

# Quality of public transportation in Aracaju, Se

Qualidade do transporte público em Aracaju, Se

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Urban transport, especially buses, is still the system used by most of the population to the need to shift their daily activities. This study, conducted in Aracaju-SE, with students from two universities, was aimed at determining their experience and perception of the conditions of service to users of public transport, respect for their rights and the environment. This research, descriptive and exploratory, was qualitative, using descriptive statistics for analysis.

Keywords: Urban transport; Environment and health; Aracaju

O transporte urbano principalmente o ônibus, ainda é o sistema utilizado pela maior parte da população brasileira para o deslocamento necessário às suas atividades cotidianas. Este estudo, realizado em Aracaju-SE, com estudantes de duas instituições de ensino superior, teve por objetivo conhecer a percepção dos sujeitos estudados sobre as condições de atendimento ao usuário do transporte coletivo, respeito aos seus direitos e ambiente. Esta pesquisa, de natureza descritiva e exploratória, teve caráter qualitativo, utilizando a estatística descritiva para análise.

Palavras-chave: Transporte urbano; Ambiente e saúde; Aracaju

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## 1. INTRODUCTION

Using more rational means of transport is becoming increasingly necessary, especially when the traffic jam has brought problems of various kinds, such as the huge fuel consumption, urban air pollution, time spent in non-productive activities that "steals" time that could be used for rest and leisure, as it happens in big cities [1]. Strategies supported by public policy issue facing urban mobility and accessibility of the citizen, constitute urgent response to prevent the deepening problems of urban mobility and its impact social, economic, environmental and others, that reinforce social injustice within the city [2].

The document Statute of the City, Law No. 10.257 of July 10, 2001, article 2, establishes, among the general guidelines of urban policy, guaranteeing the right to sustainable cities, stating that urban policy is aimed at organizing the full development of the social functions of the city and of urban property by general guidelines [3].

This right to sustainable cities should be understood as the right to land, housing, environmental sanitation, urban infrastructure, transport and public services, work and leisure for present and future generations. According to the Statute of the City, sustainability must relate to the economic, social and environmental dimensions [4].

The public transportation, which must be of good quality, in Aracaju has many problems, including from older vehicles, with conservation problems, which has been responsible for car accidents, sometimes with very serious consequences and irreversible damage to man and the environment [5]. In addition, has been questioned the legal process of bidding for service provision which implies the existence of vehicles without comfort and often unable to offer its users a safe and quality service.

Aiming to know the users' perception and experience to use urban public transportation in Aracaju, survey was conducted with students from two universities and the results presented in this article shall be forwarded to the competent public management as a contribution to the improvement of the urban transport system in Aracaju.

## 2. MATERIALS AND METHODS

This study, descriptive and exploratory, had a qualitative nature. The information gathering was conducted with students user of public transport from two institutions of higher education in Aracaju, one public and one private, supplemented by direct observation on the condition of vehicles, driver, collector and users behavior.

The sample consisted of 80 students, bus users, selected through the sampling process readily accessible at different times at bus stops that serve these two university. The sample components were students over 18 years of age who were waiting to board buses that serves the capital city and metropolitan region and agreed to participate in the study by signing the consent form approved by the Ethics Committee in Human Research of Tiradentes University, which authorized the study.

The survey information from the user of public transport was done through a questionnaire completed by the researcher, in order to avoid negative to participate in research, especially in the rush of participants in the sample, to enter the bus. The questionnaire raised issues related to quality of care to users of public transport - vehicle quality, cleanliness, seating comfort, the compliance schedule and ticket price - and related accidents and assaults on the bus.

The data were processed from the content analysis, categorized and analyzed with the aid of descriptive statistics.

## 3. RESULTS AND DISCUSSION

The study pointed to a general dissatisfaction with public transport service in Aracaju, especially regarding the quality of customer service has been noted that the majority of respondents agree that are considered bad the vehicle condition, cleanliness, seating comfort and ticket price, while compliance with the time received 55.0% of regular concept. Interestingly, one person considered the quality and cleanliness of the vehicle as good and was not the only answer about being satisfied with the fare.

Table 1 - *Quality of service to user transportation*

<i>Aspect observed</i>	<i>Good</i>		<i>Regular</i>		<i>Bad</i>	
	<i>N<sup>o</sup></i>	<i>%</i>	<i>N<sup>o</sup></i>	<i>%</i>	<i>N<sup>o</sup></i>	<i>%</i>
Capacity of the vehicle	0	0,0	11	13,8	69	86,3
Ticket price <sup>1</sup>	0	0,0	22	27,8	57	72,2
Comfort in the vehicle	0	0,0	25	31,3	55	68,8
Vehicle Quality	1	1,3	31	38,8	48	60,0
Cleaning the vehicle	2	2,5	34	42,5	44	55,0
Compliance schedules	3	3,8	44	55,0	33	41,3

<sup>1</sup> One person did not respond

Direct observation of the conditions of quality, comfort and cleanliness of the vehicle has highlighted an appearance of lack of maintenance care with the possibility of accidents resulting from poor condition of the passenger cabin. Found bus floors, windows and handrails visibly soiled, torn seats, corroded metal parts for rust, which, according to a report of survey results in damage to clothes, and sometimes the skin and leave your hands dirty.

The situation was given the highest proportion of negative evaluation was the excessive crowding of vehicles. Direct observation allows us to state that the vehicles are often overcrowded, especially at times of peak demand, which have been increasingly expanding, partly due to increased congestion of the roads. The excessive volume of passengers take to the practice of non-compliance of the stop request to pick up new passengers waiting at bus stops, by not fit more people inside the vehicles. Some interviewees recounted that this aspect affects the very fulfillment of people's time of arrival at their destinations, causing anger to users, as it is often a sequence of two or three full buses that do not meet the requests stop.

Overcrowding is also considered a source of stress among users due to lack of space for the required movement, increased warmth, constant footsteps and elbows and with the aggravating

factor, the encouragement of sexual harassment as sexual acts are justified by the capacity that makes passengers stuck together.

The ticket costs was considered high by 72.2% of users, being taken as the reference path, the condition of vehicles and customer service. None of the informants considered just the price paid for the ticket and there were many complaints about the time spent in transshipment of vehicles in bus terminals, which, besides demanding greater waiting time for connection, also greatly increases the miles.

Table 2 - Perception of quality of transport according to gender

Quality of transportation	Public university		Private university	
	Men	Women	Men	Women
Good	0,0	0,0	1,3	0,0
Regular	5,0	8,8	8,8	16,3
Bad	23,8	12,5	8,8	15,0

Analyzing the perception of quality of transport, it is observed that the worst evaluations were made by students of the public university of choice with 36.3% of the class "bad", while 23.8% of private university students considered bad the quality of transport. This difference may be linked to the quality of buses serving the two universities, as direct observation showed quite remarkable difference in the state of conservation and maintenance of vehicles, rather upper in those who attend private university.

Table 3 – Perception of transport capacity by gender

Capacity of the bus	Public university		Private university	
	Men	Women	Men	Women
Good	0,0	0,0	0,0	0,0
Regular	1,3	1,3	6,3	5,0
Bad	27,5	20,0	12,5	26,3

Considering the difference in perception related to gender shows that men are more critical in their assessments, since 32.6% considered poor the quality of transport, while only 27.5% of women chose this class.

In assessing the capacity of bus and the overcrowding, 47.5% of students in public universities considered bad, while 38.8% of students of private university indicated this class. But it is interesting to note that women in the private university reached almost the same percentage of men in public university evaluation "bad" for the capacity of public transport.

Among the questions, was awarded the occurrence of accidents and related factors as major causes, among which stands out the descent of the vehicle, followed by abrupt braking, increase in vehicle, vehicle crash and problems arising from the physical conditions of vehicles.

Table 4 - Causes of accidents on buses

Cause of accident	Occurrences	
	Nº	%
Descent of the vehicle	18	35,29
Abrupt braking	15	29,41
Entering the vehicle	8	15,69
Vehicle crash	5	9,80
Physical conditions of vehicles	5	9,80
Total	51	100,00

It is noteworthy that 23 people (28.8%) reported having experienced some type of accident and 48 (60.0%) reported knowing the person who suffered accident. Of the total participants in the sample, 51 people reported to have suffered, or know anyone who has suffered any kind of accident, accounting for 63.8% of respondents a number considered as very significant, which demonstrates the lack of security in the use of public transport Aracaju.

The testimony of respondents, supported by direct observation, report that the occurrence of accidents when leaving the bus, get on the bus and braking occur due to two main factors: the rush of motorists to meet pre-set times by management for the completion of the route, and the dispute with other public transport vehicles, to achieve early arrivals at bus stops and terminals of integration, taking passengers who are waiting for transport.

This has led to the opening and closing of doors in a hurry and without the necessary caution and respect for passengers embarking or disembarking the vehicle, driving at high speed incompatible with urban roads for overtaking other buses, leading to abrupt braking and often quite violent, which sometimes are not enough to avoid crashes with other vehicles. The consequences of these types of accidents usually restricted to minor abrasions and bruises, but can lead to more serious situations, have been observed deeper falls and bruises.

*Table 5 - aggressions inside of buses*

<i>Type of aggression</i>	<i>Occurrences</i>	
	<i>Nº</i>	<i>%</i>
Robbery	14	40,0
Theft	9	25,7
Verbal aggression	6	17,2
Injuries	4	11,4
Physical assault	2	5,7
Total	35	100,0

Another question focused on the study was the occurrence of assaults, robberies, thefts and accidents related to these aggressions. Of the 80 surveyed, 35 reported having experienced some type of aggression, especially the robberies, which accounts for 40.0% of cases and was suffered by 17.5% of respondents. According to Secretary of Public Security the rate of assaults on buses has increased steadily [6], which leads indicates the need for more police patrols and measures of transport entrepreneurs in the industry to avoid such violent practices. Thefts have also proved to be significant occurrence, since 11.3% of respondents reported having been victims of this action.

The other types of aggression were also cited, although to a lesser extent, with injuries resulting from reaction to attacks, especially during episodes of theft and assault. These two types of aggression reached six people, meaning 7.5%, which should be considered significant and may be linked to overcrowding and stress situations potentiated by the high temperature inside the buses is much higher than the outside temperature, already high.

#### 4. CONCLUSION

The study concludes that quality of service to users of public transport, in view of the university, requires improvements in several aspects, the main one being the passenger capacity and overcrowding, causing delays in customer service and favors the occurrence of harassment sex, accidents and violence in the vehicles and stress on students and may have reflected mild to severe and sometimes psychological trauma.

This study suggests, the competent public management, better oversight of public transportation in Aracaju, in order to reduce the extent and timing of courses, improve the quality of care and system conditions, avoiding the occurrence of unnecessary discomfort and risk safety and health of the user.

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