00	1	16,67
Extremely important	173	25,26	3	16,67	4	25,00	33	55,00	5	33,33	4	66,67
<b>Get help in finding carpool partners</b>												
Not Important	76	11,09	0	0,00	2	12,50	8	13,33	2	13,33	1	16,67
Little Importance	148	21,61	5	27,78	1	6,25	4	6,67	3	20,00	1	16,67
Important	246	35,91	6	33,33	9	56,25	23	38,33	3	20,00	0	0,00
Very important	147	21,46	3	16,67	4	25,00	13	21,67	5	33,33	1	16,67
Extremely important	68	9,93	4	22,22	0	0,00	12	20,00	2	13,33	3	50,00
<b>Available of a carpool user group (App, WhatsApp etc.)</b>												
Not Important	66	9,64	0	0,00	2	12,50	5	8,33	0	0,00	1	16,67
Little Importance	104	15,18	3	16,67	1	6,25	8	13,33	5	33,33	0	0,00
Important	246	35,91	6	33,33	6	37,50	17	28,33	2	13,33	1	16,67
Very important	174	25,40	6	33,33	6	37,50	17	28,33	4	26,67	0	0,00
Extremely important	95	13,87	3	16,67	1	6,25	13	21,67	4	26,67	4	66,67

Transport Public Classification of factors that will that encourage employees to travel by public transit system to work	Drive Alone												
	A	A%	B	B%	C	C%	D	D%	E	E%	F	F%	
<b>Partial/Total tariffs payment for public transportation by organization e.g. vale transporte</b>													
Not Important	207	18,90	5	20,83	2	18,18	4	4,17	4	16,67	3	27,27	
Little Importance	265	24,20	8	33,33	0	0,00	9	9,38	4	16,67	1	9,09	
Important	268	24,47	3	12,50	2	18,18	23	23,96	6	25,00	1	9,09	
Very important	180	16,44	3	12,50	2	18,18	21	21,88	4	16,67	1	9,09	
Extremely important	175	15,98	5	20,83	5	45,45	39	40,63	6	25,00	5	45,45	
<b>More information about public transit lines that pass close to workplace</b>													
Not Important	151	13,80	2	8,33	2	18,18	2	2,08	3	12,50	2	18,18	
Little Importance	167	15,27	3	12,50	0	0,00	6	6,25	2	8,33	0	0,00	
Important	320	29,25	6	25,00	3	27,27	21	21,88	4	16,67	2	18,18	
Very important	254	23,22	5	20,83	3	27,27	26	27,08	7	29,17	1	9,09	
Extremely important	202	18,46	8	33,33	3	27,27	41	42,71	8	33,33	6	54,55	
<b>Improved side walk conditions and pedestrian access</b>													
Not Important	100	9,14	1	4,17	2	18,18	1	1,04	3	12,50	1	9,09	
Little Importance	101	9,23	5	20,83	0	0,00	6	6,25	1	4,17	0	0,00	
Important	260	23,77	3	12,50	3	27,27	18	18,75	5	20,83	1	9,09	
Very important	291	26,60	9	37,50	2	18,18	24	25,00	6	25,00	2	18,18	
Extremely important	342	31,26	6	25,00	4	36,36	47	48,96	9	37,50	7	63,64	
<b>More flexible working time to enter and leave workplace</b>													
Not Important	136	12,43	1	4,17	2	18,18	3	3,13	2	8,33	1	9,09	
Little Importance	175	16,00	1	4,17	0	0,00	13	13,54	2	8,33	0	0,00	
Important	314	28,70	8	33,33	3	27,27	17	17,71	4	16,67	1	9,09	
Very important	252	23,03	7	29,17	2	18,18	23	23,96	7	29,17	3	27,27	
Extremely important	217	19,84	7	29,17	4	36,36	40	41,67	9	37,50	6	54,55	
<b>Better bus conditions (eg air conditioning)</b>													
Not Important	65	5,94	0	0,00	2	18,18	1	1,04	1	4,17	0	0,00	
Little Importance	52	4,75	0	0,00	0	0,00	2	2,08	1	4,17	0	0,00	
Important	243	22,21	4	16,67	1	9,09	14	14,58	2	8,33	1	9,09	
Very important	303	27,70	6	25,00	3	27,27	22	22,92	6	25,00	2	18,18	
Extremely important	431	39,40	14	58,33	5	45,45	57	59,38	14	58,33	8	72,73	
<b>More frequency of bus lines</b>													
Not Important	62	5,67	0	0,00	2	18,18	1	1,04	1	4,17	0	0,00	
Little Importance	28	2,56	0	0,00	0	0,00	1	1,04	0	0,00	0	0,00	
Important	150	13,71	2	8,33	1	9,09	12	12,50	2	8,33	1	9,09	
Very important	277	25,32	3	12,50	2	18,18	18	18,75	5	20,83	2	18,18	
Extremely important	577	52,74	19	79,17	6	54,55	64	66,67	16	66,67	8	72,73	
<b>Proximity of bus stops to workplace</b>													
Not Important	50	4,57	0	0,00	2	18,18	0	0,00	0	0,00	0	0,00	
Little Importance	15	1,37	0	0,00	0	0,00	1	1,04	0	0,00	0	0,00	
Important	113	10,33	2	8,33	1	9,09	14	14,58	4	16,67	2	18,18	
Very important	236	21,57	6	25,00	2	18,18	22	22,92	5	20,83	2	18,18	
Extremely important	680	62,16	16	66,67	6	54,55	59	61,46	15	62,50	7	63,64	
<b>Safety inside the vehicle</b>													
Not Important	50	4,57	0	0,00	*	*	*	*	1	4,17			
Little Importance	22	2,01	0	0,00	*	*	*	*	0	0,00			
Important	146	13,35	5	20,83	*	*	*	*	0	0,00			
Very important	269	24,59	5	20,83	*	*	*	*	4	16,67			
Extremely important	607	55,48	14	58,33	*	*	*	*	19	79,17			
<b>Safety at Bus stops</b>													
Not Important	47	4,30	0	0,00	*	*	*	*	0	0,00			
Little Importance	20	1,83	0	0,00	*	*	*	*	0	0,00			
Important	116	10,60	1	4,17	*	*	*	*	0	0,00			
Very important	247	22,58	4	16,67	*	*	*	*	4	16,67			
Extremely important	664	60,69	19	79,17	*	*	*	*	20	83,33			

<b>Bicycle</b>	<b>Drive Alone</b>											
<b>Classification of factors that will make an employee to go work by bicycle</b>	<b>A</b>	<b>A%</b>	<b>B</b>	<b>B%</b>	<b>C</b>	<b>C%</b>	<b>D</b>	<b>D%</b>	<b>E</b>	<b>E%</b>	<b>F</b>	<b>F%</b>
<b>Showers and lockers in the building where you work, to store belongings (helmet, change clothes)</b>												
Not Important	167	15,59	2	8,33	1	9,09	9	9,47	0	0,00	0	0,00
Little Importance	38	3,55	0	0,00	0	0,00	1	1,05	2	8,33	0	0,00
Important	161	15,03	3	12,50	3	27,27	16	16,84	2	8,33	2	18,18
Very important	221	20,63	7	29,17	1	9,09	24	25,26	6	25,00	4	36,36
Extremely important	484	45,19	12	50,00	6	54,55	45	47,37	14	58,33	5	45,45
<b>Bike racks near public transit stations</b>												
Not Important	206	19,25	2	8,33	2	18,18	13	13,68	0	0,00	0	0,00
Little Importance	101	9,44	1	4,17	0	0,00	1	1,05	2	8,33	0	0,00
Important	239	22,34	6	25,00	2	18,18	16	16,84	6	25,00	3	27,27
Very important	240	22,43	6	25,00	1	9,09	24	25,26	5	20,83	2	18,18
Extremely important	284	26,54	9	37,50	6	54,55	41	43,16	11	45,83	6	54,55
<b>Map containing information about the safest routes to work</b>												
Not Important	202	18,88	3	12,50	2	18,18	8	8,42	1	4,17	0	0,00
Little Importance	139	12,99	3	12,50	0	0,00	8	8,42	7	29,17	0	0,00
Important	263	24,58	6	25,00	3	27,27	20	21,05	4	16,67	3	27,27
Very important	234	21,87	6	25,00	1	9,09	21	22,11	7	29,17	1	9,09
Extremely important	232	21,68	6	25,00	5	45,45	38	40,00	5	20,83	7	63,64
<b>Find cycling partners / groups to cycle with to work</b>												
Not Important	261	24,39	3	12,50	1	10,00	12	12,50	2	8,33	1	9,09
Little Importance	242	22,62	7	29,17	0	0,00	14	14,58	9	37,50	1	9,09
Important	270	25,23	5	20,83	4	40,00	31	32,29	6	25,00	4	36,36
Very important	168	15,70	5	20,83	3	30,00	15	15,63	4	16,67	2	18,18
Extremely important	129	12,06	4	16,67	2	20,00	24	25,00	3	12,50	3	27,27
<b>Bike racks in the building / near workplace</b>												
Not Important	166	15,51	2	8,33	1	10,00	7	7,29	2	8,33	0	0,00
Little Importance	33	3,08	1	4,17	0	0,00	1	1,04	0	0,00	1	9,09
Important	191	17,85	3	12,50	2	20,00	18	18,75	4	16,67	3	27,27
Very important	273	25,51	5	20,83	1	10,00	27	28,13	7	29,17	2	18,18
Extremely important	407	38,04	13	54,17	6	60,00	43	44,79	11	45,83	5	45,45
<b>Bike lanes/Cycling paths connecting to workplace</b>												
Not Important	157	14,67	2	8,33	1	9,09	5	5,26	0	0,00	0	0,00
Little Importance	19	1,78	1	4,17	0	0,00	0	0,00	0	0,00	1	9,09
Important	114	10,65	1	4,17	2	18,18	9	9,47	1	4,17	4	36,36
Very important	198	18,50	3	12,50	0	0,00	16	16,84	6	25,00	1	9,09
Extremely important	582	54,39	17	70,83	8	72,73	65	68,42	17	70,83	5	45,45
<b>Public bike station near work place (+Bike, Yellow)</b>												
Not Important	195	18,22	2	8,33	1	9,09	8	8,42	0	0,00	0	0,00
Little Importance	102	9,53	1	4,17	1	9,09	3	3,16	1	4,17	0	0,00
Important	249	23,27	3	12,50	3	27,27	22	23,16	7	29,17	5	45,45
Very important	247	23,08	7	29,17	3	27,27	15	15,79	6	25,00	1	9,09
Extremely important	277	25,89	11	45,83	3	27,27	47	49,47	10	41,67	5	45,45
<b>The possibility of taking bike on public transit (bus / subway)</b>												
Not Important	222	20,75	2	8,33	1	9,09	9	9,47	2	8,33	0	0,00
Little Importance	125	11,68	3	12,50	1	9,09	3	3,16	4	16,67	0	0,00
Important	238	22,24	2	8,33	3	27,27	18	18,95	7	29,17	4	36,36
Very important	252	23,55	7	29,17	3	27,27	22	23,16	6	25,00	1	9,09
Extremely important	233	21,78	10	41,67	3	27,27	43	45,26	5	20,83	6	54,55
<b>Discounts on bike purchases and equipment (eg electric bikes)</b>												
Not Important	188	17,57	3	12,50	1	9,09	6	6,32	1	4,17	0	0,00
Little Importance	123	11,50	0	0,00	0	0,00	4	4,21	4	16,67	0	0,00
Important	247	23,08	7	29,17	4	36,36	21	22,11	5	20,83	4	36,36
Very important	215	20,09	6	25,00	0	0,00	13	13,68	6	25,00	2	18,18
Extremely important	297	27,76	8	33,33	6	54,55	51	53,68	8	33,33	5	45,45
<b>Increasing number of bicycle racks</b>												
Not Important	171	16,00	2	8,33	1	9,09	7	7,37	0	0,00	0	0,00
Little Importance	76	7,11	1	4,17	0	0,00	4	4,21	1	4,17	0	0,00
Important	279	26,10	6	25,00	2	18,18	28	29,47	13	54,17	4	36,36
Very important	270	25,26	8	33,33	3	27,27	21	22,11	5	20,83	3	27,27
Extremely important	273	25,54	7	29,17	5	45,45	35	36,84	5	20,83	4	36,36
<b>Secure bike racks to prevent theft</b>												
Not Important	162	15,15	2	8,33	1	9,09	6	6,32	0	0,00	0	0,00
Little Importance	26	2,43	0	0,00	0	0,00	2	2,11	0	0,00	0	0,00
Important	147	13,75	4	16,67	1	9,09	12	12,63	2	8,33	4	36,36
Very important	222	20,77	6	25,00	1	9,09	21	22,11	5	20,83	1	9,09
Extremely important	512	47,90	12	50,00	8	72,73	54	56,84	17	70,83	6	54,55
<b>Benefits for whoever uses bicycle (discounts, coupons, etc.)</b>												
Not Important	203	18,99	3	12,50	2	20,00	8	8,33	2	8,33	0	0,00
Little Importance	131	12,25	1	4,17	0	0,00	11	11,46	4	16,67	0	0,00
Important	273	25,54	5	20,83	2	20,00	13	13,54	6	25,00	4	36,36
Very important	190	17,77	9	37,50	2	20,00	23	23,96	3	12,50	1	9,09
Extremely important	272	25,44	6	25,00	4	40,00	41	42,71	9	<del>18,5</del>	6	54,55

**Table B.3a: Employees that use Active Mode by foot, factors that encourage other modes**

<b>Active Mode</b>				
<b>Employees that go by foot to work</b>				
<b>Would you travel to work by taking a lift?</b>	<b>A</b>	<b>A%</b>	<b>F</b>	<b>F%</b>
Yes	22,0	52,4	1,0	100,0
No	20,0	47,6	0,0	0,0
<b>Classification of alternatives that will lead employees to RECEIVE ride to workplace</b>				
<b>Security and Safety</b>				
Not Important	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	4,0	18,2	0,0	0,0
Very important	5,0	22,7	1,0	100,0
Extremely important	13,0	59,1	0,0	0,0
<b>Have comfort</b>				
Not Important	0,0	0,0	0,0	0,0
Little Importance	2,0	9,1	0,0	0,0
Important	9,0	40,9	0,0	0,0
Very important	9,0	40,9	1,0	100,0
Extremely important	2,0	9,1	0,0	0,0
<b>Reduce costs</b>				
Not Important	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	6,0	31,6	0,0	0,0
Very important	13,0	68,4	1,0	100,0
Extremely important	3,0	15,8	0,0	0,0
<b>Travel to work in less time</b>				
Not Important	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	5,0	22,7	0,0	0,0
Very important	13,0	59,1	1,0	100,0
Extremely important	4,0	18,2	0,0	0,0
<b>Improve social relationship with colleagues</b>				
Not Important	2,0	9,1	0,0	0,0
Little Importance	7,0	31,8	0,0	0,0
Important	8,0	36,4	1,0	100,0
Very important	5,0	22,7	0,0	0,0
Extremely important	0,0	0,0	0,0	0,0
<b>Contribute to traffic decongestion and the reduction of parking space</b>				
Not Important	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	12,0	54,5	0,0	0,0
Very important	8,0	36,4	1,0	100,0
Extremely important	2,0	9,1	0,0	0,0
<b>Contribute to the reduction of pollution</b>				
Not Important	0,0	0,0	0,0	0,0
Little Importance	2,0	9,1	0,0	0,0
Important	11,0	50,0	0,0	0,0
Very important	4,0	18,2	1,0	100,0
Extremely important	5,0	22,7	0,0	0,0
<b>Get help in finding carpool partners</b>				
Not Important	3,0	13,6	0,0	0,0
Little Importance	3,0	13,6	0,0	0,0
Important	13,0	59,1	0,0	0,0
Very important	3,0	13,6	1,0	100,0
Extremely important	0,0	0,0	0,0	0,0
<b>Available of a carpool user group (App, WhatsApp etc.)</b>				
Not Important	2,0	9,1	0,0	0,0
Little Importance	3,0	13,6	0,0	0,0
Important	11,0	50,0	0,0	0,0
Very important	6,0	27,3	1,0	100,0
Extremely important	0,0	0,0	0,0	0,0
<b>Have travel flexibility</b>				
Not Important	1,0	4,5	0,0	0,0
Little Importance	2,0	9,1	0,0	0,0
Important	8,0	36,4	0,0	0,0
Very important	8,0	36,4	1,0	100,0
Extremely important	3,0	13,6	0,0	0,0



Ative Mode				
<b>Employees that go by foot to work</b>				
<b>Would you travel to work by taking a lift?</b>	<b>A</b>	<b>A %</b>	<b>F</b>	<b>F%</b>
Yes	22,0	52,4	1,0	100,0
No	20,0	47,6	0,0	0,0
<b>Classification of alternatives that will lead employees to RECEIVE ride to workplace</b>				
<b>Security and Safety</b>				
Not Important	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	4,0	18,2	0,0	0,0
Very important	5,0	22,7	1,0	100,0
Extremely important	13,0	59,1	0,0	0,0
<b>Have comfort</b>				
Not Important	0,0	0,0	0,0	0,0
Little Importance	2,0	9,1	0,0	0,0
Important	9,0	40,9	0,0	0,0
Very important	9,0	40,9	1,0	100,0
Extremely important	2,0	9,1	0,0	0,0
<b>Reduce costs</b>				
Not Important	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	6,0	31,6	0,0	0,0
Very important	13,0	68,4	1,0	100,0
Extremely important	3,0	15,8	0,0	0,0
<b>Travel to work in less time</b>				
Not Important	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	5,0	22,7	0,0	0,0
Very important	13,0	59,1	1,0	100,0
Extremely important	4,0	18,2	0,0	0,0
<b>Improve social relationship with colleagues</b>				
Not Important	2,0	9,1	0,0	0,0
Little Importance	7,0	31,8	0,0	0,0
Important	8,0	36,4	1,0	100,0
Very important	5,0	22,7	0,0	0,0

Extremely important	0,0	0,0	0,0	0,0
<b>Contribute to traffic decongestion and the reduction of parking space</b>				
Not Important	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	12,0	54,5	0,0	0,0
Very important	8,0	36,4	1,0	100,0
Extremely important	2,0	9,1	0,0	0,0
<b>Contribute to the reduction of pollution</b>				
Not Important	0,0	0,0	0,0	0,0
Little Importance	2,0	9,1	0,0	0,0
Important	11,0	50,0	0,0	0,0
Very important	4,0	18,2	1,0	100,0
Extremely important	5,0	22,7	0,0	0,0
<b>Get help in finding carpool partners</b>				
Not Important	3,0	13,6	0,0	0,0
Little Importance	3,0	13,6	0,0	0,0
Important	13,0	59,1	0,0	0,0
Very important	3,0	13,6	1,0	100,0
Extremely important	0,0	0,0	0,0	0,0
<b>Available of a carpool user group (App, WhatsApp etc.)</b>				
Not Important	2,0	9,1	0,0	0,0
Little Importance	3,0	13,6	0,0	0,0
Important	11,0	50,0	0,0	0,0
Very important	6,0	27,3	1,0	100,0
Extremely important	0,0	0,0	0,0	0,0
<b>Have travel flexibility</b>				
Not Important	1,0	4,5	0,0	0,0
Little Importance	2,0	9,1	0,0	0,0
Important	8,0	36,4	0,0	0,0
Very important	8,0	36,4	1,0	100,0
Extremely important	3,0	13,6	0,0	0,0

Active Mode				
<b>Percentage of employees willing to change their arrival and /or departure time to RECEIVE ride</b>				
Yes	9,0	40,9	1,0	100,0
No	13,0	59,1	0,0	0,0
<b>How many additional minutes' employees will be willing to Travel/Wait to OFFER a ride?</b>				
Travel time				
None	1,0	11,1	0,0	0,0
Up to 5 minutes	3,0	33,3	0,0	0,0
From 6 minutes to 10 minutes	5,0	55,6	1,0	100,0
From 11 minutes to 15 minutes	0,0	0,0	0,0	0,0
More than 15 minutes	0,0	0,0	0,0	0,0
<b>Waiting time</b>				
None	0,0	0,0	0,0	0,0
Up to 5 minutes	6,0	66,7	0,0	0,0
From 6 minutes to 10 minutes	3,0	33,3	1,0	100,0
From 11 minutes to 15 minutes	0,0	0,0	0,0	0,0

Active Mode				
<b>Bicycle</b>	<b>A</b>	<b>A%</b>	<b>F</b>	<b>F%</b>
<b>Increasing number of bicycle racks</b>				
Not Important	4,0	9,5	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	10,0	23,8	1,0	100,0
Very important	15,0	35,7	0,0	0,0
Extremely important	13,0	31,0	0,0	0,0
<b>Secure bike racks to prevent theft</b>				
Not Important	4,0	9,5	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	5,0	11,9	1,0	100,0
Very important	5,0	11,9	0,0	0,0
Extremely important	28,0	66,7	0,0	0,0
<b>Benefits for whoever uses bicycle (discounts, coupons, etc.)</b>				
Not Important	6,0	14,3	0,0	0,0
Little Importance	4,0	9,5	0,0	0,0
Important	14,0	33,3	1,0	100,0
Very important	8,0	19,0	0,0	0,0
Extremely important	10,0	23,8	0,0	0,0

<b>Active Mode</b>				
<b>Transport Public</b>				
<b>Classification of factors that will that encourage employees to travel by public transit system to work</b>	<b>A</b>	<b>A%</b>	<b>F</b>	<b>F%</b>
<b>Partial/Total tariffs payment for public transportation by organization e.g. vale transporte</b>				
Not Important	11,0	26,2	1,0	100,0
Little Importance	2,0	4,8	0,0	0,0
Important	13,0	31,0	0,0	0,0
Very important	9,0	21,4	0,0	0,0
Extremely important	7,0	16,7	0,0	0,0
<b>More information about public transit lines that pass close to workplace</b>				
Not Important	8,0	19,0	0,0	0,0
Little Importance	2,0	4,8	0,0	0,0
Important	12,0	28,6	0,0	0,0
Very important	14,0	33,3	1,0	100,0
Extremely important	6,0	14,3	0,0	0,0
<b>Improved sidewalk conditions and pedestrian access</b>				
Not Important	6,0	14,3	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	6,0	14,3	0,0	0,0
Very important	14,0	33,3	1,0	100,0
Extremely important	16,0	38,1	0,0	0,0
<b>More flexible working time to enter and leave workplace</b>				
Not Important	8,0	19,0	0,0	0,0
Little Importance	4,0	9,5	0,0	0,0
Important	12,0	28,6	0,0	0,0
Very important	9,0	21,4	1,0	100,0
Extremely important	9,0	21,4	0,0	0,0
<b>Better bus conditions (eg air conditioning)</b>				
Not Important	7,0	16,7	0,0	0,0
Little Importance	2,0	4,8	0,0	0,0
Important	13,0	31,0	0,0	0,0
Very important	9,0	21,4	1,0	100,0
Extremely important	11,0	26,2	0,0	0,0
<b>More frequency of bus lines</b>				
Not Important	8,0	19,5	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	3,0	7,3	0,0	0,0
Very important	14,0	34,1	1,0	100,0
Extremely important	16,0	39,0	0,0	0,0
<b>Proximity of bus stops to workplace</b>				
Not Important	6,0	14,3	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	6,0	14,3	0,0	0,0
Very important	13,0	31,0	1,0	100,0
Extremely important	17,0	40,5	0,0	0,0
<b>Safety inside the vehicle</b>				
Not Important	8,0	19,0		
Little Importance	0,0	0,0		
Important	2,0	4,8		
Very important	11,0	26,2		
Extremely important	21,0	50,0		
<b>Safety at Bus stops</b>				
Not Important	6,0	14,3		
Little Importance	0,0	0,0		
Important	2,0	4,8		
Very important	10,0	23,8		
Extremely important	24,0	57,1		

Active Mode				
Bicycle				
Classification of factors that will make an employee to go work by bicycle	A	A%	F	F%
<b>Showers and lockers in the building where you work, to store belongings (helmet, change clothes)</b>				
Not Important	5,0	11,9	0,0	0,0
Little Importance	1,0	2,4	0,0	0,0
Important	5,0	11,9	1,0	100,0
Very important	11,0	26,2	0,0	0,0
Extremely important	20,0	47,6	0,0	0,0
<b>Bike racks near public transit stations</b>				
Not Important	7,0	16,7	0,0	0,0
Little Importance	3,0	7,1	0,0	0,0
Important	8,0	19,0	1,0	100,0
Very important	9,0	21,4	0,0	0,0
Extremely important	15,0	35,7	0,0	0,0
<b>Map containing information about the safest routes to work</b>				
Not Important	6,0	14,3	0,0	0,0
Little Importance	3,0	7,1	0,0	0,0
Important	13,0	31,0	1,0	100,0
Very important	12,0	28,6	0,0	0,0
Extremely important	8,0	19,0	0,0	0,0
<b>Find cycling partners / groups to cycle with to work</b>				
Not Important	10,0	23,8	0,0	0,0
Little Importance	11,0	26,2	0,0	0,0
Important	8,0	19,0	1,0	100,0
Very important	10,0	23,8	0,0	0,0
Extremely important	3,0	7,1	0,0	0,0
<b>Bike racks in the building / near workplace</b>				
Not Important	4,0	9,5	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	5,0	11,9	1,0	100,0
Very important	13,0	31,0	0,0	0,0
Extremely important	20,0	47,6	0,0	0,0
<b>Bike lanes/Cycling paths connecting to workplace</b>				
Not Important	4,0	9,5	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0
Important	3,0	7,1	1,0	100,0
Very important	8,0	19,0	0,0	0,0
Extremely important	27,0	64,3	0,0	0,0
<b>Public bike station near work place (+Bike, Yellow)</b>				
Not Important	5,0	11,9	0,0	0,0
Little Importance	1,0	2,4	0,0	0,0
Important	10,0	23,8	1,0	100,0
Very important	16,0	38,1	0,0	0,0
Extremely important	10,0	23,8	0,0	0,0
<b>The possibility of taking bike on public transit (bus / subway)</b>				
Not Important	10,0	23,8	0,0	0,0
Little Importance	3,0	7,1	0,0	0,0
Important	9,0	21,4	1,0	100,0
Very important	10,0	23,8	0,0	0,0
Extremely important	10,0	23,8	0,0	0,0
<b>Discounts on bike purchases and equipment (eg electric bikes)</b>				
Not Important	6,0	14,3	0,0	0,0
Little Importance	2,0	4,8	0,0	0,0
Important	9,0	21,4	1,0	100,0
Very important	10,0	23,8	0,0	0,0
Extremely important	15,0	35,7	0,0	0,0

**Table B.3b: Employees that use Active mode by bicycle, factors that encourage other modes**

Employees that goes to work by Bicycle	Companies							
	A	A%	B	B%	D	D%	E	E%
<b>Does company offers some discount / benefit to employees that goes to work by bicycle</b>								
Yes	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
No	3,0	100,0	2,0	100,0	1,0	100,0	1,0	100,0
Total	3,0	100,0	2,0	100,0	1,0	100,0	1,0	100,0
<b>Change the way employee commute to work from bicycle to Public Transit</b>								
Yes	1,0	33,3	0,0	0,0	0,0	0,0	0,0	0,0
No	2,0	66,7	2,0	100,0	1,0	100,0	1,0	100,0
Total	3,0	100,0	2,0	100,0	1,0	100,0	1,0	100,0
Transport Public								
<b>Classification of factors that will that encourage employees to travel by public transit system to work</b>								
Partial/Total tariffs payment for public transportation by organization e.g. vale transporte								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Extremely important	1,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>More information about public transit lines that pass close to workplace</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Extremely important	1,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Improved sidewalk conditions and pedestrian access</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	1,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Extremely important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>More flexible working time to enter and leave workplace</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	1,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Extremely important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Better bus conditions (eg air conditioning)</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	1,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Extremely important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>More frequency of bus lines</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Extremely important	1,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Proximity of bus stops to workplace</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Extremely important	1,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Safety inside the vehicle</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	1,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Extremely important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Safety at Bus stops</b>				0,0		0,0		0,0
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Extremely important	1,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0

	Companies							
	A	A%	B	B%	D	D%	E	E%
<b>Change the way employee commute to work from bicycle to Carpooling</b>								
Yes	1,0	33,3	1,0	50,0	0,0	0,0	1,0	100,0
No	2,0	67,7	1,0	50,0	1,0	100,0	0,0	0,0
<b>Classification of alternatives that will lead employees to RECEIVE ride to workplace</b>								
<b>Security and Safety</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Extremely important	1,0	100,0	1,0	100,0	0,0	0,0	1,0	100,0
<b>Have comfort</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	1,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	0,0	0,0	0,0	0,0	0,0	0,0	1,0	100,0
Very important	0,0	0,0	1,0	100,0	0,0	0,0	0,0	0,0
Extremely important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Reduce costs</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	1,0	100,0
Important	1,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	0,0	0,0	1,0	100,0	0,0	0,0	0,0	0,0
Extremely important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Travel to work in less time</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Extremely important	1,0	100,0	1,0	100,0	0,0	0,0	1,0	100,0
<b>Improve social relationship with colleagues</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	1,0	100,0
Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	1,0	100,0	1,0	100,0	0,0	0,0	0,0	0,0
Extremely important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Contribute to traffic decongestion and the reduction of parking space</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	0,0	0,0	0,0	0,0	0,0	0,0	1,0	100,0
Extremely important	1,0	100,0	1,0	100,0	0,0	0,0	0,0	0,0

	Companies							
	A	A%	B	B%	D	D%	E	E%
<b>Contribute to the reduction of pollution</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Very important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Extremely important	1,0	100,0	1,0	100,0	0,0	0,0	1,0	100,0
<b>Get help in finding carpool partners</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	0,0	0,0	1,0	100,0	0,0	0,0	0,0	0,0
Very important	1,0	100,0	0,0	0,0	0,0	0,0	1,0	100,0
Extremely important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Available of a carpool user group (App, WhatsApp etc.)</b>								
Not Important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Little Importance	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Important	0,0	0,0	1,0	100,0	0,0	0,0	1,0	100,0
Very important	1,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Extremely important	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Percentage of employees willing to change their arrival and /or departure time to RECEIVE ride</b>								
Yes	1,0	100,0	0,0	0,0	0,0	0,0	1,0	100,0
No	0,0	0,0	1,0	100,0	0,0	0,0	0,0	0,0
<b>How many minutes* employees will be willing to Travel/Wait to RECEIVE a ride?</b>								
None	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Up to 5 minutes	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
From 6 minutes to 10 minutes	1,0	100,0	0,0	0,0	0,0	0,0	1,0	100,0
From 11 minutes to 15 minutes	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
More than 15 minutes	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Waiting time</b>								
None	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Up to 5 minutes	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
From 6 minutes to 10 minutes	0,0	0,0	0,0	0,0	0,0	0,0	1,0	100,0
From 11 minutes to 15 minutes	1,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
More than 15 minutes	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0



**Table B.4: Employees that Carpools, factors that encourage other modes**

	Offer Carpool				Receiving Carpool			
	A	C	D	E	A	C	D	E
<b>Who do you offer to/receive lift from</b>								
Colleague (s) / people who work in the same building that have the same route to work like I do	66	1	1	0	80	0	0	0
People that work near the Organization / Building who have the same route as I do to work	18	0	0	1	24	0	0	1
People who works elsewhere (not close to the organization) that do not have the same route as I do to work	16	0	0	1	18	0	0	2
Family (Husband, Wife and Children)	5	0	0	0	9	1	1	1
Other	1	0	0	0	0	0	0	0
<b>How many people other than you were in your car on the days you offered a ride/If you are receiving a ride, how many people excluding the driver and yourself</b>								
None	0	0	0	0	26	0	0	3
1 Person	29	0	1	2	27	0	0	1
2 people	39	0	0	0	41	1		
3 People	10	1	0	0	2	0	1	0
More than 3 People	0	0	0	0	2	0	0	0
4 People	0	0	0	0	0	0	0	0
More than 4 People	1	0	0	0	0	0	0	
<b>Way of communication you use to offer a lift</b>								
Direct Communication	15	1	1	2	22	1	1	4
Using Carpool Apps	61	0	0	0	69	0	0	0
Social Network (facebook, messenger, instagram, whatsapp, telegram, others)	1	0	0	0	3	0	0	0
Web system (email, blog, forums, websites)	0	0	0	0	1	0	0	0
Other	2	0	0	0	2	0	0	0
<b>Which of these apps do you use in OFFERING ride</b>								
BlablaCar	0	0	0	0	0	0	0	0
BYND	0	0	0	0	0	0	0	0
Carona Phone	0	0	0	0	0	0	0	0
Carona Uber (Uber Juntos)	0	0	0	0	0	0	0	0
Meleva	0	0	0	0	0	0	0	0
Mobiag	0	0	0	0	0	0	0	0
Waze Carona	61	0	0	0	69	0	0	0
Wunder	0	0	0	0	0	0	0	0
Zumpy	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0

<b>Transport Public</b>	<b>Offer Carpool</b>				<b>Receiving Carpool</b>			
<b>Classification of factors that will that encourage employees to travel by public transit system to work</b>	<b>A</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>A</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>Partial/Total tariffs payment for public transportation by organization e.g. vale transporte</b>								
Not Important	19	0	0	1	15	0	0	1
Little Importance	18	0	0	0	26	0	0	1
Important	15	1	0	1	20	0	0	0
Very important	11	0	0	0	13	1	1	0
Extremely important	15	0	1	0	24	0	0	2
<b>More information about public transit lines that pass close to workplace</b>								
Not Important	14	0	0	1	16	0	0	1
Little Importance	12	0	0	0	23	0	0	0
Important	15	1	0	0	25	0	0	0
Very important	23	0	0	1	15	0	0	0
Extremely important	15	0	1	0	19	1	1	3
<b>Improved sidewalk conditions and pedestrian access</b>								
Not Important	7	0	0	1	13	0	0	1
Little Importance	8	0	0	0	14	0	0	1
Important	15	1	0	1	18	0	0	1
Very important	22	0	0	0	16	0	0	0
Extremely important	27	0	1	0	37	1	1	1
<b>More flexible working time to enter and leave workplace</b>								
Not Important	11	0	0	1	11	0	0	0
Little Importance	14	1	0	0	23	0	1	0
Important	17	0	0	0	20	1	0	1
Very important	23	0	0	0	21	0	0	0
Extremely important	14	0	1	1	23	0	0	3
<b>Better bus conditions (eg air conditioning)</b>								
Not Important	6	0	0	1	7	0	0	0
Little Importance	4	0	0	0	3	0	0	0
Important	12	1	0	0	20	0	0	1
Very important	19	0	0	0	22	0	1	0
Extremely important	38	0	1	1	46	1	0	3
<b>More frequency of bus lines</b>								
Not Important	7	0	0	1	5	0	0	0
Little Importance	3	0	0	0	4	0	0	0
Important	5	1	0	0	9	0	0	1
Very important	13	0	0	0	25	0	1	0
Extremely important	51	0	1	1	55	1	0	3
<b>Proximity of bus stops to workplace</b>								
Not Important	3	0	0	0	1	0	0	0
Little Importance	0	0	0	0	4	0	0	0
Important	6	0	0	0	12	0	0	0
Very important	12	0	0	0	17	0	1	1
Extremely important	58	1	1	2	63	1	0	3
<b>Safety inside the vehicle</b>								
Not Important	3	0	0	0	1	0	0	1
Little Importance	1	0	0	0	5	0	0	0
Important	7	0	0	0	8	0	0	0
Very important	23	0	0	0	20	0	0	0
Extremely important	45	0	0	2	63	0	0	3
<b>Safety at Bus stops</b>								
Not Important	3	0	0	0	2	0	0	0
Little Importance	1	0	0		5	0	0	0
Important	5	0	0	0	6	0	0	0
Very important	16	0	0	0	18	0	0	0
Extremely important	54	0	0	2	67	0	0	4

Bicycle	Offer Carpool				Receiving Carpool			
	A	C	D	E	A	C	D	E
<b>Classification of factors that will make an employee to go work by bicycle</b>								
<b>Showers and lockers in the building where you work, to store belongings (helmet, change clothes)</b>								
Not Important	11	0	0	0	18	0	0	0
Little Importance	3	0	0	1	7	0	0	0
Important	13	1	0	0	17	0	0	0
Very important	15	0	0	0	21	1	0	2
Extremely important	35	0	1	1	35	0	1	2
<b>Bike racks near public transit stations</b>								
Not Important	13	0	0	0	26	0	0	0
Little Importance	8	0	0	1	15	0	0	0
Important	15	0	0	0	20	0	0	1
Very important	26	1	0	0	19	1	0	1
Extremely important	15	0	1	1	18	0	1	2
<b>Map containing information about the safest routes to work</b>								
Not Important	19	0	0	0	22	0	0	0
Little Importance	6	0	0	1	14	0	0	3
Important	18	0	0	0	18	0	0	0
Very important	18	1	0	1	25	1	0	
Extremely important	16	0	1	0	19	0	1	1
<b>Find cycling partners / groups to cycle with to work</b>								
Not Important	21	0	0	1	24	0	0	0
Little Importance	17	0	0	1	21	0	0	3
Important	19	1	0	0	28	0	0	1
Very important	11	0	1	0	18	0	0	0
Extremely important	9	0	0	0	8	1	1	0
<b>Bike racks in the building / near workplace</b>								
Not Important	11	0	0	1	18	0	0	0
Little Importance	3	0	0	0	6	0	0	0
Important	16	0	0	1	15	0	0	1
Very important	19	1	0	0	24	0	0	1
Extremely important	28	0	1	0	35	1	1	2
<b>Bike lanes/Cycling paths connecting to workplace</b>								
Not Important	11	0	0	0	17	0	0	0
Little Importance	2	0	0	0	4	0	0	0
Important	6	0	0	0	13	0	0	0
Very important	12	0	0	1	14	0	0	1
Extremely important	46	1	1	1	50	1	1	3
<b>Public bike station near work place (+Bike, Yellow)</b>								
Not Important	15	0	0	0	21	0	0	0
Little Importance	8	0	0	0	11	0	0	1
Important	16	1	0	0	17	0	0	1
Very important	20	0	0	0	23	0	0	1
Extremely important	18	0	1	2	26	1	1	1
<b>The possibility of taking bike on public transit (bus / subway)</b>								
Not Important	13	0	0	1	23	0	0	0
Little Importance	12	0	0	1	13	0	0	1
Important	10	0	0	0	22	0	0	1
Very important	20	1	0	0	25	0	1	1
Extremely important	22	0	1	0	15	1	0	1
<b>Discounts on bike purchases and equipment (eg electric bikes)</b>								
Not Important	13	0	0	0	22	0	0	1

Little Importance	9	0	0	0	13	0	0	2
Important	19	0	0	0	22	0	0	0
Very important	10	0	0	1	21	0	1	0
Extremely important	26	1	1	1	20	1	0	1
<b>Increasing number of bicycle racks</b>								
Not Important	12	0	0	0	20	0	0	0
Little Importance	8	1	0	1	10	0	0	0
Important	17	0	0	1	23	0	0	3
Very important	18	0	0	0	26	0	0	0
Extremely important	21	0	1	0	19	1	1	1
<b>Secure bike racks to prevent theft</b>								
Not Important	11	0	0	0	19	0	0	0
Little Importance	3	0	0	0	6	0	0	0
Important	8	1	0	0	13	0	0	2
Very important	15	0	0	0	22	0	0	
Extremely important	40	0	1	2	38	1	1	2
<b>Benefits for whoever uses bicycle (discounts, coupons, etc.)</b>								
Not Important	14	0	0	0	20	0	0	0
Little Importance	10	0	0	0	9	0	0	3
Important	13	0	0	1	25	0	0	1
Very important	10	0	0	0	25	0	1	0
Extremely important	30	1	1	1	19	1	0	0

**Table B.5: Employees that use Motorcycle, factors that encourage other modes**

Motorcycle	Motorcycle					
	A	B	C	D	E	F
<b>Would you get a lift to work?</b>						
Yes	20	0	1	2	0	0
No	8	0	0	0	1	1
<b>Classification of alternatives that will lead employees to RECEIVE ride to workplace</b>						
<b>Security and Safety</b>						
Not Important	0	0	0	0	0	0
Little Importance	0	0	0	0	0	0
Important	3	0	0	0	0	0
Very important	5	0	0	0	1	0
Extremely important	12	0	1	2	0	1
<b>Have comfort</b>						
Not Important	0	0	0	0	0	0
Little Importance	1	0	0	1	0	
Important	14	0	1	0	1	1
Very important	2	0	0	0	0	0
Extremely important	3	0	0	1	0	0
<b>Reduce costs</b>						
Not Important	0	0	0	0	0	0
Little Importance	2	0	0	0	0	0
Important	1	0	0	0	0	0
Very important	8	0	0	0	1	0
Extremely important	9	0	1	2	0	1
<b>Travel to work in less time</b>						
Not Important	0	0	0	0	0	0
Little Importance	2	0	0	1	0	0
Important	6	0	0	0	0	0
Very important	8	0	1	0	1	0
Extremely important	4	0	0	1	0	1
<b>Improve social relationship with colleagues</b>						
Not Important	3	0	0	0	0	0
Little Importance	9	0	0	0	0	0
Important	5	0	0	1	0	1
Very important	2	0	1	0	1	0
Extremely important	1	0		1	0	0
<b>Contribute to traffic decongestion and the reduction of parking space</b>						
Not Important	2	0	0	0	0	0
Little Importance	1	0	0	0	0	0
Important	3	0	0	2	1	0
Very important	9	0	1	0	0	1
Extremely important	5	0	0	0	0	
<b>Contribute to the reduction of pollution</b>						
Not Important	1	0	0	0	0	0
Little Importance	2	0	0	0	0	0
Important	7	0	0	2	1	0
Very important	5	0	1	0	0	1
Extremely important	5	0	0	0	0	0
<b>Get help in finding carpool partners</b>						
Not Important	2	0	0	1	0	0
Little Importance	5	0	0	1	0	0
Important	7	0	0	0	0	0
Very important	4	0	1	0	1	1
Extremely important	2	0	0	0	0	0
<b>Available of a carpool user group (App, WhatsApp etc.)</b>						
Not Important	1	0	0	0	0	0
Little Importance	2	0	0	1	0	0
Important	7	0	0	1	1	0
Very important	7	0	1	0	0	1
Extremely important	3	0	0	0	0	
<b>Have travel flexibility</b>						
Not Important	0	0	0	0	0	0
Little Importance	1	0	0	1	0	0
Important	10	0	0	0	0	0
Very important	4	0	1	1	1	1
Extremely important	4	0	0	0	0	0

<b>Percentage of employees willing to change their arrival and /or departure time to RECEIVE ride</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
Yes	10	0	1	0	1	1
No	9	0	0	2	0	0
<b>How many additional minutes' employees will be willing to Travel/Wait to OFFER a ride?</b>						
<b>Travel time</b>						
None	1	0	0	0	0	0
Up to 5 minutes	1	0	0	0	0	0
From 6 minutes to 10 minutes	3	0	0	0	0	0
From 11 minutes to 15 minutes	4	0	1	0	0	0
More than 15 minutes	1	0	0	0	1	1
<b>Waiting time</b>						
None	0	0	0	0	0	0
Up to 5 minutes	2	0	0	0	0	0
From 6 minutes to 10 minutes	3	0	0	0	0	0
From 11 minutes to 15 minutes	3	0	1	0	0	0
More than 15 minutes	2	0	0	0	1	1
<b>Transport Public</b>						
<b>Classification of factors that will that encourage employees to travel by public transit system to work</b>						
<b>Partial/Total tariffs payment for public transportation by organization e.g. vale transporte</b>						
Not Important	6	0	1	0	0	0
Little Importance	6	0	0	2	0	0
Important	7	0	0		1	0
Very important	4	0	0	0	0	0
Extremely important	5	0	0	0	0	1
<b>More information about public transit lines that pass close to workplace</b>						
Not Important	4	0	1	0	0	0
Little Importance	7	0	0	1	0	0
Important	5	0	0	1	1	0
Very important	7	0	0	0	0	0
Extremely important	5	0	0	0	0	1
<b>Improved sidewalk conditions and pedestrian access</b>						
Not Important	3	0	1	0	0	0
Little Importance	3	0	0	2	0	0
Important	11	0	0	0	1	0
Very important	4	0	0	0	0	0
Extremely important	7	0	0	0	0	1
<b>More flexible working time to enter and leave workplace</b>						
Not Important	4	0	1	0	0	0
Little Importance	1	0	0	2	0	0
Important	8	0	0	0	1	0
Very important	6	0	0	0	0	0
Extremely important	9	0	0	0	0	1
<b>Better bus conditions (eg air conditioning)</b>						
Not Important	1	0	1	0	0	0
Little Importance	0	0	0	0	0	0
Important	11	0	0	0	1	0
Very important	2	0	0	0	0	0
Extremely important	14	0	0	2	0	1
<b>More frequency of bus lines</b>						
Not Important	1	0	1	0	0	0
Little Importance	0	0	0	0	0	0
Important	7	0	0	1	1	0
Very important	5	0	0	0	0	0
Extremely important	15	0	0	1	0	1
<b>Proximity of bus stops to workplace</b>						
Not Important	2	0	0	0	0	0
Little Importance	0	0	0	0	0	0
Important	7	0	0	1	0	0
Very important	6	0	1	0	1	0
Extremely important	13	0	0	1	0	1
<b>Safety inside the vehicle</b>						
Not Important	1	0				
Little Importance	0	0				
Important	8	0				
Very important	10	0				
Extremely important	9	0				
<b>Safety at Bus stops</b>						
Not Important	1	0				
Little Importance	1	0				
Important	7	0				
Very important	8	0				
Extremely important	11	0				

<b>Bicycle</b>						
<b>Classification of factors that will make an employee to go work by bicycle</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
<b>Showers and lockers in the building where you work, to store belongings (helmet, change clothes)</b>						
Not Important	5	0	0	0	0	0
Little Importance	2	0	0	0	0	0
Important	0	0	0	0	0	0
Very important	9	0	1	1	1	0
Extremely important	12	0	0	1	0	1
<b>Bike racks near public transit stations</b>						
Not Important	5	0	0	0	0	0
Little Importance	4	0	0	0	0	0
Important	6	0	0	1	0	0
Very important	7	0	1	1	1	0
Extremely important	6	0	0	0	0	1
<b>Map containing information about the safest routes to work</b>						
Not Important	6	0	0	0	0	0
Little Importance	4	0	0	0	0	0
Important	7	0	0	1	0	0
Very important	5	0	1	1	0	0
Extremely important	6	0	0	0	1	1
<b>Find cycling partners / groups to cycle with to work</b>						
Not Important	9	0	0	0	0	0
Little Importance	10	0	0	0	0	0
Important	5	0	1	2	1	0
Very important	2	0	0	0	0	0
Extremely important	2	0	0	0	0	1
<b>Bike racks in the building / near workplace</b>						
Not Important	5	0	0	0	0	0
Little Importance	2	0	0	0	0	0
Important	5	0	0	1	1	0
Very important	8	0	0	1	0	0
Extremely important	8	0	1	0	0	1
<b>Bike lanes/Cycling paths connecting to workplace</b>						
Not Important	4	0	0	0	0	0
Little Importance	2	0	0	0	0	0
Important	3	0	0	0	0	0
Very important	4	0	0	1	1	0
Extremely important	15	0	1	1	0	1
<b>Public bike station near work place (+Bike, Yellow)</b>						
Not Important	5	0	0	0	0	0
Little Importance	8	0	0	0	0	0
Important	5	0	1	1	1	0
Very important	4	0	0	1	0	0
Extremely important	6	0	0	0	0	1
<b>The possibility of taking bike on public transit (bus / subway)</b>						
Not Important	5	0	0	0	0	0
Little Importance	2	0	0	0	0	0
Important	9	0	0	1	0	0
Very important	7	0	1	0	1	0
Extremely important	5	0	0	1	0	1
<b>Discounts on bike purchases and equipment (eg electric bikes)</b>						
Not Important	5	0	0	0	0	0
Little Importance	5	0	0	0	0	0
Important	4	0	0	1	1	0
Very important	6	0	0	0	0	0
Extremely important	8	0	1	1	0	1
<b>Increasing number of bicycle racks</b>						
Not Important	4	0	0	0	0	0
Little Importance	3	0	0	0	0	0
Important	8	0	0	1	1	0
Very important	5	0	1	1	0	1
Extremely important	8	0	0	0	0	0
<b>Secure bike racks to prevent theft</b>						
Not Important	2	0	0	0	0	0
Little Importance	4	0	0	0	0	0
Important	5	0	0	1	1	0
Very important	6	0	1	1	0	0
Extremely important	11	0	0	0	0	1
<b>Benefits for whoever uses bicycle (discounts, coupons, etc.)</b>						
Not Important	6	0	0	0	0	0
Little Importance	5	0	0	1	0	201
Important	6	0	1	0	0	0
Very important	5	0	0	0	1	0
Extremely important	6	0	1	0	0	1

**Table B.6: Employees that use Chartered Vans, factors that encourage other modes**

<b>Chartered Van/Buses</b>			
<b>Chartered Van/Buses</b>	<b>A</b>	<b>C</b>	<b>D</b>
<b>Would you get a lift to work?</b>			
Yes	34	8	1
No	8	2	0
<b>Classification of alternatives that will lead employees to RECEIVE ride to workplace</b>			
<b>Security and Safety</b>			
Not Important	0	0	0
Little Importance	1	0	0
Important	6	0	0
Very important	7	2	1
Extremely important	20	6	0
<b>Have comfort</b>			
Not Important	0	0	0
Little Importance	4	1	1
Important	12	2	0
Very important	13	2	0
Extremely important	5	3	0
<b>Reduce costs</b>			
Not Important	0	0	0
Little Importance	4	0	0
Important	5	0	0
Very important	12	5	0
Extremely important	13	3	1
<b>Travel to work in less time</b>			
Not Important	0	0	0
Little Importance	1	0	0
Important	9	0	0
Very important	10	4	0
Extremely important	14	4	1
<b>Improve social relationship with colleagues</b>			
Not Important	6	0	0
Little Importance	10	0	1
Important	11	2	0
Very important	4	3	0
Extremely important	3	3	0
<b>Contribute to traffic decongestion and the reduction of parking space</b>			
Not Important	0	0	0
Little Importance	3	0	0
Important	9	0	0
Very important	11	6	0
Extremely important	11	2	1
<b>Contribute to the reduction of pollution</b>			
Not Important	0	0	0
Little Importance	1	0	0
Important	13	0	0
Very important	9	5	1
Extremely important	11	3	0
<b>Get help in finding carpool partners</b>			
Not Important	3	0	0
Little Importance	7	0	0
Important	16	2	1
Very important	6	4	0
Extremely important	2	2	0
<b>Available of a carpool user group (App, WhatsApp etc.)</b>			
Not Important	1	0	0
Little Importance	5	0	1
Important	13	1	0
Very important	9	6	0
Extremely important	6	1	0
<b>Have travel flexibility</b>			
Not Important	2	0	0
Little Importance	3	0	0
Important	11	0	0
Very important	11	5	1
Extremely important	7	3	0



Chartered Van/Buses			
Transport Public	Companies		
Classification of factors that will that encourage employees to travel by public transit system to work	A	C	D
<b>Partial/Total tariffs payment for public transportation by organization e.g. vale transporte</b>			
Not Important	5	1	0
Little Importance	9		0
Important	14	1	0
Very important	8	3	0
Extremely important	6	5	1
<b>More information about public transit lines that pass close to workplace</b>			
Not Important	2	1	0
Little Importance	8	0	0
Important	11	0	0
Very important	11	4	0
Extremely important	10	5	1
<b>Improved sidewalk conditions and pedestrian access</b>			
Not Important	1	1	0
Little Importance	5	0	0
Important	11	0	0
Very important	9	3	0
Extremely important	16	6	1
<b>More flexible working time to enter and leave workplace</b>			
Not Important	1	1	0
Little Importance	8	0	0
Important	19	2	0
Very important	9	3	0
Extremely important	5	4	1
<b>Better bus conditions (eg air conditioning)</b>			
Not Important	0	1	0
Little Importance	0	0	0
Important	6	1	0
Very important	17	3	0
Extremely important	19	5	1
<b>More frequency of bus lines</b>			
Not Important	0	1	0
Little Importance	0	0	0
Important	7	1	0
Very important	11	3	0
Extremely important	24	5	1
<b>Proximity of bus stops to workplace</b>			
Not Important	0	0	0
Little Importance	0	0	0
Important	5	1	0
Very important	12	2	0
Extremely important	25	7	1
<b>Safety inside the vehicle</b>			
Not Important			
Little Importance	1		
Important	7		
Very important	9		
Extremely important	25		
<b>Safety at Bus stops</b>			
Not Important			
Little Importance			
Important	6		
Very important	12		
Extremely important	24		

<b>Chartered Van/Buses</b>			
<b>Bicycle</b>	<b>A</b>	<b>C</b>	<b>D</b>
<b>Classification of factors that will make an employee to go work by bicycle</b>			
<b>Showers and lockers in the building where you work, to store belongings (helmet, change clothes)</b>			
Not Important	10	3	0
Little Importance	1	0	0
Important	4	0	0
Very important	7	4	0
Extremely important	20	3	1
<b>Bike racks near public transit stations</b>			
Not Important	12	3	0
Little Importance	1		0
Important	10	1	0
Very important	6	2	0
Extremely important	13	4	1
<b>Map containing information about the safest routes to work</b>			
Not Important	11	2	0
Little Importance	3	0	0
Important	13	1	0
Very important	6	3	0
Extremely important	9	4	1
<b>Find cycling partners / groups to cycle with to work</b>			
Not Important	13	2	1
Little Importance	8	0	0
Important	8	2	0
Very important	7	2	0
Extremely important	6	4	0
<b>Bike racks in the building / near workplace</b>			
Not Important	10	1	0
Little Importance	0	0	0
Important	9	1	0
Very important	6	3	0
Extremely important	17	5	1
<b>Bike lanes/Cycling paths connecting to workplace</b>			
Not Important	10	1	0
Little Importance	0	0	0
Important	6	1	0
Very important	7	2	0
Extremely important	19	6	1
<b>Public bike station near work place (+Bike, Yellow)</b>			
Not Important	12	1	0
Little Importance	2	0	0
Important	12	2	0
Very important	4	4	0
Extremely important	12	3	1

<b>Chartered Van/Buses</b>			
<b>Bicycle</b>	<b>A</b>	<b>C</b>	<b>D</b>
<b>The possibility of taking bike on public transit (bus / subway)</b>			
Not Important	11	2	0
Little Importance	1	0	0
Important	10	1	0
Very important	9	4	0
Extremely important	11	3	1
<b>Discounts on bike purchases and equipment (eg electric bikes)</b>			
Not Important	11	1	0
Little Importance	5	0	0
Important	12	1	0
Very important	3	2	0
Extremely important	11	6	1
<b>Increasing number of bicycle racks</b>			
Not Important	12	1	0
Little Importance	1	0	0
Important	15	1	0
Very important	4	2	0
Extremely important	10	6	1
<b>Secure bike racks to prevent theft</b>			
Not Important	10	1	0
Little Importance	0	0	0
Important	7	1	0
Very important	8	3	0
Extremely important	17	5	1
<b>Benefits for whoever uses bicycle (discounts, coupons, etc.)</b>			
Not Important	13	1	0
Little Importance	4	1	0
Important	12	1	0
Very important	4	2	0
Extremely important	9	5	1

<b>Chartered Van/Buses</b>	<b>Companies</b>		
<b>How many additional minutes' employees will be willing to Travel/Wait to RECEIVE a ride?</b>	<b>A</b>	<b>C</b>	<b>D</b>
<b>Travel time</b>			
None	1	0	0
Up to 5 minutes	4	0	0
From 6 minutes to 10 minutes	3	1	0
From 11 minutes to 15 minutes	2	1	0
More than 15 minutes	2	1	0
<b>Waiting time</b>			
None	0	0	0
Up to 5 minutes	2	0	0
From 6 minutes to 10 minutes	7	1	0
From 11 minutes to 15 minutes	2	0	0
More than 15 minutes	1	2	0

**Table B.7: Employees that go to work by Taxi, factors that encourage other modes**

<b>TAXI</b>				
<b>Taxi</b>	<b>A</b>	<b>B</b>	<b>D</b>	<b>F</b>
<b>Would you get a lift to work?</b>				
Yes	53	1	2	1
No	12	1	0	0
<b>Classification of alternatives that will lead employees to RECEIVE ride to workplace</b>				
<b>Security and Safety</b>				
Not Important	0	0	0	0
Little Importance	1	0	0	0
Important	5	0	0	0
Very important	13	0	1	0
Extremely important	34	1	1	1
<b>Have comfort</b>				
Not Important	0	0	0	0
Little Importance	11	0	1	0
Important	26	1	0	1
Very important	11	0	1	0
Extremely important	5	0	0	0
<b>Reduce costs</b>				
Not Important	0	0	0	0
Little Importance	3	0	0	0
Important	17	0	0	0
Very important	13	0	0	0
Extremely important	20	1	2	1
<b>Travel to work in less time</b>				
Not Important	0	0	0	0
Little Importance	4	0	0	0
Important	20	0	0	0
Very important	18	0	1	0
Extremely important	11	1	1	1
<b>Improve social relationship with colleagues</b>				
Not Important	5	0	0	0
Little Importance	15	0	0	0
Important	20	0	0	1
Very important	8	1	1	0
Extremely important	5	0	1	0
<b>Contribute to traffic decongestion and the reduction of parking space</b>				
Not Important	1	0	0	0
Little Importance	4	0	0	0
Important	26	0	0	0
Very important	11	0	1	0
Extremely important	11	1	1	1
<b>Contribute to the reduction of pollution</b>				
Not Important	2	0	0	0
Little Importance	6	0	0	0
Important	19	0	0	0
Very important	14	0	1	0
Extremely important	12	1	1	1
<b>Get help in finding carpool partners</b>				
Not Important	3	0	0	0
Little Importance	6	0	0	0
Important	24	0		1
Very important	14	0	2	0
Extremely important	6	1	0	0
<b>Available of a carpool user group (App, WhatsApp etc.)</b>				
Not Important	5	0	0	0
Little Importance	7	0	0	0
Important	19	0	0	0
Very important	13	0	1	1
Extremely important	9	1	1	0
<b>Have travel flexibility</b>				
Not Important	1	0	0	0
Little Importance	4	0	0	0
Important	20	0	0	0
Very important	13	0	0	0
Extremely important	15	1	2	1

<b>TAXI</b>				
<b>Taxi</b>	<b>A</b>	<b>B</b>	<b>D</b>	<b>F</b>
<b>Percentage of employees willing to change their arrival and/or departure time to RECEIVE ride</b>				
Yes	27	0	2	1
No	26	1	0	0
<b>How many additional minutes' employees will be willing to Travel/Wait to OFFER a ride?</b>				
<b>Travel time</b>				
None	1	0	0	0
Up to 5 minutes	6	0	0	0
From 6 minutes to 10 minutes	16	0	0	0
From 11 minutes to 15 minutes	3	0	2	0
More than 15 minutes	1	0	0	1
<b>Waiting time</b>				
None	0	0	0	0
Up to 5 minutes	7	0	0	0
From 6 minutes to 10 minutes	12	0	1	0
From 11 minutes to 15 minutes	6	0	1	1
More than 15 minutes	2	0	0	0
<b>Transport Public</b>				
<b>Classification of factors that will that encourage employees to travel by public transit system to work</b>				
<b>Partial/Total tariffs payment for public transportation by organization e.g. vale transporte</b>				
Not Important	8	0	0	0
Little Importance	6	1	0	0
Important	25	0	1	1
Very important	6	0	0	0
Extremely important	9	1	1	0
<b>More information about public transit lines that pass close to workplace</b>				
Not Important	8	0	0	0
Little Importance	6	0	0	0
Important	26	0	0	0
Very important	13	1	1	0
Extremely important	12	1	1	1
<b>Improved sidewalk conditions and pedestrian access</b>				
Not Important	7	0	0	0
Little Importance	4	0	0	0
Important	15	1	1	0
Very important	20	0	0	0
Extremely important	19	1	1	1
<b>More flexible working time to enter and leave workplace</b>				
Not Important	10	1	0	0
Little Importance	9	0	0	0
Important	15	1	0	0
Very important	12	0	2	0
Extremely important	18	0	0	1
<b>Better bus conditions (eg air conditioning)</b>				
Not Important	4	0	0	0
Little Importance	1	0	0	0
Important	23	0	0	0
Very important	18	0	1	0
Extremely important	19	2	1	1
<b>More frequency of bus lines</b>				
Not Important	4	0	0	0
Little Importance	0	0	0	0
Important	9	0	0	0
Very important	19	0	1	0
Extremely important	33	2	1	1
<b>Proximity of bus stops to workplace</b>				
Not Important	4	0	0	0
Little Importance	0	0	0	0
Important	7	0	0	0
Very important	15	0	1	0
Extremely important	39	2	1	1
<b>Safety inside the vehicle</b>				
Not Important	4	0	0	0
Little Importance	0	0	0	0
Important	7	0	0	0
Very important	16	0	0	0
Extremely important	38	2	0	0
<b>Safety at Bus stops</b>				
Not Important	3	0	0	0
Little Importance	2	0	0	0
Important	6	0	0	0
Very important	14	0	0	0
Extremely important	40	2	0	0

<b>TAXI</b>				
<b>Bicycle</b>				
<b>Classification of factors that will make an employee to go work by bicycle</b>	<b>A</b>	<b>B</b>	<b>D</b>	<b>F</b>
<b>Showers and lockers in the building where you work, to store belongings (helmet, change clothes)</b>				
Not Important	5	1	0	0
Little Importance	3	0	0	0
Important	10	0	0	0
Very important	13	0	1	1
Extremely important	34	1	1	
<b>Bike racks near public transit stations</b>				
Not Important	11	1	0	0
Little Importance	7	0	0	0
Important	14	1	0	0
Very important	18	0	0	1
Extremely important	15	0	2	0
<b>Map containing information about the safest routes to work</b>				
Not Important	7	1	0	0
Little Importance	12	0	0	0
Important	15	1	1	0
Very important	16	0	0	0
Extremely important	15	0	1	1
<b>Find cycling partners / groups to cycle with to work</b>				
Not Important	14	1	0	0
Little Importance	21	0	0	0
Important	14	1	2	0
Very important	11	0	0	0
Extremely important	5	0	0	1
<b>Bike racks in the building / near workplace</b>				
Not Important	4	1	0	0
Little Importance	1	0	0	0
Important	8	0	0	0
Very important	23	0	2	0
Extremely important	29	1	0	1
<b>Bike lanes/Cycling paths connecting to workplace</b>				
Not Important	4	1	0	0
Little Importance	0	0	0	0
Important	3	0	0	0
Very important	14	0	0	0
Extremely important	44	1	2	1
<b>Public bike station near work place (+Bike, Yellow)</b>				
Not Important	9	1	0	0
Little Importance	7	0	0	0
Important	16	0	0	0
Very important	18	0	0	0
Extremely important	15	1	2	1
<b>The possibility of taking bike on public transit (bus / subway)</b>				
Not Important	13	1	0	0
Little Importance	12	0	0	0
Important	1	0	1	0
Very important	11	0	0	0
Extremely important	11	1	1	1
<b>Discounts on bike purchases and equipment (eg electric bikes)</b>				
Not Important	6	1	0	0
Little Importance	8	0	0	0
Important	17	1	1	0
Very important	15	0	0	0
Extremely important	19	0	1	1
<b>Increasing number of bicycle racks</b>				
Not Important	5	1	0	0
Little Importance	2	1	0	0
Important	20	0	1	0
Very important	21	0	1	1
Extremely important	17	0	0	0
<b>Secure bike racks to prevent theft</b>				
Not Important	5	1	0	0
Little Importance	0	0	0	0
Important	8	1	1	0
Very important	17	0	0	0
Extremely important	35	0	1	1
<b>Benefits for whoever uses bicycle (discounts, coupons, etc.)</b>				
Not Important	6	1	0	0
Little Importance	8	0	0	0
Important	18	1	0	208
Very important	12	0	1	0
Extremely important	21	0	1	1

**Table B.8: Employee that go work by public transit, factors that encourage other modes**

Classification of alternatives that will lead employees to RECEIVE ride to workplace	PUBLIC TRANSIT											
	A	A(%)	B	B(%)	C	C(%)	D	D(%)	E	E(%)	F	F(%)
<b>Security and Safety</b>												
Not Important	7	3,03	0	0,00	1	5,56	0	0,00	0	0	0	0,00
Little Importance	7	3,03	0	0,00	0	0,00	0	0,00	0	0	1	16,67
Important	30	12,99	0	0,00	1	5,56	6	18,75	1	12,5	0	0,00
Very important	62	26,84	1	14,29	6	33,33	10	31,25	0	0	2	33,33
Extremely important	125	54,11	6	85,71	10	55,56	16	50,00	7	87,5	3	50,00
<b>Have comfort</b>												
Not Important	6	2,60	0	0,00	1	5,56	0	0,00	0	0	0	0,00
Little Importance	31	13,42	0	0,00	0	0,00	2	6,25	2	25	0	0,00
Important	104	45,02	3	42,86	4	22,22	14	43,75	3	37,5	1	16,67
Very important	61	26,41	3	42,86	7	38,89	7	21,88	3	37,5	4	66,67
Extremely important	29	12,55	1	14,29	6	33,33	9	28,13	0	0	1	16,67
<b>Reduce costs</b>												
Not Important	3	1,30	0	0,00	1	5,56	1	3,13	0	0	0	0,00
Little Importance	13	5,63	0	0,00	1	5,56	2	6,25	0	0	0	0,00
Important	62	26,84	3	42,86	2	11,11	4	12,50	4	50	3	50,00
Very important	81	35,06	2	28,57	3	16,67	13	40,63	2	25	1	16,67
Extremely important	72	31,17	2	28,57	11	61,11	12	37,50	2	25	2	33,33
<b>Travel to work in less time</b>												
Not Important	4	1,73	0	0,00	0	0,00	0	0,00	0	0	0	0,00
Little Importance	9	3,90	0	0,00	0	0,00	0	0,00	1	12,5	0	0,00
Important	58	25,11	2	28,57	2	11,11	4	12,50	3	37,5	3	50,00
Very important	87	37,66	1	14,29	7	38,89	14	43,75	0	0	1	16,67
Extremely important	73	31,60	4	57,14	9	50,00	14	43,75	4	50	2	33,33
<b>Improve social relationship with colleagues</b>												
Not Important	37	16,02	2	28,57	0	0,00	1	3,13	1	12,5	1	16,67
Little Importance	71	30,74	0	0,00	0	0,00	5	15,63	1	12,5	2	33,33
Important	84	36,36	4	57,14	6	33,33	16	50,00	4	50	2	33,33
Very important	30	12,99	1	14,29	7	38,89	6	18,75	2	25	0	0,00
Extremely important	9	3,90	0	0,00	5	27,78	4	12,50	0	0	1	16,67
<b>Contribute to traffic decongestion and the reduction of parking space</b>												
Not Important	13	5,63	1	14,29	2	11,11	1	3,13	0	0	1	16,67
Little Importance	16	6,93	0	0,00	1	5,56	1	3,13	1	12,5	0	0,00
Important	73	31,60	2	28,57	0	0,00	14	43,75	3	37,5	3	50,00
Very important	69	29,87	2	28,57	5	27,78	4	12,50	2	25	1	16,67
Extremely important	60	25,97	2	28,57	10	55,56	12	37,50	2	25	1	16,67
<b>Contribute to the reduction of pollution</b>												
Not Important	16	6,93	0	0,00	0	0,00	1	2,94	1	12,5	0	0,00
Little Importance	22	9,52	0	0,00	0	0,00	1	2,94	0	0	1	16,67
Important	64	27,71	3	42,86	4	22,22	14	41,18	1	12,5	2	33,33
Very important	66	28,57	0	0,00	5	27,78	5	14,71	2	25	0	0,00
Extremely important	63	27,27	4	57,14	9	50,00	13	38,24	4	50	3	50,00
<b>Get help in finding carpool partners</b>												
Not Important	33	14,29	0	0,00	4	22,22	2	6,25	0	0	2	33,33
Little Importance	63	27,27	2	28,57	0	0,00	6	18,75	1	12,5	0	0,00
Important	87	37,66	3	42,86	5	27,78	13	40,63	5	62,5	3	50,00
Very important	38	16,45	1	14,29	6	33,33	8	25,00	1	12,5	0	0,00
Extremely important	10	4,33	1	14,29	3	16,67	3	9,38	1	12,5	1	16,67
<b>Available of a carpool user group (App, WhatsApp etc.)</b>												
Not Important	27	11,69	0	0,00	1	5,56	1	3,13	0	0	0	0,00
Little Importance	42	18,18	1	14,29	1	5,56	5	15,63	2	25	0	0,00
Important	88	38,10	2	28,57	5	27,78	14	43,75	2	25	4	66,67
Very important	53	22,94	2	28,57	7	38,89	8	25,00	3	37,5	0	0,00
Extremely important	21	9,09	2	28,57	4	22,22	4	12,50	1	12,5	2	33,33
<b>Have travel flexibility</b>												
Not Important	13	5,63	0	0,00	0	0,00	0	0,00	0	0	0	0,00
Little Importance	16	6,93	0	0,00	1	5,56	1	3,13	1	12,5	0	0,00
Important	73	31,60	2	28,57	4	22,22	10	31,25	3	37,5	3	50,00
Very important	87	37,66	1	14,29	6	33,33	13	40,63	2	25	2	33,33
Extremely important	42	18,18	4	57,14	7	38,89	8	25,00	2	25	1	16,67

Bicycle	PUBLIC TRANSIT												
	A	A(%)	B	B(%)	C	C(%)	D	D(%)	E	E(%)	F	F(%)	
<b>Classification of factors that will make an employee to go work by bicycle</b>													
<b>Showers and lockers in the building where you work, to store belongings (helmet, change clothes)</b>													
Not Important	21	9,46	0	0,00	5	27,78	4	12,50	0	0	0	0,00	
Little Importance	10	4,50	0	0,00	1	5,56	0	0,00	0	0	0	0,00	
Important	30	13,51	0	0,00	2	11,11	4	12,50	3	37,5	2	33,33	
Very important	46	20,72	1	14,29	1	5,56	5	15,63	2	25	2	33,33	
Extremely important	115	51,80	6	85,71	9	50,00	19	59,38	3	37,5	2	33,33	
<b>Bike racks near public transit stations</b>													
Not Important	30	13,51	0	0,00	4	22,22	5	15,63	0	0	0	0,00	
Little Importance	15	6,76	0	0,00	1	5,56	1	3,13	1	12,5	0	0,00	
Important	41	18,47	0	0,00	0	0,00	3	9,38	3	37,5	2	33,33	
Very important	76	34,23	2	28,57	2	11,11	8	25,00	2	25	2	33,33	
Extremely important	60	27,03	5	71,43	11	61,11	15	46,88	2	25	2	33,33	
<b>Map containing information about the safest routes to work</b>													
Not Important	35	15,77	0	0,00	5	27,78	3	9,38	2	25	0	0,00	
Little Importance	32	14,41	0	0,00	2	11,11	3	9,38	0	0	0	0,00	
Important	64	28,83	0	0,00	1	5,56	8	25,00	2	25	3	50,00	
Very important	54	24,32	3	42,86	4	22,22	6	18,75	2	25	1	16,67	
Extremely important	37	16,67	4	57,14	6	33,33	12	37,50	2	25	2	33,33	
<b>Find cycling partners / groups to cycle with to work</b>													
Not Important	50	22,52	0	0,00	5	27,78	4	12,50	1	12,5	0	0,00	
Little Importance	48	21,62	1	14,29	2	11,11	5	15,63	0	0	0	0,00	
Important	64	28,83	4	57,14	1	5,56	7	21,88	3	37,5	3	50,00	
Very important	41	18,47	1	14,29	4	22,22	12	37,50	3	37,5	1	16,67	
Extremely important	19	8,56	1	14,29	6	33,33	4	12,50	1	12,5	2	33,33	
<b>Bike racks in the building / near workplace</b>													
Not Important	25	11,26	0	0,00	5	27,78	3	9,38	0	0	0	0,00	
Little Importance	10	4,50	0	0,00	0	0,00	1	3,13	0	0	0	0,00	
Important	39	17,57	1	14,29	1	5,56	10	31,25	3	37,5	2	33,33	
Very important	68	30,63	2	28,57	3	16,67	8	25,00	2	25	2	33,33	
Extremely important	80	36,04	4	57,14	9	50,00	10	31,25	3	37,5	2	33,33	
<b>Bike lanes/Cycling paths connecting to workplace</b>													
Not Important	21	9,46	0	0,00	3	16,67	3	9,38	0	0	0	0,00	
Little Importance	5	2,25	0	0,00	0	0,00	0	0,00	0	0	0	0,00	
Important	19	8,56	0	0,00	1	5,56	3	9,38	1	12,5	1	16,67	
Very important	50	22,52	1	14,29	2	11,11	6	18,75	1	12,5	2	33,33	
Extremely important	127	57,21	6	85,71	12	66,67	20	62,50	6	75	3	50,00	
<b>Public bike station near work place (+Bike, Yellow)</b>													
Not Important	33	14,86	0	0,00	6	33,33	3	9,38	0	0	0	0,00	
Little Importance	25	11,26	0	0,00	1	5,56	2	6,25	0	0	0	0,00	
Important	47	21,17	1	14,29	2	11,11	6	18,75	3	37,5	2	33,33	
Very important	62	27,93	2	28,57	2	11,11	8	25,00	4	50	3	50,00	
Extremely important	55	24,77	4	57,14	7	38,89	13	40,63	1	12,5	1	16,67	
<b>The possibility of taking bike on public transit (bus / subway)</b>													
Not Important	28	12,61	0	0,00	5	29,41	7	21,21	0	0	0	0,00	
Little Importance	16	7,21	0	0,00	0	0,00	0	0,00	0	0	0	0,00	
Important	55	24,77	0	0,00	2	11,76	6	18,18	4	50	1	16,67	
Very important	68	30,63	3	42,86	2	11,76	8	24,24	0	0	3	50,00	
Extremely important	55	24,77	4	57,14	8	47,06	12	36,36	4	50	2	33,33	
<b>Discounts on bike purchases and equipment (eg electric bikes)</b>													
Not Important	25	11,26	0	0,00	5	27,78	3	9,38	0	0	0	0,00	
Little Importance	19	8,56	0	0,00	0	0,00	2	6,25	0	0	0	0,00	
Important	48	21,62	1	14,29	1	5,56	4	12,50	1	12,5	3	50,00	
Very important	60	27,03	3	42,86	5	27,78	8	25,00	2	25	1	16,67	
Extremely important	70	31,53	3	42,86	7	38,89	15	46,88	5	62,5	2	33,33	
<b>Increasing number of bicycle racks</b>													
Not Important	25	11,26	0	0,00	6	33,33	3	9,38	0	0	0	0,00	
Little Importance	12	5,41	0	0,00	0	0,00	1	3,13	0	0	0	0,00	
Important	59	26,58	1	14,29	2	11,11	6	18,75	3	37,5	1	16,67	
Very important	69	31,08	1	14,29	4	22,22	15	46,88	1	12,5	3	50,00	
Extremely important	57	25,68	5	71,43	6	33,33	7	21,88	4	50	2	33,33	
<b>Secure bike racks to prevent theft</b>													
Not Important	22	9,91	0	0,00	4	22,22	3	9,38	0	0	0	0,00	
Little Importance	6	2,70	0	0,00	0	0,00	1	3,13	0	0	0	0,00	
Important	26	11,71	0	0,00	1	5,56	1	3,13	0	0	2	33,33	
Very important	62	27,93	0	0,00	4	22,22	7	21,88	2	25	1	16,67	
Extremely important	106	47,75	7	100,00	9	50,00	20	62,50	6	75	3	50,00	
<b>Benefits for whoever uses bicycle (discounts, coupons, etc.)</b>													
Not Important	34	15,32	0	0,00	5	27,78	3	9,38	0	0	0	0,00	
Little Importance	26	11,71	0	0,00	1	5,56	1	3,13	2	25	0	0,00	
Important	55	24,77	2	28,57	1	5,56	8	25,00	0	0	2	33,33	
Very important	60	27,03	2	28,57	4	22,22	7	21,88	2	25	2	33,33	
Extremely important	47	21,17	3	42,86	7	38,89	13	40,63	4	50	2	33,33	



	PUBLIC TRANSIT											
Percentage of employees willing to change their arrival and /or departure time to RECEIVE ride	A	A(%)	B	B(%)	C	C(%)	D	D(%)	E	E(%)	F	F(%)
Yes	99	42,86	5	71,43	11	61,11	18	56,25	5	62,5	4	66,67
No	132	57,14	2	28,57	7	38,89	14	43,75	3	37,5	2	33,33
<b>How many minutes' employees will be willing to Travel/Wait to RECEIVE a ride?</b>												
None	3	3,03	0	0,00	0	0,00	1	5,56	0	0	0	0,00
Up to 5 minutes	26	26,26	0	0,00	2	18,18	3	16,67	0	0	1	25,00
From 6 minutes to 10 minutes	39	39,39	4	80,00	5	45,45	5	27,78	1	20	0	0,00
From 11 minutes to 15 minutes	18	18,18	0	0,00	3	27,27	6	33,33	3	60	1	25,00
More than 15 minutes	13	13,13	1	20,00	1	9,09	3	16,67	1	20	2	50,00
<b>Waiting time</b>												
None	0	0,00	0	0,00	0	0,00	0	0,00	0	0	0	0,00
Up to 5 minutes	11	11,11	0	0,00	0	0,00	1	5,56	0	0	1	25,00
From 6 minutes to 10 minutes	41	41,41	2	40,00	6	54,55	8	44,44	1	20	1	25,00
From 11 minutes to 15 minutes	29	29,29	1	20,00	4	36,36	3	16,67	2	40	1	25,00
More than 15 minutes	18	18,18	2	40,00	1	9,09	6	33,33	2	40	1	25,00

## Appendix C

### *As sugestões e Comentários*

- Programa de incentivo da empresa para quem oferecer ou utilizar de caronas para se locomover até o trabalho. Voucher, vales-combustíveis, ou pontos liveo....
- Estimular a utilização de aplicativos como o Carpool através de convênios e criação de grupos de funcionários através dos dispositivos institucionais. Convênios com a Uber/99 taxi, etc. para a redução do custo no transporte coletivo de funcionários.
- As empresas deveriam voltar a oferecer ônibus que trouxessem e levassem seus funcionários, ao invés de oferecer o vale transporte. Teríamos, para cada ônibus estacionado, 50 carros em casa.
- No meu caso, a distância inviabiliza o uso da bicicleta. Motociclistas geralmente não são respeitados no trânsito, o que torna o uso proibitivo. Considero o uso da carona importante, mas é pouco prático pois as rotas às vezes são incompatíveis. Espero o dia que tivermos à disposição um sistema de compartilhamento de veículos elétricos para até 2 ocupantes, tanto para o deslocamento diário casa/trabalho quanto para integração com outros meios de transporte, como metrô, por exemplo.
- O Governo deveria investir no transporte público eficaz, bem como disponibilizar acessibilidade nas vias públicas, como a construção de calçadas seguras ao pedestre.
- Acredito que poderíamos ter vagas no prédio para todos.
- Precisa voltar a ter a VAN do metro para o local de trabalho.
- Águas Claras precisa de mais horários de ônibus ligando-a à Rodoviária do Plano. Precisa também de outras linhas ligando-a às demais RAs. Seria interessante também ter algumas linhas saindo da Rodoviária que transitassem pelo eixo L ou uma “grande circular” que passasse por esse eixo e pelo W.
- Acho que deveria ser construído metrô de superfície na asa norte até planaltina.
- Escala de Trabalho. Metade trabalham pela manhã e metade pela tarde. Completamente inviável vir trabalhar. Se vier de carro, não estaciona. Se não vier de carro, muito difícil chegar.
- Teletrabalho!
- As ciclofaixas de Águas Claras são extremamente perigosas: Muito estreita, atravessa vários cruzamentos movimentados e os usuários não respeitam o sentido da via porque o sentido contrário fica muito distante. Águas Claras precisa de ciclovias seguras e que tenham acesso às várias áreas da cidade e às outras ciclovias do DF. Seria muito interessante um trajeto seguro de Águas Claras para o Plano Piloto, e alguns ajustes nas ciclovias de Brasília conectando a Asa Sul à Asa Norte.
- No DF a questão viária é muito complicada. A dificuldade de integração nos transportes, de acesso a algumas localidades, deveria ser repensado a questão de integração viária. Ao exemplo criar terminais de integração e vias de trânsito rápido para ônibus. E também linhas circulares. Cito o exemplo da cidade de Florianópolis, que possui terminais de integração e linhas expressas, semi-expressas e paradoras.
- Gostaria de sugerir mais opções de rotas para as vans e ampliar a parceria com novas rotas do busup. As vantagens financeiras têm impacto relevante na escolha do transporte, portanto, vale a pena gerar algum tipo de voucher ou desconto para funcionários.
- Tinha que ter uma academia no prédio da empresa! As pessoas viriam mais cedo (horário com menos trânsito) e isso contribuiria para a saúde (física e mental). - Parceria com empresas que façam trajeto pela Asa Norte, o foco está muito em águas claras. - Divulgar mais se há

bicicletário (onde está localizado), se há chuveiro etc. Fazendo campanhas para as pessoas substituírem carros por outros meios de transporte. Quem mora na 402n sofre com tantos carros estacionados IRREGULARMENTE na quadra, que muitas vezes atrapalham os moradores.

- Ampliar o metro, micro-ônibus coletivo de acordo com a região de moradia ou carona solidária por condomínio/local de trabalho. Outra opção seria dividir o Uber para ir e voltar do trabalho para quem mora no mesmo condomínio.
- Teletrabalho
- Ônibus da empresa que façam alguns itinerários
- Estação de metrô HRAN Ambiente minimamente de terceiro mundo em volta do trabalho (não tem calçadas, não tem bancos, não tem lixeiras, mas tem brita, barro, lama, poças)
- No meu caso levo as crianças na escola e ainda me vejo obrigada a usar o carro, pois são 3 filhos. O tempo de espera do transporte público influencia muito em utiliza-lo ou não.
- Além das ações de mobilidade, é de extrema importância à qualidade de vida do funcionário, redução de custos e aumento de eficiência a implementação do tele-trabalho. Quanto à mobilidade, a realização de ações mais sustentáveis, inclusive mediante incentivo financeiro, são muito importantes, por exemplo: incentivo à carona solidária que mantenha o custo do funcionário semelhante ao transporte público, disponibilização de vans que façam integração com o transporte público, não da forma que está na empresa, cujo serviço é de péssima qualidade, negociação com o Governo para construção de ciclovias e estrutura de vestiários e bicicletários seguros, disponibilização de transporte fretado subsidiado parcialmente pela empresa para os bairros com maiores concentrações de funcionários.
- Mais vagas na garagem na empresa para quem oferece caronas para colegas.
- É imprescindível manter e aumentar, em todas as ruas/avenidas, faixas exclusivas para veículos de transporte coletivos (ônibus e vans), pois todo o cidadão deve perceber os privilégios para o transporte coletivo, em detrimento ao transporte individualizado (1 ou duas pessoas no veículo).
- Incentivar o trabalho em casa: Teletrabalho.
- Mais linhas de metrô. Ciclovias ligando Águas Claras e outras regiões administrativas ao Plano Piloto. O benefício de descontos no IPVA para àqueles que cotidianamente efetivam as caronas oferecidas.
- A respeito do transporte público, gostaria de complementar que é difícil o deslocamento na alguma regiões. Além disso, eu tive o celular furtado dentro do ônibus, e passei a sentir medo de usar o transporte público de maneira geral. Tenho gasto muito dinheiro com Uber, mas me sinto mais segura.
- Se o transporte público nos bairros que não são atendidos pelo metrô fosse de maior qualidade e rapidez, um maior número de pessoas utilizaria.
- intermodal de transporte conjugando ônibus e metrô (com possibilidade de transportar bicicleta e patinete manuais ou motorizados e pontos de abastecimento), estações com bicicletas e patinetes disponíveis para alugar, pequenos veículos elétricos cobertos similar a um automóvel com capacidade reduzida para duas pessoas para períodos de chuva, ciclovias sinalizadas e protegidas fora do roteiro normal dos veículos para fugir do engarrafamento, pontos de parada próximo ao local de trabalho e infraestrutura para tomar banho e trocar de banho.
- Mais linhas de metrô e maior conforto nos vagões (ar condicionado e mais vagões disponíveis, horário de pico é desumano usar o metrô)
- Descontos em bikes seria sensacional

- É preciso repassar as calçadas. Por exemplo, da rodoviária para o setor de autarquias norte não tem calçadas e nem faixas de pedestre para travessia.
- Independente da opção para o deslocamento, deve-se primar pela segurança nas paradas de transporte coletivo e nos estacionamentos (veículo, moto, bicicleta).
- Acho superimportante a mobilidade por bicicleta, porém, não aprendi andar.
- Poderia fazer uma ação junto ao Governo (federal ou GDF) para ter um transporte público de qualidade que chegasse ao prédio da empresa ou bem próximo a ele. Hoje o metrô, que seria a melhor alternativa para chegar ao trabalho, está sempre lotado, quebrar com frequência e a última estação é distante demais do trabalho.
- Já tentei usar bicicleta ou vir caminhando, mas infelizmente não há calçadas suficientes para caminhadas no DF nem mesmo ciclovias seguras, uma vez que os cidadãos não respeitam o ciclista. Isso me fez deixar de usar e voltar ao veículo/motocicleta.
- Contratação/mediação de contratação/convênio pelo empregador de empresas de transporte coletivo para os funcionários 02) Construção de faixas contínuas (sem nenhum bloqueio ou descontinuidade) de transporte alternativo para utilização dos trabalhadores (ciclovias, por ex.) 03) Utilização/construção de prédios corporativos que estejam localizados em local de contra fluxo do trânsito 04) Implantação sistemática de home-office/utilização de modernas ferramentas disponíveis atualmente que possibilitam rapidamente e 100% (em muitos casos) esse sistema de trabalho
- Ideia utilizada em eventos nos anos anteriores, mas que foi descontinuada seria a utilização dos estacionamentos ociosos do parque da cidade, com vans fazendo o trajeto até a área central.
- O aumento do número de usuários de transportes compartilhados somente será expressivo se houver incentivos por parte da empresa, inclusive financeiros.
- As ciclovias precisam ter interligações, praticamente inexistentes atualmente. Piso limpo, drenado e sem saliências/buracos.
- Paradas de ônibus distante das residências e do local de trabalho dificultam o uso de transporte coletivo no DF.
- CDC Bike a juros 0 (zero)
- Acredito que a empresa não leva em consideração o acesso real aos serviços de transporte público, a acessibilidade aos edifícios, possibilidade de estacionamento e fluxo de veículos nas vias de acesso ao definir o local da empresa. Trabalhamos em um edifício que o acesso por pedestre, não conta nem com calçadas. Outro ponto que a empresa precisa evoluir muito é o serviço remoto (home office).
- Os serviços e postos de trabalho são concentrados na região central. Sendo assim, de manhã todos se deslocam no mesmo horário para a região central e tarde ocorre o movimento inverso. As grandes distâncias entre as regiões administrativas desestimulam o uso de bicicleta no deslocamento. O transporte público, além de péssima qualidade, não oferece segurança ao usuário nas paradas ou no deslocamento até a parada. Desconcentração dos postos de trabalho, horários mais flexíveis e teletrabalho são alternativas eficientes na melhoria da mobilidade.
- Flexibilização do horário de trabalho
- Incentivar com algum benefício fiscal, as empresas que disponibilizasse aos seus funcionários um transporte corporativo de qualidade.
- Investir em educação para a mobilidade e estímulo ao uso dos transportes coletivos. Divulgar índices de emissão por categoria de veículo. Campanha "dia sem carro", a exemplo da velha "sexta sexy". Campanhas nos grandes veículos visando valorização do transp alternativo.

Estimular a cultura da bicicleta. Divulgar pegada ambiental/custos ambientais comparados, exemplo: carro com 1 pessoa X coletivo. Quanto custa? Quanto emite? Dar ampla divulgação aos mapas completos de ciclovias e pontos de bike/patinete de app. Viabilizar bônus aos usuários de bike/patinete de app com frequência de uso (a exemplo do Nota Legal).

- Ampliação significativa nas rotas de metrô.
- Mais retornos inteligentes, semáforos em cruzamentos (não apenas para pedestres) mas que detectem a presença de um veículo, querendo fazer a passagem/conversão, e que em seguida feche (sinal vermelho) o fluxo principal para a outra via e assim aquele motorista que não tem uma boa habilidade no trânsito e até mesmo não seja um ninja, possa conseguir atravessar o cruzamento sem pôr em risco a própria vida ou a de terceiros.
- Incentivo para compra de bicicleta elétrica
- Disponibilização de armários nos vestiários também para quem gostaria de vir caminhando/correndo (parece-me que quem vem de bicicleta tem direito ao uso dos armários!). Moro a 5km da empresa, seria incrível conciliar treino com o trajeto para o trabalho! Fica a dica...
- Nenhuma sugestão, apenas parabenizá-los pelo trabalho e profundidade e pertinência da pesquisa.
- A disseminação do Teletrabalho e de horários alternativos (antes da 7h, por exemplo) favoreceria a mobilidade e a qualidade de vida dos funcionários, evitando a perda de momentos preciosos no trânsito.
- O valor para uso dos patinetes elétricos não os tornam como uma opção viável para deslocamento. Poderia ser pensado em alguma forma de baratear os custos de forma que as pessoas o considerem como meio de transporte e não apenas diversão.
- Uso de patinetes é uma boa opção
- Ampliação das linhas de metrô.
- Uma das razões para o uso de carro particular, decorre do péssimo serviço de transportes públicos em Brasília, uma cidade planejada para uso de carros. Então minha sugestão é melhorar o transporte público, aumentar o percurso da linha de metrô. No entanto não sei se a empresa tem esse alcance.
- A questão é mais estrutural, precisaria haver uma maior (melhor) organização e mentalidade coletiva ao transporte público em Brasília, reduzindo o que chamo de "cidade do automóvel"
- Metro na asa norte, metro até o aeroporto, modernização dos metros com unidades mais rápidas e faltou a opção de moro sozinho
- A ampliação das linhas de metrô, principalmente Asa Norte, é mais que urgente.
- Deveria ter uma pergunta questionando se o respondente da pesquisa possui estacionamento privativo no local de trabalho (é o meu caso). Isso influencia nas respostas.
- Apesar de termos horários previstos de trabalho (típico), é muito comum termos que ficar além dos nossos horários, ou ter que vir em turno contrário ao combinado (para quem tem jornada de 6hs) por determinação da chefia. Isto complica e bagunça a rotina de transporte, muitas vezes levando ao aumento de gastos do funcionário que correm por conta dele mesmo.
- Integração entre os meios de transporte.
- Faltam ciclovias para chegar à empresa vinda do Guará II (Park Sul), já tentei! Vir pela faixa de rolagem dos veículos é loucura!
- Mais investimentos em transportes coletivos de qualidade, por favor.
- Pagamento de vale transporte em dinheiro facilitando o rateio de caronas
- Melhoria do transporte público, redução no preço das passagens, flexibilização de horários entrada e saída na empresa. Acho rígido o controle de entrada e saída.

- Não utilizo transporte público pois não há muitas opções onde eu moro. Os pontos de ônibus ficam longe e os horários em que passam não são exatos dificultando o planejamento.
- A segurança durante o deslocamento é um fator decisivo que não compete à instituição, políticas públicas são necessárias para garanti-la.
- Expansão do metrô para a Asa Norte.
- Penso que o Governo do Distrito Federal poderia estabelecer um programa de incentivo ao teletrabalho, uma vez que tem potencial para reduzir consideravelmente o tráfego de veículos, o que por sua vez reduz a poluição na cidade, impacta positivamente na saúde das pessoas com maior bem-estar e menos estresse, indicadores que inclusive podem impactar positivamente no consumo de estrutura da saúde pública. O incentivo poderia consistir em desconto ou isenção fiscal.
- Eu e muitos colegas trabalhamos em diversas cidades do Norte, Nordeste e Centro Oeste, mas nossa lotação é em Brasília.
- Seria de grande valia desenvolver um APP que indique rotas para deslocamento por bicicletas. Tipo um Waze para bikes.
- Você tem filhos abaixo de 16 anos? Escolha uma das seguintes respostas: Tenho 2 Sim, de 0 a 5 anos. 1 Sim, de 6 a 10 anos. 1
- Sugiro adesão a teletrabalho para Assessores, como uma escolha opcional do funcionário. Existe em vários locais e tem tido sucesso por aumento de resolução das demandas, uma vez que quem trabalha em casa tem maior meta na mensuração das atividades (20% ou mais). Exemplo: Correios, Secretaria da Criança e Adolescente, e diversas empresas privadas.
- O acesso ao edifício da empresa é ruim. É longe da rodoviária, portanto longe do metrô. A van demora e a espera é ao ar livre, embaixo de sol e chuva.
- Acredito muito nos benefícios da carona solidária. Sempre que posso pego ou ofereço carona. Usei um App por um tempo, mas o aplicativo "travou" e não permite que eu peça caronas (estou com esse problema desde o final de agosto). Já entrei em contato com eles e dizem que o problema está no pagamento a empresa e a empresa diz que o problema está no App. Enfim, a tecnologia que envolve carona solidária não está madura o suficiente para lidar com seus usuários. Várias pessoas próximas relataram problemas semelhantes. Como manter uma cultura de carona solidária se mesmo querendo, as pessoas não conseguem usar? Os custos de usar o ônibus fretado acabam sendo maiores que o uso do transporte público, então fica inviável para muitas pessoas.
- Expansão do metrô, melhoria na sinalização e condições das paradas de ônibus, melhoria na pontualidade dos transportes melhoria na acessibilidade
- Parceria para descontos na aquisição de bicicletas elétricas seria bem interessante.
- Sou a favor do teletrabalho, evitando deslocamento.
- Infelizmente, o transporte público no DF é lastimável. Faltam (e muito) investimentos no metro (que não tem malha) e nas linhas de ônibus, que são muito escassas. Sem falar na dificuldade de locomoção a pé, devido à falta de calçadas e vias para pedestres. Andar a pé em Brasília significa andar sobre terra/grama e cruzar rodovias de forma perigosa. Uma pena. Se houvesse condição, certamente eu optaria pelo transporte público/coletivo não só para ir ao trabalho, mas também para minhas atividades pessoais.
- Seria interessante trazer uma estação do metrô até o HRAN. Seria interessante fazer ciclovias ligando os eixos de sul a norte.
- Ampliação das linhas de metrô para a asa norte.
- Fazer as ligações entre ciclovias, pois tem ciclovias que terminam seu trajeto, simplesmente por terminar, não tendo continuidade e mais à frente, geralmente questão de metros ou mesmo

poucos quilômetros tem o início de outra ciclovia. É importante que as ciclovias das regiões satélites para o Plano Piloto sejam completas (inteiras).

- Não temos calçadas, ruas com alta velocidade que dificultam atravessar, poucas árvores nos dias de calor. Tudo isso atrapalha o caminhar e uso de bicicleta no plano piloto. Podemos incentivar o teletrabalho e avaliar a migração de espaços da empresa em modelo coworking em outros bairros, em especial Aguas Claras.
- Excelente iniciativa! O melhor e mais completo questionário que já respondi na empresa. Essencial para todos!
- Sugiro ampliar o público alvo para teletrabalho, e que haja incentivos ou benefícios para moradia no Plano Piloto.
- Acredito que as empresas deveriam descentralizar deste caos urbano que existe no plano piloto e montar unidades em outras regiões. Por exemplo, na empresa que trabalho, a grande maioria dos funcionários moram em águas claras e região. Ao invés de investir em um centro administrativo mais próximo, como SIA ou Aguas Claras, preferem investir em locais ermos. A Asa Norte, apesar de fazer parte do plano piloto, é um lugar ermo, longe de tudo, de difícil acesso, sem a infraestrutura de transporte público ou rodovias com capacidade para grandes quantidades de veículos. O funcionário, especialmente no início de carreira, não tem condições financeiras de custear uma moradia próxima, e o deslocamento até o trabalho onera as vias públicas. Outro problema de Brasília é o S.G.A.I (Setor de grandes áreas inúteis). Próximo ao eixo monumental existem imensas áreas cedidas ao exército, ao meio ambiente e outras entidades que não fazem uso do espaço. Precisa mesmo de uma área do tamanho do QG do exército no centro de Brasília? Qual a diferença de serem reinstalados no final da asa norte? Estes "parques ecológicos" que são áreas de matagal, cheia de bandidos. Elas cumprem o papel ecológico delas? Conseguem absorver a quantidade de carbono emitida pelos veículos que tem que percorrer enormes distancias por causa delas? Não seria mais lógico um replanejamento urbano? Trazer as pessoas para morarem mais próximas e levando essas "inutilidades" para lugares mais ermos?
- Facilitar a carona solidária, com compartilhamento das despesas.
- Estação de Metrô na altura do HRAN.
- Transporte público aqui nunca funcionou de maneira satisfatória. Para algumas cidades o gargalo sempre foi ainda maior, como o caso de Sobradinho. Utilizei o serviço por vários anos, sempre com ônibus lotados e muitas vezes com ônibus ruins. Sem contar a falta de segurança envolvida dentro dos ônibus e no trajeto parada de ônibus > casa
- Financiar a construção da estação de METRÔ em frente da empresa. Prédio em forma do LOGO da empresa, do qual a empresa poderia usufruir por determinado período, com espaços de lazer, restaurantes e outros.
- Aumentar o metro DF com linhas (1) "no mínimo" até o final da Asa Norte, (2) Eixo Monumental (Rodoferroviária X Esplanada) e (3) Pistão Norte x Sul em Taguatinga.
- Ampliar a malha de atendimento do metrô, além de melhorar a qualidade do metrô. As ciclovias precisam ser concluídas para atender todo o percurso entre Aguas Claras e o Plano Piloto onde fica o trabalho.
- Questionários mais curtos
- A parceria da empresa com programa Carpool, com a concessão de descontos para as caronas, foi uma excelente iniciativa e deve ser ampliada e estimulada na empresa. Sugiro também que a empresa possa atuar como promotor de outras ações para melhoria da mobilidade urbana, exigir dos órgãos públicos condições mais adequadas de transporte e segurança pública, fazer parcerias com outras empresas de aplicativos de transporte, incentivos ao uso

de bicicletas pelos funcionários, com alguma premiação ou benefício para aqueles que mais usam bikes.

- Cheguei a traçar planos de me deslocar de bicicleta, mas o trajeto de minha casa (asa norte) para o trabalho (asa norte) se mostrou perigoso e inapropriado, inviabilizando meus planos.
- Construir pelo menos mais uma estação de metrô, na 102 Norte, em frente ao edifício da empresa, para que as pessoas que trabalham nesse prédio e também nos outros próximos possam ter acesso ao referido transporte público.
- Ações junto ao governo do DF para melhoria do transporte coletivo, em forma de parceria, a empresa como agente transformador na coletividade.
- 100% dos funcionários da empresa podem aderir ao teletrabalho. Nenhuma atividade desempenhada nas áreas que ocupam a empresa precisa ser realizada presencialmente. A adesão ao teletrabalho sereia a melhor alternativa à mobilidade.
- É de extrema importância que seja oferecida uma opção para que os funcionários possam estacionar o veículo em algum lugar para trabalhar. A empresa foi construída sem considerar esse impacto. No momento, os assessores precisam estacionar ou nas quadras residenciais ao lado (onde não há vaga para todos e já angariaram a ira dos moradores locais - visto as mensagens de "bancários imundos" que recebemos) ou precisam estacionar no famoso "britas" que se trata de um terreno de terra, que se transforma em um lamaçal a qualquer sinal de chuva. Se, ao construir o Edifício, optaram por não construir vaga de garagem para todos os funcionários, é obrigação a empresa oferecer alguma alternativa humana que não seja humilhante e/ou degradante para os funcionários.
- Interligação da rodoviária do plano piloto com as ciclovias que vão para a Asa Norte e Sul, interligação entre as ciclovias de Taguatinga e Samambaia
- As atividades de todos são concentradas no mesmo espaço temporal. Todos os serviços funcionam no mesmo horário (ou próximos) e praticamente tudo é feito no Plano Piloto. Distribuir os horários e locais de trabalho (favorecer a implementação do teletrabalho) facilitaria a mobilidade urbana.
- A empresa não é bem localizada nem bem provido de transporte público. Além disso, o desenho de Brasília não favorece o uso de transportes alternativos ou transporte público, pois as distâncias a percorrer são longas, são seis meses de muita chuva e outros seis de muito calor e seca, faltam calçadas e faltam coberturas para proteger o pedestre da chuva ou do sol (marquises). Se fosse oferecido transporte corporativo, chegando e partindo da frente do edifício, seria uma solução, mesmo que tivéssemos que pagar para usá-lo. Assim, usaríamos o transporte por aplicativo ou o carro próprio somente quando fosse necessário.
- Poderiam incentivar ainda mais a carona, dando descontos e oferecendo vagas para os caroneiros.
- Trem do Valparaíso à antiga rodoferroviária, e expansão do metrô, inicialmente até a asa norte, posteriormente alcançar mais algumas cidades satélites, como Sobradinho, Riacho, Riacho II e Recanto.
- A garagem deveria ser liberada para as pessoas que trabalham até mais tarde, pois depois de 19hs fica perigoso no estacionamento externo. Um grupo de whatsapp ajudaria na busca por carona solidária.
- Moro próximo do trabalho e poderia vir a pé. Contudo, preciso usar as passarelas subterrâneas do eixo rodoviário (eixão norte). Já presenciei assaltos e consumo frequente de drogas nesses locais. Meu retorno é, tipicamente, após anoitecer, o que prejudica minha sensação de segurança. Outro inconveniente é a falta de interligação das ciclovias quando tentei vir de bicicleta e péssima qualidade das calçadas e da iluminação pública.



- No longo prazo: Ampliar Metro para a Asa Norte. No curto prazo: baixar as tarifas e aumentar a disponibilidade e frequência dos veículos coletivos (ônibus, etc)
- No caso, uso o Uber pela facilidade de chamar na hora que eu quiser. Seria interessante a ajuda de custo para o trabalho.
- A carona solidária ou transporte público deve estar alinhado a outras formas de transporte (bicicleta, patins, patine, carro), estacionamentos para os usuários, via de acessos (pista específica de bike) e segurança
- Mais linhas de ônibus
- Mais ciclovias
- Mais ciclovias e possibilidade de transportar bicicleta no BRT
- O horário deveria ser mais flexível, poderíamos uma vez na semana trabalhar em casa opcionalmente,
- Disponibilizar taxis na rua com preço de corridas com aplicativo, sem ter que precisar de usar aplicativos, bastando balançar as mãos na rua para chamar o motorista. Ou, liberar qualquer carro para transporte público, com adesivos gigantes identificando se tratar de carros para corridas, sem ter que usar necessariamente aplicativos.
- Sugiro atuar junto ao Governo visando melhorias no transporte público (metro, ônibus e vias adequadas para o transporte via bicicleta/motocicletas.
- Investimento veículos elétricos.
- Expandir as ciclovias e melhorar as condições das já existentes.
- O metrô de Brasília é um dos piores que já vi. Parece mais as antigas linhas de trens da Central do Brasil: intervalos longos, trens lotados (neste caso, pela baixa frequência dos trens), linhas diferentes no mesmo trilho (absurdo, gambiarra total) e até coisas "simples", como não ter ar condicionado. Se ao menos houvesse investimento em novas composições, com ar condicionado e a frequência diminuísse (não precisa ser a cada 1 minuto como em São Paulo), mas no máximo 5 minutos cada linha FORA do horário de pico), o serviço melhoraria muito e aumentaria o fluxo de passageiros.
- Seria interessante trabalhar em casa conectado pelas turmas.
- Investir na segurança, interconectividade, segurança e aumento na quantidade de ciclovias, para aproveitar ao máximo a característica morfológica da cidade, diminuindo o impacto ambiental e o estresse no trânsito
- Ônibus institucional.
- Metro para asa norte
- Pressionar o governo a ampliar o metrô para todas as regiões administrativas do DF; Pressionar o governo para implementar o transporte de VLT; Cobrar mais impostos de carros antigos e velhos, não de carros mais novos; Propiciar maior integração entre ônibus e metrô; Criar grandes balões de estacionamento com integração entre ônibus, metrô e estações de bicicletas; Implantar sistema de bilhetagem única e obrigatoriamente eletrônica nos meios de transporte (zero papel-moeda); Reduzir o preço de todas as passagens.
- Não há sugestões.
- O incentivo ao teletrabalho seria a forma mais eficiente.
- Alterno o uso de veículo e metrô. Ocorre que a linha de metrô deveria ser ampliada. Se tivesse uma parada próxima ao meu trabalho eu usaria sempre o metrô.
- Disponibilizar ônibus para sair dos bairros e ir direto aos locais de trabalho.
- Sugestão de implementação de trabalho remoto, ainda que em centrais de estação de trabalho.
- Descontos reais em bike elétrica iria bem. Ciclovia entre o plano piloto e águas claras são inexistentes.

- O transporte público no DF é muito precário, as empresas de ônibus não investem no conforto dos passageiros. Ônibus extremamente lotados estressam os passageiros tanto quanto aos motoristas em geral. Seria ótimo se houvesse ônibus com andar, por exemplo. E linhas com intervalos mais curtos entre as viagens.
- Estações de Metrô ao longo da Asa Norte.
- Com relação às questões sobre o uso de bicicleta assinalei "Sem Importância" em todas devido à distância entre minha residência e meu trabalho, o que inviabiliza o uso da bicicleta. Usaria bicicleta caso morasse perto e os itens questionados passariam a ter importância.
- Seria interessante as empresas fazerem uma campanha constante de incentivo ao uso de bicicleta para ir ao trabalho, e até mesmo de metrô. Após o engajamento das pessoas, continuar com o incentivo, como por exemplo, informando dados de que pelo uso de x pessoas de bicicletas ao invés de veículo automotor, x emissão de gases ao meio ambiente foi evitado. E também dados sobre a saúde do trabalhador ciclista, como a cada km de bicicleta tantas calorias foram queimadas e o quanto isso terá um impacto positivo ao longo dos anos na vida do indivíduo. Entre outras coisas.
- Incentivo maior ao teletrabalho. A maior parte da minha atividade poderia ser realizada fora do ambiente de trabalho, sem prejuízo.
- Melhorar a qualidade do transporte e disponibilizar maior diversidade de horários no caso de transporte coletivo. Quanto ao transporte individual, proporcionar garagem aos funcionários que comprovadamente possuam somente um veículo e que dele se utilizem para transportar os demais integrantes da família para escola, trabalho, etc.
- Morando e trabalhando próxima à L2 não vejo dificuldades em utilizar o transporte público e o faço frequentemente mesmo possuindo carro. O problema é se preciso ir a alguma quadra ou direção diferente (ex: w3 norte e sul - principalmente meio das asas -, sudoeste, etc.), as opções de ônibus são extremamente reduzidas, as vezes precisando ir até a rodoviária para pegar outro ônibus e com muito tempo de espera, mesmo que as distâncias sejam curtas.
- Maiores linhas de ônibus saindo de Águas Claras em direção ao Plano Piloto.
- Muito carro, motoristas horríveis, péssimo gerenciamento de trânsito pelas autoridades.
- O transporte público do DF é de péssima qualidade. Melhorias no transporte público, no treinamento dos motoristas, oferecimento de calçadas decentes e pontos mais próximos ao trabalho, locais que não aluguem, contribuiriam muito para a mobilidade corporativa
- Asa Norte precisa urgentemente de metro.
- Considerando que a maioria dos funcionários que trabalham na empresa moram em águas Claras e a dificuldade de acesso à transporte público na região, seria de se fazer a 1ª estação de metrô da Asa Norte com máxima urgência. A redução de carros no trânsito de Brasília seria sensível.
- A criação das estações de metrô ao longo da asa norte deveria sair do papel.
- Locais de trabalho mais próximos de estações de transporte público e de domicílios dos empregados, considerando a logística de acesso.
- Bom transporte público e seguro para todos
- A empresa deveria providenciar segurança nas proximidades do prédio calçadas nas quadras adjacentes ao edifício.
- Solicitar ao GDF calçadas para pedestres que fazem o percurso Rodoviária Plano Piloto e a empresa, diariamente, ida e volta. E, também, faixas de pedestres nas vias desse percurso.
- Melhorar o transporte público: ônibus - mais linhas e maior frequência; e metrô - expandir a rede para mais áreas do DF, especialmente a criação da estação do HRAN.
- Favor campanha junto ao governo do DF para a criação de ciclovias.

- Expandir os ônibus para outras cidades o ônibus que busca os colegas no trabalho. Se não me engano está disponível apenas para Águas Claras. O lado norte da Cidade não possui metrô e a segurança no entorno da empresa é lastimável. Parei de andar de ônibus quando vi uma pessoa armada (Faca) ao lado da parada em que desci (HRAN). Aparecendo um ônibus que faça o trajeto de Sobradinho eu serei um dos primeiros a aderir.
- Maior acesso às informações (padronizar) quanto aos horários das linhas de ônibus (um acompanhamento em tempo real, como utilizado nos aplicativos, como o Uber), maior quantidade de ônibus (não diminuir a frequência das viagens dos coletivos, por exemplo, já seria um grande avanço) e aumentar consideravelmente a segurança nas paradas de transportes coletivos, esses 3 itens, na minha opinião são os maiores gargalos para a mobilidade, não só a corporativa no Distrito Federal.
- Na questão "Classifique o quanto as alternativas a seguir o encorajaria a usar o sistema de transporte público coletivo para ir ao trabalho", faltou a abordagem com relação a residência, somente foi considerando o local de trabalho. Como no meu caso, não há linhas de transporte público na minha cidade compatível ao meu horário de trabalho.
- Pontos de trabalho mais distribuídos no DF, o que permitiria um menor deslocamento de funcionários. A depender do cargo, desobrigar o funcionário a deslocar-se a um ponto específico para trabalhar. O sistema de fretada ajuda bastante no deslocamento dos meios de transporte público até o serviço, contudo ainda pode ser aperfeiçoado com avisos de saída e chegada da van, o que permitiria aos funcionários melhor administração do tempo.
- Metrô até a Asa Norte para quem mora no Guará, Águas Claras, ...
- Descentralização dos ambientes corporativos
- Aumento da possibilidade de trabalho remoto é muito importante para ajudar na mobilidade. Para cumprir essa meta, sugiro a disseminação cultural do teletrabalho, com incentivos para reuniões virtuais e uso de ferramentas de equipes. Pois tecnicamente é fácil, mas culturalmente é difícil
- Os gestores do DF deveriam pegar umas aulas com o pessoal de Goiânia e muitas aulas com o pessoal de Curitiba.
- A Empresa pode colaborar em muito para a diminuição dos agentes poluidores, caso disponibilizasse transporte de funcionários ou, ainda, transporte da empresa até os locais de acesso ao transporte público, por exemplo: vans que levassem os funcionários
- O trabalho que realizo poderia ser feito com maior produtividade e satisfação se alternasse dias em teletrabalho e dias para trabalho no ambiente da empresa. Sugestão: 3 dias em casa e 02 na empresa. 2). Sobre a carona solidária: experimentei uma época e causou desconforto, pois muitas vezes os caronistas se atrasavam para pegar a carona. Algumas vezes o trânsito atrasava o motorista, e tínhamos que ficar muito tempo em pé e às vezes na chuva esperando o motorista chegar.
- Se houvesse a possibilidade de incentivo ao trabalho em casa ou se o transporte público fosse bom (implantação de metrô na Asa Norte, mais linhas de ônibus, por exemplo) com certeza mais pessoas usariam menos o carro e teria menos trânsito.
- Em termos de mobilidade corporativa, pensando na empresa, acredito que deveria disponibilizar veículos maiores e que possam percorrer mais alguns pontos da cidade ou rotas/linhas diferenciadas. Mas isso não substitui uma estação de metrô aqui na Asa Norte e nem a melhoria dos estacionamentos aqui da quadra e a segurança no local.
- Importância de manter a iluminação e segurança das áreas que possuem ciclovias.
- A empresa possuía algumas linhas de ônibus conectando da Asa Norte com o prédio. Diversos colegas utilizavam esse transporte e agora vem a empresa de carro por falta de

opções melhores de transporte. Sugiro que sejam disponibilizadas linhas de ônibus fretados, subsidiadas pela empresa, para as diversas localidades de Brasília.

- No próprio questionário, poderiam haver resumos (ou pelo menos os links) para as leis de mobilidade citadas!
- Expansão do Metrô para Asa Norte; melhorar segurança nos pontos de ônibus; ampliar trajetos de ônibus; patrulhar áreas de estacionamento público nos horários de entrada e saída.
- Pelo amor de Deus. Façam/consertem calçadas próximas ao meu trabalho e ao longo das vias Asa Norte.
- A possibilidade de trabalho remoto (teletrabalho) vinculado a uma produtividade mínima pré-estabelecida, pode reduzir o impacto do deslocamento bem como custos por espaço físico nos prédios da empresa.
- Agradeço à iniciativa.
- Penso que deveria existir algum meio de transporte adaptado para cadeirantes mais baratos, pois o que utilizo além do metrô cobram preços de Uber Black mais dez por cento. Muito caro!!
- Vans rápidas que sirvam o percurso entre a empresa e o metrô Galeria, a cada 5 minutos nos horários de pico. Muitos colegas voltariam a usar o metrô.
- Talvez a empresa pudesse dar ajuda de custo para contratação de transporte coletivo particular (vans ou ônibus coletivo). Outra ideia seria ampliar o número de vagas em estacionamento coberto para uso de motocicletas, embora um transporte ainda poluidor. Há um problema para mim que seria o não uso em dias de chuva. Melhoria considerável na qualidade do transporte coletivo público (ônibus coletivo), atualmente considerado de qualidade sofrível (o metrô não chega até o local de trabalho). Para trabalhos rotineiros ou mesmo projetos, a empresa precisa pensar urgentemente no direcionamento para ser feito em casa, incentivando o uso da tecnologia (tele e especialmente videoconferências) para reuniões quando necessárias. Acredito que a última opção, já uma realidade em outros países e também no Brasil, seria a melhor de todas (economia em aluguel de dependência física, descongestionamento de vias de acesso ao trabalho e redução de poluição com o não uso de veículos automotores movidos a explosão de combustíveis fósseis).
- Ter vários transportes pequenos (tipo a atual zebrinha), que circulasse entre as quadras, facilitaria muito o deslocamento.
- Senti falta de perguntas sobre a flexibilidade de horário para oferecer carona.
- A empresa avaliar a possibilidade de disponibilizar o vale transporte pra uso nas caronas compartilhadas.
- Expansão do metrô, melhoria das linhas de ônibus (criação de uma linha nos horários de maior concentração de entrada/saída de funcionários específica para a empresa, talvez micro-ônibus).
- Tentei encontrar caroneiro pelo Waze Carpool em meu bairro e não encontrei. Sei que existem funcionários que moram lá, pode ser que ainda não tenham segurança ou conhecimento em utilizar a ferramenta.
- Micro-ônibus interligando as diversas regiões do DF.
- O estímulo via "bônus" no aplicativo Waze tem sido a melhor alternativa. Viemos em média em 4 pessoas no carro diariamente.
- Voltar os ônibus tipo zebrinha.
- Gostaria que tivesse metrô para deslocamento do Lago norte ao Centro de Brasília
- Sugiro a implantação de benefícios como forma de incentivar os funcionários a deixarem o carro em casa. Isso contribuiria para o meio ambiente e para a melhoria da qualidade de vida

dos funcionários. Um benefício simples é a criação de um APP conectado a APP's específicos (tipo Runkeeper) que se transforme em pontos ou brindes na empresa a partir de uma certa quilometragem, com ranking dos funcionários mais pontuados para estimular a participação e competitividade. Sei que alguma empresa tinha um APP similar, mas foi desativado pela atual administração.

- Seria um sonho, mas vamos lá: O Sistema do GDF ser interligado com os aplicativos de carona. Aí o carro que estivesse com carona, poderia utilizar as faixas dos coletivos, gerando assim, viagens ainda mais rápidas, liberando o trânsito. Por exemplo: O sistema iria "tentar" multar um carro de passeio por estar trafegando na via dos coletivos, mas ao verificar no app de carona que naquele horário o veículo estava com caronas, a multa não seria efetivada.
- Ônibus são muito velhos, sem ar condicionado e demoram muito a passar. Metro atende poucas regiões do DF e também não tem ar condicionado.
- Transporte público deve me levar próximo ao trabalho e não parar na rodoviária do plano para mais 30 minutos a pé. Querendo ou não, tempo de descolamento influencia no convívio com família. Bicicleta seria uma ótima opção se não tivesse um bebê, sem contar possíveis assaltos e a chuva...
- Minha sugestão é que a faixa exclusiva da Eptg e de outras vias seja liberada apenas para automóveis com mais de 2 pessoas no interior.
- Acredito que a empresa institucionalizando o teletrabalho pode ajudar a economizar em vários aspectos. Pedindo ao funcionário trabalhar presencialmente algumas vezes na semana aliado ao teletrabalho seria uma saída importante.
- Realizar Piloto de teletrabalho de gestores e assessores em pelo menos 1 das na semana. Programar o horário de trabalho das diretorias afins e criar grupos interno de carona por aplicativo próprio barateando o custo. A solução VDI junto com VPN já possibilita o teletrabalho.
- Construção de ciclovias. Ciclovias de verdade, não o acostamento mal sinalizado que uso. Ciclovias tem que ter uma separação física das vias que permita um mínimo de segurança.
- A empresa poderia instituir o teletrabalho para todos os funcionários, deixando de exigir a presença física diária nas instalações da empresa.
- Maior uso do teletrabalho!!! Melhorar o acesso ao transporte público. Vans são demoradas e aumentam consideravelmente o tempo total de transporte entre o metrô e o Edifício da empresa
- Construção e melhoria de calçadas, aumento de pontos de ônibus, ampliação de rotas de ônibus.
- Seria maravilhoso termos ciclovias e calçadas em todo o DF. Acabei de vender meu carro, para colaborar com meio ambiente. Mas ainda uso aplicativos de carro para vir ao trabalho, ou venho de moto. Estou esperando o carro elétrico ficar mais acessível. Mas se tivesse ciclovias e calçadas, eu ficaria bem sem carro no DF.
- Criação de bolsões para estacionamento e aumento da linha do metrô.
- Incentivar o teletrabalho, pelo menos a empresa que conseqüentemente iria reduzir a quantidade de carros e melhorará a qualidade de vida no trabalho.
- Reativar o projeto do VLT - Veículo Leve sobre Trilhos, e também divulgar e incentivar o uso da carona Solidária, a exemplo do aplicativo Waze Carpool.
- Sou ciclista e o DF precisa de ciclovias seguras e que realmente liguem os pontos (casa-trabalho) para que seja viável a utilização de bicicletas. As ciclofaixas são extremamente inseguras para o ciclista e eu não tenho motivos para encarar. Então, considerando a real disponibilidade infraestrutura pública, aliada à estrutura do prédio para banho, guarda de

equipamentos e guarda da própria bicicleta, estou convicto de que haveria muita adesão ao uso de bicicletas para o trajeto casa-trabalho. Da mesma forma, se forem disponibilizadas bicicletas compartilhadas próximas dos destinos.

- Fazer contato com o GDF para viabilizar o metrô para asa norte, oferecendo financiamento.
- O que faria uma enorme diferença seria ter uma estação de metrô nos 202 nortes. Aí sim eu deixaria o carro em casa e viria de metrô.
- Trabalho na empresa há 40 anos (saí e voltei), tendo trabalhado em diversas cidades do Rio de Janeiro, Minas, Espírito Santo e Bahia. Sempre utilizei ônibus, metrô e eventuais caronas noutros locais. Em Brasília tentei, mas é impossível utilizar o transporte público. É de péssima qualidade, sujo, mal frequentado, não cumpre horários, além da localização da empresa não favorecer o seu uso. São, pelo menos, 4 km de caminhada (ida e volta à parada de ônibus), além de cerca de 3 horas por dia, no mínimo, perdidas em transporte público. Numa das poucas vezes que utilizei o ônibus, ainda sofri tentativa de furto. É o pior transporte público do País.
- Parceria com o GDF para construir uma estação de metrô em frente ao prédio da empresa,
- Expansão do metrô para outras áreas do DF
- Sinalização de trânsito no DF é muito ruim, principalmente quando estão em obras. A linha do metrô é insuficiente pois não chega à Asa Norte. A centralização das empresas/setor público no plano piloto dificulta muito o deslocamento. Talvez fosse possível fazer uma campanha para descentralização e/ou estações de coworking em cidades (ex. Águas Claras) disponíveis para determinados segmentos, pela própria empresa/instituição.
- Subsídio do governo para aplicativos de carona solidária, como o Waze Carpool
- Ajustar os locais de embarque e desembarque das vans. Eles trazem um desconforto muito grande. Ficamos expostos ao sol, chuva, poeira e meliantes no local
- Sugiro um Estudo sobre 'Polos Empresariais' em áreas mais residenciais, como por exemplo Taguatinga, Samambaia, Núcleo Bandeirantes ou Sobradinho; assim as pessoas não precisariam se deslocar para o Centro de Brasília. Seria uma 'Desconcentração' de trabalhadores na área central.
- Entendo que se a empresa fizesse parceria com transportes coletivos que abrangesse mais cidades satélites, reduziria bastante o número de carros nas ruas. Eu até tentei usar o transporte coletivo que vem até o prédio. Contudo eu teria de pegar outro transporte coletivo (ou ir de carro) até os locais de parada, o que inviabilizou a solução.
- Com base no filtro do usuário, enviar notificação minutos antes, com as caronas ainda disponíveis.
- Um grande incentivo seria ensinar aos motoristas o respeito aos ciclistas, e inclusive ensinar que durante uma ciclovia caso haja ausência de faixa para que a travessia de bicicletas os ciclistas podem usar a faixa de pedestres e como se trata de faixa que cruza ciclovia não é necessário descer da bicicleta. Outro incentivo seria trabalhar nem que seja 5 ou 10 minutos a menos caso o funcionário fosse ao trabalho de bicicleta.
- Seria importante que o metrô tivesse estações na Asa Norte.
- Melhora na distribuição das linhas entre as vias. Quando é necessário deslocar-se perpendicularmente (da w3 a w5 por exemplo) fica inviável depender de transporte. Tenho que trabalhar usando salto alto e fino, e as calçadas são terríveis e totalmente destruídas tornando impossível caminhar com segurança. Calçadas inclinadas causam lesão de tornozelo e joelho para quem usa salto.
- Transporte coletivo disponibilizado pela empresa, como havia antigamente. Seria uma grande sacada da empresa, em tempos de valorização da sustentabilidade.

- A empresa deveria considerar o trabalho em casa (teletrabalho) dos funcionários lotados em Centros de apoio
- Banheiro com chuveiro nas empresas para podermos ir de bike
- Disponibilizar Vans com cadastramento/reserva de assentos via site/aplicativo e com destino aos principais bairros, com reserva e pagamento por trecho, não plano mensal. A flexibilidade é crucial.
- O transporte público do DF é precário, se resume às vias principais (L2 e W3), com destino à Rodoviária Central; seria vital maior oferta de transporte coletivo para as asas, a fim de permitir a utilização do transporte público.
- A mobilidade de uma maneira geral no DF é péssima. Não existem calçadas e não existem ciclovias. O transporte público é extremamente pobre.
- O DF possui vasta rede de ciclovias que favorecem o transporte ativo, contudo, as passagens subterrâneas dos eixos são de péssima qualidade. Precisam ser melhoradas quanto aos aspectos de conservação, limpeza e segurança. Este fato afasta o interesse nos deslocamentos ativos (bicicleta e caminhada).
- Não há disponibilidade de transporte coletivo público ao menos razoável ao local de trabalho, o que estimula o uso do transporte individual. Uma nova estação do metrô na 103 Norte (solução ideal) ou um transporte coletivo entre a rodoviária do Plano e o prédio da empresa com maior frequência melhoraria bastante a situação atual.
- Ampliar a área de cobertura do metrô, especialmente na asa norte
- Disponibilizar teletrabalho em massas para as diretorias e outras áreas que não necessitem presença no local para negociar com clientes.
- Metrô deveria ser reformado, com mais linhas, mais estações, ar condicionado e com preço mais adequado. 5 reais é um absurdo para o tipo de serviço prestado!
- Linha direta Tororó/Rodoviária. A demanda não deve ser grande, mas a região deve crescer bastante nesses próximos anos.
- Melhor estacionamento para os funcionários em frente o edifício da empresa, como minimamente planar o terreno, pois os carros ficam expostos ao terreno cheio de irregularidades. B) tentar conseguir que o GDF coloque em funcionamento a estação de metrô da 102 Norte.
- Criação de uma linha dedicada aos grandes centros de trabalho do DF, como os Ministérios, nossa empresa e da CEF, dos Tribunais Superiores, com conforto e pontualidade.
- Ônibus melhores, mais limpos, mais ônibus. Linhas melhor distribuídas, ônibus com tecnologia sobre horário de chegada, tempo até o destino, manutenção frequente, maior quantidade de ônibus em horários de maior movimento.
- Quando mudamos para esse edifício fiz uma solicitação para o GDF de linha de ônibus circular saindo da Rodoviária e vindo para o Edifício tendo em vista que haviam outros prédios na região como o Ed do MPU e não havia local adequado para estacionamento e o local não era atendido pela estação do metrô. Não fui atendida na minha solicitação. A disponibilização das vagas para o Carpool já foi uma grande evolução na redução de veículos na rua, deveria ter mais incentivo. Ou linhas de ônibus específicas para as regiões com maior quantidade de funcionários com horários mais alternativos tendo em vista que o transporte público do DF não atender grande parte do Plano Piloto em direção a algumas cidades satélites.
- Melhoria no transporte público e ciclovias

- A parceria entre a empresa e o Waze Carpool, garantindo vagas de garagem para quem participa do programa de carona solidária, estimulou muito minha decisão de começar a oferecer carona para colegas no trajeto de ida e volta do trabalho.
- Não uso bicicleta e não usaria. As cidades ainda não estão prontas para utilização segura.
- Para nossa jornada, é difícil negociar horários de entrada e saída, de maneira a causar menor impacto no trânsito e no bem-estar do funcionário. Apesar de ser de conhecimento que o trânsito precisa melhorar, nossos superiores priorizam somente o interesse do trabalho, não levando em consideração as preferências individuais.
- Incentivar o uso de aplicativos de carona
- A empresa poderia estender o benefício do vale transporte para o Carpool.
- Deveria descentralizar os locais de instalação de grandes empresas e ampliar a rede de transporte coletivo de massa, reduzindo dessa forma o acúmulo de carros e o tráfego pesado devido ao excesso de veículos particulares e individuais.
- Acho que aplicar o teletrabalho numa com mais colegas seria muito bom, ao passo que acho muito boa a iniciativa de incentivar os aplicativos de carona.
- Estação de metrô na asa norte - próximo à empresa
- O transporte público deixa a desejar. Onde moro em Sobradinho, a população precisa de metrô. É falta de vontade dos governantes.
- Acredito q a solução básica passa pela revisão/melhoria do transporte público. Além disso, a adesão a aplicativos de carona também é uma ótima solução, sem falar na construção de uma rede cicloviária segura e acessível
- Ajuda com algum pacote de garantia para alugueis próximos ao trabalho.
- Considero importante a melhoria contínua nas ciclovias do plano piloto no DF.
- Como moro no entorno do Distrito Federal e o único transporte público é o ônibus e as condições são péssimas em todos os sentidos, se tivesse uma outra alternativa como van fretada ou onibus fretado executivo com certeza deixaria o carro em casa.
- Teletrabalho seria uma opção interessante para reduzir o estresse causado pelo deslocamento. Incentivar o uso da carona, por exemplo com a empresa pagando os valores assim como faz com o vale transporte; a empresa intervir na solicitação de melhoria dos aplicativos, em especial o Waze Carpool.
- O Aplicativo Waze Carpool é sensacional, porém, necessita de maior investimento tecnológico. Poderiam fazer isso.
- Moro há aproximadamente 4 km de distância da empresa, venho trabalhar de carro por questão econômica e prática. Gostaria de continuar a usufruir do rodízio da vaga de estacionamento que era controlada pela TISHMAN. A ECOA não me colocou no rodízio de vaga do estacionamento, mas já manifestei que gostaria de continuar a usufruir desse benefício. Tanto de carro como de ônibus levo no máximo 15 min. para chegar no trabalho.
- A melhor opção seria o metrô chegar até a asa norte. É improvável usar o transporte público vindo de fora da Asa Norte para asa norte.
- Transporte público de qualidade, rápido, barato e seguro é a solução para o trânsito e deslocamento das pessoas em grandes centros. Fim de estacionamentos públicos e de graça nos grandes centros
- Melhoria urgente do sistema de transporte público.
- O teletrabalho seria uma excelente opção que beneficiaria funcionários e empresa: Funcionário: economia de tempo de locomoção, qualidade de vida, inexistência de ruídos, foco, interrupções, menos exposição ao risco, sem necessidade de estacionamento, economia de dinheiro... Empresa: economia de energia, aumento da produtividade



- Melhorar as opções de transporte público, principalmente em relação as linhas de metro
- Disseminar a cultura de caronas e utilização de transporte público é importante. Porém, a cidade precisar oferecer melhores condições nesse sentido. No que diz respeito ao transporte público, é lento e escasso. E, dependendo do horário e região, perigoso. A falta de vagas de estacionamento também é um problema. Os terrenos utilizados no entorno do edifício são de terra, e também não são seguros, vários arrombamentos de carro já aconteceram. O que nos leva a procurar vagas na quadra residencial, causando transtorno e desconforto aos moradores da região. Enquanto o transporte público não oferecer melhores condições de segurança, agilidade e disponibilidade, A empresa poderia proporcionar maior conforto e segurança a seus funcionários melhorando as condições dos terrenos que são utilizados como estacionamento. Especialmente quanto à segurança.
- Preferiria utilizar o transporte público mas para isso precisa de mais qualidade, mais linhas de ônibus ou linhas internas do próprio trabalho que levassem seus funcionários as suas casas (ida e volta), ciclovias interligadas e seguras durante todo trajeto e por toda cidade, expansão do metrô por mais ruas e cidades de Brasília, construções de viadutos mais funcionais com mais interligações.
- A criação de espaço de estar para descanso com cozinha, refeitório, vestiários diminuiria os deslocamentos na hora de almoço.
- Se a empresa disponibilizar ônibus confortáveis para o transporte dos servidores passando próximo à minha residência, certamente abandonarei o transporte individual
- Horário diferenciado de trabalho, adequado a cada tipo de serviço: escala e horário corrido. Transporte da instituição com ônibus para cada cidade.
- O transporte coletivo do próprio órgão levando os servidores até um transporte de massa tipo BRT e Metrô seria ótimo.
- Maior malha ciclo viária (para maior segurança do usuário)
- Maior malha metroviária (a falta de malha metroviária faz com que o usuário prefira se deslocar em automóveis próprios)"
- A empresa deveria oferecer transporte para seus servidores
- Gostaria que o órgão oferecesse transporte coletivo para os servidores, o impacto seria muito positivo individualmente e também para a sociedade no desafogamento do trânsito em horários de pico
- Implementar de fato o teletrabalho e criar mecanismos no SEI para controlar a produtividade.
- Tem que ter uma circular em Taguatinga, que tenha integração com os ônibus que passam no taguacenter.
- "Integrar as ciclovias
- Diminuição de impostos para aquisição de bicicletas, patinetes elétricos e outros meios de transporte sustentáveis. Além da ampliação contínua de ciclovias.
- Criação de uma ciclovia entre o Buriti e o SAAN - EPIA NORTE - DF - 010. Como um órgão que está fazendo uma pesquisa de meio de transporte e não consegue fazer uma ciclovia para seus servidores chegarem ao trabalho? Já fiz 2 solicitações e a resposta foi de que não está no orçamento da empresa construir a ciclovia que vai do Buriti à empresa???? Mesmo tendo um bicicletário no seu estacionamento??? Éramos uns 6 servidores, hoje só vejo 2, sem contar com os servidores dos órgãos nas proximidades da empresa que também fizeram uma solicitação de implantação de ciclovia.
- Gostaria de que nos fosse disponibilizado condução para Trabalho/Casa: Casa/Trabalho
- Além de ter criança e precisar usar o automóvel, por ter mais tempo com ela, uma vez que no transporte público, o deslocamento dura mais de 1:30h e no automóvel menos da metade do

tempo, e às vezes tenho que levá-la à escola, apesar de precisar economizar e pensar no meio ambiente, muitos fatores me fazem desistir do transporte público que existe na minha cidade, que basicamente é o BRT: ando de 20 a 30min para chegar à estação, no horário de 11h às 13h não tem ônibus Expresso, o que aumenta o tempo da viagem, super lotação, pois muitos usuários são da região do entorno, chegando na Rodoviária do Plano tenho que esperar outro ônibus, em todos os trajetos ainda tem a espera, e muitas vezes por causa da lotação não conseguimos entrar no ônibus. Na volta para casa não sinto segurança em ficar numa parada sozinha e sem proteção, quando desço do BRT tenho que me deslocar à pé para casa, numa cidade violenta e com péssima iluminação. Poderia ter ônibus EXPRESSO no horário do almoço e circulares saindo com um tempo menor entre um e outro, tanto na ida quanto na volta. Espero também que os governos do GO e DF melhorem o transporte público, inclusive fazendo a linha férrea funcionar, para desafogar o trânsito, reduzir a poluição, reduzir o tempo da viagem, diminuir a superlotação em Santa Maria/DF, melhor iluminação, segurança, sonho...

- Propostas de melhorias significativas no transporte público do DF, readequação de horários de expediente, localização das escolas e incentivo ao uso de vans escolares, um reordenamento urbano por parte das sedes das instituições públicas para garantir um acesso mais próximo e prático ao servidor e aos cidadãos.
- Oferecer estacionamentos com segurança próximo a pontos do metrô, BRT e rodoviárias, uma vez que as distribuições das linhas de transporte público não atendem a todos as localidades e seria necessário combinar modos de transporte.
- Criação de linhas curtas até uma rodoviária nas Regiões Administrativas e uma melhor distribuição de linhas entre estas e pontos de interesse mais procurados.
- Ter sistemas informatizados com GPS para acesso de rotas e deslocamento dos ônibus em tempo real, a fim de reduzir o tempo de espera principalmente em lugares pouco iluminados ou perigosos. O usuário passaria pouco tempo em situação de espera por um transporte."
- Incluir rotas para o transporte de servidores em todas as regiões administrativas
- Organizationalize e divulgar carona solidária
- O Governo necessita criar incentivos para melhoria dos deslocamentos. Sejam eles através da melhoria do transporte público (oferta, pontualidade, informação instantânea dos horários, limpeza e manutenção dos veículos e qualidade), aumento e criação de novas linhas de metrô, melhoria da segurança para outros modais de transporte (bicicleta, patinetes), incentivar a criação de subsídios para compra de veículos sustentáveis. Incentivar descontos progressivos em impostos para os usuários que se utilizam de carona compartilhada, bicicleta, ônibus, veículos sustentáveis.
- Inclusão de Transporte Público de Massa (Metrô, VLT, BRT, etc) de forma integrada.
- Os órgãos públicos deveriam retomar o transporte funcional existente nos anos 80/90
- COLOCAR O SERVIDOR NAS UNIDADES MAIS PRÓXIMAS DE CASA
- Aumentar o número de metrôs nos horários de pico, maior divulgação dos aplicativos de carona solidária dentro dos órgãos.
- Criação de linhas de micro-ônibus com wifi e ar condicionado de modo que sejam mais atrativas para as pessoas deixarem o carro em casa e utilizarem essas linhas. Por exemplo de Aguas Claras para o plano piloto
- Melhorar a mobilidade nas vias que ligam o DF às cidades do entorno. Implantação do BRT até a cidade de Luziânia-GO ou Trem de passageiros, tendo em vista que já consta a linha férrea para esse tipo de transporte.
- Mais ônibus e menos demora para passar.

- Ônibus saindo das cidades satélites passando aqui em frente da empresa.
- Uso de transporte fretado para funcionários
- O auxílio Transporte sem a contrapartida de custeio, pois, atualmente, para a maioria dos servidores o custeio (6% do vencimento) é de valor maior do que o próprio benefício.
- Melhorar a fluidez nas rodovias
- Poderia voltar a ter transporte para os servidores da casa/trabalho/casa
- Construir ciclovias ligando as cidades satélites ao Plano Piloto e manutenção das Ciclovias existentes.
- Carro elétrico
- Seria interessante a empresa dar transporte coletivo para os terceirizados
- Poderia ter ônibus/van/veículo fazendo o trajeto de casa para o trabalho e vice-versa custeados pela empresa
- Melhora ciclovia, mais ciclovia, mais ônibus
- Moro em Planaltina, não tem pisca boa, faixa exclusiva para os ônibus
- Mais trabalho sobre o assunto (Muito Interessante).
- Melhorar o Transporte público, mais frequência. Faixa exclusiva, com mais frequência
- Melhorar o transporte público

## Appendix D: The Models (Multinomial Logistics Regression using SPSS)

### 1<sup>st</sup> Model

#### Warnings

There are 9713 (90.0%) cells (i.e., dependent variable levels by subpopulations) with zero frequencies. Unexpected singularities in the Hessian matrix are encountered. This indicates that either some predictor variables should be excluded or some categories should be merged. The NOMREG procedure continues despite the above warning(s). Subsequent results shown are based on the last iteration. Validity of the model fit is uncertain.

Model Fitting Information						
Model	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC	BIC	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	3737.203	3788.154	3717.203			
Final	3245.912	3551.616	3125.912	591.291	50	.000

Goodness-of-Fit			
	Chi-Square	df	Sig.
Pearson	8348.984	9750	1.000
Deviance	2979.773	9750	1.000

Pseudo R-Square	
Cox and Snell	.388
Nagelkerke	.404
McFadden	.152

Likelihood Ratio Tests						
Effect	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC of Reduced Model	BIC of Reduced Model	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	3245.912	3551.616	3125.912 <sup>a</sup>	.000	0	.
M1	3734.647	3938.450	3654.647	528.735	20	.000
DS7	3250.143	3504.896	3150.143	24.231	10	.007
DS5	3246.467	3501.220	3146.467	20.555	10	.024
DS2	3255.564	3510.317	3155.564	29.652	10	.001

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

Parameter Estimates									
Drive alone <sup>a</sup>		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
By Foot	Intercept	-.767	1.373	.312	1	.576			
	[M1 = Sometimes]	4.197	.734	32.699	1	.000	66.454	15.771	280.024
	[M1 = Never]	4.287	.538	63.393	1	.000	72.743	25.321	208.978
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.124	.134	.858	1	.354	.883	.679	1.149
	DS5	-.207	.077	7.131	1	.008	.813	.699	.946
Owned Bicycle	DS2	.008	.027	.083	1	.774	1.008	.956	1.063
	Intercept	1.665	4.607	.131	1	.718			
	[M1 = Sometimes]	-13.909	9090.156	.000	1	.999	9.105E-7	.000	. <sup>c</sup>
	[M1 = Never]	3.537	1.344	6.931	1	.008	34.372	2.469	478.484
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	.158	.460	.118	1	.731	1.171	.476	2.882

	DS5	-.337	.241	1.961	1	.161	.714	.445	1.144
	DS2	-.157	.129	1.496	1	.221	.854	.664	1.099
Metro	Intercept	-2.266	.903	6.296	1	.012			
	[M1 =Sometimes]	4.281	.617	48.180	1	.000	72.341	21.595	242.333
	[M1 =Never]	4.122	.446	85.556	1	.000	61.661	25.746	147.674
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.232	.087	7.158	1	.007	.793	.669	.940
	DS5	.115	.066	3.073	1	.080	1.122	.986	1.276
	DS2	.038	.015	6.860	1	.009	1.039	1.010	1.069
Motorcycles	Intercept	-8.082	4.066	3.950	1	.047			
	[M1 =Sometimes]	3.888	.817	22.656	1	.000	48.798	9.844	241.899
	[M1 =Never]	4.111	.593	48.125	1	.000	61.019	19.099	194.945
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	.611	.411	2.212	1	.137	1.843	.823	4.124
	DS5	-.198	.089	4.907	1	.027	.820	.689	.977
	DS2	.003	.032	.007	1	.933	1.003	.941	1.068
Offering Carpool	Intercept	.534	1.008	.280	1	.597			
	[M1 =Sometimes]	.936	1.162	.649	1	.421	2.550	.261	24.879
	[M1 =Never]	-15.595	2706.376	.000	1	.995	1.688E-7	.000	. <sup>c</sup>
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.226	.096	5.513	1	.019	.798	.660	.963
	DS5	-.010	.077	.016	1	.899	.990	.851	1.153
	DS2	-.009	.020	.206	1	.650	.991	.954	1.030
Conventional Buses	Intercept	-2.239	1.792	1.561	1	.211			
	[M1 =Sometimes]	4.657	.747	38.887	1	.000	105.329	24.370	455.232
	[M1 =Never]	4.418	.582	57.636	1	.000	82.901	26.500	259.340
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.025	.174	.020	1	.887	.976	.694	1.372
	DS5	-.014	.117	.015	1	.904	.986	.784	1.240
	DS2	-.031	.035	.816	1	.366	.969	.906	1.037
Receiving Carpool	Intercept	-2.903	1.056	7.562	1	.006			
	[M1 =Sometimes]	4.659	.640	53.077	1	.000	105.575	30.142	369.787
	[M1 =Never]	4.418	.470	88.192	1	.000	82.908	32.974	208.457
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.283	.102	7.718	1	.005	.754	.617	.920
	DS5	.050	.075	.444	1	.505	1.051	.908	1.217
	DS2	.061	.018	12.114	1	.001	1.063	1.027	1.101
Conventional Taxi	Intercept	-19.839	2631.337	.000	1	.994			
	[M1 =Sometimes]	2.448	.000	.	1	.	11.563	11.563	11.563
	[M1 =Never]	21.161	2631.334	.000	1	.994	1548486778.514	.000	. <sup>c</sup>
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.363	.444	.669	1	.414	.695	.291	1.661
	DS5	-.242	.286	.716	1	.397	.785	.449	1.374
	DS2	.073	.113	.417	1	.519	1.076	.862	1.344
Transport by app(Uber, 99....)	Intercept	-3.511	1.252	7.868	1	.005			
	[M1 =Sometimes]	4.770	.713	44.746	1	.000	117.900	29.144	476.954
	[M1 =Never]	5.403	.506	114.019	1	.000	221.999	82.352	598.451
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.300	.121	6.128	1	.013	.740	.584	.939
	DS5	.015	.089	.026	1	.871	1.015	.851	1.209
	DS2	.064	.022	8.321	1	.004	1.067	1.021	1.114
Chartered Vans	Intercept	-3.675	1.404	6.847	1	.009			
	[M1 =Sometimes]	4.589	.707	42.138	1	.000	98.381	24.614	393.223
	[M1 =Never]	4.199	.544	59.693	1	.000	66.651	22.969	193.406
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.300	.136	4.896	1	.027	.741	.568	.966
	DS5	.018	.098	.035	1	.852	1.018	.841	1.233
	DS2	.072	.024	9.083	1	.003	1.075	1.025	1.126

a. The reference category is: Drive Alone.

b. This parameter is set to zero because it is redundant.

c. Floating point overflow occurred while computing this statistic. Its value is therefore set to system missing.

## 2<sup>nd</sup> Model

### Warnings

There are 6771 (86.3%) cells (i.e., dependent variable levels by subpopulations) with zero frequencies.

There is possibly a quasi-complete separation in the data. Either the maximum likelihood estimates do not exist or some parameter estimates are infinite.

The NOMREG procedure continues despite the above warning(s). Subsequent results shown are based on the last iteration. Validity of the model fit is uncertain.

Model Fitting Information						
Model	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC	BIC	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	3516.435	3552.101	3502.435			
Final	3008.138	3222.130	2924.138	578.298	35	.000

Goodness-of-Fit			
	Chi-Square	df	Sig.
Pearson	6851.632	6825	.408
Deviance	2779.621	6825	1.000

Pseudo R-Square	
Cox and Snell	.381
Nagelkerke	.400
McFadden	.157

Likelihood Ratio Tests						
Effect	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC of Reduced Model	BIC of Reduced Model	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	3008.138	3222.130	2924.138 <sup>a</sup>	.000	0	.
M1	3504.731	3647.392	3448.731	524.593	14	.000
DS7	3016.404	3194.731	2946.404	22.267	7	.002
DS5	3012.896	3191.224	2942.896	18.759	7	.009
DS2	3017.575	3195.902	2947.575	23.437	7	.001

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

### Parameter Estimates

		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Drive Alone <sup>a</sup>									
Active Mode	Intercept	-.421	1.332	.100	1	.752			
	[M1 = Sometimes]	4.085	.731	31.263	1	.000	59.472	14.202	249.040
	[M1 = Never]	4.234	.531	63.710	1	.000	69.021	24.401	195.229
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.113	.130	.747	1	.388	.894	.692	1.153
	DS5	-.212	.075	7.914	1	.005	.809	.698	.938
	DS2	.000	.027	.000	1	.999	1.000	.949	1.054
Motorcycle	Intercept	-8.106	4.065	3.976	1	.046			

	[M1 =Sometimes]	3.889	.817	22.687	1	.000	48.885	9.865	242.248
	[M1 =Never]	4.107	.593	47.989	1	.000	60.763	19.010	194.214
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	.608	.411	2.187	1	.139	1.836	.821	4.107
	DS5	-.194	.089	4.751	1	.029	.823	.691	.981
	DS2	.003	.032	.012	1	.914	1.003	.942	1.069
Offering Carpool	Intercept	.535	1.008	.282	1	.596			
	[M1 =Sometimes]	.937	1.162	.650	1	.420	2.553	.262	24.904
	[M1 =Never]	-18.225	.000	.	1	.	1.216E-8	1.216E-8	1.216E-8
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.226	.096	5.530	1	.019	.797	.660	.963
	DS5	-.010	.077	.016	1	.899	.990	.851	1.152
	DS2	-.009	.020	.204	1	.651	.991	.954	1.030
Receiving Carpool	Intercept	-2.912	1.055	7.622	1	.006			
	[M1 =Sometimes]	4.662	.640	53.138	1	.000	105.900	30.232	370.963
	[M1 =Never]	4.421	.471	88.297	1	.000	83.203	33.085	209.239
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.284	.102	7.812	1	.005	.753	.617	.919
	DS5	.051	.075	.475	1	.491	1.053	.910	1.219
	DS2	.061	.018	12.237	1	.000	1.063	1.027	1.101
Taxi	Intercept	-3.408	1.230	7.672	1	.006			
	[M1 =Sometimes]	4.771	.713	44.751	1	.000	118.002	29.165	477.440
	[M1 =Never]	5.458	.505	116.956	1	.000	234.614	87.251	630.869
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.305	.119	6.536	1	.011	.737	.583	.931
	DS5	.006	.087	.004	1	.949	1.006	.848	1.193
	DS2	.065	.022	8.654	1	.003	1.067	1.022	1.114
Public Transport	Intercept	-1.860	.867	4.602	1	.032			
	[M1 =Sometimes]	4.340	.610	50.532	1	.000	76.685	23.177	253.722
	[M1 =Never]	4.167	.440	89.508	1	.000	64.494	27.205	152.892
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.205	.084	5.981	1	.014	.815	.691	.960
	DS5	.095	.062	2.389	1	.122	1.100	.975	1.241
	DS2	.030	.014	4.486	1	.034	1.030	1.002	1.059
Chartered Vans	Intercept	-3.681	1.404	6.878	1	.009			
	[M1 =Sometimes]	4.592	.707	42.185	1	.000	98.679	24.685	394.468
	[M1 =Never]	4.203	.544	59.761	1	.000	66.874	23.040	194.098
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.	.	.	.
	DS7	-.301	.136	4.942	1	.026	.740	.567	.965
	DS5	.020	.098	.040	1	.841	1.020	.842	1.235
	DS2	.072	.024	9.149	1	.002	1.075	1.026	1.126

a. The reference category is: Drive Alone.

b. This parameter is set to zero because it is redundant.

### 3<sup>rd</sup> Model

Model Fitting Information						
Model	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC	BIC	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	1235.825	1245.348	1231.825			
Final	671.609	719.224	651.609	580.216	8	.000

Goodness-of-Fit			
	Chi-Square	df	Sig.
Pearson	3465.026	1602	.000
Deviance	634.031	1602	1.000

Pseudo R-Square	
Cox and Snell	.489
Nagelkerke	.639
McFadden	.464

Likelihood Ratio Tests						
Effect	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC of Reduced Model	BIC of Reduced Model	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	671.609	719.224	651.609a	.000	0	.
M1	923.830	952.399	911.830	260.221	4	.000
R1	939.074	977.166	923.074	271.465	2	.000
DS2	674.676	712.768	658.676	7.067	2	.029

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

Parameter Estimates						
		B	Std. Error	Wald	df	Sig.
Drive alone <sup>a</sup>						
Active Mode	Intercept	1.033	1.687	.375	1	.540
	[M1 = Sometimes]	6.322	2.801	5.094	1	.024
	[M1 = Never]	3.632	.643	31.923	1	.000
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.
	R1	-.679	.212	10.237	1	.001
	DS2	-.011	.035	.100	1	.752
Public Transport	Intercept	-7.013	.839	69.836	1	.000
	[M1 = Sometimes]	3.809	.633	36.196	1	.000
	[M1 = Never]	5.005	.583	73.636	1	.000
	[M1 = Always]	0 <sup>b</sup>	.	.	0	.
	R1	.180	.019	86.056	1	.000
	DS2	.043	.016	6.895	1	.009

Parameter Estimates				
Drive Alone		Exp(B)	95% Confidence Interval for Exp(B)	
			Lower Bound	Upper Bound
Active Mode	Intercept			
	[M1 = Sometimes]	556.563	2.297	134826.054
	[M1 = Never]	37.784	10.719	133.188
	[M1 = Always]	.	.	.
	R1	.507	.335	.769
	DS2	.989	.923	1.059



Public Transport	Intercept			
	[M1 =Sometimes]	45.109	13.042	156.023
	[M1 =Never]	149.136	47.548	467.775
	[M1 = Always]	.	.	.
	R1	1.197	1.152	1.243
	DS2	1.044	1.011	1.077

### 5<sup>th</sup> Model

Step summary of the fitted variables

Model	Action	Effects	Model Fitting Criteria			Effect Selection Tests		
			AIC	BIC	-2 Log Likelihood	Chi-Square <sup>a</sup>	df	Sig.
0	Entered	Intercept	735,606	740,308	733,606	.		
1	Entered	Safety inside buses	732,122	746,228	726,122	7,484	2	0,024

Model Fitting Criteria						
Model	Model Fitting Criteria			Likelihood Ratio Tests		
	BIC	-2 Log Likelihood	Chi-Square	df	BIC	Sig.
Intercept Only	735,606	740,308	733,606			
Final	732,122	746,228	726,122	7,484	2	,024

Goodness of Fit			
	Chi-Square	df	Sig.
Pearson	655,893	645	,374
Deviance	686,334	645	,126

Pseudo R Square	
Cox e Snell	,009
Nagelkerke	,014
McFadden	,009

Parameter Estimates				
Dependent/independent variables		B	Sig.	Exp(B)
Carpool	Intercept	-1,186	0,001	
	[Safety inside buses=Extremamente importante]	0,034	0,925	1,034
	[Safety inside buses=Importante]	-0,729	0,104	0,482
	[Safety inside buses=without importante]	0	.	.

- The reference category is: Drive Alone
- This parameter is set to zero because it is redundant.

### 6<sup>th</sup> Model: Output for Organization D

## Warnings

There are 60 (47.6%) cells (i.e., dependent variable levels by subpopulations) with zero frequencies.

Unexpected singularities in the Hessian matrix are encountered. This indicates that either some predictor variables should be excluded or some categories should be merged.

The NOMREG procedure continues despite the above warning(s). Subsequent results shown are based on the last iteration. Validity of the model fit is uncertain.

Model Fitting Information						
Model	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC	BIC	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	99.806	102.136	97.806			
Final	39.034	46.027	33.034	64.771	2	.000

Goodness-of-Fit			
	Chi-Square	df	Sig.
Pearson	37.304	60	.991
Deviance	28.875	60	1.000
Pseudo R-Square			
Cox and Snell	.574		
Nagelkerke	.777		
McFadden	.635		

Likelihood Ratio Tests						
Effect	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC of Reduced Model	BIC of Reduced Model	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	39.034	46.027	33.034 <sup>a</sup>	.000	0	.
Drive alone	99.806	102.136	97.806	64.771	2	.000

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

Parameter Estimates						
Drive Alone <sup>a</sup>		B	Std. Error	Wald	df	Sig.
Public Transport	Intercept	-2.037	.434	22.021	1	.000
	[M1 = Sometimes]	22.326	.000	.	1	.
	[M1 = Never]	22.326	5691.890	.000	1	.997
	[M1 = Always]	0 <sup>c</sup>	.	.	0	.

Parameter Estimates				
Drive Alone		Exp(B)	95% Confidence Interval for Exp(B)	
			Lower Bound	Upper Bound
Public Transport	Intercept			
	[M1 = Sometimes]	4967628013.548	4967628013.548	4967628013.548
	[M1 = Never]	4967628013.548	.000	. <sup>b</sup>
	[M1 = Always]	.	.	.

a. The reference category is: Drive Alone.

b. Floating point overflow occurred while computing this statistic. Its value is therefore set to system missing.

c. This parameter is set to zero because it is redundant.

**Appendix E:** An example of the poster used

**Nome da Empresa**

**Pesquisa para elaboração do Plano de Mobilidade Corporativa\***

\*Mobilidade Corporativa é o conjunto de ações sustentáveis para o uso integrado dos diversos meios de transporte no deslocamento de funcionários casa-trabalho-casa.

**PARTICIPE!**

A participação é voluntária e sua contribuição é muito importante! As respostas são confidenciais e qualquer publicação dos resultados será feita de forma agregada, sem identificação individual dos respondentes.

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Orientador: **Prof. Pastor Willy Gonzales Taco**  
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Realização:

Parceria:

**UnB**

**CEFTRU**  
University of Brasília  
Center for Scientific Studies and Research in Transportation

**PROGRAMA DE PÓS-GRADUAÇÃO EM TRANSPORTES**

Comportamento em Transportes e Novas Tecnologias

## Pesquisa sobre Planos/ Ações de Mobilidade Corporativa de Viagens ao Trabalho para os Funcionários



**A Mobilidade Corporativa objetiva a prática de ações sustentáveis para uso integrado dos diversos modos de transportes nas viagens dos funcionários ao trabalho.**

**PARTICIPE!**

**A participação é voluntária e sua contribuição é muito importante e as respostas são confidenciais, sendo que qualquer publicação dos resultados será feita de forma agregada, sem identificação individual dos respondentes.**

**Acesse o link:**

**Contato:**

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e-mail: [oluleke4real@gmail.com](mailto:oluleke4real@gmail.com)  
**Orientador: Prof. Pastor Willy Gonzales Taco**  
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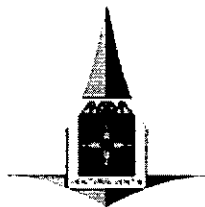
**Realização:**

**Parceria:**



**PROGRAMA DE PÓS-GRADUAÇÃO EM TRANSPORTES**

**Comportamento em Transportes e Novas Tecnologias**



**GOVERNO DO DISTRITO FEDERAL**

**CASA CIVIL DO DISTRITO FEDERAL**

Gabinete

Ofício SEI-GDF Nº 1180/2019 - CACI/GAB

Brasília-DF, 24 de dezembro de 2019.

Ao Professor

**WILLY GONZALES TACO**

Coordenador do Centro Interdisciplinar de Estudos em Transportes - Ceftru

Universidade de Brasília - Faculdade de Tecnologia, Departamento de Engenharia Civil e Ambiental.

NESTA

ASSUNTO: Ofício n. 17/2019/Ceftru - UnB. Pesquisa sobre mobilidade corporativa.

Senhor Coordenador,

Trata-se do Ofício n. 17/2019/Ceftru - UnB (31516606), proveniente do Centro Interdisciplinar de Estudos em Transportes da Universidade de Brasília, no qual informa as iniciativas da Universidade de Brasília sobre Mobilidade Corporativa nas Instituições Públicas/Privadas do Distrito Federal com o intuito de solicitar facilidades para efetivar pesquisa que possibilite ter um diagnóstico da mobilidade corporativa nas instituições.

Em resposta à Circular SEI-GDF n.º 370/2019 - CACI/GAB (31560167), a Secretaria de Estado de Economia informou, consubstanciada no Ofício SEI-GDF Nº 1440/2019 - SEEC/GAB (32061023), que a Secretaria Executiva de Gestão Administrativa daquela Pasta, por meio do Despacho SEI-GDF SEEC/SEGEA (32040106), corroborou com a manifestação da Subsecretaria de Gestão de Pessoas constante no Despacho SEEC/SEGEA/SUGEP (31953114), que registrou estar "*à disposição para apoiar no desenvolvimento da pesquisa em apreço*".

Dessa forma, restituo os autos para conhecimento e adoção das medidas julgadas pertinentes.

Atenciosamente,

**CRISTIANO LOPES DA CUNHA**

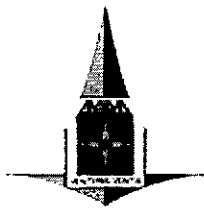
Chefe de Gabinete



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[acao=documento\\_conferir&id\\_orgao\\_acesso\\_externo=0](http://sei.df.gov.br/sei/controlador_externo.php?acao=documento_conferir&id_orgao_acesso_externo=0)  
verificador= 33315569 código CRC= 33C60EB6.



**GOVERNO DO DISTRITO FEDERAL**  
**CASA CIVIL DO DISTRITO FEDERAL**

Gabinete

Circular SEI-GDF n.º 370/2019 - CACI/GAB

Brasília-DF, 19 de novembro de 2019

**PARA:** Secretaria de Estado de Transporte e Mobilidade

Secretaria de Estado de Economia

**ASSUNTO:** Ofício n. 17/2019/Ceftru - UnB. Pesquisa sobre mobilidade corporativa.

Trata-se do Ofício n. 17/2019/Ceftru - UnB (31516606), proveniente do Centro Interdisciplinar de Estudos em Transportes da Universidade de Brasília, no qual informa as iniciativas daquela Universidade sobre Mobilidade Corporativa nas Instituições Públicas/Privadas do Distrito Federal com o intuito de solicitar facilidades para efetivar pesquisa que possibilite ter um diagnóstico da mobilidade corporativa nas instituições.

Assim, encaminho os autos para conhecimento e adoção das medidas julgadas pertinentes.

**RAQUEL FONSECA DA COSTA**

Chefe de Gabinete



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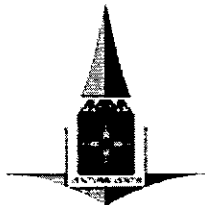
Praça do Buriti, Palácio do Buriti, 1º Andar, Sala P59 - Bairro Zona Cívico-Administrativa - CEP 70075-900 - DF

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Doc. SEI/GDF 31560167

Criado por 05016696441, versão 2 por 05016696441 em 19/11/2019 16:08:34.



**GOVERNO DO DISTRITO FEDERAL**  
**SECRETARIA DE ESTADO DE ECONOMIA DO DISTRITO FEDERAL**

Gabinete

Ofício SEI-GDF Nº 1440/2019 - SEEC/GAB

Brasília-DF, 28 de novembro de 2019.

A Sua Excelência o Senhor  
**VALDETÁRIO ANDRADE MONTEIRO**  
Secretário de Estado-Chefe  
Casa Civil  
Brasília - Distrito Federal

**Assunto:** Pesquisa sobre mobilidade corporativa.

Senhor Secretário de Estado-Chefe,

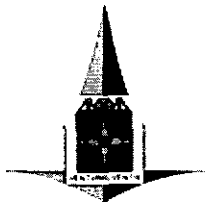
1. Ao cumprimentá-lo cordialmente, reporto-me à Circular SEI-GDF n.º 370/2019 - CACI/GAB ([31560167](#)) que encaminha o Ofício n. 17/2019/Ceftru - UnB ([31516606](#)), proveniente do Centro Interdisciplinar de Estudos em Transportes da Universidade de Brasília, no qual informa as iniciativas daquela Universidade sobre Mobilidade Corporativa nas Instituições Públicas/Privadas do Distrito Federal com o intuito de solicitar facilidades para efetivar pesquisa que possibilite ter um diagnóstico da mobilidade corporativa nas instituições.
2. Sobre o assunto, a Secretaria Executiva de Gestão Administrativa desta Pasta, por meio do Despacho SEI-GDF SEEC/SEGEA ([32040106](#)), corroborou com o a manifestação da Subsecretaria de Gestão de Pessoas constante no Despacho SEEC/SEGEA/SUGEP ([31953114](#)), que registrou estar "à disposição para apoiar no desenvolvimento da pesquisa em apreço".
3. Dessa forma, ao tempo em que restituo os autos com a manifestação técnica desta Pasta, apresento votos de estima e consideração.

Atenciosamente,

**ANDRÉ CLEMENTE LARA DE OLIVEIRA**  
Secretário de Estado de Economia do Distrito Federal



Documento assinado eletronicamente por **ANDRÉ CLEMENTE LARA DE OLIVEIRA** -  
Matr.0032343-8, Secretário(a) de Estado de Economia do Distrito Federal, em 23/12/2019, às



**GOVERNO DO DISTRITO FEDERAL**  
**SECRETARIA DE ESTADO DE ECONOMIA DO DISTRITO FEDERAL**

Secretaria Executiva de Gestão Administrativa

Despacho SEI-GDF SEEC/SEGEA

Brasília-DF, 28 de novembro de 2019

Referência: Despacho SEEC/GAB (31606429).

**Ao Gabinete da Secretaria de Estado de Economia,**

Faço referência ao Despacho citado em epígrafe, no qual remete para análise e manifestação a Circular 370 (31560167), proveniente da Casa Civil do Distrito Federal, que encaminha o Ofício n. 17/2019/Ceftru - UnB (31516606), oriundo do Centro Interdisciplinar de Estudos em Transportes da Universidade de Brasília, no qual informa as iniciativas daquela Universidade sobre Mobilidade Corporativa nas Instituições Públicas/Privadas do Distrito Federal com o intuito de solicitar facilidades para efetivar pesquisa que possibilite ter um diagnóstico da mobilidade corporativa nas instituições.

Em face do contido nos autos, encaminho o Despacho SEEC/SEGEA/SUGEP (31953114), contendo as manifestações pertinentes a esta Pasta, sugerindo o envio dos autos à Casa Civil, para conhecimento dos referidos pronunciamentos.

**JULIANO PASQUAL**

Secretário Executivo de Gestão Administrativa



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verificador= **32040106** código CRC= **0DA3198F**.

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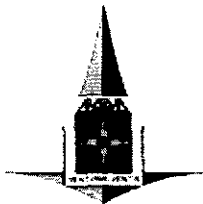
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**GOVERNO DO DISTRITO FEDERAL**  
SECRETARIA DE ESTADO DE ECONOMIA DO DISTRITO FEDERAL  
Secretaria Executiva de Gestão Administrativa  
Subsecretaria de Gestão de Pessoas

Despacho SEI-GDF SEEC/SEGEA/SUGEP

Brasília-DF, 27 de novembro de 2019

PARA: GABINETE/SEGEA

1. Trata o presente acerca do disposto no Ofício nº 17/2019/Ceftru (31516606), proveniente da Universidade de Brasília – UnB, que solicita parceria com o Governo do Distrito Federal para realização do projeto de pesquisa que possibilite ter um diagnóstico da mobilidade corporativa nas instituições do GDF.

2. Nesse sentido, considerando os termos do Despacho SEI-GDF SEEC/SEGEA (31618641), registra-se que esta Subsecretaria se coloca à disposição para apoiar no desenvolvimento da pesquisa em apreço.

3. Pelo exposto, encaminha-se o feito para apreciação do Senhor Secretário Executivo de Gestão Administrativa e opina-se pelo envio de expediente à Casa Civil para ciência e providências junto à parte postulante.

ÂNGELO RONCALLI DE RAMOS BARROS  
Subsecretário de Gestão de Pessoas



Documento assinado eletronicamente por **ANGELO RONCALLI DE RAMOS BARROS - Matr.0175442-4, Subsecretário(a) de Gestão de Pessoas**, em 27/11/2019, às 17:55, conforme art. 6º do Decreto nº 36.756, de 16 de setembro de 2015, publicado no Diário Oficial do Distrito Federal nº 180, quinta-feira, 17 de setembro de 2015.



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verificador= **31953114** código CRC= **CC973962**.

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Praça do Buriti - Anexo do Palácio do Buriti, 7º Andar, Sala 700 - Bairro Zona Cívico-Administrativa - CEP 70.075-900 - DF

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Doc. SEI/GDF 31953114

Criado por ricardo.trigueiro, versão 4 por angelo.barros em 27/11/2019 17:54:56.