

A large cruise ship, the Norwegian Getaway, is docked at a pier. The ship is white with a colorful mural on its side. In the foreground, several people are on a boat, and a solar panel is visible on the right. The background shows a clear blue sky and a building with a sign that says 'NORWEGIAN GETAWAY'.

# PUBLIC TRANSPORTATION DEMAND AND SUPPLY – DELIVERING SERVICE?

A WHITE PAPER ON PUBLIC TRANSPORTATION ON ARUBA



# FINAL RESULTS PRESENTATION

December 12, 2022

Presented by the University of Aruba and  
the University of South Carolina

NEXT







# INTRODUCTION

## THE IMPORTANCE OF THIS STUDY

Quality of life depends on transport. Most people travel every day and need an efficient transport system to support a strong and prosperous economy. Tourists needing to get from point A to point B, but also locals getting to work to uphold the economy. Road transport is vital to the economic development and social integration of the country (Oscar Saenz-de-Miera et. al., 2012).



# RESEARCH STUDY



## Part 1: Current Policies, Procedures and Regulations

Research was conducted on existing policies and procedures on permit administration and regulations. This information created the basis for the white paper and provided insight to determine how effective the current policies and procedures are in relation to the demand of permit holders in comparison to needs of tourists and locals for transport.

## Part 2: Supply, Demand and Satisfaction

Based on previous studies of tourist demand and local needs for transportation, interviews were conducted with public transportation permit owners. These interviews and focus groups were conducted, and themes discerned. In addition, a survey was administered to evaluate tourists' and locals' demand for public transportation to assess the supply and demand as well as satisfaction with public transportation.

## Part 3: Recommendations and Conclusions

This report was produced by using primary data collected during the months of June-September 2022, including but not limited to interviews, focus groups, site visits, observations, primary data collected using online and face to face surveys. Interview and focus group content was assessed using content analysis and thematic coding. Statistical analysis for the survey results was done using SPSS v. 28



# CURRENT SITUATION

## Policies, Procedures & Regulations

The scope of this part of the study focused on providing an overview of the status of allowed permits and registered permits. The report is comprised of the following sections: definitions of transportation categories in Aruba, average number of available permits per category, average number of permits in use per category, policies, and procedures for permits per category, and estimated number of employees per category.

POLICIES

PROCEDURES





# RESULTS: PROBLEMS

## Part 1: Current Policies, Procedures and Regulations

- Permit process needs to be restructured;
- Previous permits were given based on political favors;
- No clear and objective policies and procedures on how to process renewals, complaints, new permits, helper drivers;
- Loose / unrigorous requirements / criteria for new permits, renewals, etc.;
- The LV (Law) incorporates a "commission" to give advice to the minister, however this is non-existent in the actual structure;
- Many pending applications, dating back to many years, no formal database or procedure to handle these requests are in place;
- Irregular Transport (O) permit requirements are vague/loose, causing many issues;
- Staffing at DTP: legal advisors for policies, BOA officers for control, need training and personal development.







# RECOMMENDATIONS

## Part 1: Current Policies, Procedures and Regulations

- Re-evaluate permitting process and structure accordingly to;
- De-politicize how permits are being given based on rules, regulations, set criteria and requirements;
- Digitize processes to create objective and transparent procedures for renewals, complaints, new permits, helper drivers, etc.;
- Introduce more stringent requirements / criteria for new permits, renewals, etc. for example ACP, training, language tests, and so on;
- Formally establish the "commissie personenvervoer" to give advice to the minister as stated in the LV, this is being implemented in St.Maarten and the law is in place;
- Use blockchain technology to make the permitting process more efficient and transparent.
- Introduce more stringent requirements / criteria for Irregular Transport (O) permit requirements to tackle the many issues;
- DTP employee training and development, hire legal advisors to structure policies and procedures, certify existing employees as BOA officers to implement (control), train staff for digital tools needed to be efficient and effective.



**240**   **155**   **465 + 123**

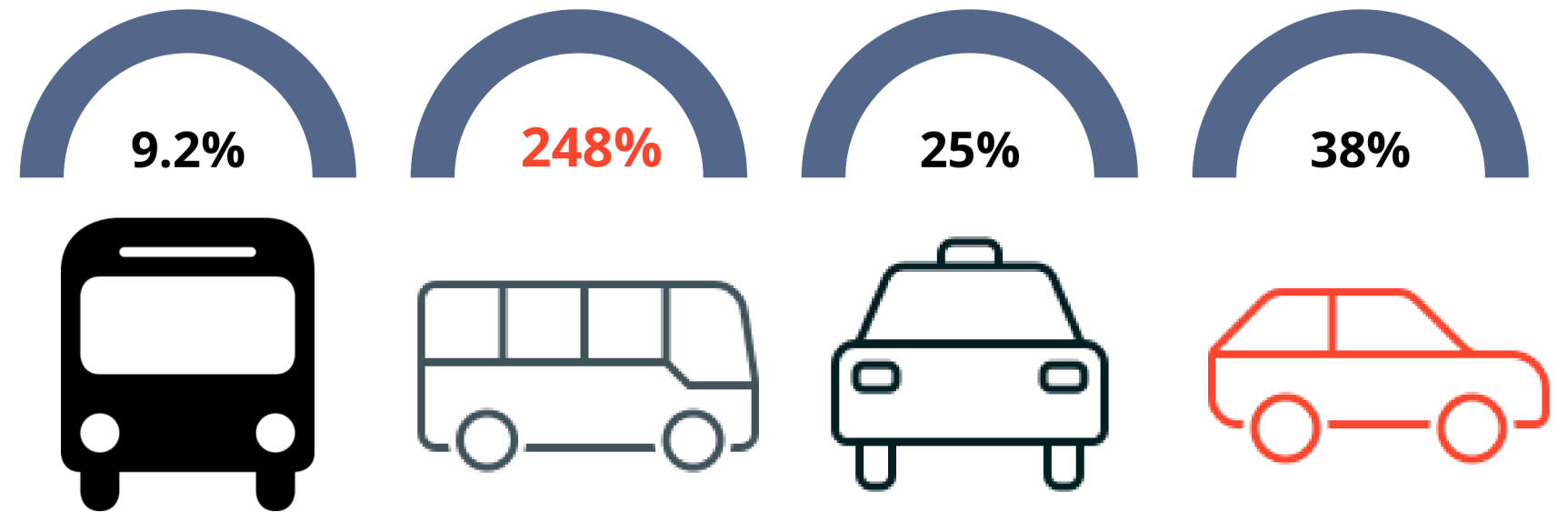
T/O Drivers   Bus Drivers   Taxi + Helper Drivers

According to DTP an estimated total of almost 1,000 drivers contribute to the public transportation industry. (Excl. Car Rentals / Tour Companies)

*"Quality of life depends on transport."*



## GROWTH 2015-2022



**33.9%**

Total

**90,000**

Vehicles

There is a total of 6,349 vehicles with permits registered as T, O, TX and V at the Tax Department as per October 2022

**CURACAO (444 KM2) HAS A TOTAL OF 151,066 INHABITANTS, AND A TOTAL NUMBER OF 538 PASSENGER CARS PER 1000 INHABITANTS (2019)**  
**ARUBA (180KM2) HAS A TOTAL NUMBER OF 685 PASSENGER CARS PER 1000 INHABITANTS (2019).**



# FOCUS GROUPS

## Section Two

This section discusses the results and main findings of the qualitative part of the study. These results were obtained from the interview process and subsequent data analysis. Altogether, the data collection and analysis process had an approximate duration of three to four months. The data collected was obtained from permit holders that went through the process of requesting a permit and are currently actively working as taxi or bus drivers. It must be noted that the presented results were completely provided by the participants and the researchers had no influence on the data provided.

TAXIS

BUSES





## Part 2: Supply, Demand and Satisfaction

"To have the permit as a secondary pension income."

"Disfruta di mi pensioen si nos por logra instala uno."

"This permit has been in my family for 3 generations already, granddad, my father now it is in my name, so when it comes the time I will transfer it to my son. "

"Pa años nan largo tur gobierno a hasi negoshi cu vergunning nan di taxi ."

"Atende ku e pirata nn, nos tin ku cumpli ku gobierno y e pirata nn no ta cumpli ku net net nada. "

"No mishi cu mi vergunning."







# FOCUS GROUP SETUP & SIZE

- Please describe the permitting process as you know it.
- Please describe the permitting process as you experienced it. How long ago was that permit granted to you?
- Please tell us about your business in detail and how often you must deal with renewal or dealing with the Minister of Transportation regarding permitting your vehicles.
- Do you think that the process is fair and equitable to everyone?
- Why or why not?
- What would you change with the process to ensure it is fair and equitable?
- Are you satisfied with the procedures that you had to go through to get your permit?
- Why or why not?
- Is there a better way to determine who gets the permits from the government? Describe.

Focus group size: taxi drivers, gender distribution 3 females, 12 males the participant ranged from 10 – 34 years of work experience, and differed in how the permit was obtained, from receiving from parent, through being a helper-driver, or a political favor.



# RESULTS: PROBLEMS

"I would like the government to involve us personally when taking any decision and not only involve taxis dispatcher service . ( we buy dispatch service, they are not our spokesmen)"

"Control riba T/O. Esey so mi ta deseá."

"Con ta posible cu después di década nan ainda no tin un pension funds pa taxi."

"Not to mention cuando chauffeur di taxi di edad nan avanza ainda ta core taxi."

- The most discussed item by the participants in transportation issues were **pirate transportation**, specifically in the North area, passengers to be transported from North to Oranjestad.
- The main issues mentioned for the permit holders is in the hotel area- between the TX (Taxis), T (Tour Operators), and O (Unregulated Operators).
- The tourists do not know the difference between the three types of transportation options.
- The permit holders do not adhere to the rules stipulated by the permit. In particular, some T & O permit holders are doing the jobs of both taxis and tour operators.





# RESULTS: PROBLEMS

- Another issue that was mentioned is overcharging.
- Even though the permit stipulates that the transfers need to be pre-paid as part of a packaged deal to pick up and drop off at the hotel/accommodation, there are instances where the O drivers offer incoming passengers the option to board on a bus vs. going outside to hail a taxi. Again, creating an unfair playing field because taxi drivers do not enter the airport arrival hall.
- Another participant mentioned that it is hard to get around the island as there are more drivers than is needed on the island. Taxi drivers and Bus drivers are earning less because of the Ts and Os.





# RESULTS: PROBLEMS

- The focus group participants think that specific skills are needed to be a good taxi driver, skills such as knowledge of Aruba (history of Aruba), being hospitable/friendly, knows the routes, and restaurant/ hotel locations. Also important is that they can speak the English language.
- Lack of control: Pirate Transportation affects Auto buses and Irregular Transportation affects Taxis;
- Lack of information/awareness (locals/visitors);
- Complaints / Tips are not handled: Overcharging, Drivers dressing inappropriately;











# RESULTS SURVEY

## Gender

|                |        |
|----------------|--------|
| Male / Homber  | 70.87% |
| Female / Muher | 29.13% |

## Education

|  |        |
|--|--------|
| Primary education / Basis School                       | 1.94%  |
| Vocational Education (EPB)                             | 13.59% |
| High school degree or equivalent (MAVO/GED, HAVO, VWO) | 54.37% |
| Associate degree (EPI)                                 | 13.59% |
| Bachelor's degree (Universidad)                        | 5.83%  |
| Other (please specify)                                 | 10.68% |

## Willingness to follow training?

|     |        |
|-----|--------|
| Yes | 87.64% |
| No  | 12.36% |

## Increase 5 to 7

|                          |        |
|--------------------------|--------|
| Agree / Di acuerdo       | 65.00% |
| Disagree / No di acuerdo | 35.00% |

## Member Taxi Service

|     |        |
|-----|--------|
| Yes | 68.18% |
| No  | 31.82% |

## Permit Belongs to you

|     |        |
|-----|--------|
| Yes | 61.46% |
| No  | 38.54% |



**Autobuses**

**Taxis**



# TOURIST SURVEY RESULTS

- July-August 2022
- In person surveys and online link
- 195 total tourists
- 54.9% females and 36.4% males
- Over 54 age group had 53.3% of respondents
- 29.2% had Bachelor's degree and 15.9% had graduate degrees
- 35% of respondents had more than \$100,000 in income
- 72.8% were revisitors (majority more than 10 times)

# LOCALS SURVEY RESULTS

- July-September 2022
- In-person surveys and online link
- 574 total locals
- 49.3% females and 40.9% males
- 18-24 age group had 41.6% of respondents; 25-34 had 24.1%
- 46.5% had high school diplomas and 19.5% had Bachelor's degrees
- 41.5% of respondents had an income of less than AWG 20,000, 26.8% had an income of Awg 20,000-49,999



# T: USE OF PUBLIC TRANSPORTATION

Table 13: How often do you use the following modes of transportation when in Aruba

| Modes of Transportation     | 1-never | 2  | 3  | 4- daily | 5 | 6 | 7-multiple times per day |
|-----------------------------|---------|----|----|----------|---|---|--------------------------|
| Rental Cars                 | 115     | 15 | 4  | 23       | 2 | 3 | 32                       |
| Taxicabs                    | 42      | 62 | 32 | 35       | 2 | 7 | 8                        |
| Mini-Buses                  | 150     | 14 | 6  | 5        | 2 | 0 | 11                       |
| AutoBuses                   | 159     | 9  | 5  | 3        | 0 | 0 | 11                       |
| Tour vehicles               | 141     | 31 | 2  | 3        | 1 | 0 | 9                        |
| Other public transportation | 166     | 5  | 5  | 2        | 0 | 0 | 10                       |

- **THE MAJORITY OF TOURISTS WHO USED TRANSPORT WERE SATISFIED AND VERY SATISFIED WITH TRANSPORTATION ON THE ISLAND**
- **THE VAST MAJORITY OF TOURISTS DO NOT USE TRANSPORT OTHER THAN TAXI CABS.**



# T: SATISFACTION AND SERVICE QUALITY

Table 17: How would you rate the service quality of the following modes of transportation on Aruba

| Modes of Transportation     | 1-terrible | 2 | 3 | 4-average | 5  | 6  | 7-extremely great service quality | NA- do not use |
|-----------------------------|------------|---|---|-----------|----|----|-----------------------------------|----------------|
| Rental Cars                 | 0          | 0 | 1 | 13        | 11 | 12 | 35                                | 116            |
| Taxicabs                    | 0          | 0 | 1 | 11        | 11 | 28 | 93                                | 40             |
| Minibuses                   | 0          | 0 | 0 | 10        | 4  | 5  | 8                                 | 156            |
| Autobuses                   | 0          | 0 | 2 | 7         | 2  | 1  | 6                                 | 164            |
| Tour vehicles               | 0          | 0 | 1 | 5         | 2  | 4  | 21                                | 147            |
| Other public transportation | 0          | 0 | 0 | 2         | 0  | 1  | 1                                 | 173            |
| Other                       | 0          | 0 | 0 | 1         | 0  | 2  | 5                                 | 145            |

- **49% THOUGHT RENTAL CARS WERE EXTREMELY GREAT SERVICE, BUT OVERALL, ONLY 40% OF RESPONDENTS USED RENTAL CARS**
- **TAXIS WERE THE MOST HIGHLY RATED FOR SERVICE QUALITY**

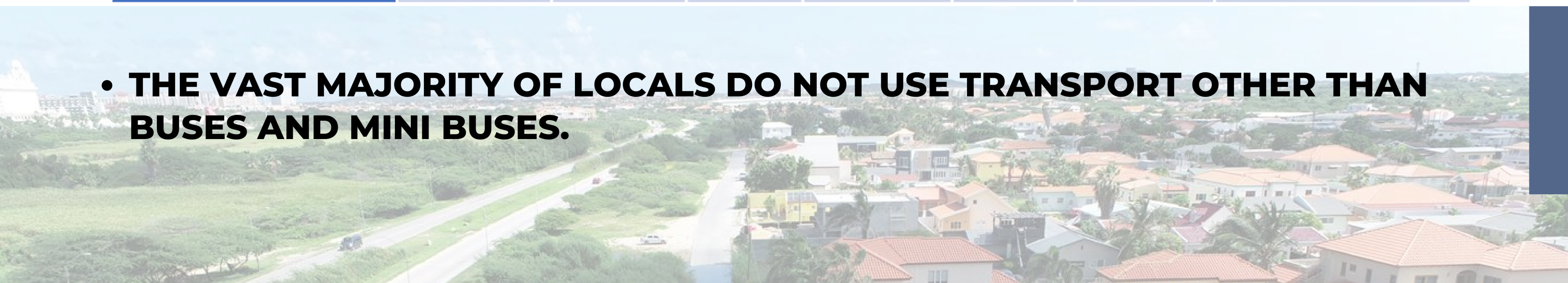


# L: USE OF PUBLIC TRANSPORTATION

**Table 30: How often do you use the following modes of transportation when in Aruba**

| Modes of Transportation     | 1-never | 2  | 3  | 4- daily | 5  | 6 | 7-multiple times per day |
|-----------------------------|---------|----|----|----------|----|---|--------------------------|
| Rental Cars                 | 401     | 97 | 27 | 20       | 8  | 5 | 14                       |
| Taxicabs                    | 448     | 69 | 24 | 10       | 9  | 4 | 4                        |
| Buses                       | 343     | 75 | 49 | 65       | 11 | 8 | 17                       |
| Mini(Auto) Buses            | 383     | 67 | 46 | 47       | 9  | 8 | 11                       |
| Tour vehicles               | 416     | 91 | 27 | 14       | 11 | 3 | 6                        |
| Other public transportation | 455     | 34 | 24 | 22       | 12 | 5 | 15                       |

- **THE VAST MAJORITY OF LOCALS DO NOT USE TRANSPORT OTHER THAN BUSES AND MINI BUSES.**





# L: SATISFACTION AND SERVICE QUALITY

**Table 33: How satisfied are you with the following modes of transportation on Aruba**

| Modes of Transportation     | 1-not at all satisfied | 2  | 3  | 4-neutral | 5  | 6  | 7-very satisfied | NA- do not use |
|-----------------------------|------------------------|----|----|-----------|----|----|------------------|----------------|
| Rental Cars                 | 54                     | 13 | 17 | 69        | 42 | 49 | 87               | 224            |
| Taxicabs                    | 53                     | 21 | 22 | 66        | 38 | 45 | 49               | 253            |
| Buses                       | 39                     | 18 | 51 | 100       | 61 | 51 | 52               | 186            |
| Mini(Auto)Buses             | 49                     | 18 | 37 | 107       | 51 | 45 | 34               | 214            |
| Tour vehicles               | 55                     | 10 | 20 | 56        | 51 | 36 | 53               | 265            |
| Other public transportation | 60                     | 13 | 14 | 65        | 21 | 20 | 24               | 330            |

- **ABOUT A THIRD OF LOCALS (29%) WHO USED TRANSPORT WERE SATISFIED AND VERY SATISFIED WITH TRANSPORTATION ON THE ISLAND**





# L: SATISFACTION AND SERVICE QUALITY

**Table 34: How would you rate the service quality of the following modes of transportation on Aruba**

| Modes of Transportation     | 1-terrible | 2  | 3  | 4-average | 5  | 6  | 7-extremely great service quality | NA- do not use |
|-----------------------------|------------|----|----|-----------|----|----|-----------------------------------|----------------|
| Rental Cars                 | 39         | 12 | 20 | 108       | 39 | 57 | 65                                | 214            |
| Taxicabs                    | 37         | 8  | 22 | 90        | 45 | 49 | 51                                | 247            |
| Buses                       | 28         | 9  | 40 | 154       | 53 | 47 | 43                                | 183            |
| Mini(Auto)Buses             | 33         | 14 | 48 | 148       | 43 | 33 | 27                                | 209            |
| Tour vehicles               | 44         | 4  | 14 | 83        | 48 | 36 | 56                                | 267            |
| Other public transportation | 45         | 12 | 17 | 80        | 22 | 18 | 17                                | 333            |

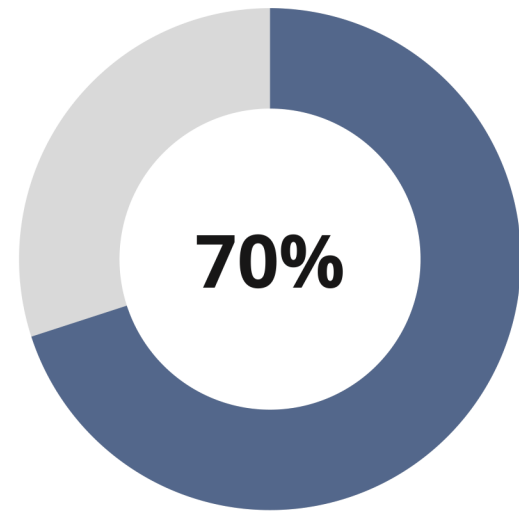
- **BUSES AND AUTOBUSES ARE THE MOST USED TRANSPORTATION TYPES, BUT ONLY 18% OF RESPONDENTS RATED THE SERVICE QUALITY AS EXTREMELY GREAT.**



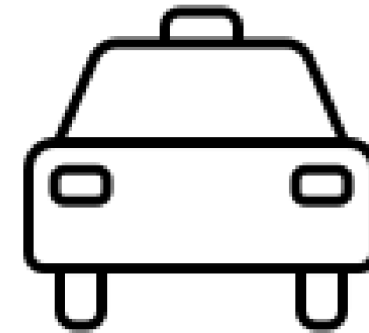
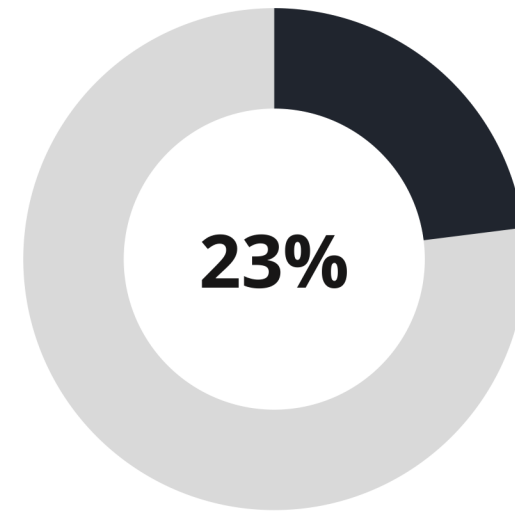


# T: TIMELINESS OF TRANSPORTATION

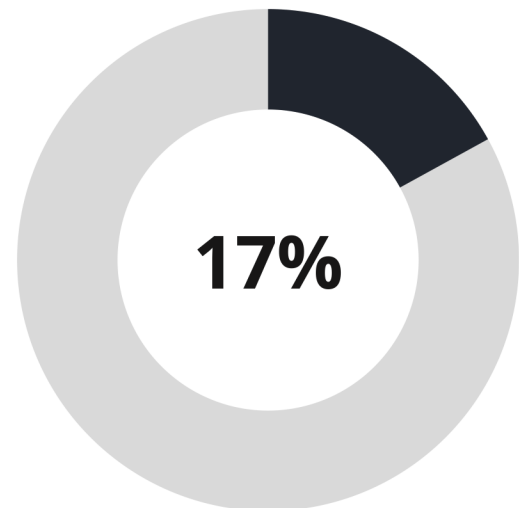
0 - 5 MINUTES



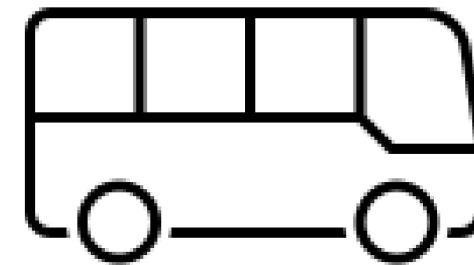
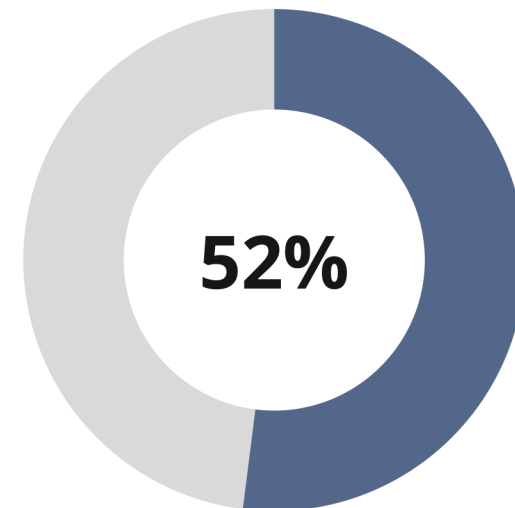
6 - 10 MINUTES



ALWAYS



NEVER

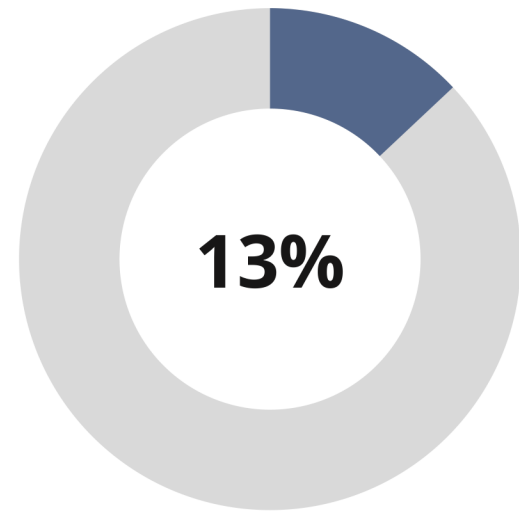


- Taxis- extremely timely! Mean 1.47 or (0-5 minutes- 70% and 6-10 minutes 23%)
- Buses- not as timely. Mean 3.22, 17% stated they were always on time and 52% stated never on time
- Other transportation- not timely. 58.9% stated never on time.

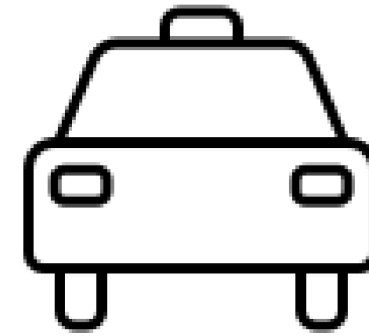
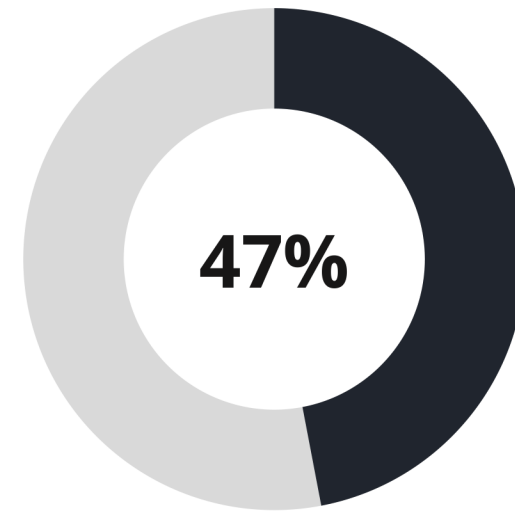


# L: TIMELINESS OF TRANSPORTATION

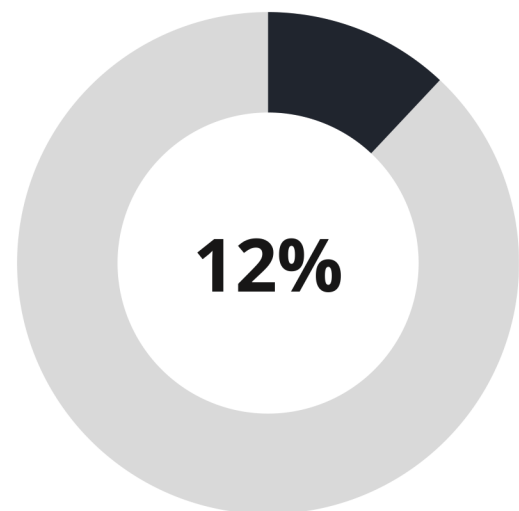
0 - 5 MINUTES



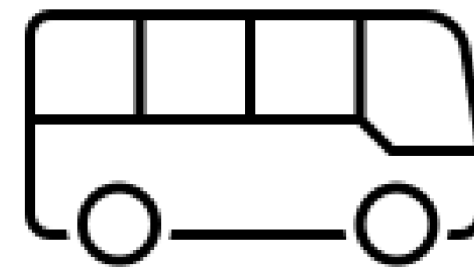
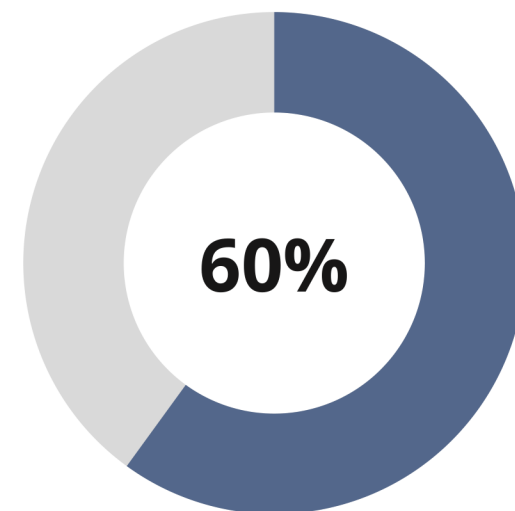
11 - 20 MINUTES



ALWAYS



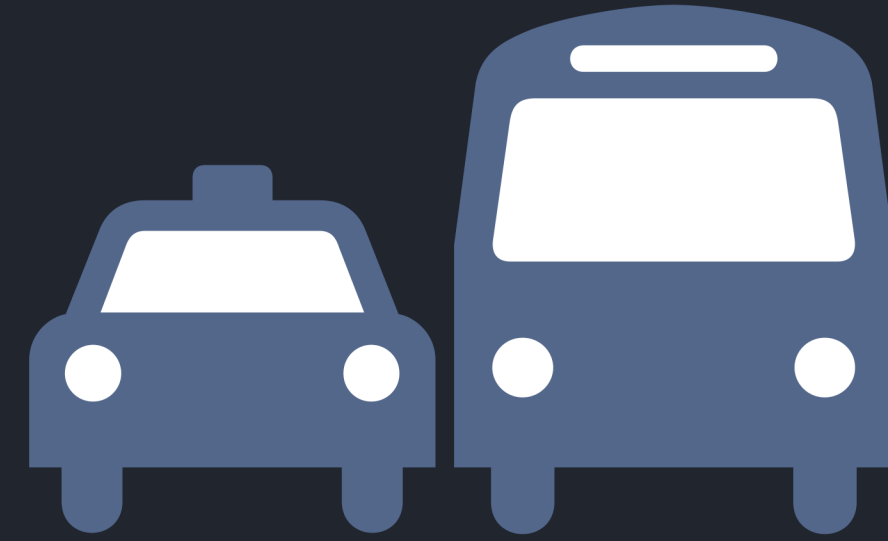
NEVER



- Taxis- not as timely with locals as tourists. Mean 3.24 (compared to 1.47 tourists) out of 7; taxis take between 6-20 minutes the majority of the time. Only 12.7% of locals are picked up in 0-5 minutes
- Buses- less timely than taxis. Mean 2.84, 60% stated they were not on time or where they were supposed to be more than half of the time
- Other transportation- not timely. Similar responses to buses



# T: IMPORTANT TRANSPORTATION FACTORS/HOURS OF USE



**Table 27: Rank Order of Most Important to Least Important regarding Transportation on Aruba**

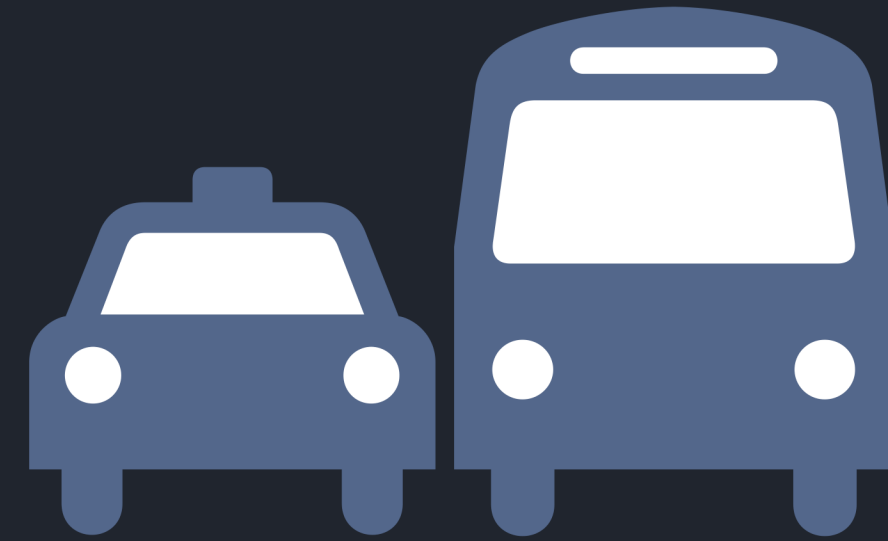
|                        |             |
|------------------------|-------------|
| <b>Value for money</b> | <b>5.63</b> |
| <b>Safety</b>          | <b>4.39</b> |
| <b>Timeliness</b>      | <b>4.17</b> |
| <b>Cleanliness</b>     | <b>3.93</b> |
| <b>Price</b>           | <b>3.85</b> |
| <b>Reliability</b>     | <b>3.57</b> |
| <b>Service Quality</b> | <b>3.17</b> |

**Table 39: Rank Order of Most Important to Least Important regarding Transportation on Aruba**

|                        |             |
|------------------------|-------------|
| <b>Value for money</b> | <b>5.29</b> |
| <b>Safety</b>          | <b>4.49</b> |
| <b>Cleanliness</b>     | <b>4.02</b> |
| <b>Timeliness</b>      | <b>4.01</b> |
| <b>Reliability</b>     | <b>3.61</b> |
| <b>Service Quality</b> | <b>3.46</b> |
| <b>Price</b>           | <b>3.09</b> |



# IMPORTANT TRANSPORTATION FACTORS/HOURS OF USE



**Table 28: Top Hours for Transportation Usage on Aruba**

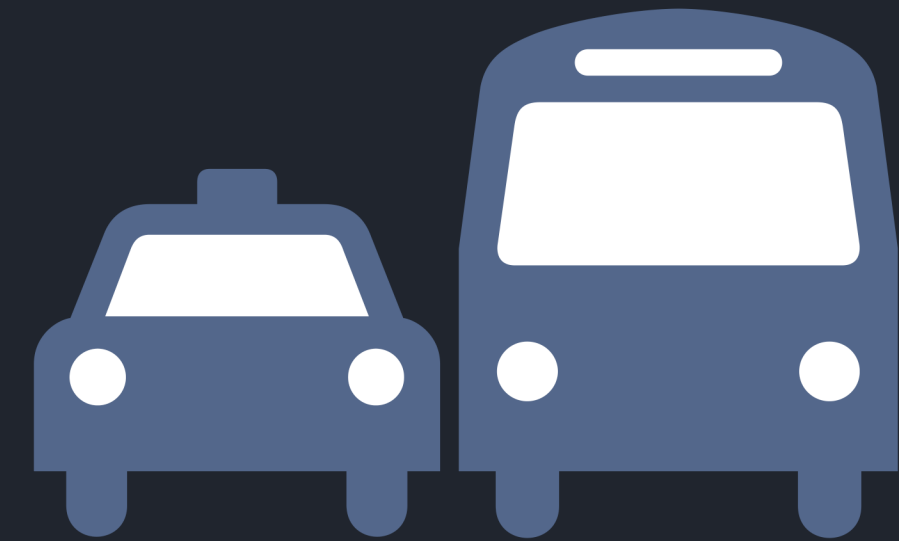
|          |     |
|----------|-----|
| 6-9am    | 16  |
| 9-12pm   | 47  |
| 12pm-3pm | 32  |
| 3-6pm    | 44  |
| 6-9pm    | 122 |
| 9pm-12am | 9   |
| 12am-3am | 3   |
| 3am-6am  | 1   |

**Table 40: Top Hours for Transportation Usage on Aruba**

|          |     |
|----------|-----|
| 6-9am    | 207 |
| 9-12pm   | 120 |
| 12pm-3pm | 155 |
| 3-6pm    | 125 |
| 6-9pm    | 109 |
| 9pm-12am | 67  |
| 12am-3am | 29  |
| 3am-6am  | 20  |



# IMPORTANT TRANSPORTATION FACTORS/HOURS OF USE



**Table 41: Have you ever used  
pirate transportation?**

|              |            |            |
|--------------|------------|------------|
| <b>Yes</b>   | <b>134</b> | <b>23%</b> |
| <b>No</b>    | <b>392</b> | <b>68%</b> |
| <b>Other</b> | <b>11</b>  | <b>2%</b>  |
| <b>N/A</b>   | <b>37</b>  | <b>6%</b>  |



# T: OVERALL TRANSPORTATION



Tourists evaluated transportation as very close to excellent or 6.11 out of 7, 57.4% stated it was excellent!







# **L: OVERALL TRANSPORTATION**



Locals evaluated transportation as less than moderate, leaning more towards poor or 3.54 out of 7



# KEY FINDINGS

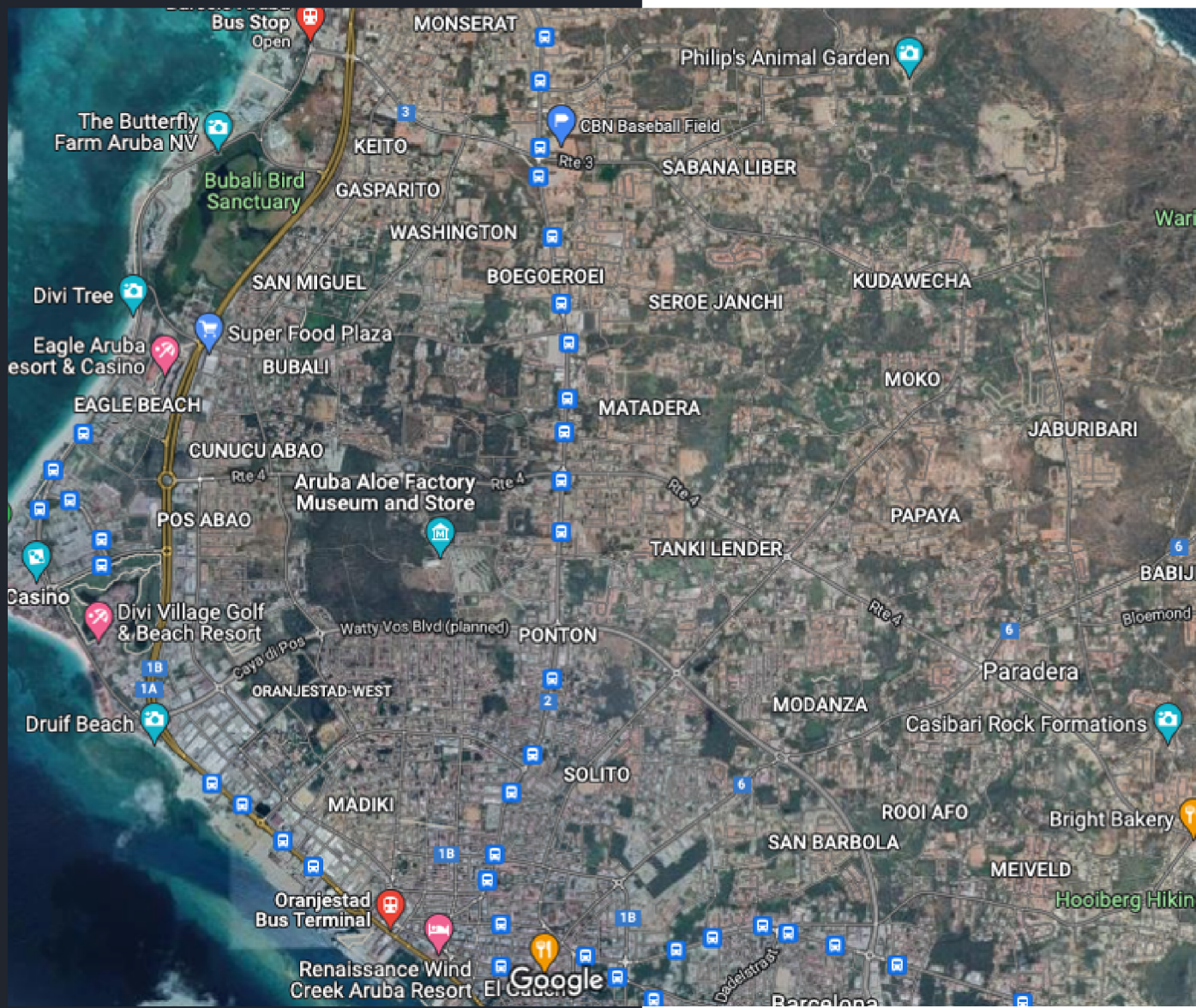


## Tourist Surveys

- In general, tourists find the transportation on the island excellent and timely
- Buses were the transportation that was the most questionable for reliability
- Only between 25-40% of tourists rent cars on the island depending on which responses you review
- Value for money, and safety were top responses for tourists (same as locals)



# KEY FINDINGS



## Locals Surveys

- There may be a relationship between bus usage and the timeliness and reliability of buses
- Locals have mixed feelings about public transportation. The buses and mini(auto) buses appear to be the most used but are also the most troublesome
- The perception of locals is moderate to poor regarding overall transportation
- The most important issues are, value for money and safety
- The times most used for transportation are 6am-9am (29.4%) and 12pm-3pm (19.7%) most likely for shift change/work



# IDEAS FOR IMPLEMENTATION

## Short Term

- Review bus routes for timeliness
- Communication about rates
- Digitization of processes
- Aruba Transportation App

## Medium/Long Term

- Create value initiatives e.g. drop off at home vs. main road (bus stops)
- Awareness campaign and incentive for public transportation



# QUESTIONS OR COMMENTS?





A person's legs and feet are visible at the top of the frame, walking down a set of stairs. The stairs are made of concrete and have a dark blue shadow cast across them. The text "THANK YOU" is overlaid in a large, bold, blue font on a dark blue rectangular background that spans across the middle of the image. The overall scene is dimly lit, with a blue color palette.

**THANK YOU**