
# EVALUATION OF TOURIST USE OF VENETIAN TRANSPORTATION

Project Number: JFZ V01V

An Interactive Qualifying Project submitted to the Faculty of

WORCESTER POLYTECHNIC INSTITUTE

In Partial Fulfillment of the requirement for the Degree of the Bachelor of Science

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# Abstract

This project was conducted by students of Worcester Polytechnic Institute and in conjunction with Vela, the marketing agency for ACTV, the provider of public transportation in Venice. The purpose of this project was to aid Vela in quantifying and qualifying tourist use of public transportation services. To accomplish this, we visually identified 66,493 tourists as they were boarding water transportation and conducted a survey to better understand how many tourists use each form of transportation and why they do so. We concluded that while ACTV holds 61% of the tourist market, there is room for improvement in several areas. Increasing service of the tourist lines, clarifying signs and advertisements and implementing specialized group services would improve service for tourists as well as residents and lead to increased profits and patron satisfaction.

# Acknowledgements

The Transportation and Tourism team would like to thank all the people that made this project possible. We would like to extend a special thanks to Professors Fabio Carrera and John Zeugner for their guidance in advising this project and for making our eight weeks in Venice as enjoyable as possible. Vela, our sponsor, was extremely helpful in translating our survey and providing us with printing and office facilities. Christina Neri and Silvia Lovison were especially helpful in giving our project direction and providing our team with important feedback on our presentation. We would also like to thank Professor Richard Vaz for his valuable input during his stay in Venice, and Alberto Gallo for his assistance with our survey translations. And finally, thank you to the WPI Administration for their continued support of the Venice Project Center. We hope that Vela, the city of Venice and future WPI project teams will make good use of our project.

# Authorship

This project, An Evaluation of Tourist Use of Venetian Transportation, is the result of a cohesive group effort by Kathleen Gardner, Igal Nassima, Jillian O'Toole and Mike Sweeney.

# Table of Contents

## Table of Tables

# Table of Figures

# 1 Executive Summary

In a city where the streets are filled with water, transportation takes a form dramatically different from that found in other cities. The Grand Canal of Venice is home to a public transportation system unlike any other. The system of one hundred and fifty boats and ferries that travel along the Grand Canal, and stretch to nearby islands is complex and initially bewildering. The public transportation system of Venice is vital to the city's residents and tourists. Through this project, we sought to aid Vela, the marketing company owned and operated by the public transportation authority in Venice, to improve this system.

The ACTV (*Azienda del Consorzio Trasporti Veneziano*) is the provider of public transportation services in the canals and lagoon of Venice, and extends to bus services to and on the nearby mainland. *Azienda del Consorzio Trasporti Veneziano* roughly translates into English as "Agency of the Consortium of Venetian Transportation."

Vela, our sponsor, is the group owned and operated by the ACTV for the marketing of their services. They are responsible for ticket sales and all available information on the public transportation system, including maps and signs at boat docks and informational mailings to tour agencies and groups.

For our project, we qualified and quantified tourist preferences as they applied to transportation in Venice. To qualify tourist preferences, we surveyed tourists on their transportation experiences and preferences. To quantify their preferences, we formed a methodology that allowed us to visually identify tourists. We then used the identification process to count tourists making use of public transportation and private transportation in the form of water taxis or the *Gran Turismo,* the charter boat service.

Twelve routes connect the one hundred and fifty ACTV stops through Venice's Grand Canal and to its surrounding islands. In the peak tourist season more routes are added to San Marco and the Lido. Some lines make frequent stops along the way while some are more direct routes to more popular stops, allowing them to be more efficient.

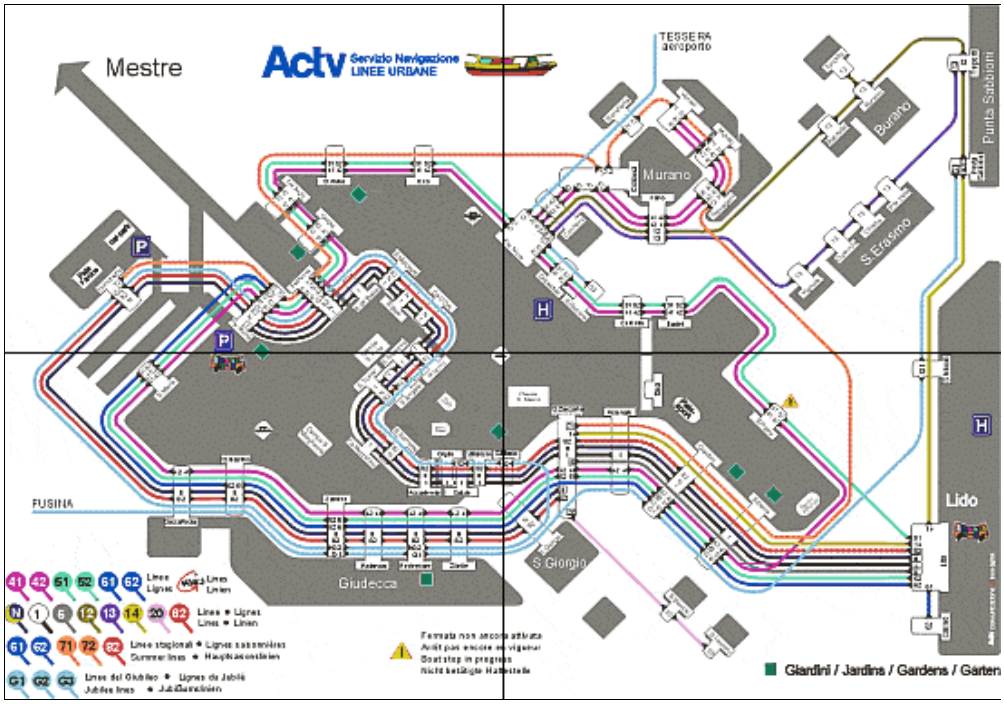


Figure 1. All Regular ACTV Scheduled Routes for Water Buses.

Many different types of ACTV tickets are available for purchase at any ticket window at waterside boat stops, as well as at official ACTV ticket offices, tobacco shops and newsstands. Non-residents pay a higher fee than residents who provide the ticket agent with a *Cartavenezia* (proof of residence). A single ticket will cost a resident of Venice L. 1.500; a book of ten is L. 14.000, and a Grand Canal crossing L. 800. Corresponding non-resident prices are L. 6.000, L. 50.000, and L. 3.000 respectively.

ACTV uses four different kinds of boats for their service to Venice and its surrounding islands. *Vaporetti* and *Motoscafi*, the most frequently seen boats, are used mainly in the city-center and city-circular routes. These boats transport passengers and their luggage.

Figure 2. A *Vaporetto.*

The most common form of private transportation around the city of Venice is the water taxi. The Venetian water taxi is very similar to its land counterpart. A water taxi ride is approximately ten times more expensive than a waterbus trip and can reach 100.000 Lire ($50 US) for a ride from Piazzale Roma, which is why the vast majority of the business for water taxi drivers comes from tourists and business travelers. Water taxi drivers frequent the main entrance points to Venice as well as tourist attractions and hotels. Also in competition for part of the same market is *Gran Turismo*, which operates out of only one of the three main entry points. This charter service caters to tour groups as small as 10 and as large as 300. The cost for a one-way trip using this service is 10.000 Lire ($5 US), 40% more than a one-way ACTV ticket.

To quantify transportation preferences we counted people identified as tourists, according to our methodology described in section 4.1.4, boarding ACTV boats and taxis. This counting provided us with a clear idea of not only the number of tourists who used each form of water transportation, but also the daily and weekly trends of passenger volume, which was extrapolated to represent monthly and yearly data.

To qualify tourist preferences, we conducted a survey that demonstrated exactly what factors affect tourists' transportation decisions. These surveys provided us with

comments and feedback from tourists who have taken advantage of public and private transportation offerings and helped us to form our recommendations to Vela.

Our study area included several major entrance points to Venice and popular tourists attractions. Ferrovia, the train station in Venice, Tronchetto, a parking area for cars, and Piazzale Roma, the end of the bus line to Venice, were used for counting tourists and recording their choice of transportation, whether it be water bus, taxi or *Gran Turismo*. We did not include Marco Polo airport in our data collection, as ACTV does not run a waterbus service joining the airport directly to other islands. P.Roma, Ferrovia and Tronchetto are the main points of tourist influx to the city of Venice could best assess the competition between public and private transportation. Our surveys were given in Piazza San Marco, an extremely popular destination for tourists that easily allowed us to represent an accurate cross section of the tourist population.

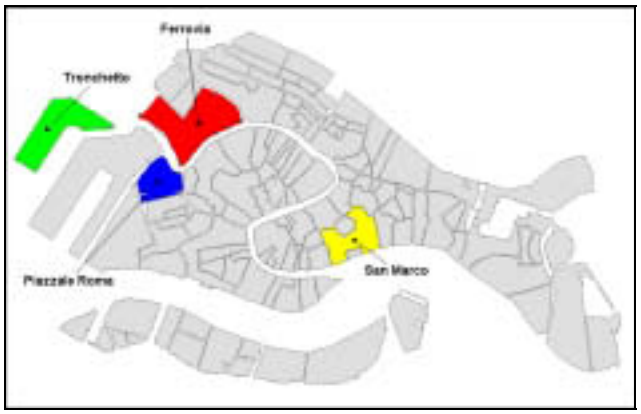

Figure 12. Map of Study Areas.

A methodology for identifying passers-by as either tourists or non-tourists was developed by two groups of WPI students studying tourism in Venice during the summers of 1999 and 2000. Their method, adapted for our specific purposes, allowed us to quickly determine which subjects should be included in our study. Our objective was to distinguish between tourists and non-tourists, whether they were residents, commuters or students. Dress, accessories and demeanor, were the three indicators helpful in distinguishing between tourists and residents. In section 4.1.2 this methodology is discussed in detail.

Testing was administered the week of June 4, 2001 to determine the efficiency of each group member's tourist identification procedure. At each counting site group members practiced identifying tourists for two hours. Every tenth person was asked if he

or she was a tourist to confirm our impressions. The results of this test, which produced a group accuracy rate of 92%, are shown in Figure 16.

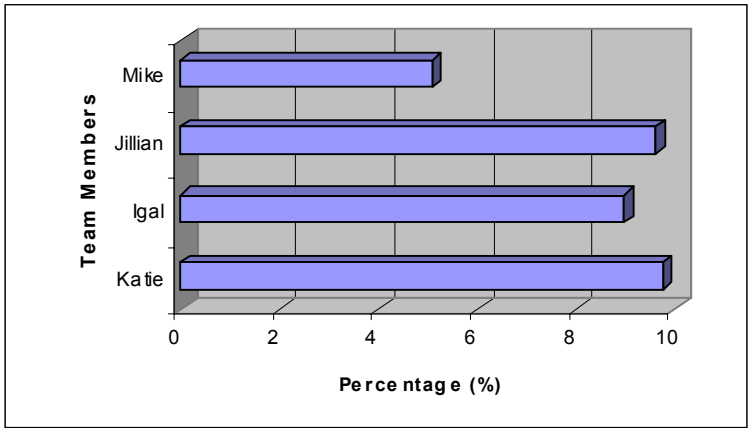


Figure 16. Percent Error of Tourist Identification.

We also performed a counting efficiency test, where all four-group members counted tourists walking in the same direction and compared numbers with each other. For our data to be accurate, we had to be sure that we were all counting with the same method and receiving the same results.

A systematic sampling allows for a random sampling of tourists and is much more easily executed than simple ransom sampling. In order to choose the subjects to whom we will administer the survey, every tenth person identified as a tourist was approached and administered our survey.

The surveying at Piazza San Marco gave us an accurate cross section of tourists in the city, due to the popularity of the square as a tourist attraction.

| | ACTV | Gran Turismo | Taxi |
|---|---|---|---|
| Ferrovia | 32097 | 0 | 1641 |
| Tronchetto | 14824 | 44339 | 1624 |
| P.Roma | 25457 | 0 | 760 |
| Total | 72377 | 44339 | 4025 |

Table 8. Total Extrapolation of Tourist Counts for a Week by Type.

We performed five weeks of data collection to count ACTV passengers full days and half days to prepare for extrapolations, and administer our survey. From our quantification of tourist preferences, we learned that water taxis do not appeal to a large majority of the tourist market (see Table 8, above.).

However, due to their high price, they still account for approximately 13% of tourist transportation gross revenues (see Figure 19). This was estimated using our extrapolated counts for one week and multiplying each type of transportation by its average fare.

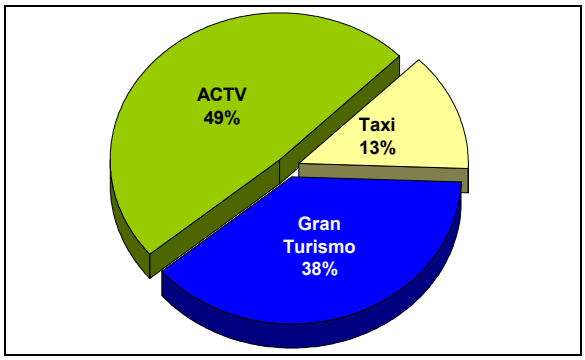

Figure 19. Gross Income for Each Transportation Type.

Our survey showed that 8% of tourists take water taxis when they first arrive in Venice. Compared with 4% of tourists taking water taxis on a weekly basis as shown in our counting results, demonstrating that many tourists take water taxis once upon arrival, and do not take them again, either for the price or a lack of need.

The *Gran Turismo* did transport a large percentage of the tourists at Tronchetto. Many large groups choose to take these privately chartered boats, as there is less waiting and an entire group can fit onto one boat, while with ACTV services, groups often have to split up.

Our survey results showed there was a large difference in tourists first transportation choice depending on whether they are a member of a tour group or not. As seen in Figure 36, half of all tour group members take a *Gran Turismo* from Tronchetto to their destination in Venice, usually San Marco. Only 31% of tour group members use ACTV services for their first form of transport in Venice, as compared with 57% of non-tour group members, as seen in Figure 35.

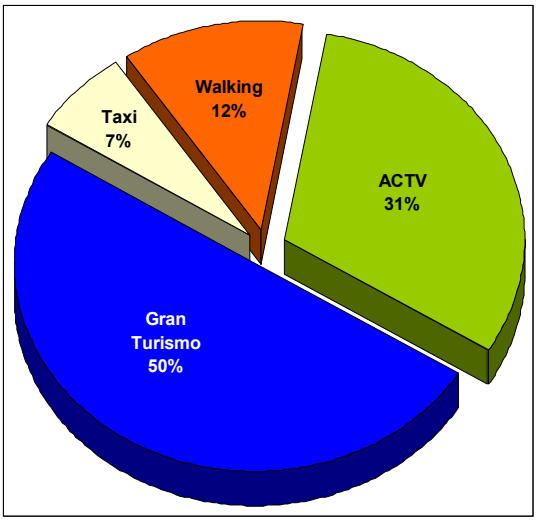


Figure 36. First mode of Transportation for Tour Group Members.

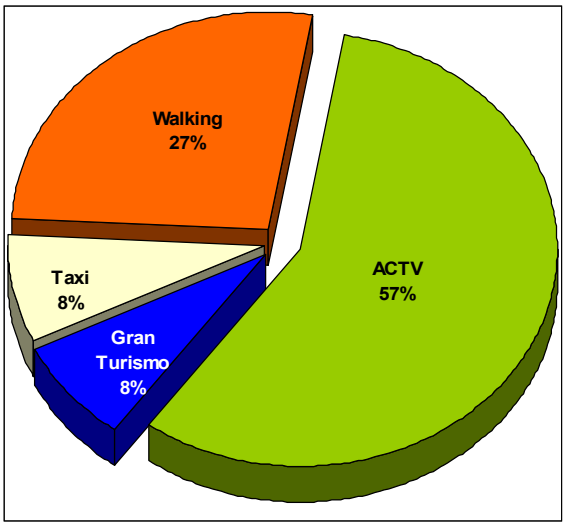


Figure 35. First mode of Transportation for Non-Tour Group Members.

We have formed three main recommendations to aid Vela in improving services and information availability. These include an implementation of specialized group services, a restructuring of tourist lines, and an improvement of available information, including signs and brochures.

To better reach the tour group market, ACTV could improve group services. Currently, tour groups have to buy books of ten tickets or family tickets and stamp one ticket for each person. This is highly unreasonable for large groups, who should be able to buy a single ticket for all group members. Also, because of their size, many groups cannot stay together while boarding ACTV boats that are usually already filled with people. As part of these group services, ACTV could add a reservation service for large groups that would allow them to reserve an entire *motoscafo* or *vaporetto* for their group. Tour groups are the biggest factor in transportation choices by tourists, and marketing directly to them would increase revenues.

There is much crowding and congestion in the ACTV system especially during peak times during the day, and is especially noticeable on the 82 and 1 lines, where passengers often have to let one or two full boats leave before they can board. A great deal of this traffic is from tourists, as June and July is the peak tourist season in Venice. Lines 3 and 4, advertised as “The Fast Lane to St. Marks” are extremely useful, as many tourists use these, and it help to relive the crowded 82 and 1 lines. However, these do not

run very often, so their aid is diminished. With a revamping of the routes 3 and 4 schedules, these lines could dramatically improve crowding on the *Vaporetti*.

According to our survey, 73% of tourists have never visited the city of Venice before. Due to this fact, the transportation system of Venice can be overwhelming to a to many tourists, as it is dramatically different than any other public transportation system in the world, we have also suggested that Vela makes signs clearer and more easily understandable. This includes specific recommendations for reorganization of particular signs and also recommendations for sign placement, such as a map and promotional sign visible to tourists as they arrive at the train station.

# 2 Int roduction

With its foundations on wooden pilings and its streets filled with water, Venice, Italy is a magnificent example of beautiful architecture and intricate urban planning. With unique landmarks such as the Rialto Bridge, the Doge's Palace and the Basilica San Marco, Venice is truly one of the most beautiful cities in the world. The number of tourists visiting the city is fast approaching unsustainable levels. In 1994, 10 million tourists visited the city of Venice, and since then the numbers have only increased, and are expected to hit 15 million by 2005. *Vaporetti* are crowded, bridges are congested and streets are filled with people and litter.

As a long-standing major tourist attraction, public transportation is especially crucial to Venice. Without *vaporetti*, waterbus service provided by the ACTV, to transport large numbers of people through the city and to its surrounding islands, there would be many more boats in the already congested Grand Canal of Venice.

Although public transportation is essential to the residents and tourists of Venice, it is a losing proposition, just as it is in every other city in the world. The boats run by the ACTV are very expensive to maintain, and it is difficult for the organization to produce any profits.

This project is intended to aid Vela, the marketing agency for the ACTV, in increasing the amount of tourists who take advantage of public transportation opportunities. Despite the increasing number of tourists visiting the city, it is a market demographic that has not been thoroughly researched. To continue to properly provide transportation to the residents and tourists of Venice, the ACTV needs to increase revenue by better directing their service to the large tourist market.

The goal of our project was to quantify and qualify the experiences and preferences of tourists, as they pertain to Venetian transportation, allowing us to make recommendations to Vela that will improve services and information availability.

# 3 Background and Literature Review

Through this project, our team hopes to improve the public transportation system of Venice for both tourists and residents. Tourists are visiting Venice in ever-increasing numbers, and they are an important demographic for marketing of public transportation. We hope to provide Vela with a better understanding of the tourist market in an effort to expand and improve public transportation services and increase revenues. This understanding will allow Vela and the ACTV to continue providing the residents and tourists of Venice with an option for transportation that is safe and efficient.

The following background and literature review provides the reader with an understanding of the initial research completed for our project. The background is broken down into several sections, the first is an introduction to the public transportation services offered by the ACTV, followed by sections on private transportation and tourism, as they pertain to our project.

## *3.1 Public Transportation in Venice*

Public transportation in Venice is much different from an ordinary bus or subway system. In a city where the streets are filled with water, the only way to transport the public is by boat. Many residents privately own boats, but there is still a pressing need for public boat service to decrease traffic volume in the canals of Venice. This demand is met by the ACTV. The ACTV runs public waterbuses, ferries and land buses to accommodate the needs of residents and visitors.

The type of waterbus most common to tourists is the *vaporetto*. *Motoscafo*, *motonave* and *traghetti* are the other types boats available for public transport in the waters of Venice. These boats will be shown and discussed in section 3.1.2.4.

### 3.1.1 ACTV and Vela

ACTV, the *Azienda del Consorzio Trasporti Veneziano*, is the provider of public transportation services in the canals of Venice, and extends to bus services to and on the

nearby mainland. *Azienda del Consorzio Trasporti Veneziano* roughly translates into English as "Agency of the Consortium of Venetian Transportation."

ACTV began operating on October 1, 1978 and now operates over 500 land buses and approximately 150 waterbuses and ferryboats. The ACTV services over 200 million passengers each year, and its lines extend into 44 towns and 4 districts.[1]

Vela Spa, our sponsor, is a separate company owned and operated by the ACTV that is responsible for marketing ACTV's public transport services. Vela handles ticket sales, information, and schedules, not only through their ticket windows at boat stops and bus stations, but also through their interactive website.[2] On the Internet, ACTV patrons can find ticket sales, stop locators, and schedules to assist them in planning a trip. Vela also caters to the tourist market by selling tickets at boat stops for cultural events occurring in Venice and "Rolling Venice" passes that allow tourists to receive discounts at local businesses and for cultural events.

### 3.1.2 Services

ACTV offers 12 regular lines throughout the year, adding a few in the busy summer months and during special events that attract more tourists to the city. Vela has categorized each line as one of the following: a city-center, city-circular or lagoon route. Boats make scheduled stops through the Grand Canal around the city and its surrounding islands. To ride the waterbus, a person must purchase one of the many different tickets available. (Ticket types and prices are explained in section 3.1.2.3).

[1] http://www.ACTV.it
[2] http://www.velaspa.com

*3.1.2.1 Routes*

Routes connect the one hundred and fifty stops in Venice and its surrounding islands. Some lines make frequent stops along the way while some are more direct routes to more popular stops, allowing them to be efficient and direct.

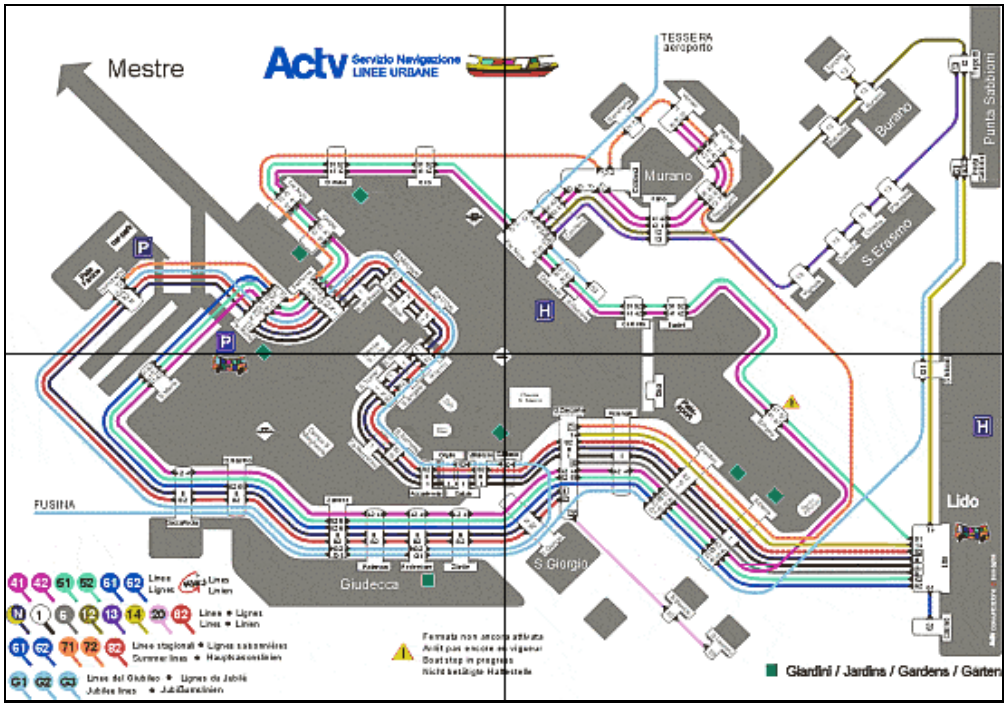


Figure 1. All Regular ACTV Scheduled Routes for Water Buses.

The city-center routes include the most frequently stopping line, the number 1, as well as the 3, 4, 82, and *Servizo Notturno* (the night service running from 11:59pm to 5am, denoted by the letter N or the word *notte*). These routes cross through the center of the city usually by way of the Grand Canal and then stretch to the Lido and Tronchetto. Tourists frequent these lines, as they stop at many of the usual tourist destinations. Line number 1 is the slowest line, as it makes the most stops along the Grand Canal from Piazzale Roma to the Lido. Line 82 makes a loop in the center of Venice from Tronchetto to the Lido and makes fewer stops. San Marco is linked to Tronchetto by lines 3 and 4 making the fewest stops along the way through the center of Venice.

The #3 and #4 Lines are dubbed *Subito A San Marco*, or "The Fast Lane to St. Mark's." These two water routes are directed at transporting tourists to San Marco

quickly once they enter Venice, and then returning them at the end of the day. This is intended to prevent overcrowding on lines such as the #82 and #1, which follow the same path, but stop more often before arriving at San Marco and are frequented by residents.

The #3 runs clockwise in the beginning half of the day, picking up passengers every 20 minutes at Ferrovia and Tronchetto, two main entrance points to Venice, and dropping them off at San Samuele, Accademia, and San Marco before returning to Tronchetto to begin the loop again.

The #4 line runs in the afternoon, beginning at San Marco, making a loop along the Grand Canal, stopping at Accademia, San Samuele, and Rialto, then dropping passengers at Ferrovia, Tronchetto and P.Roma.

City-Circular routes, lines 41, 42, 51, 52, 61, 62, 71, 72, *Diretto Servizio Murano* and the *Notturno Murano*, connect the outside of the city to the Lido and Murano and are mainly used by residents of Venice and commuters. The 41 and 42 lines make a loop around the outside of Venice beginning and ending at Murano. Lines 51 and 52 also make a loop around the outside, but connect to the Lido. Lines 61 and 62 stretch only from Piazzale Roma to the Lido making very few stops. Lines 71 and 72 are the "Fast Lane to Murano" running from Tronchetto, Piazzale Roma and Ferrovia to Murano and San Marco. The Diretto makes a loop from P.Roma to Murano only on weekdays. The servizio notturno Murano shuttles from F. Nove to Murano and back during the night.

The Lagoon Routes connect Venice with the lagoon islands as well as connecting the islands to each other. The routes include 6-14-12, 11, 13, 17, 18, 20, and the *Servizio Notturno Laguna Nord* (Northern Lagoon Night Service) line. Lines 6-14 and 12 connect San Marco to the Lido and the northern islands to Fondamente Nove. Line 11 runs from the Lido along the adjoining islands to Chioggia. Line 13 connects Fondamente Nova to Murano, San Erasmo, and Treporti. Line 17 is a ferry between Tronchetto and the Lido with a few continuations to Pointe Sabioni during the morning and evening commute. Line 18 runs only between Murano, San Erasmo, and the Lido. Line 20 is a ferry between San Zaccaria and San Lazzaro with a stop at San Servolo upon request.

The night lines, (N), are modified from the day lines to exclude less frequently used stops and to run less often. This allows fewer boats to run without sacrificing service

and economizes public transportation, as there are far fewer patrons of public transportation after 11pm and the buses are expensive to run.

*3.1.2.2 Schedules*

Waterbus schedules are available on the websites of ACTV and Vela Spa, www.actv.it and www.velaspa.com, respectively. Many of the popular boat stops are equipped with electronic signs which post the next waterbus departure time and line. At sites without electronic signs, there are timetables for the lines arriving and departing from that waterbus stop. There is also a complete schedule in brochure format that is available at ticket booths, Vela and ACTV offices and at many travel agencies in the Venice region.

The waterbuses run on regular schedules beginning as early as 4:20 in the morning and continuing to about 11:59 at night. Most lines run every twenty minutes, increasing to every ten minutes for an hour at midday. After 11:59 pm, the *notte* line runs every 20 to 30 minutes.

*3.1.2.3 Fares*

Many different types of tickets are available for purchase at any ticket window at waterside boat stops, as well as at official ticket offices, tobacco shops and newsstands. Non-residents pay a higher fee than residents who provide the ticket agent with a *Cartavenezia* (proof of residence).

A single ticket will cost a resident of Venice L. 1.500; a book of ten is L. 14.000, and a Grand Canal crossing L. 800. Corresponding non-resident prices are L. 6.000, L. 50.000, and L. 3.000 respectively.

For non-residents who desire a ticket to fit the specific needs of their visit, tickets are available that are valid for specific lines, and periods of time or offer discounts for families, students and seniors. A tourist staying the day can take advantage of the 12 or 24-hour ticket. For short stays a 3 or 7-day ticket can be convenient. Families of 3, 4, or 5 people can get 24-hour tickets at a discounted price. Groups of 20 or more students or

seniors can get 24-hour passes for an even lower price. Long term passes for extended stays can also be obtained.

*3.1.2.4 Boats*

ACTV uses four different kinds of boats for their service to Venice and its surrounding islands. *Vaporetti* and *motoscafi*, the most frequently seen boats, are used mainly in the city-center and city-circular routes. These boats transport passengers and their luggage. For the lagoon routes, such as the popular San Zaccharia to the Lido route, *motonave* are used, as they can carry larger volumes of people. *Nave traghetto* are large ferryboats that carry cars from the mainland at Piazzale Roma to the Lido.

| **Type of Boat** | **Passenger Capacity** | **Length X Width** | **# Operators Needed** | **Route Type** |
|---|---|---|---|---|
| *Vaporetto* | 220 | 21x4.22m | 2 | Circular Center |
| *Motoscafi* | 160 | 20.7x3.4m | 2 | Circular Center |
| *Motonave* | 1000 (Adria)<br>1200 | 28.5x6.5m<br>38x7m | 6 | Lagoon |
| *Nave Traghetto* | *28-30 motor vehicles | 40x8m | 6 | Lido-Mainland |

Table 1. Properties of ACTV Boats.

*Vaporetti* are the most commonly seen ACTV boats. The word *vaporetto* means, "steam boat". Two men are needed to operate these boats, a captain and a sailor. *Vaporetti* have a capacity of 220 passengers and are 21m long by 4.22m wide.

Figure 2. A *Vaporetto.*

*Motoscafi* are slightly smaller than the *vaporetti* with dimensions of 20.7m long and 3.4m wide. *Motoscafi* can hold up to 160 passengers. They are operated similarly to *Vaporetti*, with one pilot and one sailor.

Figure 3 A Motoscafo

*Motonave* are used to link lagoon islands. *Montonave* are very large and need six people to operate. The crew consists of one master of ocean-going vessels, one steersman, one first-class engineer, one engineer helper and two sailors.

Figure 4 A *Motonave.*

*Nave Traghetto* are used to carry cars from the mainland to such islands as Lido and Pellestrina Island. *Nave* Traghetti require six operators just like the *Motonave*.


Figure 5. A *Nave Traghetto.*

The word *traghetto* means, "to go across". The crossing of the Grand Canal is possible on ACTV boats and boats owned by the Paul Shark Company, the same company that regulates *gondola* prices. Tourists and residents can cross the Grand Canal by boarding a *vaporetto* for one stop, or by taking a smaller boat resembling a *gondola*, which is stood on and has two gondoliers rowing, instead of one. The fare to cross the Grand Canal with an ACTV boat is L 3.000 ($1.50 US), and it is L 4.000 ($2.00 US) in a *gondola*. An example of a *gondola* used as a *traghetto* shown in Figure 6.

Figure 6. A *Traghetto.*

### 3.1.3 Economics of Public Transportation

For single passengers or small groups public transportation is the most economically sound choice. For large groups, the cost of a chartered taxi or a *Gran Turismo* is still less expensive, but it is convenient to have an entire group on one boat, rather than to split them up. Privately rented forms of transportation can be anywhere from 40% to five times more expensive than ACTV services.

## *3.2 Private Transportation*

Private transportation in Venice is easily paralleled with private transportation in other cities in the world. Water taxis are very similar to their land counterparts, and charter boats are comparable to charter bus services. The taxis are licensed through the city and park at a number of special docks throughout the city. The *Gran Turismo* is the charter boat service that operates out of private docks at Tronchetto. These boats mainly transport large tour groups from Tronchetto to San Marco.

The most famous (and expensive) form of private transportation is the *gondola*. *Gondola* rates are negotiable but usually increase after 8pm. These boats are taken by

tourists mainly for the experience and as a way of seeing the city, rather than a serious form of travel[3]. It costs about 140,000 lire ($70 US) for a 45- minute ride during the day.

### 3.2.1 Private Water Taxi Services

The common form of private transportation in Venice is the water taxi. A water taxi ride is approximately ten times more expensive than a waterbus trip, which is why the great majority of the business for water taxi drivers comes from tourists and business travelers instead of residents. Water taxi drivers frequent the main entrance points to Venice as well as tourist attractions and hotels. Many tourists arrive in Venice confused by the transportation system, and carrying heavy luggage. Taxi drivers commonly solicit business verbally as tourists pass by. Tourists are sometimes willing to part with large amounts of money to avoid the confusion and be relieved of their luggage as well as quickly arrive at their destination.

Figure 7. A Water Taxi.

### 3.2.2 *Gran Turismo* Charter Services

Also in competition for a portion of the tourist market is *Gran Turismo*, a charter service that operates out of only one of the three main entry points. This charter service caters to tour groups as small as 10 or as large as 300. Fares depend on group size and are usually pre-arranged by tour group leaders. A person in a group of 50 to 100 will pay L8.000 to L12.000 for a one-way ride to San Marco. This fare for *Gran Turismo* is approximately twice as much as an ACTV ticket one-way ticket.

Figure 8. A *Gran Turismo.*

## *3.3 T ourism*

This recreational activity was first recognized in the early 19th century. The term "tourism" as a word appeared in 1811[4], and can be defined in several ways.

"The temporary movement of people to destinations outside their normal places of work and residence, the activities undertaken during their stay in those destinations, and the facilities created to cater to their needs." [5]

"The sum of the phenomena and relationships arising from the interaction of tourists, business suppliers, host governments and host communities in the process of attracting and hosting these tourists and other visitors."[6]

The tourist bureau of Venice is the *Azienda Promozione Turistica di Venezia* (APT). This bureau helps to promote tourism in the city, as well as collect data on the tourists of Venice. They keep records of all hotel stays in the historical center of Venice as well as on the Lido. This data assisted us with our extrapolations, as hotel stays are an important indicator of monthly tourist volumes.

### 3.3.1 Types of Tourism

The tourism industry has broken down the definition of tourism into different types to better communicate with accommodate the tourist population. These sub-categories of tourism differ in the reasons for visiting, the length and type of stay, and the needs of each tourist. These types are as follows:

[4] Donald E. Lundberg, The Tourist Business (Chicago: Intuitions/Volume Feeding Management Magazine, 1972), p. 11
[5] Mathieson and Wall (1982)
[6] Macintosh and Goeldner (1986)

1. **Business Tourism** depends on the social-economic status of the city and requires business related activity. An example of this is the Expo2000, a business fair that was scheduled be held in Venice. This was cancelled later, due to the problems associated with large numbers of tourists.
2. **Congressional tourism** occurs when foreign political leaders visit and reflects on the prestige and reputation of the city.
3. **Leisure-motivated tourists** include people seeking recreation, holiday, health, independent study, religion, or sport.
4. **Urban tourism** depends of the quality of the tourism product, but is found in large numbers in Venice. Venice with her rich culture and history is a unique city that attracts people from other cultures and all over the world.
5. **Local recreational tourism** is practiced by the population from the surrounding region.
6. **Cultural tourism** includes people coming from other states and countries to experience a different culture.

### 3.3.2 Tourists

Tourists were first recognized in the nineteenth-century England as people who practice outdoor recreational activities. A definition of tourism from a 19th Century dictionary is "people who travel for the pleasure of traveling, out of curiosity, and because they have nothing to do for the job of boasting out about it afterwards."[7]

[7] Charles E.Gearing. 1976. Planning for tourism development: Quantitative Approaches. New York: Praeger Publishers. P4

### *3.3.2.1 Tourist Statistics*

UNESCO, the United Nations Educational, Scientific and Cultural Organization, has estimated that in 1992, 10 million tourists visited Venice. They expect this number to reach 15 million by 2005. This data has been interpolated to estimate the total number of tourists for 2001, which was found to be 13.1 million (See Figure 9).

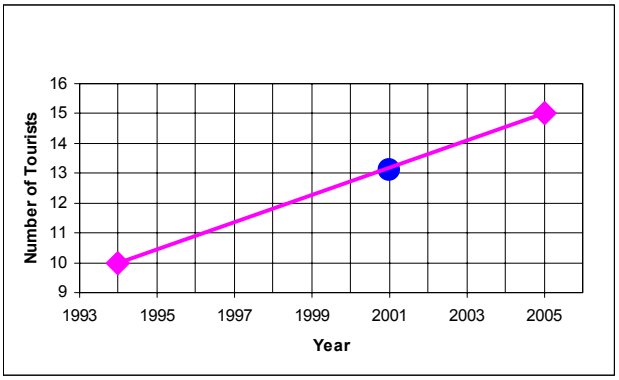


Figure 9. Interpolation of Tourists in Venice in 2001

### *3.3.2.2 Types of Tourists*

As the tourism industry evolved it categorized the travelers under several different categories. According to Union of Official Travel Organizations, tourists are temporary visitors spending at least twenty-four hours in a country, when the purpose of the journey can be classified as either leisure or business. These visitors are also called residential tourists.

Travelers staying less than twenty-four hours, according to IUOTO, are considered "excursionists". Local excursionists are those visiting Venice from other parts of Italy and its bordering nations and return their homes without staying overnight. Reasons for excursionist tourism include leisure or business.

Stopover excursionists are visitors who stay for the day, but then continue their vacation traveling somewhere else. An example is daily tour groups.

Commuting excursionist tourists come to Venice as their final destination but do not stay more than twenty-four hours.[8] Sixty-eight percent of Venetian tourists are excursionists. Excursionist tourism is extremely popular in Venice because of the

[8] 2000 IQP report, A Quantitative Estimate and Characterization of Excursionist Tourists

pressing demand and high price for staying overnight. A double room in a three-star hotel can range in price from 150,000 lire ($75 US), to as much as 300,000 lire ($150 US)[9].

#### *3.3.2.3 Nationalities of Visitors*

The WPI IQP group of 2000 conducted a survey in which they recorded the nationalities of each surveyed person. Their results are displayed in Figure 10. With this data, one can assume that tourists in Venice speak a variety of languages, including Italian, English, German, French and others.

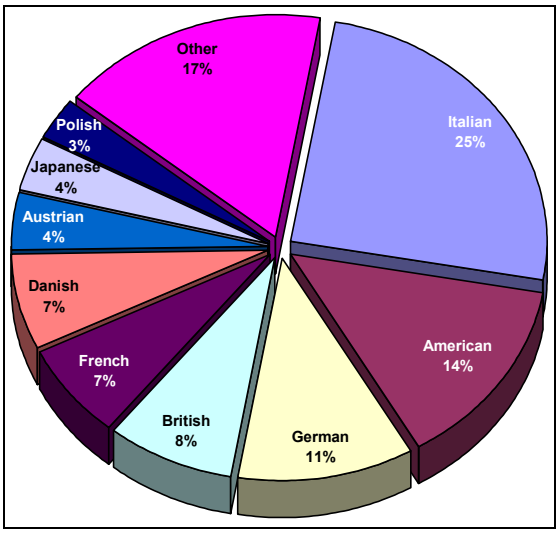


Figure 10. Overall Excursionist Nationalities.

### 3.3.3 Popular Tourist Sights and Attractions

The attractions in Venice vary from the physical structures on the island to cultural activities that take place every year, including: permanent attractions such as Basilica San Marco, Piazza San Marco, the Doge's Palace, the Rialto Bridge, and the Grand Canal itself.

Annual festivals, including *Carnevale*, *Redentore* and The Feast of Santa Maria della Salute, draw tourists from around the globe.

There are other smaller festivals and exhibits in Venice, which help to bring more tourists. These include The Feast of the Ascension, St. Mark's Day, The Feast of San Pietro di Castello, St. Martin's Day, the Venetian Lagoon Races, the International Film Festival, European Festival of Music and Valentines Day.

[9] Venezia 2001 Hotels Price List, associazionevenezianalbergatori

### 3.3.4 Impacts of Tourism

With millions of tourists visiting Venice every year, there are both positive and negative repercussions. Sometimes in a city as overrun by tourists as Venice, it is easier to see the negative aspects of tourists, but it is also important to remember that tourists help to maintain the city as we know it, as much of the Venetian economy is sustained by them tourist industry.

Positive impacts include income, which is very important to Venice since it depends on tourism and because of it's limited natural resources is not suitable for most other industries. In this way tourism keeps the city protected and restored. Because the beauty and history of Venice are it's biggest tourist attractions, the city can invest in preserving its historical buildings and monuments as well as general upkeep of the city.

Negative influence of tourism affect both the city and its residents, impacting traffic, pollution and economics. Traffic on land and in canals is caused by the overwhelming amount of tourists traveling each day. Pollution increases, in the form of sewerage, noise and garbage increases. Economically, the market shifts towards tourism, as it is the area of demand, but this increases prices for Venetian residents, making the cost of living in Venice very expensive.

## *3.4 Marketing*

During the course of our project we gained an understanding of Venetian tourists as consumers. To effectively promote public transportation and its benefits, it is important to demonstrate to tourists what public transportation has to offer and how tourists can personally benefit from the use of public transportation. In our surveying of tourists, we found what tourists are looking for in transportation services and how VELA can better promote and market the offerings of the ACTV.

In the past, ACTV have had several large advertising campaigns, including two in the 1990's. These included signs with photography, which focused on the freedom Venetian public transportation allows. This campaign emphasized that you could get to

places that are not typically tourist locations- giving you broader access to the city.[10] With our survey results, we determined which groups would benefit the most from the improved marketing of public transportation and what improvements would be the most effective.

Vela also sells tickets for many cultural events occurring in Venice. This, along with the Rolling Venice Pass, draws tourists to boat docks for information. They also distribute brochures on their special tourist lines, the "Fast Lane to St. Mark's" and Murano. Recently, Vela has also sent a mailing to many large tour agencies describing their services. These include a survey and a cover letter, as well as the timetable for all boats.

[10] http://www.ACTV.it/inglese/azienda.htm

# 4 Me thodology

The following methodology has been developed to evaluate the use of public transportation by the tourists of Venice. Figure 11 shows a flowchart of the methodology separated into 3 different sections. Through the execution of this methodology, we have collected data and observations to aid Vela in improving marketing of the public transportation system to the tourist population. Using surveys, observations and statistical analysis we have determined the factors that affect tourists' transportation choices and utilized this information in making recommendations to improve services and rider volume.

To quantify the transportation preferences of tourists we counted people identified as tourists, according to the method described in section 4.1.2, as they boarded ACTV, water taxi and *Gran Turismo* boats. This provided us with a clear idea of not only the number of tourists who take each form of water transportation, but also the daily and weekly trends of passenger volume, which were then extrapolated to estimate monthly and yearly riderships.

To qualify tourists' preferences, we conducted surveys to show what factors affect a tourist's transportation decision. These surveys provided us with comments and feedback from tourists who have taken advantage of these offerings and helped us form our recommendations for improvement.

To better understand the information available to tourists upon arrival to Venice, observations were made of the signs located at the entrance to the city at Piazzale Roma, Ferrovia and Piazzale Roma, as well as those on ACTV docks. A database was created to catalogue these data. The information gathered on the signs as well as feedback from tourists interviewed at these sites was taken into account for an analysis of available information and its usefulness to tourists.

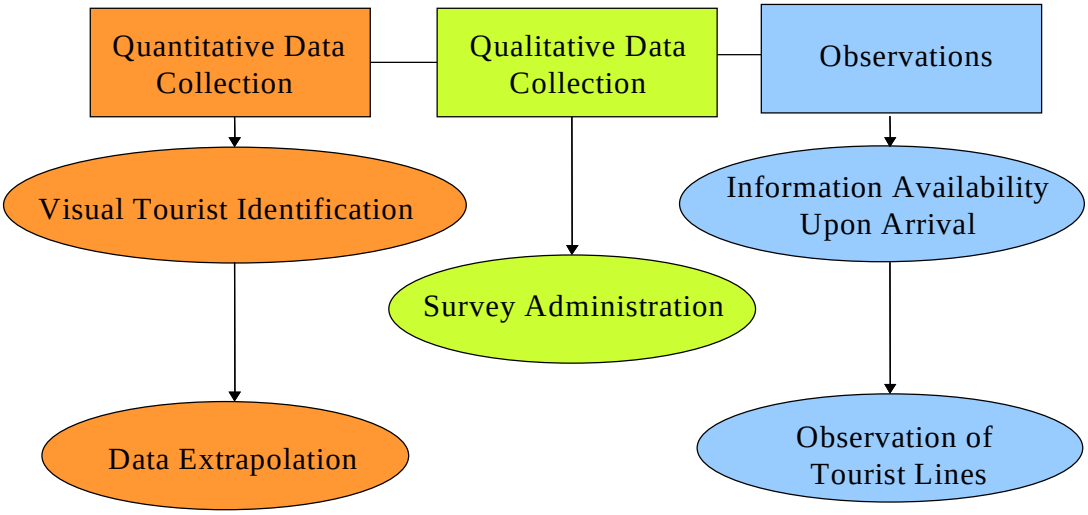


Figure 11. Methodology Flow Chart.

## *Domain of Inquiry and Definitions*

Our field of inquiry is restricted to tourists visiting Venice, including both day-trippers and overnight guests. Permanent residents, students and business travelers were excluded from our surveys and counting.

Public transportation as referred to herein included services provided by ACTV, and private transportation included both licensed and unlicensed water taxis and *Gran Turismo* boats.

## *Study Area*

Our study area included the three principal entrance points to Venice and St. Mark's Square shown in Figure 12. Ferrovia, the train station in Venice, Tronchetto, a parking area for cars and tour bus terminal and Piazzale Roma, the end of the bus line to Venice, were used for counting tourists and recording their choice of transportation: water bus, taxi, or Gran Turismo. These are the main points of tourist influx to the city of Venice where we were able to best assess the competition between public and private transportation.

Marco Polo airport was left out of our data collection process, as the ACTV does not run a waterbus service directly to the historical center of Venice from the airport. Our surveys took place in Piazza San Marco, an extremely popular destination for tourists.

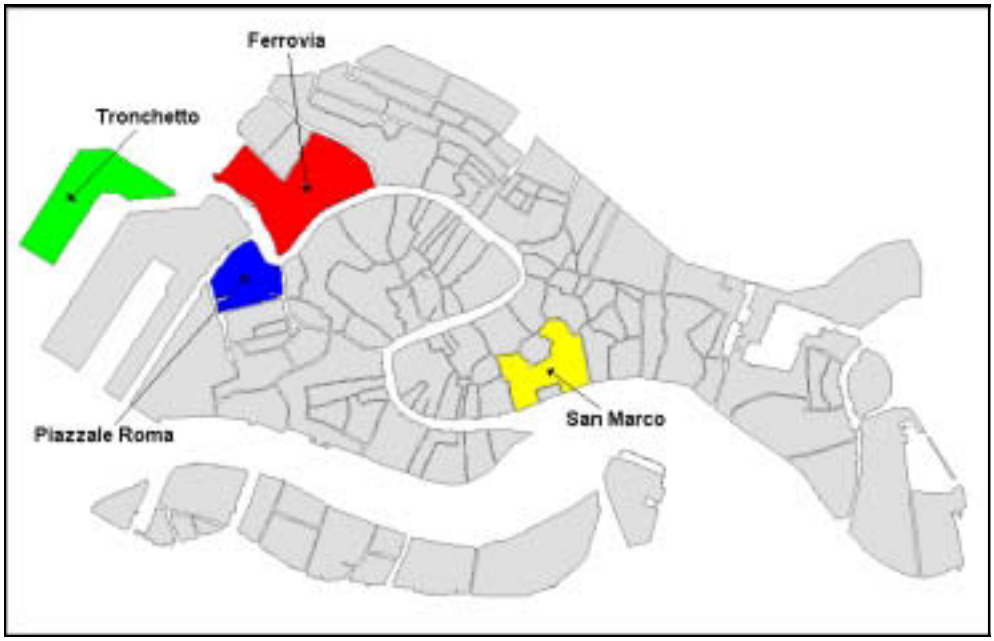


Figure 12. Map of Study Areas.

## *4.1 Quantification of Transportation Preferences of Tourists*

To make valid and productive recommendations to Vela, we needed to know the amount of tourists taking public and private transportation. Through ticket sales, Vela can form an educated guess on the number of tourists using their transportation system, but Vela has no concrete way to count them. This information is not available for taxis or *Gran Turismo* boats, either. To evaluate tourist use of the transportation, we collected quantitative data by counting tourists boarding boats at the aforementioned Venice entry points.

### 4.1.1 C ounting Sites

We chose the following counting sites because of their status as primary points of tourist influx to Venice: Ferrovia, Tronchetto, and Piazzale Roma. During the first week of study, the counting of tourists was practiced at each site to determine the best locations, times and days for data collection. Maps of the sites, shown in the

following three sections, are drawn on Geographic Information System (GIS) using MapInfo and include the *vaporetto* stops and water taxi and *Gran Turismo* boarding locations.

#### *4.1.1.1* Ferrovia

At the Santa Lucia Train Station (Ferrovia), trains stop and head back to the mainland. The platform steps lead down to a broad terrace alongside the Grand Canal, where there are landings for eleven waterbus lines on five docks and a water taxi dock where taxis are frequently waiting.[11] The red arrows show the tourist influx from the train station through the area. We conducted our counts at 3 specific positions labeled A, B and C in the red diamonds in Figure 13. A group member at Counting Location A kept track of lines N-3-4-82 going in both directions, and another member counted people going on lines 1-41-51-71 at Counting Location B. Counting Location C allowed a team member to count tourists boarding ACTV lines 42, 52, 72 and the taxi dock.

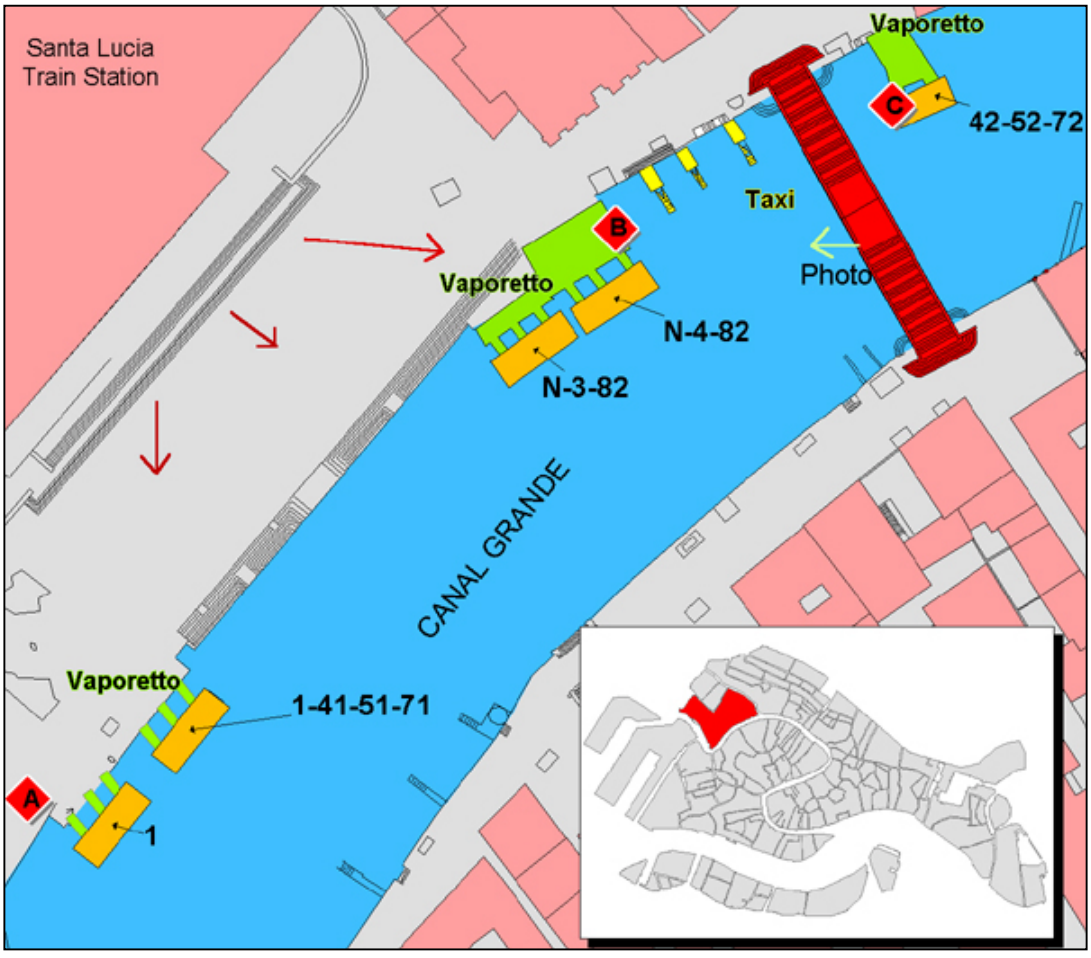


Figure 13. Layout of Boat Docks at Ferrovia.

*4.1.1.2 T ronchetto*

Large tour groups arriving by bus and private parking garages at Tronchetto make this a major entrance point for people arriving to Venice with automobiles. There are two floating docks for ACTV lines N-3-4-72-82, a taxi dock and three *Gran Turismo* docks that are connected with one pathway. We selected two counting positions for this site, labeled A&B in the red diamonds in Figure 14. While one group member at position A counted the tourists taking advantage of public transportation and entering the ACTV docks, the group member at position B kept track of people distributed among the taxi and *Gran Turismo* docks.

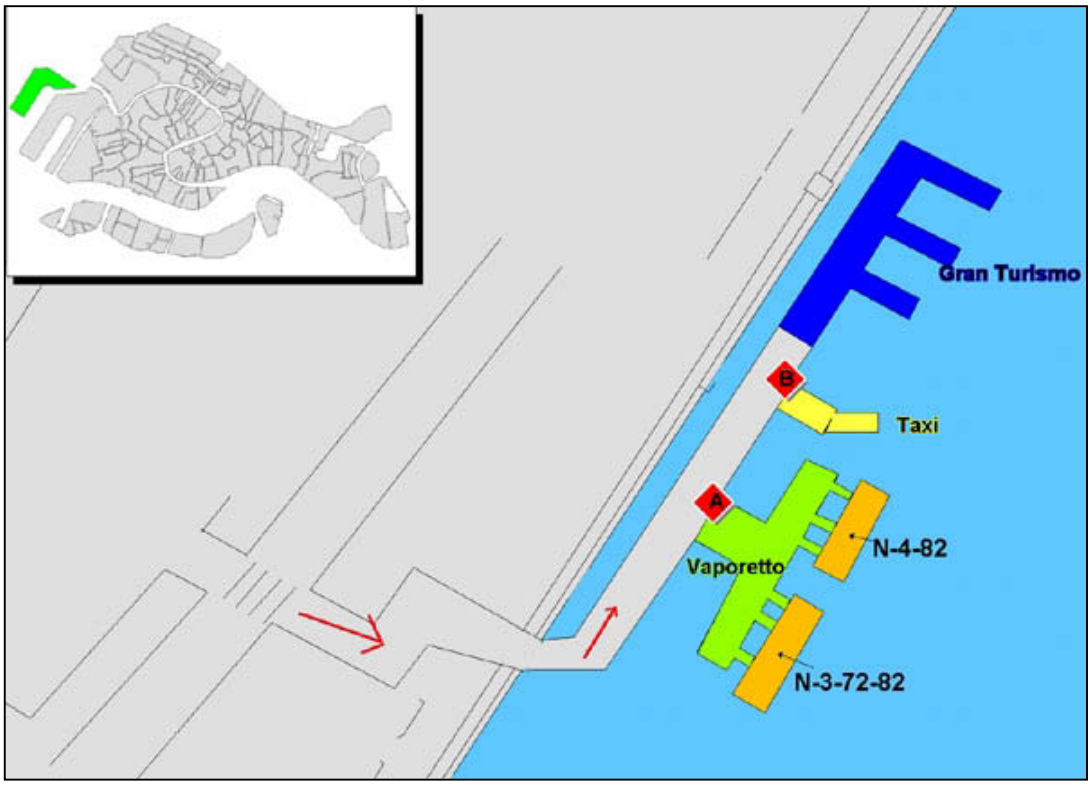


Figure 14. Layout of Boat Docks at Tronchetto.

*4.1.1.3 Pi azzale Roma*

Piazzale Roma receives crowds from ACTV bus stops, several independent bus lines and some municipal and private garages for the city. Boat transportation at this third counting site is distributed among three main floating docks for the *vaporetti*, and two water taxi docks. In order to count at Piazzale Roma at least five counters were needed. We identified 5 positions for our study at P.Roma labeled A,B,C,D and E in the red diamonds in Figure 15. Since our group only had four members, help from other groups of WPI students was needed to perform our counts. Group members on positions B, D and E kept track of lines N-3-4-82, 1-41-71-61 and

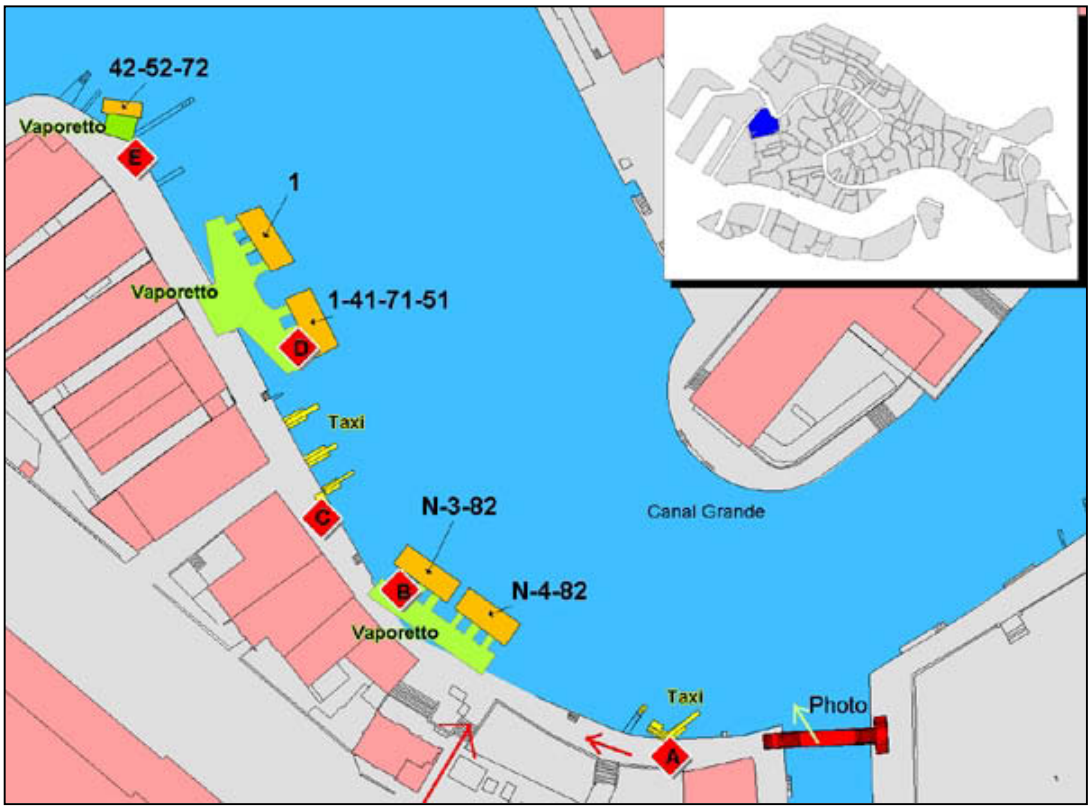


Figure 15. Layout of Boat Docks at Piazzale Roma.

42-52-72 going both directions, while group members at positions A and C identified tourists boarding taxis.

## 4.1.2 Visual Identification of Tourists

A methodology for identifying passers-by as either tourists or non-tourists was developed by two groups of WPI students studying tourism in Venice during the

summers of 1999 and 2000. Our methodology based on the procedure they designed, tested and used in collecting their statistical data.

Visual identification allowed us to quickly determine which subjects should be counted in our study. Our objective was to distinguish between tourists that we wanted to count and those we were not concerned with, including residents, commuters and students. Three sets of characteristics common to tourists and non-tourists were helpful in distinguishing between the two: dress, accessories and demeanor. The following sections elaborate on the specifics of each set of traits used as distinguishing factors.

#### *4.1.2.1 Tourist and Non-Tourist Dress*

Tourists tend to wear more casual light clothing that will keep them cool while they are traveling through the city in the summer. Common tourist attire includes shorts, tank tops, t-shirts, and sneakers or sandals. A resident at work or a commuter will be dressed more formally in slacks or a skirt with a blouse or collared shirt and perhaps a suit and leather shoes .A uniform, work gloves and construction boots are accessories that would identify a resident blue-collar worker. A listing of specific items of dress can be found in Table 2.

| ***Tourist Dress*** | ***Non-Tourist Dress*** | ***Indistinguishable Dress*** |
|---|---|---|
| • *Informal*<br>• *Shorts, capri pants*<br>• *T-shirt, tank top, or sundress*<br>• *Sandals, sneakers, or boat shoes*<br>• *Hat, baseball cap* | • *Formal*<br>• *Blouse, collared shirt, tie, suit, or jacket*<br>• *Leather shoes*<br>• *Uniform, Work gloves and boots* | • *Slacks, skirt*<br>• *Collared shirts* |

Table 2. Dress Associated with Tourists and Non-Tourists.

#### *4.1.2.2 Tourist and Non-Tourist Accessories*

In addition to dress, one can use the accessories carried by a passenger to help identify him/her as a tourist. Excursionist tourists carry a number of typical items like cameras, maps, fanny packs and water bottles. Residential tourists carry luggage when they are arriving in Venice making them very easily identified. Tourists in general

carry more things than a non-tourist. Anything typically carried for purposes of work and business such as a briefcase or tool-bag can be used to distinguish a non-tourist. Other accessories are indistinguishable for identifying tourists. For example, brightly colored backpacks can be used to distinguish someone as a young Italian, however, many non-resident Italians visit Venice as tourists. Therefore other means must be used for identifying this group of people. A list of typical accessories is available in Table 3.

| ***Tourist Accessories*** | ***Non-Tourist Accessories*** | ***Indistinguishable Accessories*** |
|---|---|---|
| • *Camera, camcorder*<br>• *Map, guidebook*<br>• *Luggage, backpack*<br>• *Money belt, fanny pack*<br>• *Water bottles, lunch cooler*<br>• *ACTV tickets in hand* | • *Briefcase, folder*<br>• *Art supplies, portfolio*<br>• *Grocery bags/carts, boxes*<br>• *Newspaper*<br>• *Toolboxes, work supplies*<br>• *Dogs* | • *Cell phones*<br>• *Brightly colored backpacks*<br>• *Baby carriages* |

Table 3. Accessories Associated with Tourists and Non-Tourists.

#### *4.1.2.3 Tourist and Non-Tourist Demeanor*

Tourists behave differently from residents, commuters and students who are familiar with the city. Tourists tend to travel in groups, while non-tourists are more independent. A tourist will be seen looking for signs and at maps to find his/her way around Venice, but non-tourists will know where they are going and will appear much more confident. The language barriers are apparent when observing a tourist in conversation, and can be a surefire way to identify a tourist. Factors classified under demeanor may be used to identify people that were previously determined indistinguishable. More detailed examples of tourist and non-tourist demeanor can be found in Table 4.

| *Tourist Demeanor* | *Non-Tourist Demeanor* | *Indistinguishable* |
|---|---|---|
| • *Confused*<br>• *Attentive to surroundings (read signs)*<br>• *Accompanied (couples, groups)*<br>• *Speaking foreign languages* | • *Oriented*<br>• *Inattentive to surroundings*<br>• *Usually alone*<br>• *Serious*<br>• *Briskly walking or running to catch boats* | • *Partially oriented* |

Table 4. Demeanor Associated With Tourists and Non-Tourists.

### 4.1.3 Verification of Group Efficiency and Consistency

Testing was conducted the week of June 4, 2001 to determine the efficiency of each group member's tourist identification procedure. At each counting site, group members practiced identifying tourists for two hours by the method described in the previous section 4.1.2 as part of an identification verification test. Every tenth person was asked if he/she was a tourist to confirm our impressions. We also performed a counting homogeneity test, where all four-group members identified and counted the same passers-by and compared numbers with each other. For our data to be accurate, we had to be sure that we were all counting with the same method and receiving the same results, so that every team member could count at any location producing homogeneous and reliable results.

### 4.1.4 Collection and Recording of Tourist Preferences

Once the most effective counting times were determined through our initial research, we developed a long-term field data collection schedule. This included one full weekday count and one full weekend day count at each counting site. These counts were then integrated with shorter follow-up counting, allowing us to estimate total counts for a whole week. Each group member counted tourists from the chosen location and recorded transportation preferences using a counting clicker. Data were recorded on a data sheet every fifteen minutes, and the results were later entered into a computer database. The results can be found in the results and analysis section 5, along with long-term extrapolations for analysis in section 5.1.2.

### 4.1.5 Extrapolation of Tourist Counting

As we only had eight weeks in Venice to complete our project, and we needed data for the whole year, we extrapolated our counts to provide Vela with an approximation of how many tourists use each type of water transportation through out the year.

#### *4.1.5.1 Extrapolation of Daily Counts to full weeks*

Due to a limited manpower and time, only two full-day counts tourist counts were completed at Ferrovia, P.Roma and Tronchetto, one for a weekday and one for a weekend day. Full day counts were performed from 9am to 4pm, which was the ideal time interval that was determined during preliminary testing. To identify trends for the rest of the week, follow-up counts were completed at each site at peak times to determine differences in tourist volumes for different days of the week. We used the full day counts to extrapolate the partial counts to provide us with data for the rest of the week.

A ratio method was used in two different ways to extrapolate the partial follow-up counts. Table 5 shows the spreadsheet used to calculate the rest of the

| Date | 7/9/01 | 7/3/01 | 6/27/01 | 7/5/01 | 7/6/01 | |
|---|---|---|---|---|---|---|
| TIME | Monday | Tuesday | Wednesday | Thursday | Friday | TIME |
| 9:15 AM | 87 | 68 | 49 | 60 | 56 | 9:15 AM |
| 9:30 AM | 76 | 60 | 43 | 53 | 49 | 9:30 AM |
| 9:45 AM | 135 | 105 | 76 | 93 | 86 | 9:45 AM |
| 10:00 AM | 179 | 140 | 101 | 124 | 115 | 10:00 AM |
| 10:15 AM | 154 | 120 | 87 | 107 | 99 | 10:15 AM |
| 10:30 AM | 133 | 104 | 75 | 92 | 85 | 10:30 AM |
| 10:45 AM | 145 | 113 | 82 | 101 | 93 | 10:45 AM |
| 11:00 AM | 133 | 104 | 75 | 92 | 85 | 11:00 AM |
| 11:15 AM | 166 | 186 | 125 | 159 | 153 | 11:15 AM |
| 11:30 AM | 270 | 204 | 133 | 113 | 189 | 11:30 AM |
| 11:45 AM | 188 | 153 | 171 | 190 | 148 | 11:45 AM |
| 12:00 PM | 280 | 214 | 108 | 172 | 114 | 12:00 PM |
| 12:15 PM | 158 | 123 | 89 | 109 | 101 | 12:15 PM |
| 12:30 PM | 128 | 100 | 72 | 88 | 82 | 12:30 PM |
| 12:45 PM | 243 | 190 | 137 | 168 | 155 | 12:45 PM |
| 1:00 PM | 244 | 191 | 138 | 169 | 157 | 1:00 PM |
| 1:15 PM | 216 | 169 | 122 | 150 | 138 | 1:15 PM |
| 1:30 PM | 252 | 197 | 142 | 174 | 161 | 1:30 PM |
| 1:45 PM | 193 | 151 | 109 | 134 | 124 | 1:45 PM |
| 2:00 PM | 168 | 134 | 95 | 129 | 141 | 2:00 PM |
| 2:15 PM | 175 | 97 | 99 | 105 | 72 | 2:15 PM |
| 2:30 PM | 99 | 99 | 56 | 93 | 96 | 2:30 PM |
| 2:45 PM | 115 | 92 | 65 | 84 | 54 | 2:45 PM |
| 3:00 PM | 105 | 82 | 59 | 72 | 67 | 3:00 PM |
| 3:15 PM | 86 | 75 | 54 | 66 | 61 | 3:15 PM |
| 3:30 PM | 104 | 75 | 54 | 66 | 61 | 3:30 PM |
| 3:45 PM | 88 | 54 | 39 | 48 | 44 | 3:45 PM |
| 4:00 PM | 97 | 53 | 38 | 47 | 43 | 4:00 PM |
| **Totals** | **4416** | 3450 | 2493 | 3058 | **2829** | **16246** |

| Monday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 904 | 537 | |
| Afternoon Counts | | 375 | 185 | |
| | Total | 1279 | 722 | 1.771468 |

| Tuesday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 757 | 537 | |
| Afternoon Counts | | 422 | 315 | |
| | Total | 1179 | 852 | 1.383803 |

| Thursday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 634 | 537 | |
| Afternoon Counts | | 411 | 315 | |
| | Total | 1045 | 852 | 1.226526 |

| Friday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 604 | 537 | |
| Afternoon Counts | | 363 | 315 | |
| | Total | 967 | 852 | 1.134977 |

Table 5. Piazzale Roma Weekday ACTV Counts Extrapolation.

week from the full day counts. The gray cells separate the actual counts from the extrapolations. The cells on the right calculate the ratio between the sums of the partial counts to sums of the full day counts for the same period of time. Then full day counts are multiplied by each day's ratio to calculate the missing times for the rest of the week. The spreadsheet automatically calculates the extrapolations when the numbers are entered for the actual counts on gray cells.

#### *4.1.5.2 Extrapolation of week counts to a Month*

Values for the entire month of June 2001 were estimated by the same means used by the WPI students in the summer of 2000. Our weekly totals were calculated as described in the previous section. To extrapolate these weekly estimates to the whole month of June we multiplied the weekly totals with ratio of total number days to total number of weeks, 4,29. This extrapolation method assumed that all weeks within the month of June would have the same tourist trends.

#### *4.1.5.3 Extrapolation of June Data to a Whole Year*

In order to extrapolate our data to for a full year, it was necessary to obtain data for the number of tourists through out a whole year. These data were obtained from the hotel-stays reprinted by the Venice tourist Board and APT published in the Venice Statistical Handbook.[12] This report contained information on the total number of tourists staying in hotels in Venice broken down by month and locality. We chose to use the numbers for tourists staying in both the Historical Center of Venice as well as on the Lido. Lido was also included because a tourist staying in Lido would also arrive at any of our three counting location. Table 6 displays the data obtained from the handbook. Since the data only contained information about tourist staying in hotels, we had to assume that the ratio of excursionists to overnight guests is constant through out the whole year. From the 1999 and 2000 WPI projects on excursionists, we know the total tourist population to be composed of 60% excursionists and 40% overnight tourists. We also assumed that the choices of transportation remain same every month of the year as those observed in June. Then we were able to set up a ratio that allowed use to extrapolate the number of tourists using all three forms of transportation for every month of the year. The extrapolations in Table 9 in section

[12] *Informazioni Statistiche, 1999.*

5.1.2 were calculated by taking our numbers for the month of June, and then multiplying them by the Venice Statistical Handbook ratio for every individual month divided by the value for June.

| Month | Hist. Cent. | Lido | Total in Venice |
|---|---|---|---|
| Jan 67 | 971 | 3861 | 71832 |
| Feb 84 | 902 | 8084 | 92986 |
| Mar 11 | 4271 | 16024 | 130295 |
| Apr 12 | 4868 | 21672 | 146540 |
| May 13 | 0247 25 | 730 | 155977 |
| Jun | 130814 | 24423 | 155237 |
| Jul 13 | 3317 | 20289 | 153606 |
| Aug 12 | 4840 | 17652 | 142492 |
| Sep 13 | 5712 | 22309 | 158021 |
| Oct 14 | 0548 | 25309 | 165857 |
| Nov 93 | 545 | 9565 | 103110 |
| Dec 65 | 282 | 4811 | 70093 |
| **Total** | 1346317 19 | 9729 | 1546046 |

Table 6. Statistical Data of Tourist in Hotels.

## *4.2 Qualification of Motives Behind Transportation Preferences of Tourists*

To qualify tourist transportation preferences we conducted an in-depth survey of tourists in Saint Mark's square. This allowed us to inquire about tourists' experiences and opinions of Venetian public and private transportation.

### 4.2.1 Su rvey Site

The surveying of tourists took place at Piazza San Marco. This location was chosen due to its high tourist density. While almost every tourist will likely visit the attractions in the area, the Venetians prefer to stay away from the crowd. Due to its popularity and size, Piazza San Marco provided us with a statistically reliable cross-section of the tourist population.

### 4.2.2 Sa mpling Method

A consistent method of sampling was required to obtain statistically accurate results. Simple random sampling gave each tourist an equal chance of being surveyed, but we would not have been able to calculate sampling probability from it.

A systematic sampling will also result in a random sampling of tourists and is much more easily executed. In order to choose the subjects to whom we administered the survey, every tenth person identified as a tourist was approached and administered our survey. This way, the sampling probability was fixed at 10%.

The surveying at Piazza San Marco gave us an accurate cross section of tourists in the city. Due to the popularity of the square as a tourist attraction, each tourist has an equal opportunity to be surveyed, and therefore gave us an accurate view of tourist opinions.

### 4.2.3 Su rvey Translations

In order to get quality results from our survey, we needed to resolve any possible sources of error. It was important to compose a questionnaire that could be easily understood, and that we translate it into other languages that may be spoken by tourists. The survey included questions about factors that may influence tourists' decisions between private and public transportation. One important factor was language. There was a large amount of tourist population who did not speak English well enough to communicate with us. Lack of communication with non-English speakers would have biased the data by eliminating a portion of the population pool. This made it necessary to have copies of the survey in possible languages that could be needed. After completing testing, our survey was translated into German, French, Spanish and Italian.

### 4.2.4 D esired Information

An important factor that needed to be covered by the survey was the type of tourist being surveyed. Tourists can be broken down into two different categories: day-trippers, also known as excursionists, and overnight tourists. These different tourists most likely have different motivations for traveling in Venice. Since excursionists do not stay overnight they may be trying to see the entire city in just one day, and they may use different forms of transportation.

Another group of questions needed to be included in the survey was to determine what might have affect travel options. These include the size of the tourist group, amount of luggage carried, and children or infants that are part of the group.

The full survey and the observation sheet used can be found in Appendix A, Field Forms.

### 4.2.5 Trial Survey Administration

To ensure that our method of asking questions was effective and consistent we administered sample questions. We rewrote the questions for each language that caused problems during the testing and retested the survey until we were able to communicate with ease.

### 4.2.6 Verification of Group Efficiency and Consistency

Each member of the group conducted the survey and recorded results of success and failure in communicating with the tourists. It became apparent that some group members communicated better, and while administering we arranged the groups of teammates accordingly.

### 4.2.7 Administration of Tourist Survey

In accordance with our systematic sampling method, every tenth person identified as a tourist in Piazza San Marco was surveyed and the results recorded on a survey sheet. The results were then entered into a database, which allowed us to analyze the collected data in different ways.

Time is the most important factor during survey administration. In order to obtain the most data in as little time as possible, we used two separate forms for each survey: a questionnaire and an observation sheet. The questionnaire was verbally administered to each tourist in English. Upon any difficulties in communication, a questionnaire in the appropriate language was then shown to the tourist. While the tourist was completing the survey, a second group member completed an observation form. The observation sheet allowed collecting more data about the tourists without taking up any more of their time. Simultaneous use of both the observation sheet along with the survey allowed for all needed data to be collected in the shortest time possible.

## *4.3 Assessment of Information Available to Tourists*

This portion of the methodology was carried out in order to better understand the possible sources of tourist's confusion upon arrival. During our counting at each of the three entry points we were able to observe that many tourists were having extreme difficulty deciphering the signs and understanding ACTV's transportation system. We have cataloged the information available at each of the sites and this information can be found in Appendix E.

### 4.3.1 Information Availability Upon Arrival

One of the main goals of this project was to make suggestions for the improvement of services. One particular aspect that could use some improvement is the way in which information is provided at every boat stop though different types of signs. The first steps in doing so, was to collect data on what signs were available and what information they provided. Each site was split up into three different levels: stations, dock, and float. This was done for all three major entry points. Station signs would be the first things a tourist saw upon arrival at an entry point. These could be used to guide a tourist in the right direction from the very start. At this level all signs were recorded and classified by type and location. Each station is usually characterized by one main entry point and on ticket booth. Information about signs by type and location were collected and recorded for this level as well. Ticket booth's operating hours were also collected. The third level, the float, is where people wait for the boats and then board from. The float is a tourist's last opportunity to obtain pertinent information before boarding a boat. All the collected information was then entered into the database in Appendix E. This database was then used to create a form that creates a visual interface. This makes the information easier to use and add so that the database can be used to catalog all the stations in Venice.

Once all of this information was collected, the signs were evaluated based on their effectiveness in two different ways. The first method was to simply go to each site and observe the signs and the people looking at them noting what appeared clear and what seemed more confusing to tourists. The second method was to go the sites and actually ask people how they felt about the signs. This method was carried out in an interview format where tourists provided their own answers instead of checking a box of pre-selected answers. Questions were more open ended to get more extensive

and objective results. Here tourists were actually allowed to directly make suggestions for the improvement of services. The results of the interviews are discussed in section 5.3. The tourist interview form can be found in Appendix A.

### 4.3.2 Evaluation of the ACTV Tourist Lines

The ACTV lines #3 and #4 were created to provide quick service to San Marco from the entry points of the city. These tourist lines were evaluated for their effectiveness in reducing the crowding of the other lines running similar routes, such as line numbers 82 and 1.

Observations of the operation of the 3 and 4 lines were made on a Saturday. The volumes of tourists getting on and off at each stop were recorded for each line. The #3 was observed for three hours in the morning, yielding observations of three complete loops of the line beginning and ending at San Marco. The #4 was observed for one hour in the same afternoon, also beginning and ending at San Marco. Tourist comments pertaining to these lines were also noted.

# 5 Results and Analysis

This chapter includes the results of our five weeks of field data collection. Our full databases, including all our counting and survey results as well as a database of all the signs posted at our three counting sites, can be found in the accompanying CD in Appendices B, C and E, respectively.

## *5.1 Quantification of Transportation Preferences*

The first part of our project was to evaluate exactly how many tourists use ACTV water taxi and *Gran Turismo* services. After we chose our three counting locations, Ferrovia, Piazzale Roma and Tronchetto, we began testing our counting method to ensure accurate and useable data.

### 5.1.1 Preliminary Test Results

As mentioned in the methodology, we performed two preliminary tests to prepare for full day counting. The first one of these was an "identification of tourists" test in which each group member would ask a person whether he or she was a tourist after recording the his or her hypothesis. The second test involved all team members observing the same stream of traffic and counting the tourists who passed in 15-minute intervals.

#### *5.1.1.1 Identification of Tourists*

In the identification of tourists test, all group members maintained an individual accuracy of 90% or better, as shown in Figure 16. Table 7 shows a detailed breakdown of the test and indicates an average percent error of only 8%. An improvement of accuracy due to practice was anticipated as testing and counting continued.

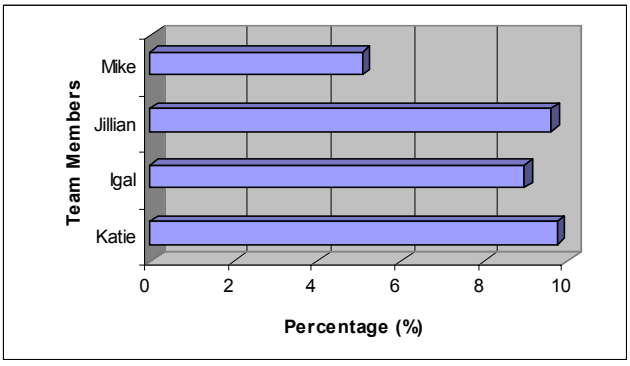


Figure 16. Percent Error of Tourist Identification.

| Team Member | Ferrovia | | P.Roma | | Tronchetto | | Total | | Percent Error |
|---|---|---|---|---|---|---|---|---|---|
| | Attempts | Successes | Attempts | Successes | Attempts | Successes | Attempts | Successes | |
| Katie | 50 | 42 | 50 | 46 | 23 | 23 | 123 | 111 | 10% |
| Igal | 50 | 46 | 50 | 43 | 34 | 33 | 134 | 122 | 9% |
| Jillian | 50 | 43 | 50 | 46 | 25 | 24 | 125 | 113 | 10% |
| Mike | 50 | 46 | 50 | 47 | 38 | 38 | 138 | 131 | 5% |
| Totals | | | | | | | | | 8% |

Table 7. Results of Visual Identification Counting Test.

### *5.1.1.2 Counting Consistency Between Group Members*

As described in the methodology section 4.1.3, the counting consistency test involved all four-group members counting the same group of passers-by. The group results showed a discrepancy of at most 3% on average. Figure 17 shows the number of tourists counted by each group member at every thirty-minute interval. The small error range of group member's counts allowed us to consistently quantify tourists' transportation choices, independent of which team member actually conducted the counts.

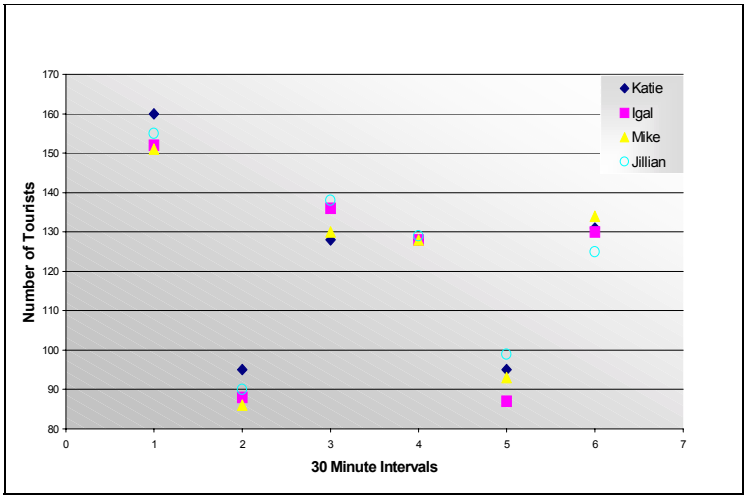


Figure 17. Team Tourist Counting Consistency.

## 5.1.2 Tourist Count Totals

During the quantification of tourist preferences 66,493 tourists were counted directly in 72 hours. A total of 118, 022 tourist passengers were estimated to have used water transportation from 9:00 am to 4:00 pm at the three main entry points to the city in one week. In the following sections, the results from the extrapolations will be analyzed.

### 5.1.3 Tourist Count Totals by Type

In a given week more than 72,000 tourists take ACTV waterbuses at Ferrovia, Tronchetto, and P.Roma combined. About 41,000 tourists use the charter services of *Gran Turismo* at Tronchetto, and just under 5,000 use taxis at all three entry points. (See table 2). This means that the ACTV holds about 61% of the tourist market, making their services the most popular method of water transportation in Venice.

| | ACTV | Gran Turismo | Taxi |
|---|---|---|---|
| Ferrovia | 32097 | 0 | 1641 |
| Tronchetto | 14824 | 44339 | 1624 |
| P.Roma | 25457 | 0 | 760 |
| Total | 72377 | 44339 | 4025 |

Table 8. Total Extrapolation of Tourist Counts for a Week by Type.

Although ACTV transports 61% of the total volume of passengers, we have estimated that it receives almost half of the gross income generated by tourist use of transportation at the three entry sites (see Figure 18). We have determined this by multiplying the average tourist fares by the number of tourists using each form of transportation for a full week. The remainder of the gross income is divided between *Gran Turismo* and the taxis. The *Gran Turismo* receives nearly three times the gross income that the taxis receive. The gross income distribution differs from the passenger distribution in that the taxis receive more than three times the proportion of the gross income as they receive in volume of passengers. This discrepancy is due to the large variance between fares among the three types of transportation.

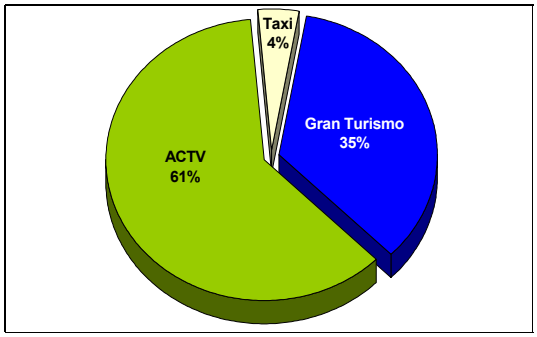


Figure 18. Distribution of Tourists According to Transportation Chosen.

Over the course of the week ACTV, *Gran Turismo* and taxi total volumes fluctuate independently. ACTV experiences lower volumes Monday thorough Friday, and its highest volumes on Saturdays. The volume trends of the *Gran Turismo* are lower, and fluctuate almost oppositely, with highest occurring on weekdays. Taxis show a steady flow of tourist passengers through out

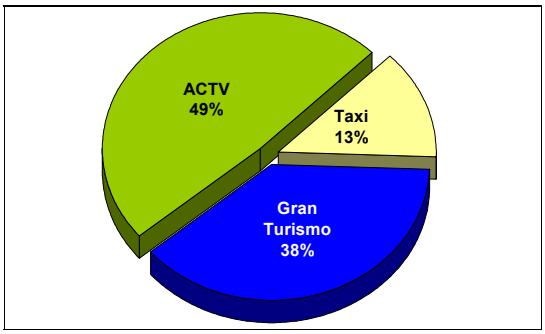


Figure 19. Gross Income for Each Transportation Type.

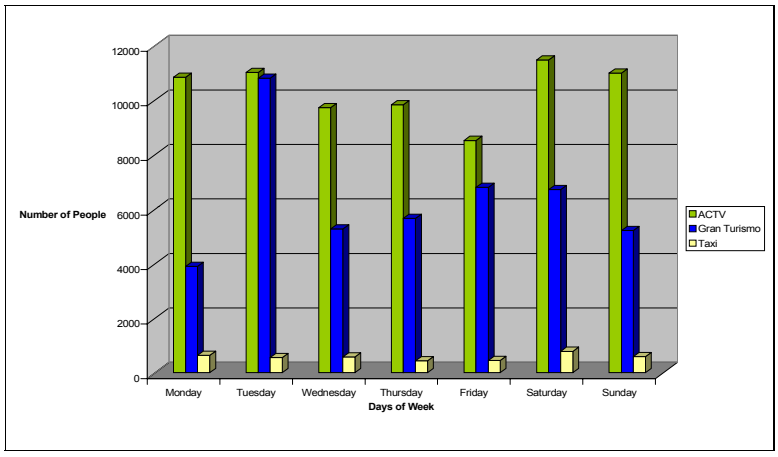


Figure 20. Extrapolated Totals of Tourist Counts by Transportation Type for Each Day of the Week.

the week while Saturdays have the highest peak.

We used the method on section 4.1.5.3 to extrapolate our monthly estimates to a year. The graph in Figure 21 shows the volume of tourist passengers during different times of the year and Table 9 shows the actual numbers for each type of transportation. Greatest influx of tourist passengers on Ferrovia, Piazzale Roma and Tronchetto occur during the summer time, while the greatest volume is in October, which is relative to the data of tourists staying in hotels, which we used to extrapolate our monthly data to a year.

| Month A | CTV | Taxi | Charter | Total |
|---|---|---|---|---|
| Jan 15 | 2776 | 9840 | 72679 | 235295 |
| Feb 19 | 7768 | 12737 | 94082 | 304587 |
| Mar 27 | 7118 | 17848 | 131831 | 426797 |
| Apr 31 | 1669 | 20073 | 148267 | 480010 |
| May 33 | 1740 | 21366 | 157816 | 510922 |
| Jun 33 | 0166 | 21265 | 157067 | 508498 |
| Jul 32 | 6697 | 21041 | 155417 | 503155 |
| Aug 30 | 3059 | 19519 | 144172 | 466750 |
| Sep 33 | 6087 | 21646 | 159884 | 517617 |
| Oct 35 | 2753 | 22719 | 167812 | 543285 |
| Nov 21 | 9300 | 14124 | 104326 | 337749 |
| Dec 14 | 9077 | 9601 | 70919 | 229598 |
| **Total** | 3288212 21 | 1780 | 1564271 | 5064264 |

Table 9. Extrapolation of Tourist Counts to A Full Year

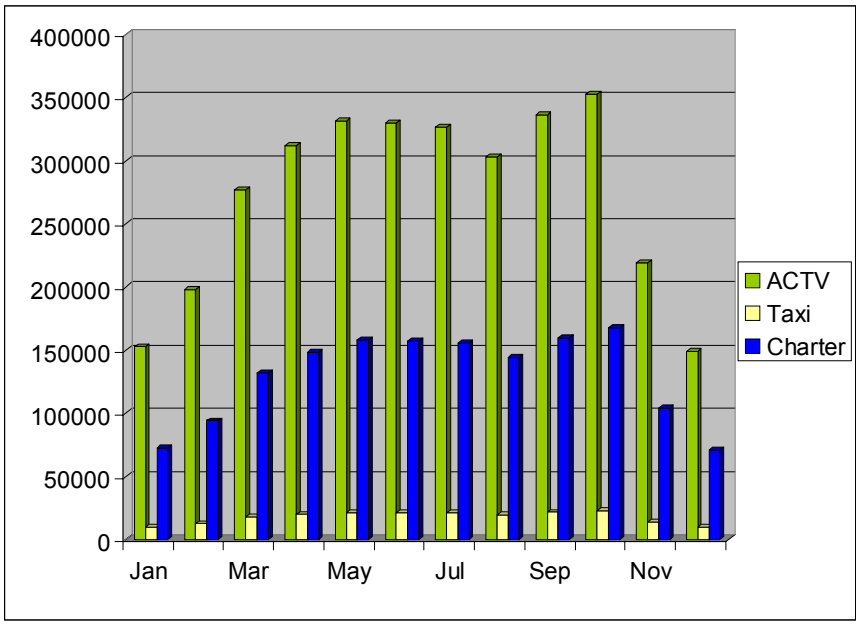


Figure 21. Extrapolation of Tourist Choices for a Year.

### 5.1.4 Total Tourist Counts by Site

Figure 22 shows the overall distribution of tourists at each of our three counting locations and for each type of transportation. Tronchetto received the greatest amount of tourist traffic, many being part of large tour groups boarding the *Gran Turismo*. Second in tourist traffic was Ferrovia, the train station. The water taxis received approximately 4% of the traffic here, and much of that was at peak tourist times, showing that many water taxi patrons could be avoiding crowded *Vaporetti*. The site with the least amount of tourist traffic was Piazzale Roma. This is

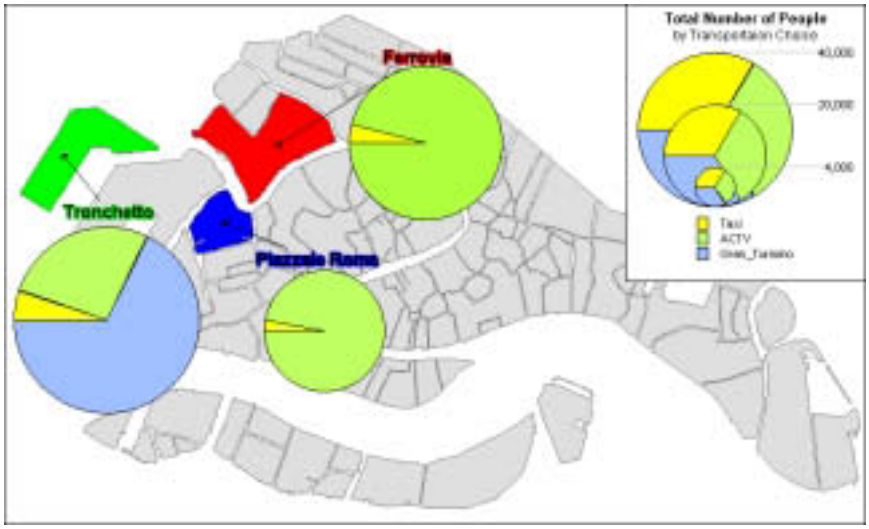


Figure 22. Overall Distribution of Tourist Transportation Choice Over Each Counting Locations.

where many tourists arrive by bus from the mainland, including Marco Polo Airport. Although many tourists arrive with luggage at this site, 97% of them still use public transportation.

Figure 23 shows the break down of day-to-day tourist traffic. At Ferrovia, the weekends receive noticeably more traffic, while the *Gran Turismo* at Tronchetto has peaks at Tuesday, Thursday and Saturday. The ACTV pattern is the opposite at Tronchetto, however. The peak day is Wednesday, with the whole week following a sinusoidal pattern. At Piazzale Roma, the sinusoidal pattern peaks on the weekend. The water taxi curves are closest to that of the ACTV curves, while the *Gran Turismo* has a much different tourist pattern.

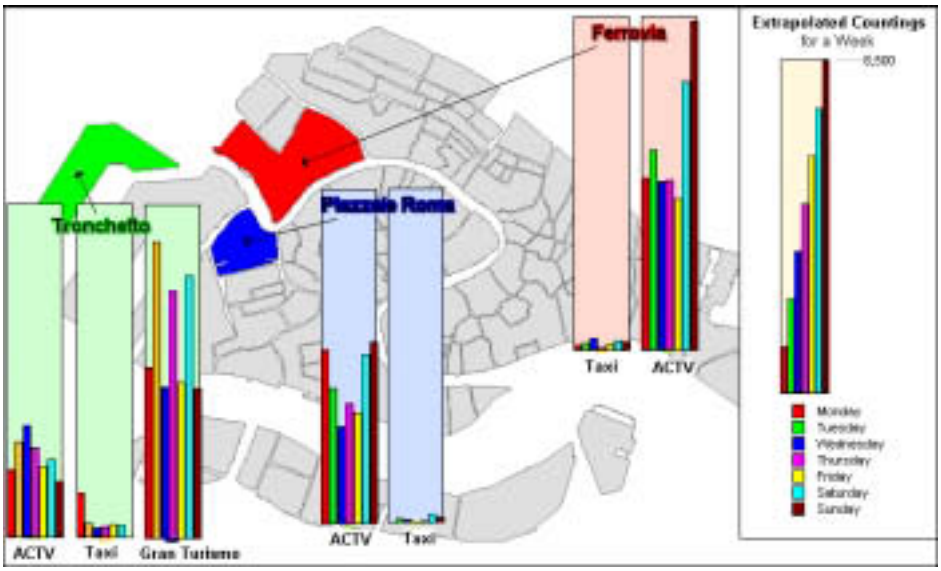


Figure 23. Daily Tourist Transportation Choices Over Counting Sites for a Week.

### 5.1.5 Distribution of Tourist Passengers On Each Station

The figures in this section show the average tourist passenger distribution among different boat stations at each site for both weekdays and weekends. Each graph is connected to a station by an arrow. These graphs show us the peak and low tourist influx times to help us figure out recommendations to boat schedules for each line in section 6.2.

#### *5.1.5.1 Ferr ovia*

Figure 24 shows the tourist influx of passengers distributed on different boat stations at Ferrovia. According to our results lines 82-4-3 carry the largest amount of tourist passengers. During weekdays the peak time for lines 82-4-3 and 1-41-51-71 occur at 10:00 while lines 42-52 and 72 peaks at 11:00. Taxis have a steady graph for

weekdays except 13:00 when they have their lowest amount of tourist passengers. The numbers for weekends at lines 82-4-3-1-41-51-71 continue to increase until 11:00 and lines 42-52-72 and taxis have a peak at 10:00. In the afternoon all the stations have their peaks at14:00-15:00 and there is a significant decrease at 16:00.

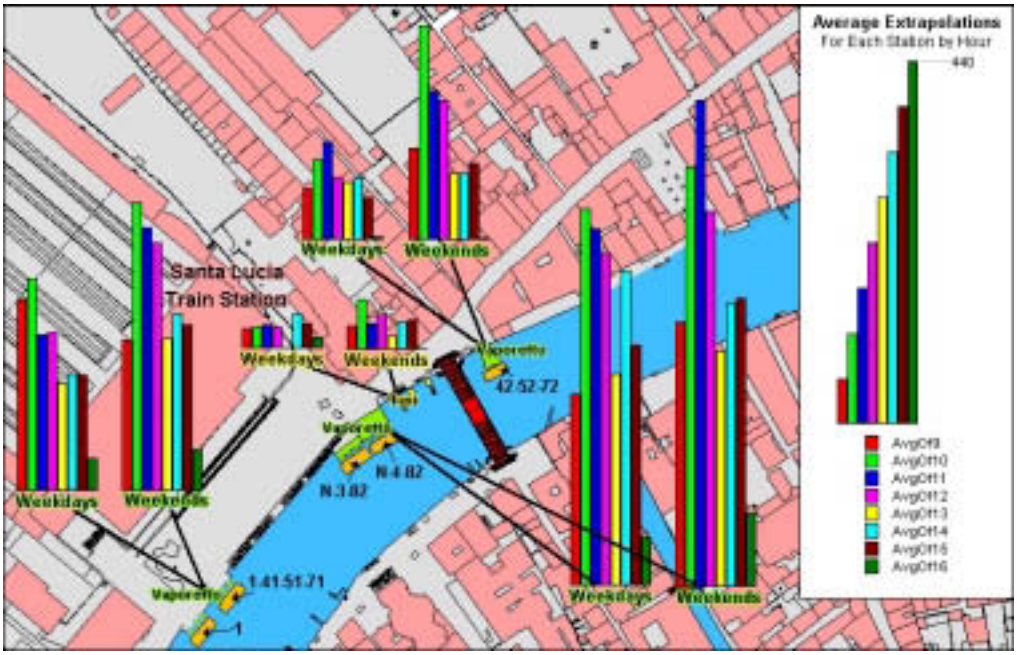


Figure 24 Ferrovia: Average Tourist Passengers for Each Boat Station by Hour

*5.1.5.2 P. Roma*

Figure 25 shows that line 82-3-4 gets the greatest influx of tourist passengers also in Piazzale Roma on both weekdays and weekends. The location of the boat stop which was discussed in section 4.1.1.3 and the popularity of the destinations of the boat lines are the major reasons for the overwhelming amount of tourists on this ACTV waterbus station. These lines reach their peak at 12:00 on weekends while on weekdays the increase in the amount of tourist passengers continue until 14:00. Lines 1-41-61-71 peaks at 10:00 on weekends and 11:00 on weekdays. A second high peak for these lines occur at 13:00 for both weekends and weekdays. The 42-52-72 lines at P.Roma have a peak at 10:00 and show a small increase at 13:00 on weekdays while at weekends number of tourist passengers decrease gradually. Taxi stations on this site show a high peak at 10:00 am on weekends, while rest of the week the amount of people is significantly low.

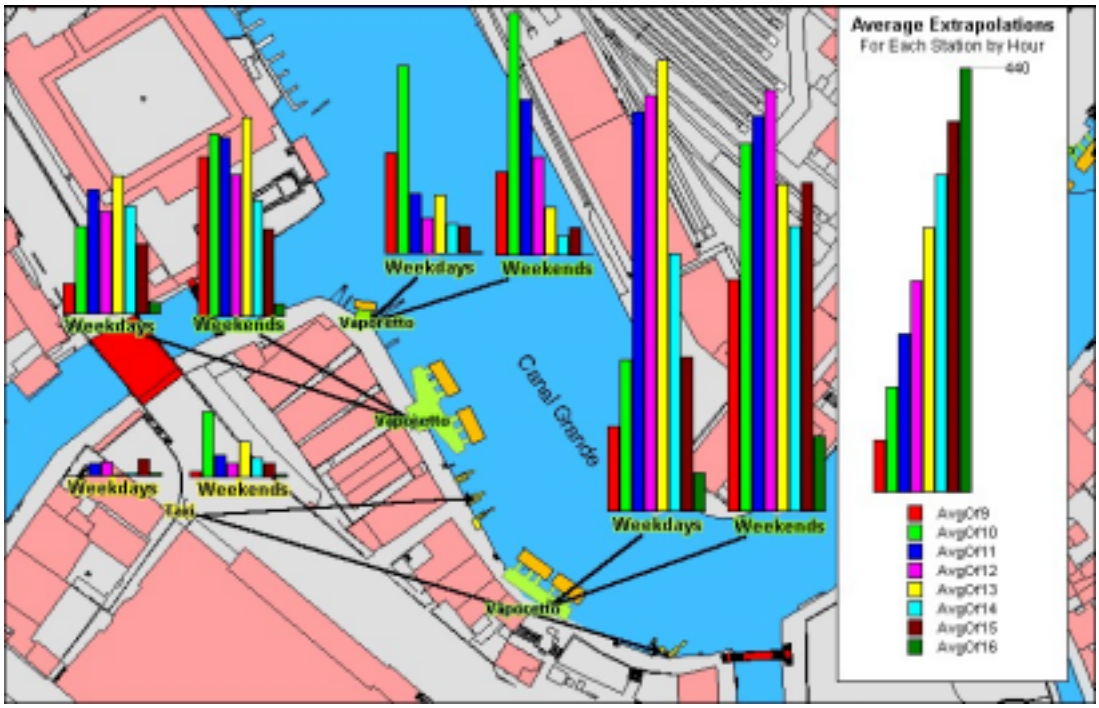


Figure 25 Piazzale Roma: Average Tourist Passengers for Each Boat Station by Hour

### *5.1.5.3 T ronchetto*

Figure 26 shows the distribution of tourist passengers for each boat station at Tronchetto. Due to high amount of influx through Gran Turismo boat stops, the

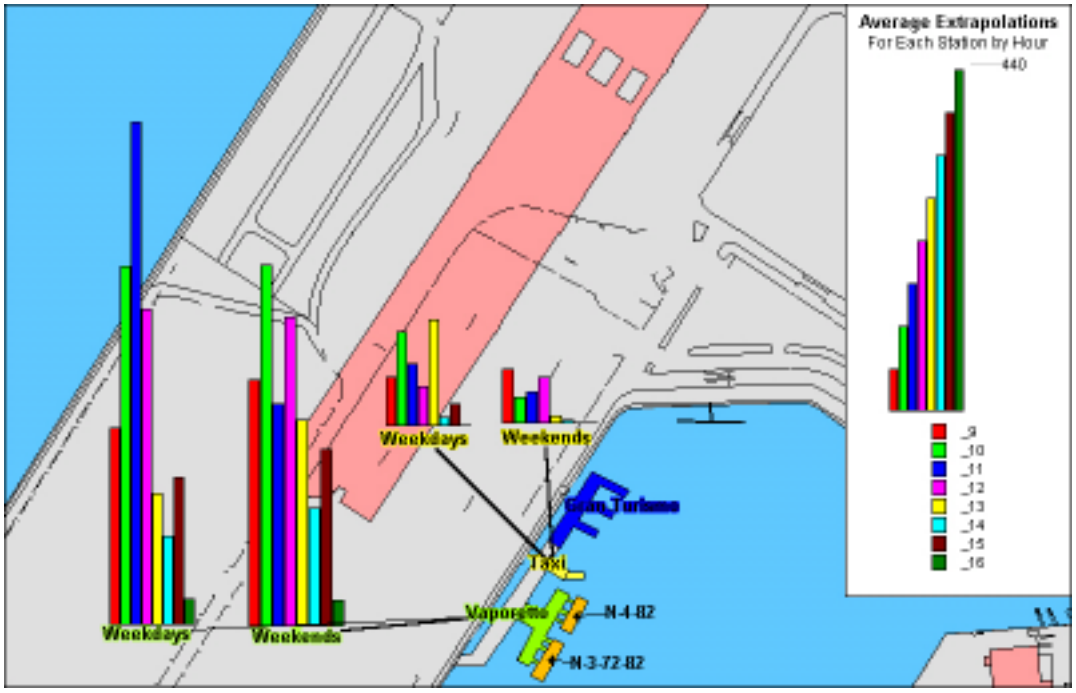


Figure 26 Tronchetto: Average Tourist Passenger Extrapolation for Each Station by Hour

hourly averages for weekends and weekdays are shown in a separate graph in Figure 27. The only ACTV waterbus stop in Tronchetto show a higher peak in the morning on weekdays, but the rest of the data is lower than weekends. This could be the influence of tourist groups who arrive early in the morning to Tronchetto, while on weekends tour groups continue to come until 16:00. Taxis show an early increase in tourist volume from 9:00 to 10:00. On the weekdays there is a high peak at 13:00 for tourist passenger choosing taxis for their transportation. Gran Turismo has a similar tourist distribution to ACTV. On weekdays there is a peak at 10:00, which is higher than the weekend peak at 11:00. In the afternoon the average number of tourist passengers is higher on weekends. A peak at 14:00 can be seen on both weekdays and weekends for this boat station.

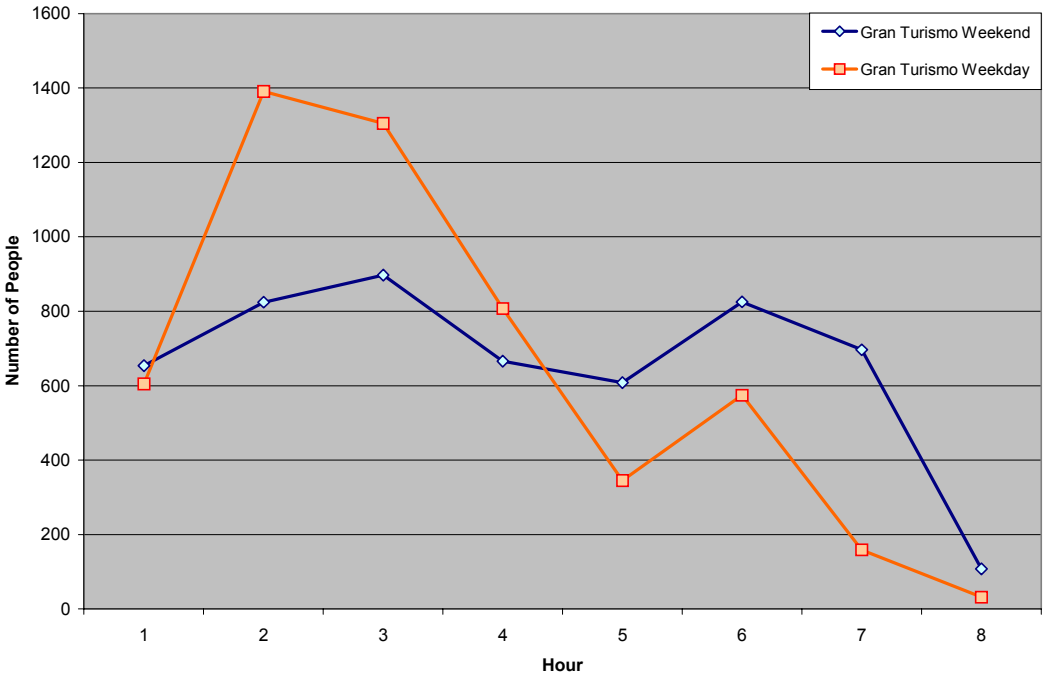


Figure 27 Tronchetto: Average Tourist Passengers for Gran Turismo by Hour

## *5.2 Qualification of Transportation Preferences of Tourists*

In accordance with our methodology, we solicited 272 tourists for surveys in Piazza San Marco, of which 201 were completed. These surveys provided us with a wealth of information on tourist preferences, which follow, separated by subject.

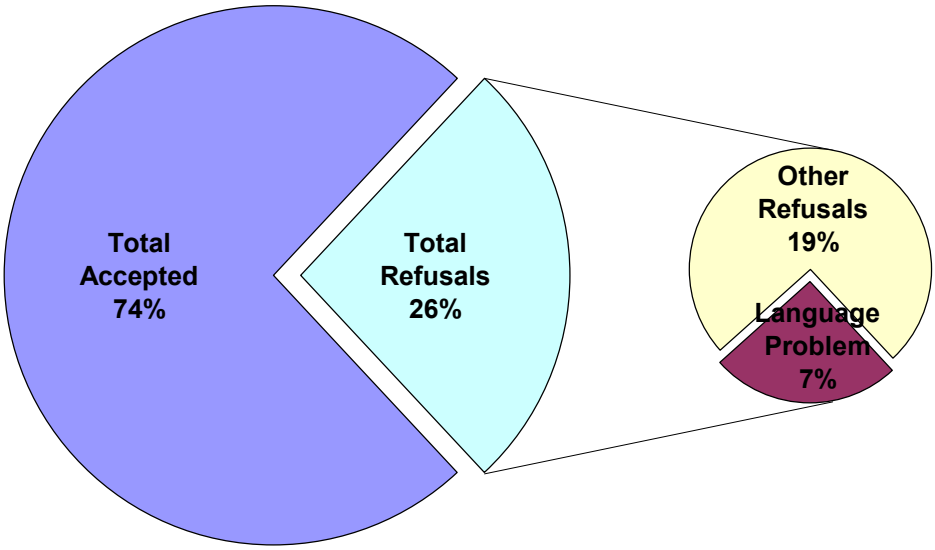


Figure 28. Survey Refusals

### 5.2.1 Overall Survey Totals

As mentioned above, 71 of the 272 surveys solicited were refused, which is 26% of all surveys. For our survey to be statistically valid we needed a refusal rate of less than 40%, which was accomplished.

Figure 28 shows that one-quarter of survey refusals were due to language barriers, rather than an unwillingness to participate. Most of these tourists were from Eastern European countries, and spoke Hungarian, Czech, and several different Asian languages.

*5.2.1.1 First Form of Transportation Used.*

One piece of information that was important to our survey was the first form of transportation. As mentioned in our background and methodology, this is the time when tourists are the most confused with their surroundings and more open to solicitation from taxi drivers. When asked about their first form of transportation, 15% of respondents said that they took a water taxi as compared to an overall rate of 4% of tourists obtained through counting. This validates our theory that first-time tourists are more likely to take advantage of taxi service, as this is when they carry luggage and are invariably suffering from confusion.

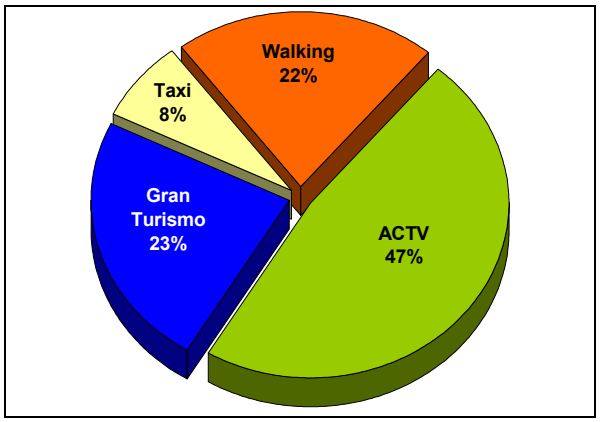


Figure 29. First Mode of Transportation for Surveyed Tourists.

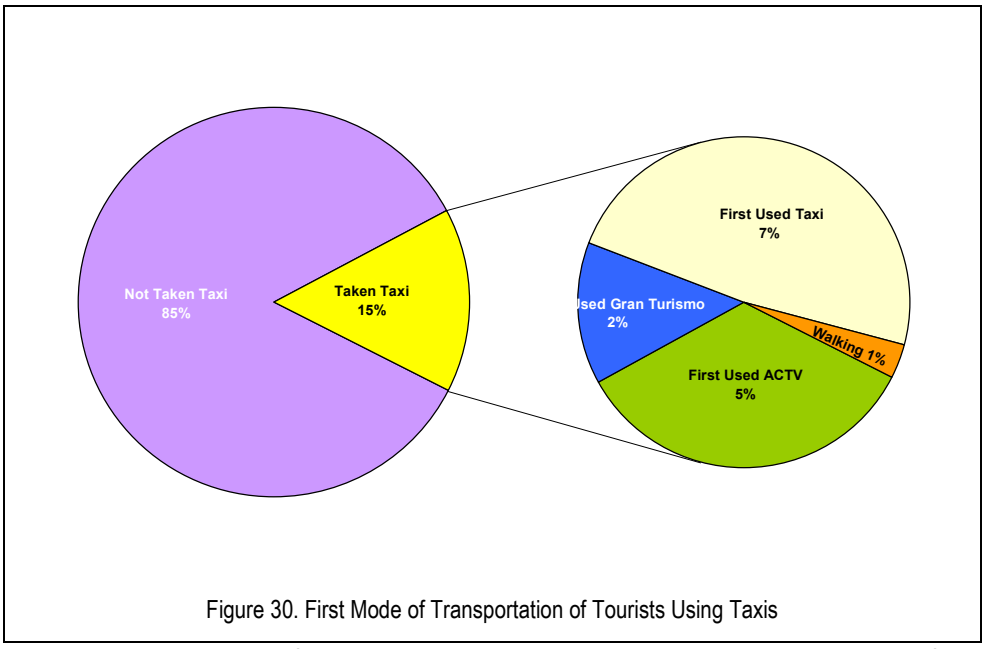


Figure 30. First Mode of Transportation of Tourists Using Taxis

### 5.2.2 Lan guage Assessment.

To assess whether the language of ACTV signs were affecting tourists decisions and their ability to understand them, we also inquired of our survey pool which of the five languages given to us by Vela they understood. Many of our respondents were multi-lingual, and checked off several boxes. As shown in Figure 32, of the languages spoken by tourists, English makes up 48%. Because English is often a second or third language, it is spoken by 86% of our survey pool, as seen in

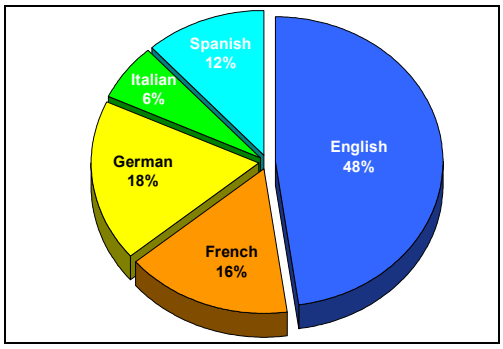


Figure 32. Percentages of Five Languages Understood by Tourists.

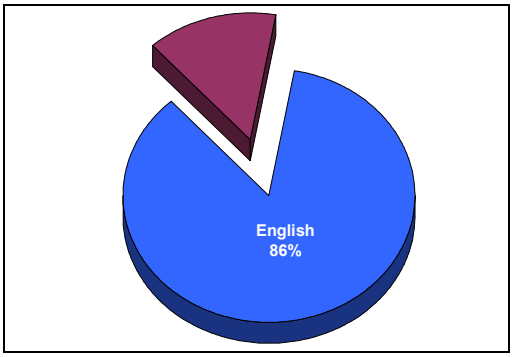


Figure 31. Percentage of Respondents Understanding English.

### 5.2.3 Tourists' Reasons for Not Taking ACTV

In our survey we also inquired into tourist's reasons for taking the types of transportation they do. Those having not used ACTV services indicated their reasons for not doing so, as seen in Figure 33. As can be seen in this figure, the majorities of respondents who do not use ACTV services are with a tour group and use pre-arranged transportation services other than ACTV. There are also many tourists who choose to walk. These respondents were more concerned with the price of

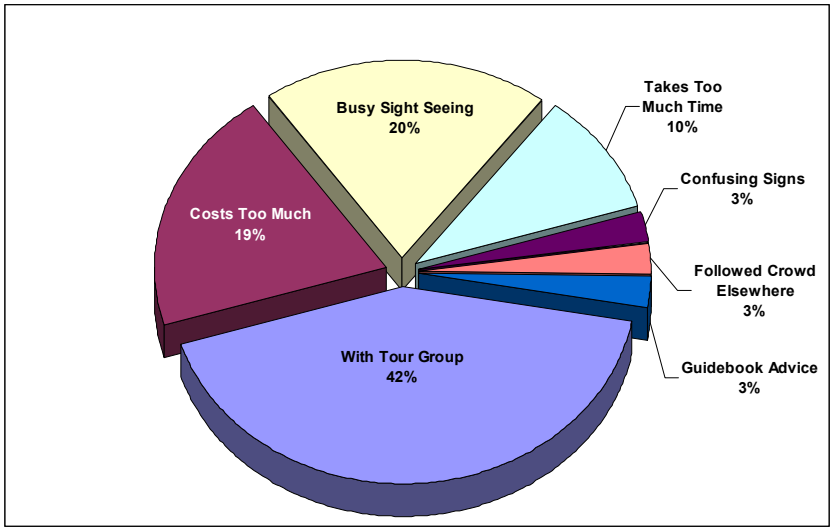


Figure 33. Reasons Tourists Do Not Use ACTV Services.

ACTV service, and many of them also mentioned that they wanted to sightsee on their own instead. A number of tourists complained that taking the waterbus took too much time, while others found the signs to be confusing, followed the crowd elsewhere or took the advice of a guidebook.

### 5.2.4 Tou r Group Assessment

We determined through our survey that there is a great deal of tourists whose transportation choices are determined by their tour agency. As *vaporetti* are often times crowded, large tour groups avoid using them to keep their group together. As can be seen in the charts below, the first form of transportation used by members of tour groups is very different from the choices made by tourists not in groups.

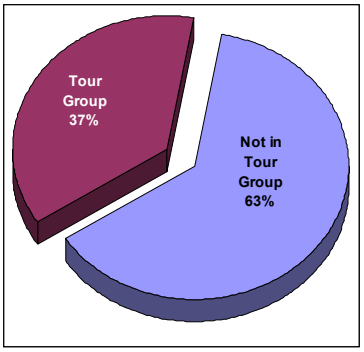


Figure 34. Tourists in Tour Groups.

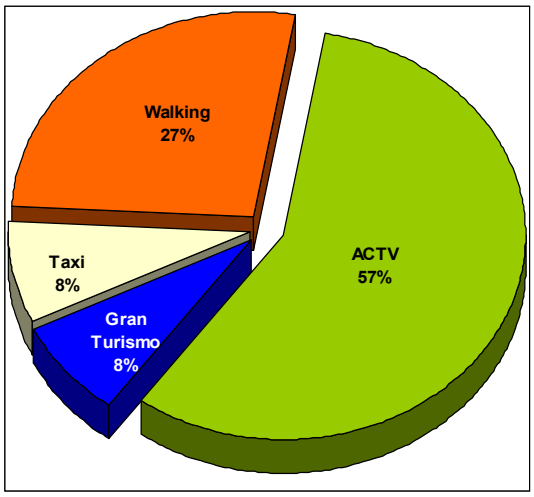


Figure 35. First mode of Transportation for Non-Tour Group Members.

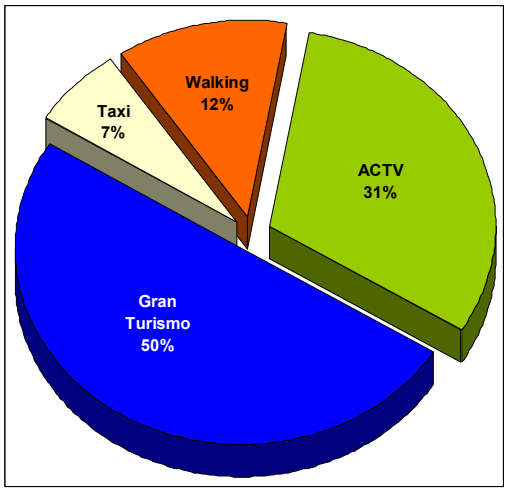


Figure 36. First mode of Transportation for Tour Group Members.

The above charts, Figures 13 and 14, highlight the difference in transportation choices among tour members and non-tour group members. Figure 15 includes the

first choices of tourists for both independent tourists and ones in tour groups. A list of the tour agencies named by Survey respondents as their tour provider appears in Appendix D. A list of tour agencies observed at Tronchetto also appears in this appendix.

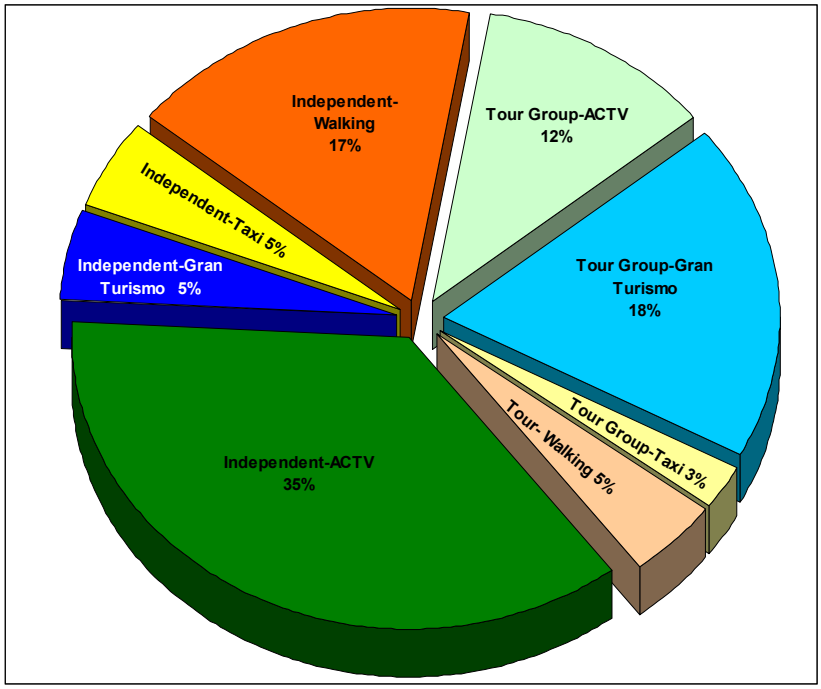


Figure 37. First Transportation Choice Sorted by Tourist Type.

### 5.2.5 C ost Assessment

Figure 39 shows tourists' opinions about the cost of ACTV services. Our survey indicted that 13% of people were dissatisfied with the cost. Of those customers 14% indicated to us that they would not choose to take ACTV again. (See Figure 38)

While the fares may not be very high, the nature of the city lends itself to walking and easily allows tourists to not use any water transportation. The detailed maps in the hands of most visitors allow them to skip the boat ride so that they can sight see on foot, free of charge.

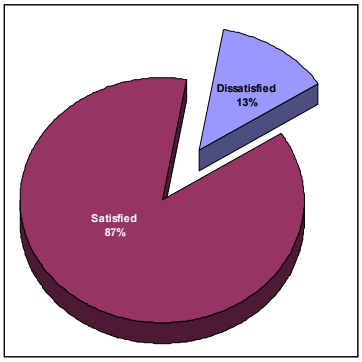


Figure 39. Satisfaction Rate of Tourists With Cost.

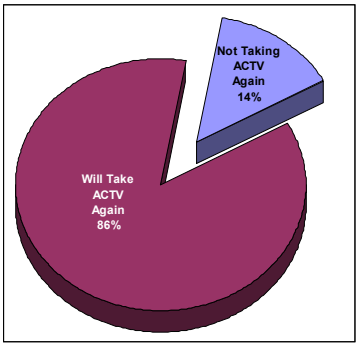


Figure 38. Future Use of ACTV by Tourists Dissatisfied With Cost.

### 5.2.6 Satisfaction with ACTV

Figure 40 is an assessment of the satisfaction of ACTV customers. Of the 201 subjects who executed the survey only 2% were dissatisfied with ACTV's service, while 78% were satisfied and rest were neutral.

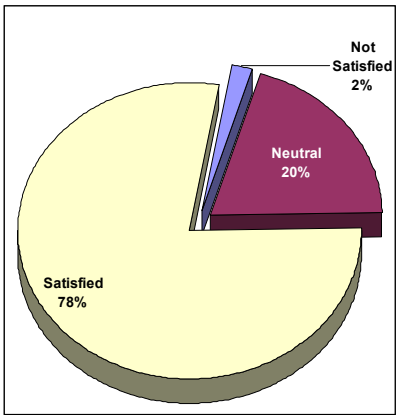


Figure 40. Overall Satisfaction With ACTV.

Some of the dissatisfaction factors are displayed in Figure 41. Unlike satisfied customers, unsatisfied customers felt that the service was slow and expensive. Other popular reasons for dissatisfaction were a crowed ride and confusing signs.

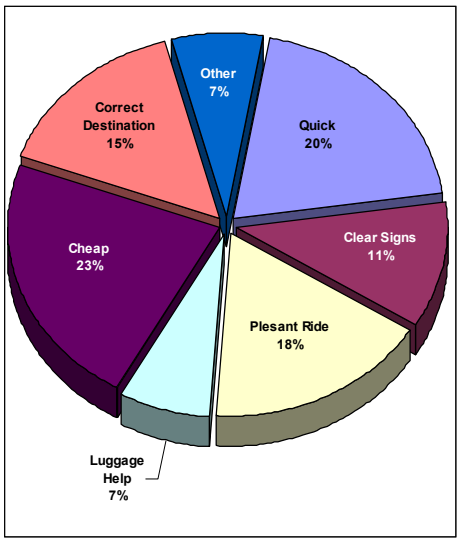


Figure 42. Reasons Passengers Are Satisfied With ACTV.

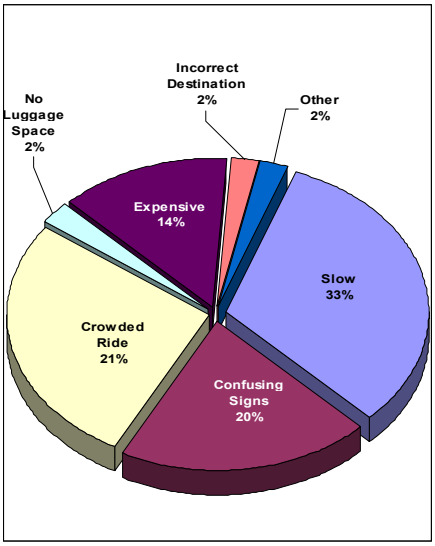


Figure 41. Reasons Passengers Are Dissatisfied With ACTV.

## *5.3 Results of Information Availability Study*

After compiling information available at every stop we made a number of discoveries. The first thing that we found was that there is no information available in

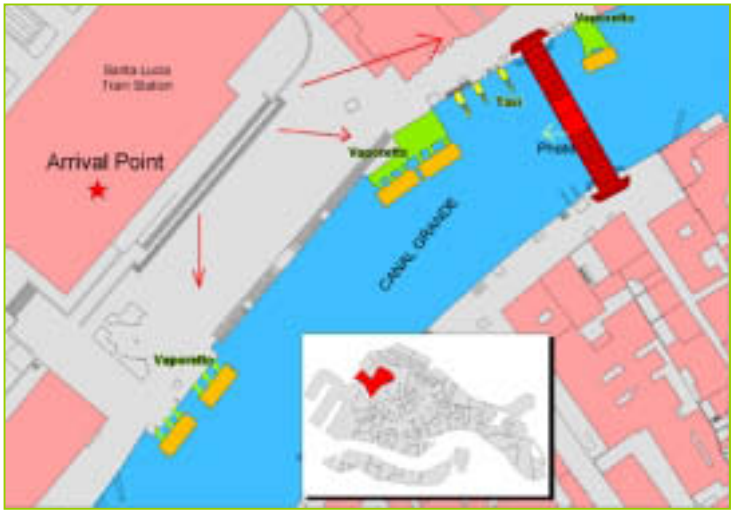


Figure 43. Map of Ferrovia.

the entire station at any of our major points. Figure 46 shows Ferrovia boat stop. This map shows where tourists arrive to every day. At the arrival point there is no information available to direct a tourist in the right direction.

The dock was where the most information was available. Almost every dock had its own ticket booth that displayed information about operating hours and also the many different types of ACTV passes. The only dock without a functioning ticket

Figure 44. Murano Dock at Piazzale Roma.

booth is at Piazzale Roma for the lines 42, 52, and 72. Figure 47 shows a closed ticket booth at the Murano dock at Piazzale Roma. This booth is in fact permanently closed. Tourists who want to uses these lines must buy tickets at the nearest ticket booth and then walk over to their dock.

We found that every station has at least one of the two different types of maps. One type contains the routes of every single line including all stops. The other type of map looks similar but is more simplified. This map only contains information about




Figure 45. Full ACTV Map.

the lines that run out of that specific dock. Every dock has a complete map shown in Figure 45. The simplified maps only exist at two docks at Ferrovia. Piazzale Roma and Tronchetto do not have the simplified maps.

Some of the most useful and clearest signs are the electronic signs that display information about arrival times of boats, line number, and the final destination of the boat. The electronic signs are only available at all of the larger ACTV stations. Electronic signs are present for the 82 docks as well as the 1 docks at both Ferrovia and Piazzale Roma. Figure 46 shows how the electronic signs are very straightforward and easy to understand. The only problem with the electronic signs is they are not always turned on as shown in Figure 47.


Figure 46. Electronic Sign.


Figure 47. Non-functioning Electronic Sign.

If a dock does not have an electronic sign it at least has a timetable, which is available at every dock. The timetable conveys the same information as the electronic sign except for an entire day. The entry way to every float has a sign showing the lines that can be accessed through that float and two places that it stops at. An example of one of these signs is shown below in Figure 48. The sign below provides a tourist with very little information.


Figure 48. Line Number with Major Stops.

On each of the floats there is also information available. Every float contains smaller copies the complete ACTV maps. The floats also have schematics that show every stop that the line makes and which direction it is going. Figure 49 is an example of a boat line schematic. Some of the schematics also show how long it takes to get to every stop; however, this information is available on very few floats. The float for line 1 that goes from Ferrovia to Piazzale Roma is the only float that does not have at least the normal schematic available.


Figure 49. Schematic of Line 82 Boat Stops.

One place that does not have any information available at all is the waterbuses. There is a little sign on the outside of every boat about the line number for which the boat is running for, but no information available inside of the boats. The only signs inside of the boats are advertisements, so there is definitely room for signs in the boat. Also the boat numbers on the side of each waterbus can be confused with line numbers. More pictures of ACTV signs can be found in Appendix E.

# 6 Conclusions and Recommendations

It is clear that ACTV has a secure hold on a majority of the tourist market. There are three main areas in which we will make recommendations that will improve services for the tourists and residents of Venice and help to increase gross revenues. These include measures to prevent crowding, and make the transportation system easier to understand for tourists, as well as suggestions for implementing a group service.

- **Implementation of Specialized Group Services**
    - Addition of group rate ticket for large groups
    - Addition of boat reservations for organizations
- **Restructuring of Tourists Lines**
    - Vela: Clarification of schedules and routes for lines #3 and #4
    - ACTV: Addition of stops to line #3
    - ACTV: Extension of operating times for lines #3 and #4
    - ACTV: Continuous and simultaneous operation of lines #3 and #4
- **Improvement of Available Information**
    - Addition of signs to train and bus stations
    - Adjustment of information available on boat docks
    - Addition of information on boats
    - Additional staff assistance

## *6.1 Recommendations for Implementation of Group Services*

As shown in our results section, a large percentage of tourists visiting Venice are part of organized tour groups. These tourists are difficult to cater services to, as tour group leaders concerned with convenience and keeping the group together usually make transportation decisions on their behalf. For Vela and ACTV to appease this demographic of the tourist population we suggest that they create a group ticket, and reserve boats for large groups, so these groups can stay together.

### 6.1.1 Addition of Group Rate Ticket for Large Groups

It is recommended that Vela offer a group rate ticket to travelers in groups of ten or more. This will help to avoid congestion at the ticket-stamping machine when large groups enter, as they currently must stamp each ticket individually. As additional incentive for students and seniors, a reduced group rate could be offered.

### 6.1.2 Addition of Boat Reservations for Organizations

Very large groups can encounter much difficulty using public transportation services, especially when these groups include children or students. Most large tour groups were found to avoid ACTV services, using instead charter service provided by *Gran Turismo*, as this allows the group to stay together on the boat. The implementation of a reservation service for large groups is suggested. This service should allow reservation of an ACTV *motoscafo* for groups of 100 to 160 or *vaporetto* for groups numbering 160 to 220. A time and location for pickup can be scheduled before the group arrives in Venice, and these boats could be marked with a "reserved" sign, in place of the route number.

## *6.2 Recommendations for Restructuring of Tourists Lines*

Recently, Vela has been promoting lines #3 and #4, "The Fast Lane to St. Mark's". These are lines running to St. Mark's from Tronchetto and Ferrovia faster than the 82, as they have fewer stops. These lines provide much relief to the crowded #82 line, which is frequented by residents, as well as tourists. Unfortunately, ACTV patrons are not utilizing these lines effectively. Following are our recommendations for better use of these lines that will prevent crowding in the ACTV system.

### 6.2.1 Clarification of Schedules and Routes for Lines #3 and #4

Lines #3 and #4, "The Fast Lane to St. Mark's" are highly promoted, but most tourists do not understand the schedule. The #3 runs for a period of time in the morning making limited stops, and then there is a break before the #4 begins running in the afternoon, traveling in the opposite direction, and making additional stops. On the advertisements and brochures for lines #3 and #4 this needs to be clarified.

### 6.2.2 Addition of Stops to Line #3

It is also suggested that stops Piazzale Roma and Rialto be added to route #3, making it the reverse of the route of the #4. This would be less confusing ad more convenient for the arriving tourist. By avoiding a stop at P.Roma, the #3 is missing 20% of the tourists currently boarding ACTV boats at the three entry points (See Figure 50). The Rialto boat stop is a very popular destination for arriving tourists, so the addition of this stop would help prevent crowding on the #82.

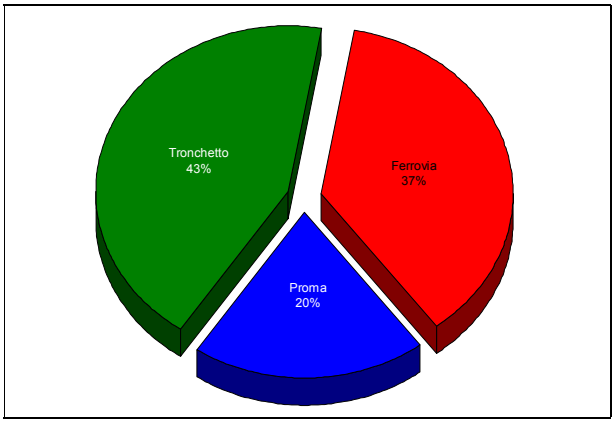


Figure 50. Distribution of ACTV tourist patrons at three counting locations.

### 6.2.3 ACTV: Continuous and Simultaneous Operation of Lines #3 and #4

If the schedule of the #3 and #4 lines were adjusted so these lines ran in opposite directions on the same route from 8:30 to 21:12 there would be little room for confusion. Many tourists would take these lines; making the #82 less crowded in both directions, improving service and satisfaction of both tourists, residents and commuting workers.

## *6.3 Recommendations for Improvement of Available Information*

Most tourists who come are first time visitors to Venice; in our survey, approximately 73% of tourists were new to the city. As Venice is a unique city with a transportation system unlike any other, it can be difficult to understand the maps and signs that are posted at docks and given out at ticket stands. Following are suggestions to make the public transportation system easier to understand.

### 6.3.1 Addition of Signs to Entrance Points

One improvement in the signs would be specifically for Ferrovia. There could be a sign posted closer to the trains with a easily read map of the city and information on ACTV services, so when people first arrive in Venice they would have a better idea of where they are and where they are going. This sign should also include information on where to get on each line departing from Ferrovia. A similar sign for Piazzale Roma and Tronchetto would also be beneficial.

### 6.3.2 Adjustment of Information Available on Boat Docks

Signs should have titles in large font and large amounts of small text should be avoided, so tourists can quickly understand signs. The electronic signs are very easy to read. These signs should be correctly placed at each boat station according to the direction of the boat and also be added to stops that don't currently have them.

### 6.3.3 Addition of Information on Boats

A sign with complete visual representation of the route and all the stops as well as the direction of the boat itself should be available on each boat. It should be positioned high and toward the front of the boat so that it is visible from the cabin where passengers may be seated. This will allow tourists to understand where their stop is and how far they are from it.

### 6.3.4 A nalyzing Signs

A project should be conducted to analyze currently used signs in all waterbus stations. This includes recording all the information about each station into the database mentioned in section 4.3.1. This will help to keep track of information located at each station.

### 6.3.5 A dditional Staff Assistance

Even though Tronchetto is the site where ACTV has the most competition, it is the easiest site for tourists to understand. The signs are large and clear, but the most useful information is that provided by ACTV employees. These employees directing people onto the correct line and check tickets. This greatly simplifies the decision making process for tourists, and forces people to buy tickets, as many tourists do not. If ACTV placed people at all of its major locations, it would be extremely helpful for

tourists. This is a suggestion that would greatly increase cost, but would be the most effective in aiding tourists and ensuring their satisfaction with the public transportation system of Venice.

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# Appendices

## A. Field Forms

## B. Counting Database

## C. Survey Database

## D. Tour Group Listing

## E. Available Information Database

## *7.1 Appendix A- Field Forms*

# Appendix A: Field Forms

**Visual Identification of Tourists and Non-Tourists**

Team Member | Site | Date | Time

| | Prediction | | Actual | | Notes |
|---|---|---|---|---|---|
| | Tourist | Non-Tourist | Tourist | Non-Tourist | |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
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| 44 | | | | | |
| 45 | | | | | |
| 46 | | | | | |
| 47 | | | | | |
| 48 | | | | | |
| 49 | | | | | |
| 50 | | | | | |
| Totals | | | | | |

**Consistency Counts Between Members**

| Site | Date | Time |
|---|---|---|

| | 1 | 2 | 3 | 4 | 5 | 6 | Total | Deviation |
|---|---|---|---|---|---|---|---|---|
| Katie | | | | | | | | |
| Igal | | | | | | | | |
| Mike | | | | | | | | |
| Jillian | | | | | | | | |
| Mean | | | | | | | | |
| Median | | | | | | | | |
| St.Dev. | | | | | | | | |

## Full Day Counting Form

| Site & Counting Location |
|---|
| |

| Counters | Counters |
|---|---|
| | |

**WEEKDAY**

| Date | | Notes : |
|---|---|---|
| 9:15 | | |
| 9:30 | | |
| 9:45 | | |
| 10:00 | | |
| 10:15 | | |
| 10:30 | | |
| 10:45 | | |
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| 1:45 | | |
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| 2:30 | | |
| 2:45 | | |
| 3:00 | | |
| 3:15 | | |
| 3:30 | | |
| 3:45 | | |
| 4:00 | | |

**WEEKEND**

| Date | | Notes : |
|---|---|---|
| 9:15 | | |
| 9:30 | | |
| 9:45 | | |
| 10:00 | | |
| 10:15 | | |
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| 4:00 | | |

## QUESTIONNAIRE

**Transportation Survey** No._____ Date_____ Time_____ Location_____

We are university students studying Venetian transportation. If you could answer the following quick questions we would greatly appreciate your time.

1. Which of the following languages do you understand?
   ☐ Italian ☐ English ☐ German ☐ French ☐ Spanish
2. How many nights are you staying in Venice? _____
   a.) Are you staying in ☐ Apartment ☐ Hotel – Hostel ☐ With Friends
   b.) (If apartment) What section of Venice are you staying in, or what landmark (campo, church or bridge) are you close to? _____
3. How many pieces of luggage did you bring with you? _____
4. Have you ever visited Venice before? YES NO
5. Are you with an organized tour group? YES NO
   If YES, what is the name of your tour agency? _____
   If YES, how many people are in your tour group? _____
6. What was the first form of transportation you used when you arrived in Venice?

☐ Waterbus - Vaporetto

☐ Water Taxi

☐ Walking

☐ Charter Boat – Gran Turismo

➢ Have you taken a waterbus? YES NO

➢ Why **did/didn't** you take a waterbus?

(Please rank your choices)

**Rank #**

__ Cost
__ Time
__ Sight Seeing
__ Knowledge of Options
- ☐ Signs ☐ Guidebook
- ☐ Previous Use ☐ Word of Mouth
- ☐ Tour Group

__ First thing you saw
__ Followed the crowd
__ Solicitation
__ Other _____

➢ **How** Satisfied were you with the service?

☐ Not Satisfied ☐ Neutral ☐ Satisfied

| Rank # | Why? | Why not? |
|---|---|---|
| __ Cost | ☐ Cheap | ☐ Expensive |
| __ Time | ☐ Quick | ☐ Slow |
| __ Luggage | ☐ Help | ☐ No Space |
| __ Signs | ☐ Clear | ☐ Confusing |
| __ Destination | ☐ Correct | ☐ Incorrect |
| __ Ride | ☐ Pleasing | ☐ Crowded |
| __ Other | _____ | |

Would you take it again? YES NO

➢ Have you taken a water-taxi? YES NO

(if YES)What was the starting place of the trip?

_____

(If YES) What was the destination of the trip?

_____

➢ Why **did/didn't** you take a water-taxi?

(Please rank your choices)

**Rank #**

__ Cost
__ Time
__ Sight Seeing
__ Knowledge of Options
- ☐ Signs ☐ Guidebook
- ☐ Previous Use ☐ Word of Mouth
- ☐ Tour Group

__ First thing you saw
__ Followed the crowd
__ Solicitation
__ Other _____

➢ **How** Satisfied were you with the service?

☐ Not Satisfied ☐ Neutral ☐ Satisfied

| Rank # | Why? | Why not? |
|---|---|---|
| __ Cost | ☐ Cheap | ☐ Expensive |
| __ Time | ☐ Quick | ☐ Slow |
| __ Luggage | ☐ Help | ☐ No Space |
| __ Destination | ☐ Correct | ☐ Incorrect |
| __ Ride | ☐ Pleasing | ☐ Crowded |
| __ Other | _____ | |

Would you take it again? YES NO

## QUESTIONARIO

**Questionario sui trasporti** N._____ Data_____ Ora_____ Luogo_____

Siamo degli studenti universitari che stanno effettuando uno studio sul sistema di trasporti di Venezia. Vi saremmo grati se poteste dedicarci un po' del Vostro tempo rispondendo alle seguenti domande.

1. Quale delle seguenti lingue conoscete?
   ☐ Italiano ☐ Inglese ☐ Tedesco ☐ Francese ☐ Spagnolo
2. Da quanti giorni siete a Venezia? _____
   a.) Siete alloggiati in ☐ Appartamento ☐ Hotel – Ostello ☐ Presso amici
   b.) (Se in appartamento) In quale sestiere di Venezia vi trovate e vicino a quale luogo (campo, chiesa o ponte) siete? _____
3. Quanti bagagli avete portato con voi? _____
4. Avete mai visitato Venezia prima? **SÌ** **NO**
5. Siete parte di un tour organizzato? **SÌ** **NO**
   Se **SÌ**, qual è il nome della vostra agenzia di viaggi? _____
   Se **SÌ**, quante persone compongono il vostro gruppo? _____
6. Qual è stato il primo mezzo di trasporto utilizzato quando siete arrivati a Venezia?

☐ Vaporetto

☐ Taxi acqueo

☐ A piedi

☐ Imbarcazione a nolo – Gran Turismo

- Avete preso un vaporetto? **SÌ** **NO**
- Spiegate il motivo dando un ordine alle vostre scelte

**Ordine (n°)**

__ Costo
__ Tempo
__ Gita Panoramica
__ Conoscenza delle possibilità
☐ Indicazioni ☐ Guida turistica
☐ Uso precedente ☐ Passa parola
☐ Gruppo
__ Prima cosa vista
__ Seguito la gente
__ Invito a scegliere il mezzo
__ Altro _____

- **Quanto** siete soddisfatti del servizio?

☐ Non soddisfatto ☐ Neutro ☐ Soddisfatto

| **Ordine (n°)** | **Perché si? Perc** | **hé no?** |
|---|---|---|
| __ Costo | ☐ Economico | ☐ Caro |
| __ Tempo | ☐ Veloce | ☐ Lento |
| __ Bagagli | ☐ Aiuto | ☐ Poco spazio |
| __ Indicazioni | ☐ Chiare | ☐ Confuse |
| __ Destinazione | ☐ Comoda | ☐ Non comoda |
| __ Corsa | ☐ Piacevole | ☐ Affollato |
| __ Altro | _____ | |

Lo prendereste di nuovo? **SÌ** **NO**

- Avete preso un taxi acqueo ? **SÌ** **NO**
- Quante volte avete preso un taxi acqueo?_____

(se SÌ) Qual è stato il punto di partenza del trasferimento?
_____

(Se SÌ) Qual è stata la destinazione del trasferimento?
_____

- Spiegate il motivo dando un ordine alle vostre scelte

**Ordine(n°)**

__ Costo
__ Tempo
__ Scenario
__ Conoscenza delle opzioni
☐ Indicazioni ☐ Guida turistica
☐ Uso precedente ☐ Passa parola
☐ Gruppo
__ Prima cosa vista
__ Seguito la gente
__ Invito a scegliere il mezzo
__ Altro _____

- **Quanto** siete soddisfatti del servizio?

☐ Non soddisfatto ☐ Neutro ☐ Soddisfatto

| **Ordine (n°)** | **Perché si? Perc** | **hé no?** |
|---|---|---|
| __ Costo | ☐ Economico | ☐ Caro |
| __ Tempo | ☐ Veloce | ☐ Lento |
| __ Bagagli | ☐ Aiuto | ☐ Poco spazio |
| __ Indicazioni | ☐ Chiaro | ☐ Confusione |
| __ Destinazione | ☐ Corretto | ☐ Non corretto |
| __ Corsa | ☐ Piacevole | ☐ Affollato |
| __ Altro | _____ | |

Lo prendereste di nuovo? **SÌ** **NO**

## CUESTIONARIO

**Cuestionario sobre transportes** N._____ Fecha_____ Hora_____ Lugar_____

Somos estudiantes universitarios y estamos realizando un estudio sobre el sistema de transportes en Venecia. Les agradeceríamos si pudieran dedicarnos un poco de su tiempo para contestar algunas preguntas.

1. ¿Qué idioma conocen?
   ☐ Italiano ☐ Inglés ☐ Alemán ☐ Francés ☐ Español
2. ¿Cuánto hace que están en Venecia? _____
   a.) Alojan en ☐ Apartamento ☐ Hotel – Albergue ☐ En casa de amigos
   b.) (Si alojan en apartamento) En cuál barrio de Venecia se encuentran y cerca de que lugar están (campo, iglesia o puente)? _____
3. ¿Cuántas maletas han traído con ustedes? _____
4. ¿Habían visitado Venecia antes? **SÍ** **NO**
5. ¿Hacen parte de una excursión organizada? **SÍ** **NO**

   Si **SÍ**, ¿cómo se llama su agencia de viajes? _____
   Si **SÍ**, ¿cuántas personas componen su grupo? _____
6. ¿Cuál fue el primer medio de transporte que usaron cuando llegaron a Venecia?

☐ Vaporetto

☐ Taxi de agua

☐ A pie

☐ Embarcación alquilada – Gran Turismo

- ➢ ¿Tomaron un vaporetto? **SÍ** **NO**
- ➢ Expliquen el motivo dando un orden a su decisión

**Orden (n°)**

__ Coste
__ Tiempo
__ Excursión panorámica
__ Conocimiento de las posibilidades que ofrece
- ☐ Indicaciones ☐ Guía turística
- ☐ Uso anterior ☐ De oídas
- ☐ Grupo

__ Primera cosa que vieron
__ Siguieron a la gente
__ Invitación a elegir el medio
__ Otros _____

- ➢ **¿Cuánto** están satisfechos del servicio?

☐ No satisfecho ☐ Neutro ☐ Satisfecho

| **Orden (n°)** | **¿Por qué sí?** | **¿Por qué no?** |
|---|---|---|
| __ Coste | ☐ Económico | ☐ Caro |
| __ Tiempo | ☐ Rápido | ☐ Lento |
| __ Equipajes | ☐ Ayuda | ☐ Poco espacio |
| __ Indicaciones | ☐ Claras | ☐ Confusas |
| __ Destino | ☐ Cómodo | ☐ No cómodo |
| __ Carrera | ☐ Agradable | ☐ Mucha gente |
| __ Otro | _____ | |

¿Lo tomarían otra vez? **SÍ** **NO**

- ➢ ¿Tomaron un taxi de agua? **SÍ** **NO**
- ➢ ¿Cuántas veces tomaron un taxi de agua?_____

(Si SÍ) ¿Cuál fue el punto de partida del viaje?
_____

(Si SÍ) ¿Cuál fue el punto de destino del viaje?
_____

- ➢ Expliquen el motivo dando un orden a su decisión

**Orden(n°)**

__ Coste
__ Tiempo
__ Escenario
__ Conocimiento de las opciones que ofrece
- ☐ Indicaciones ☐ Guía turística
- ☐ Uso anterior ☐ De oídas
- ☐ Grupo

__ Primera cosa que vieron
__ Siguieron a la gente
__ Invitación a elegir el medio
__ Otros _____

- ➢ **¿Cuánto** están satisfechos del servicio?

☐ No satisfecho ☐ Neutro ☐ Satisfecho

| **Orden (n°)** | **¿Por qué sí?** | **¿Por qué no?** |
|---|---|---|
| __ Costo | ☐ Económico | ☐ Caro |
| __ Tiempo | ☐ Rápido | ☐ Lento |
| __ Equipajes | ☐ Ayuda | ☐ Poco espacio |
| __ Indicaciones | ☐ Claras | ☐ Confusas |
| __ Destino | ☐ Correcto | ☐ No correcto |
| __ Carrera | ☐ Agradable | ☐ Mucha gente |
| __ Otro | _____ | |

¿Lo tomarían otra vez? **SÍ** **NO**

**WPI PROJECT CENTER**

**QUESTIONNAIRE**

**Questionnaire sur les transports** N°_____ Date_____ Heure_____Endroit_____

Nous sommes étudiants à l'université et nous effectuons une étude sur le système de transports à Venise. Nous vous serions reconnaissants si vous pouviez nous consacrer quelques minutes pour répondre aux questions suivantes.

1. Parmi les langues suivantes, lesquelles connaissez-vous ?
   ☐ Italien ☐ Anglais ☐ Allemand ☐ Français ☐ Espagnol
2. Depuis combien de jours êtes-vous à Venise ? _____

   a.) Vous logez ☐ dans un appartement ☐ à l'hôtel - pension ☐ chez des amis

   b.) (Si en appartement) Dans quel quartier de Venise vous trouvez-vous et de quel endroit (place, église ou pont) êtes-vous proche ? _____
3. Combien de bagages avez-vous apporté avec vous ? _____
4. Avez-vous déjà visité Venise avant ? **OUI** **NON**
5. Faites-vous partie d'un voyage organisé ? **OUI** **NON**
   Si **OUI**, quel est le nom de votre agence de voyages ? _____
   Si **OUI**, de combien de personnes est-ce que votre groupe se compose ? _____
6. Quel a été le premier moyen de transport que vous avez utilisé quand vous êtes arrivés à Venise ?

☐ Vaporetto

☐ Bateau-taxi

☐ A pieds

☐ Bateau de location – Grand Tourisme

➢Est-ce que vous avez pris un vaporetto? **OUI** **NON**

➢Expliquez-nous la raison en classant vos choix

**Ordre (n°)**

__ Coût
__ Durée
__ Promenade Panoramique
__ Connaissance des possibilités
☐ Indications ☐ Promenade touristique
☐ Utilisation précédente
☐ Bouche à oreilles ☐ Groupe
__ Première chose trouvée
__ A suivi les gens
__ Invitation à choisir le moyen de transport
__ Autre _____

➢ **Dans** quelle mesure êtes-vous satisfaits du service ?

☐ Pas satisfait ☐ Neutre ☐ Satisfait

| **Ordre (n°)** | **Pourquoi oui ?** | **Po urquoi non ?** |
|---|---|---|
| __ Coût | ☐ Économique | ☐ Cher |
| __ Durée | ☐ Rapide | ☐ Lent |
| __ Bagages | ☐ Aide | ☐ Peu de place |
| __ Indications | ☐ Clair | ☐ Confus |
| __ Destination | ☐ Pratique | ☐ Pas pratique |
| __ Trajet | ☐ Agréable | ☐ Trop de monde |
| __ Autre | _____ | |

Est-ce que vous le prendriez une autre fois ? **OUI** **NON**

➢Est-ce que vous avez pris un bateau-taxi? **OUI** **NON**

➢Combien de fois avez-vous pris un bateau-taxi?___

(si OUI) Quel a été le point de départ du trajet ?

_____

(Si OUI) Quelle a été la destination du trajet ?

_____

➢ Expliquez la raison en classant vos choix

**Ordre (n°)**

__ Coût
__ Durée
__ Promenade Panoramique
__ Connaissance des possibilités
☐ Indications ☐ Promenade touristique
☐ Utilisation précédente
☐ Bouche à oreilles ☐ Groupe
__ Première chose trouvée
__ A suivi les gens
__ Invitation à choisir le moyen de transport
__ Autre _____

➢ **Dans** quelle mesure êtes-vous satisfaits du service ?

☐ Pas satisfait ☐ Neutre ☐ Satisfait

| **Ordre (n°)** | **Pourquoi oui ?** | **Po urquoi non ?** |
|---|---|---|
| __ Coût | ☐ Économique | ☐ Cher |
| __ Durée | ☐ Rapide | ☐ Lent |
| __ Bagages | ☐ Aide | ☐ Peu de place |
| __ Indications | ☐ Clair | ☐ Confus |
| __ Destination | ☐ Pratique | ☐ Pas pratique |
| __ Trajet | ☐ Agréable | ☐ Trop de monde |
| __ Autre | _____ | |

Est-ce que vous le prendriez une autre fois ? **OUI** **NON**

## FRAGEBOGEN

**Fragebogen zu den Verkehrsmitteln** Nr._____ Datum_____ Uhrzeit_____ Ort_____

Wir sind Universitätsstudenten, die eine Studie über das Verkehrssystem Venedigs machen. Wir wären Ihnen dankbar, wenn Sie uns ein wenig Ihrer Zeit zur Verfügung stellen könnten indem Sie die folgenden Fragen beantworten.

1. Welche der folgenden Sprachen können Sie?
   ☐ Italienisch ☐ Englisch ☐ Deutsch ☐ Französisch ☐ Spanisch
2. Seit wie vielen Tagen halten Sie sich in Venedig auf? _____

   a.) Wo sind Sie untergebracht? ☐ Wohnung ☐ Hotel – Herberge ☐ bei Freunden

   b.) b.) (Falls in einer Wohnung) In welchem Teil Venedigs und bei welchem Ort (Platz, Kirche oder Brücke) sind Sie? _____

3. 3. Wieviel Gepäckstücke haben Sie mitgebracht? _____
4. 4. Sind Sie schon einmal in Venedig gewesen? **JA** **NEIN**
5. 5. Nehmen Sie an einer organisierten Reise teil? **JA** **NEIN**

   Falls **JA**, wie heißt Ihr Reisebüro? _____

   Falls **JA**, aus wie vielen Personen besteht Ihre Gruppe? _____
6. 6. Welches Verkehrsmittel haben Sie bei Ihrer Ankunft in Venedig als erstes verwendet?

☐ ein Vaporetto

☐ Ein Wassertaxi

☐ ein gemietetes Boot – Gran Turismo

☐ zu Fuß

➢Haben Sie ein Vaporetto genommen? **JA** **NEIN**

➢Begründen Sie Ihre Wahl und ordnen Sie die Motive

**Reihenfolge (Nr.)**

__ Kosten
__ Zeit
__ Rundfahrt
__ Kenntnis der Möglichkeit
- ☐ Angaben ☐ Fremdenführer
- ☐ frühere Verwendung ☐ vom Erzählen
- ☐ Gruppe

__ Das erste, was ich gesehen habe
__ Ich bin den Leuten gefolgt
__ Man hat mich darum gebeten, das Mittel zu wählen
__ Sonstiges _____

➢Sind Sie mit dem Service zufrieden?

☐ unzufrieden ☐ neutral ☐ zufrieden

| **Reihenfolge (Nr.) Wa** | **rum ja? Wa** | **rum nein?** |
|---|---|---|
| __ Kosten | ☐ billig | ☐ teuer |
| __ Zeit | ☐ schnell | ☐ langsam |
| __ Gepäck | ☐ hilfreich | ☐ wenig Platz |
| __ Angaben | ☐ klar | ☐ unklar |
| __ Ziel | ☐ bequem | ☐ unbequem |
| __ Fahrt | ☐ angenehm | ☐ überladen |
| __ Sonstiges | _____ | |

Würden Sie es wieder nehmen? **JA** **NEIN**



➢Haben Sie ein Wassertaxi genommen? **JA** **NEIN**

➢Wie oft haben Sie ein Wassertaxi genommen?_____

(falls JA) Von welcher Stelle hat die Fahrt begonnen?

_____

(falls JA) Wohin ging die Fahrt?

_____

Begründen Sie Ihre Wahl und ordnen Sie die Motive

**Reihenfolge (Nr.)**

__ Kosten
__ Zeit
__ Szenerie
__ Kenntnis der Auswahl
- ☐ Angaben ☐ Fremdenführer
- ☐ frühere Verwendung ☐ vom Erzählen
- ☐ Gruppe

__ Das erste, was ich gesehen habe
__ Ich bin den Leuten gefolgt
__ Man hat mich darum gebeten, das Mittel zu wählen
__ Sonstiges _____

➢Sind Sie mit dem Service zufrieden?

☐ unzufrieden ☐ neutral ☐ zufrieden

| **Reihenfolge (Nr.) Wa** | **rum ja? Wa** | **rum nein?** |
|---|---|---|
| __ Kosten | ☐ billig | ☐ teuer |
| __ Zeit | ☐ schnell | ☐ langsam |
| __ Gepäck | ☐ hilfreich | ☐ wenig Platz |
| __ Angaben | ☐ klar | ☐ unklar |
| __ Ziel | ☐ korrekt | ☐ unkorrekt |
| __ Fahrt | ☐ angenehm | ☐ überladen |
| __ Sonstiges | _____ | |

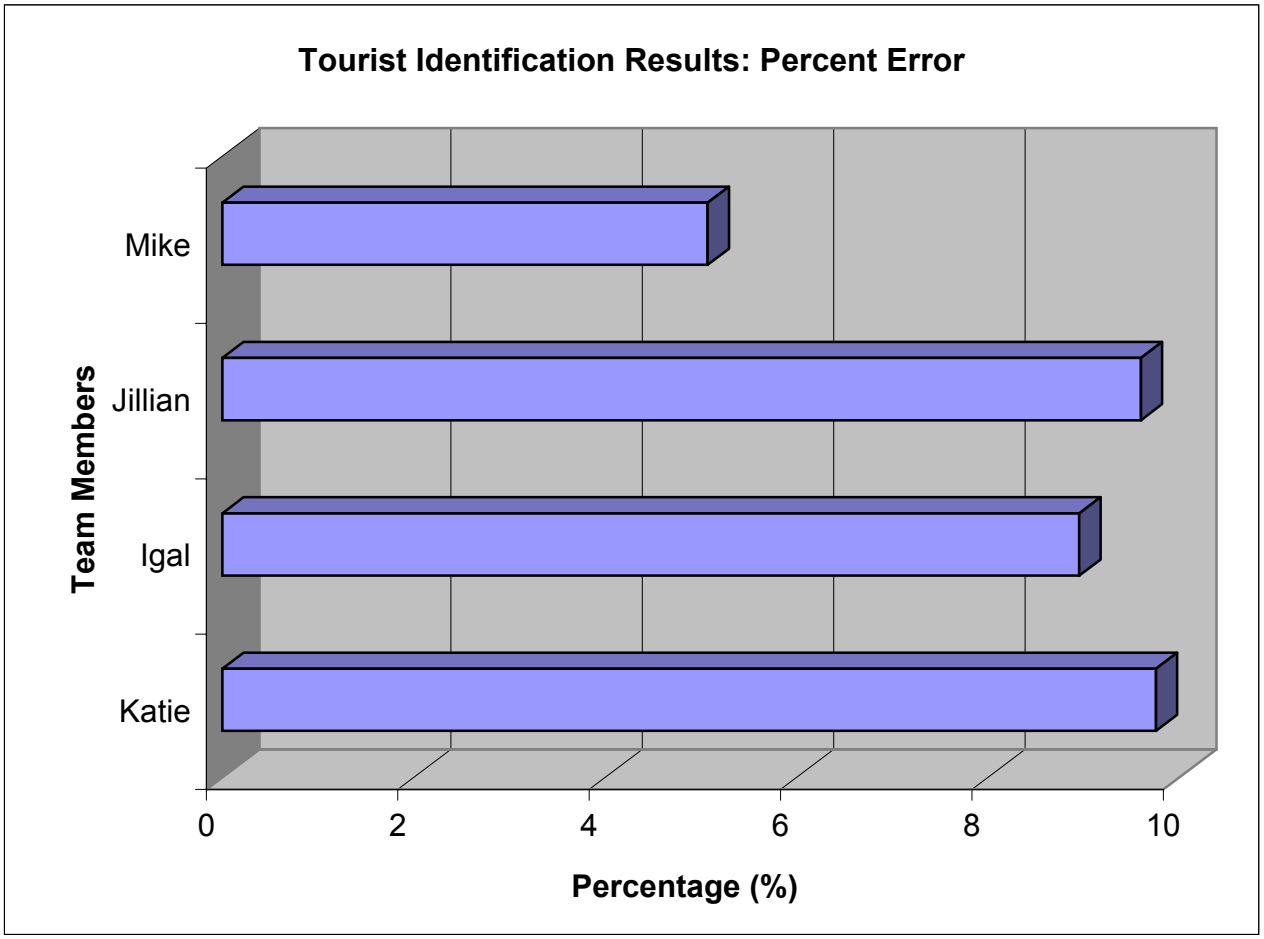
Würden Sie es wieder nehmen? **JA** **NEIN**

## *7.2 Appendix B- Counting Database*

**Results of Visiual Identification of Tourists**

DATE 6/13/01

| Team Member | Ferrovia | | P.Roma | | Tronchetto | | Total | | Percent Error |
|---|---|---|---|---|---|---|---|---|---|
| | Attempts | Successes | Attempts | Successes | Attempts | Successes | Attempts | Successes | |
| Katie | 50 | 42 | 50 | 46 | 23 | 23 | 123 | 111 | 9.7560976 |
| Igal | 50 | 46 | 50 | 43 | 34 | 33 | 134 | 122 | 8.9552239 |
| Jillian | 50 | 43 | 50 | 46 | 25 | 24 | 125 | 113 | 9.6 |
| Mike | 50 | 46 | 50 | 47 | 38 | 38 | 138 | 131 | 5.0724638 |



## Counting Consistancies Between Members

Counts at 10 mintute intervals

| Ferrovia | 14/06/2001 | 13:30-14:45 |
|---|---|---|

| | 1 | 2 | 3 | 4 | 5 | 6 | Total | Deviation |
|---|---|---|---|---|---|---|---|---|
| Katie | 48 | 55 | 76 | 45 | 39 | 29 | 292 | -7.75 |
| Igal | 40 | 47 | 83 | 44 | 38 | 31 | 283 | 1.25 |
| Mike | 47 | 49 | 74 | 41 | 40 | 33 | 284 | 0.25 |
| Jillian | 45 | 49 | 80 | 40 | 38 | 26 | 278 | 6.25 |
| Mean | 45 | 50 | 78.25 | 42.5 | 38.75 | 29.75 | 284.25 | |
| Median | 46 | 49 | 78 | 42.5 | 38.5 | 30 | 283.5 | |
| St.Dev. | 3.559 | 3.464 | 4.031 | 2.38 | 0.957 | 2.986 | 5.795113 | |

| P. Roma | 14/06/2001 | 15:05-16:10 |
|---|---|---|

| | 1 | 2 | 3 | 4 | 5 | 6 | Total | Deviation |
|---|---|---|---|---|---|---|---|---|
| Katie | 24 | 17 | 17 | 24 | 11 | 26 | 119 | 3 |
| Igal | 22 | 22 | 21 | 24 | 10 | 26 | 125 | -3 |
| Mike | 18 | 19 | 18 | 28 | 13 | 24 | 120 | 2 |
| Jillian | 21 | 20 | 18 | 26 | 15 | 24 | 124 | -2 |
| Mean | 21.25 | 19.5 | 18.5 | 25.5 | 12.25 | 25 | 122 | |
| Median | 21.5 | 19.5 | 18 | 25 | 12 | 25 | 122 | |
| St.Dev. | 2.5 | 2.082 | 1.732 | 1.915 | 2.217 | 1.155 | 2.94392 | |

| Tronchetto | 14/06/2001 | 16:20-17:30 |
|---|---|---|

| | 1 | 2 | 3 | 4 | 5 | 6 | Total | Deviation |
|---|---|---|---|---|---|---|---|---|
| Katie | 88 | 23 | 35 | 59 | 45 | 76 | 326 | -3.25 |
| Igal | 90 | 19 | 32 | 60 | 39 | 73 | 313 | 9.75 |
| Mike | 86 | 18 | 38 | 59 | 40 | 77 | 318 | 4.75 |
| Jillian | 89 | 21 | 40 | 63 | 46 | 75 | 334 | -11.25 |
| Mean | 88.25 | 20.25 | 36.25 | 60.25 | 42.5 | 75.25 | 322.75 | |
| Median | 88.5 | 20 | 36.5 | 59.5 | 42.5 | 75.5 | 322 | |
| St.Dev. | 1.7078 | 2.217 | 3.5 | 1.893 | 3.512 | 1.708 | 9.215024 | |

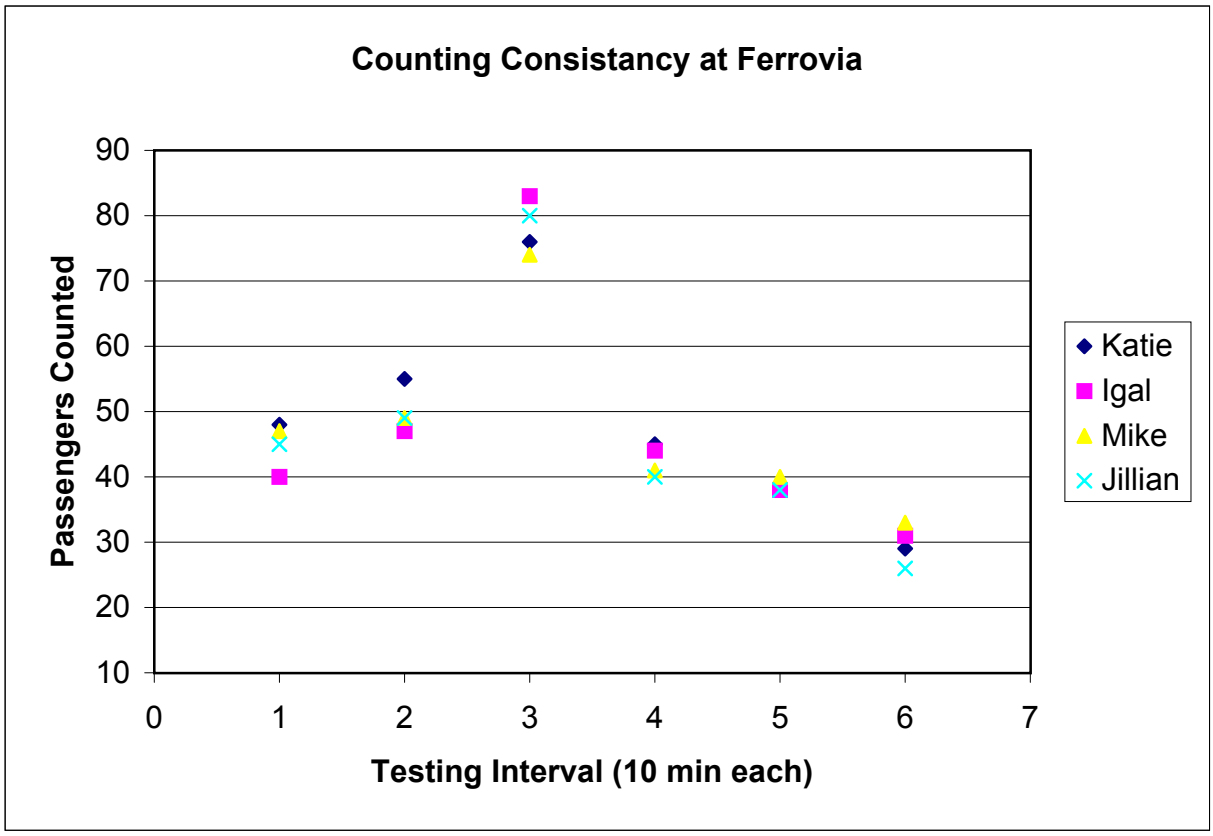
Notes:
Weather: Sunny for all sites….very hot

A second clicker for people exiting the boat stop due to not wanting to take it or being confused and disoriented would be helpful in keeping up at Ferrovia where many people mill around looking at maps and schedules and going on and off the ramps repeatedly.

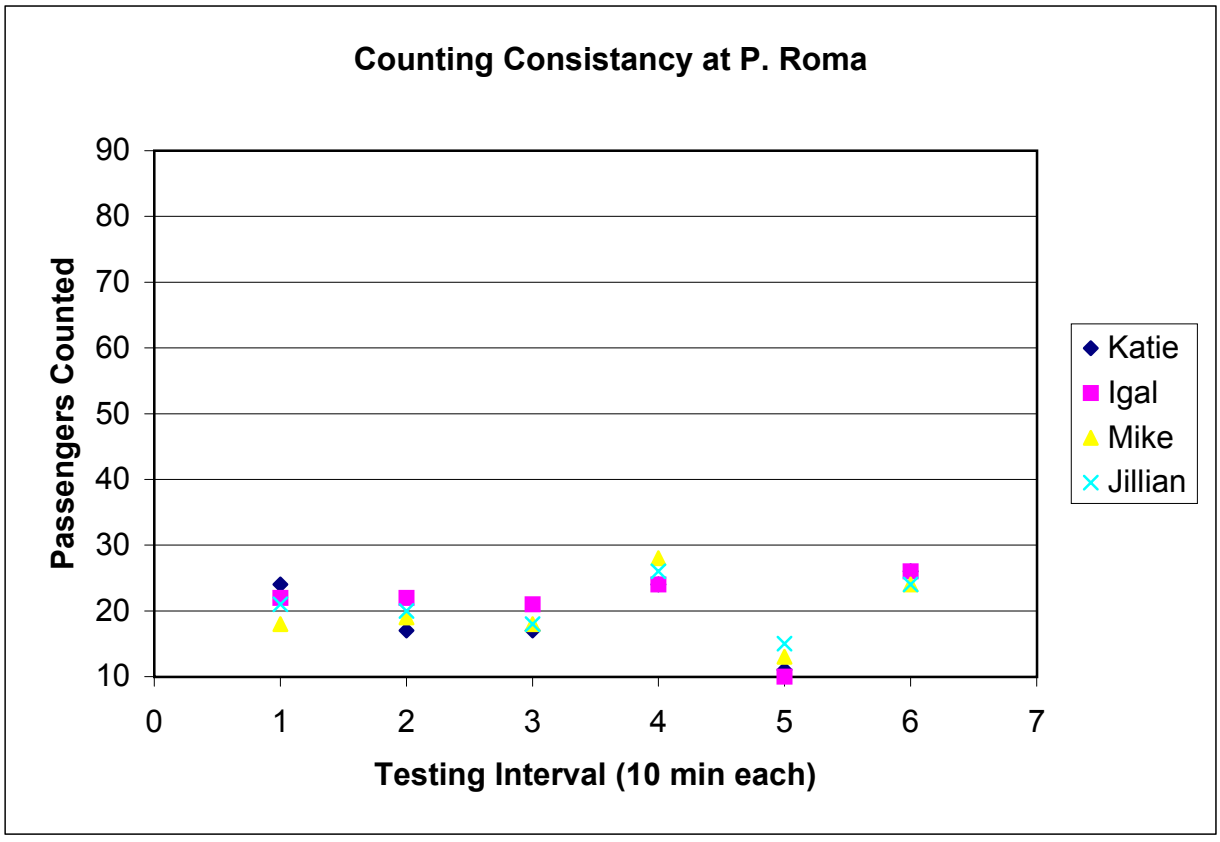
Totals

| | 1 | 2 | 3 | 4 | 5 | 6 | Total | Deviation |
|---|---|---|---|---|---|---|---|---|
| Katie | 160 | 95 | 128 | 128 | 95 | 131 | 737 | -8 |
| Igal | 152 | 88 | 136 | 128 | 87 | 130 | 721 | 8 |
| Mike | 151 | 86 | 130 | 128 | 93 | 134 | 722 | 7 |
| Jillian | 155 | 90 | 138 | 129 | 99 | 125 | 736 | -7 |
| Mean | 154.5 | 89.75 | 133 | 128.25 | 93.5 | 130 | 729 | |
| Median | 153.5 | 89 | 133 | 128 | 94 | 130.5 | 729 | |
| St.Dev. | 4.0414519 | 3.8622101 | 4.7609523 | 0.5 | 5 | 3.7416574 | 8.6794777 | |
| Percent | 2.6% | 4.3% | 3.6% | 0.4% | 5.3% | 2.9% | 1.2% | 2.9% |
| Error | 2.6% | 4.3% | 3.6% | 0.4% | 5.3% | 2.9% | 1.2% | 2.9% |

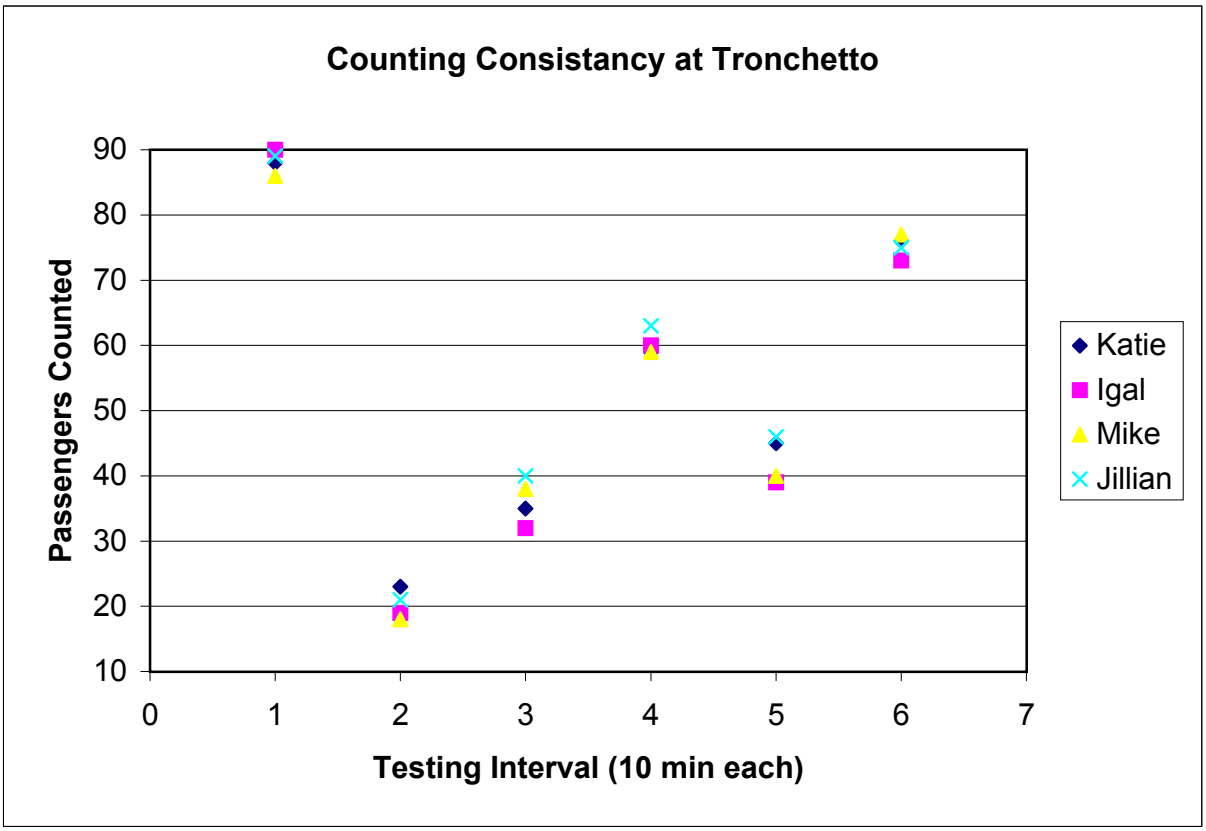
| Ferrovia | 14/06/2001 | 13:30-14:45 |
|---|---|---|

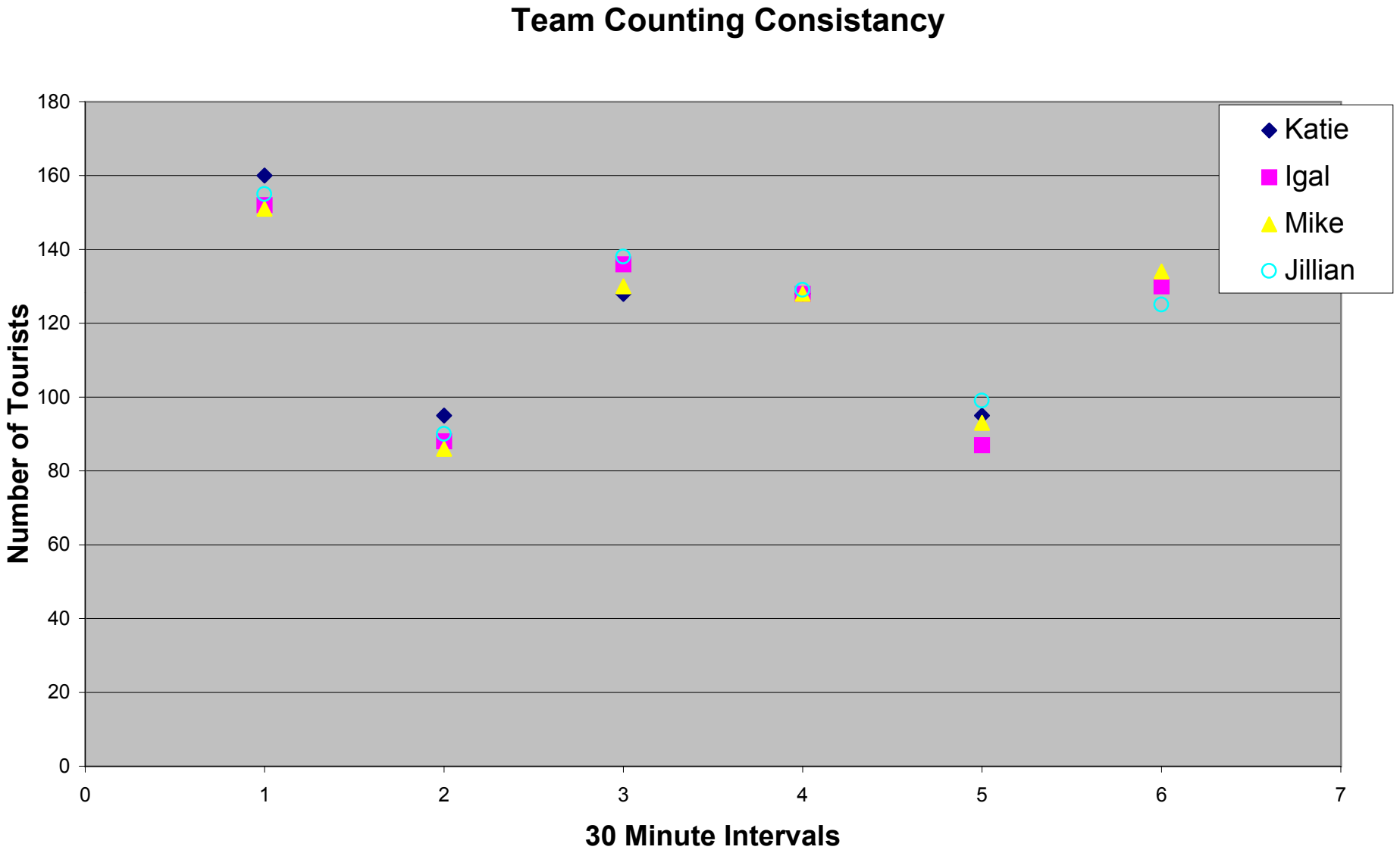


| P. Roma | 14/06/2001 | 15:05-16:10 |
|---|---|---|



| Tronchetto | 14/06/2001 | 16:20-17:30 |
|---|---|---|




Team Counting Consistancy
Number of Tourists
30 Minute Intervals
Katie
Igal
Mike
Jillian
0
20
40
60
80
100
120
140
160
180
0
1
2
3
4
5
6
7

**Results of Full Day Counts**

# Ferrovia

## WEEKDAY

Date 6/19/01 Tuesday

| TIME | ACTV Lines 1-41-51-71 | 82-4-N-3 | 52-42-72 | Totals of ACTV | Totals of Taxis | Notes: |
|---|---|---|---|---|---|---|
| 9:15 AM | 130 | 61 | 6 | 197 | 5 | Warm, |
| 9:30 AM | 101 | 58 | 42 | 201 | 17 | Nice |
| 9:45 AM | 99 | 123 | 20 | 242 | 4 | Breeze, |
| 10:00 AM | 126 | 160 | 33 | 319 | 4 | |
| 10:15 AM | 131 | 96 | 18 | 245 | 10 | |
| 10:30 AM | 85 | 103 | 39 | 227 | 8 | |
| 10:45 AM | 51 | 98 | 12 | 161 | 2 | |
| 11:00 AM | 70 | 105 | 48 | 223 | 6 | Hot, |
| 11:15 AM | 78 | 133 | 21 | 232 | 4 | Sunny |
| 11:30 AM | 48 | 120 | 32 | 200 | 2 | |
| 11:45 AM | 67 | 115 | 32 | 214 | 6 | |
| 12:00 PM | 110 | 105 | 30 | 245 | 12 | |
| 12:15 PM | 68 | 130 | 15 | 213 | 0 | |
| 12:30 PM | 66 | 80 | 27 | 173 | 6 | |
| 12:45 PM | 43 | 80 | 13 | 136 | 14 | |
| 1:00 PM | 45 | 64 | 20 | 129 | 0 | |
| 1:15 PM | 45 | 56 | 18 | 119 | 0 | |
| 1:30 PM | 45 | 89 | 19 | 153 | 0 | |
| 1:45 PM | 52 | 58 | 19 | 129 | 0 | |
| 2:00 PM | 53 | 96 | 6 | 155 | 25 | |
| 2:15 PM | 40 | 103 | 17 | 160 | 0 | |
| 2:30 PM | 39 | 121 | 23 | 183 | 12 | |
| 2:45 PM | 35 | 96 | 33 | 164 | 14 | |
| 3:00 PM | 31 | 84 | 21 | 136 | 0 | |
| 3:15 PM | 55 | 90 | 8 | 153 | 2 | |
| 3:30 PM | 52 | 89 | 17 | 158 | 5 | |
| 3:45 PM | 60 | 47 | 8 | 115 | 30 | Threatens |
| 4:00 PM | 59 | 63 | 3 | 125 | 13 | Rain |
| **TOTALS** | **1884** | **2623** | **600** | **5107** | **201** | **5308** |

## WEEKEND

Date 6/16/01 Saturday

| TIME | ACTV Lines 1-41-51-71 | 82-4-N-3 | 52-42-72 | Totals of ACTV | Totals of Taxi | Notes: |
|---|---|---|---|---|---|---|
| 9:15 AM | 44 | 152 | 38 | 234 | 3 | Warm, |
| 9:30 AM | 81 | 120 | 35 | 236 | 17 | Partly |
| 9:45 AM | 76 | 134 | 57 | 267 | 13 | Cloudy, |
| 10:00 AM | 74 | 122 | 77 | 273 | 11 | Some |
| 10:15 AM | 102 | 155 | 49 | 306 | 10 | Sun |
| 10:30 AM | 93 | 150 | 73 | 316 | 35 | |
| 10:45 AM | 113 | 217 | 103 | 433 | 12 | |
| 11:00 AM | 35 | 130 | 34 | 199 | 0 | |
| 11:15 AM | 81 | 216 | 53 | 350 | 12 | |
| 11:30 AM | 84 | 214 | 80 | 378 | 13 | |
| 11:45 AM | 130 | 148 | 39 | 317 | 2 | |
| 12:00 PM | 71 | 127 | 46 | 244 | 9 | |
| 12:15 PM | 80 | 128 | 30 | 238 | 12 | |
| 12:30 PM | 114 | 175 | 90 | 379 | 8 | |
| 12:45 PM | 50 | 118 | 30 | 198 | 4 | |
| 1:00 PM | 33 | 102 | 22 | 157 | 7 | |
| 1:15 PM | 62 | 79 | 26 | 167 | 9 | |
| 1:30 PM | 69 | 80 | 17 | 166 | 2 | |
| 1:45 PM | 38 | 100 | 29 | 167 | 0 | Cool |
| 2:00 PM | 48 | 90 | 22 | 160 | 1 | Breeze |
| 2:15 PM | 42 | 146 | 4 | 192 | 23 | |
| 2:30 PM | 109 | 193 | 44 | 346 | 18 | Very |
| 2:45 PM | 72 | 71 | 24 | 167 | 10 | Sunny |
| 3:00 PM | 57 | 82 | 25 | 164 | 0 | |
| 3:15 PM | 78 | 139 | 23 | 240 | 3 | |
| 3:30 PM | 38 | 87 | 28 | 153 | 4 | |
| 3:45 PM | 43 | 140 | 34 | 217 | 20 | |
| 4:00 PM | 55 | 114 | 3 | 172 | 0 | |
| **TOTALS** | **1972** | **3729** | **1135** | **6836** | **258** | **7094** |

## Ferrovia Counting Verifications

| Date | Wednesday | | 7/4/01 | Total | Total |
|---|---|---|---|---|---|
| TIME | 1-41-51-71 | 82-4-N-3 | 52-42-72 | ACTV | Taxi |
| 9:15 AM | | | | | |
| 9:30 AM | | | | | |
| 9:45 AM | | | | | |
| 10:00 AM | | | | | |
| 10:15 AM | | | | | |
| 10:30 AM | | | | | |
| 10:45 AM | | | | | |
| 11:00 AM | | | | | |
| 11:15 AM | 72 | 109 | 16 | 197 | 5 |
| 11:30 AM | 57 | 83 | 14 | 154 | 18 |
| 11:45 AM | 32 | 129 | 22 | 183 | 42 |
| 12:00 PM | 49 | 95 | 6 | 150 | 8 |
| 12:15 PM | | | | | |
| 12:30 PM | | | | | |
| 12:45 PM | | | | | |
| 1:00 PM | | | | | |
| 1:15 PM | | | | | |
| 1:30 PM | | | | | |
| 1:45 PM | | | | | |
| 2:00 PM | | | | | |
| 2:15 PM | | | | | |
| 2:30 PM | | | | | |
| 2:45 PM | | | | | |
| 3:00 PM | | | | | |
| 3:15 PM | | | | | |
| 3:30 PM | | | | | |
| 3:45 PM | | | | | |
| 4:00 PM | | | | | |
| TOTALS | **210** | **416** | **58** | **684** | **73** |

| Date | Thursday | | 7/5/01 | Total | Total | Date |
|---|---|---|---|---|---|---|
| TIME | 1-41-51-71 | 82-4-N-3 | 52-42-72 | ACTV | Taxi | TIME |
| 9:15 AM | | | | | | 9:15 AM |
| 9:30 AM | | | | | | 9:30 AM |
| 9:45 AM | | | | | | 9:45 AM |
| 10:00 AM | | | | | | 10:00 AM |
| 10:15 AM | | | | | | 10:15 AM |
| 10:30 AM | | | | | | 10:30 AM |
| 10:45 AM | | | | | | 10:45 AM |
| 11:00 AM | | | | | | 11:00 AM |
| 11:15 AM | | | | | | 11:15 AM |
| 11:30 AM | | | | | | 11:30 AM |
| 11:45 AM | | | | | | 11:45 AM |
| 12:00 PM | 44 | 163 | 12 | 219 | 4 | 12:00 PM |
| 12:15 PM | 24 | 150 | 9 | 183 | 9 | 12:15 PM |
| 12:30 PM | 35 | 150 | 18 | 203 | 0 | 12:30 PM |
| 12:45 PM | 31 | 95 | 21 | 147 | 0 | 12:45 PM |
| 1:00 PM | | | | | | 1:00 PM |
| 1:15 PM | | | | | | 1:15 PM |
| 1:30 PM | | | | | | 1:30 PM |
| 1:45 PM | | | | | | 1:45 PM |
| 2:00 PM | | | | | | 2:00 PM |
| 2:15 PM | | | | | | 2:15 PM |
| 2:30 PM | | | | | | 2:30 PM |
| 2:45 PM | | | | | | 2:45 PM |
| 3:00 PM | | | | | | 3:00 PM |
| 3:15 PM | 32 | 52 | 8 | 92 | 5 | 3:15 PM |
| 3:30 PM | 23 | 84 | 14 | 121 | 3 | 3:30 PM |
| 3:45 PM | 21 | 41 | 12 | 74 | 0 | 3:45 PM |
| 4:00 PM | 29 | 43 | 9 | 81 | 16 | 4:00 PM |
| **757** TOTALS | **239** | **778** | **103** | **1120** | **37** | **TOTALS** |

## Ferrovia Counting Verifications

| Sunday | | | 7/8/01 | Total | Total |
|---|---|---|---|---|---|
| 1-41-51-71 | 82-4-N-3 | 52-42-72 | | ACTV | Taxi |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 91 | 129 | 47 | | 267 | 15 |
| 80 | 142 | 27 | | 249 | 3 |
| 110 | 125 | 56 | | 291 | 19 |
| 83 | 121 | 33 | | 237 | 34 |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| 30 | 48 | 9 | | 87 | 5 |
| 42 | 36 | 24 | | 102 | 2 |
| 47 | 50 | 18 | | 115 | 8 |
| 55 | 42 | 13 | | 110 | 24 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| **538** | **693** | **227** | | **1458** | **110** |

| 1568 | Date | Monday | | | 7/9/01 | Total | Total | Date |
|---|---|---|---|---|---|---|---|---|
| | TIME | 1-41-51-71 | 82-4-N-3 | 52-42-72 | | ACTV | Taxi | TIME |
| | 9:15 AM | | | | | | | 9:15 AM |
| | 9:30 AM | | | | | | | 9:30 AM |
| | 9:45 AM | | | | | | | 9:45 AM |
| | 10:00 AM | 27 | 108 | 33 | | 168 | 8 | 10:00 AM |
| | 10:15 AM | 59 | 174 | 37 | | 270 | 16 | 10:15 AM |
| | 10:30 AM | 33 | 84 | 12 | | 129 | 3 | 10:30 AM |
| | 10:45 AM | 47 | 132 | 63 | | 242 | 4 | 10:45 AM |
| | 11:00 AM | | | | | | | 11:00 AM |
| | 11:15 AM | | | | | | | 11:15 AM |
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| | 12:45 PM | | | | | | | 12:45 PM |
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| | 1:15 PM | | | | | | | 1:15 PM |
| | 1:30 PM | | | | | | | 1:30 PM |
| | 1:45 PM | | | | | | | 1:45 PM |
| | 2:00 PM | 76 | 94 | 28 | | 198 | 6 | 2:00 PM |
| | 2:15 PM | 44 | 43 | 29 | | 116 | 4 | 2:15 PM |
| | 2:30 PM | 63 | 60 | 13 | | 136 | 16 | 2:30 PM |
| | 2:45 PM | 30 | 79 | 18 | | 127 | 3 | 2:45 PM |
| | 3:00 PM | | | | | | | 3:00 PM |
| | 3:15 PM | | | | | | | 3:15 PM |
| | 3:30 PM | | | | | | | 3:30 PM |
| | 3:45 PM | | | | | | | 3:45 PM |
| | 4:00 PM | | | | | | | 4:00 PM |
| | **TOTALS** | **379** | **774** | **233** | | **1386** | **60** | **TOTALS** |

## Ferrovia Counting Verifications

| Wednesday | | 7/11/01 | Total | Total |
|---|---|---|---|---|
| 1-41-51-71 | 82-4-N-3 | 52-42-72 | ACTV | Taxi |
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| | | | | |
| 35 | 109 | 5 | 149 | 4 |
| 24 | 90 | 0 | 114 | 9 |
| 28 | 85 | 35 | 148 | 18 |
| 25 | 93 | 1 | 119 | 12 |
| **112** | **377** | **41** | **530** | **43** |

| Date | Friday | | | 7/13/01 | Total | Total | Date |
|---|---|---|---|---|---|---|---|
| TIME | 1-41-51-71 | 82-4-N-3 | 52-42-72 | | ACTV | Taxi | TIME |
| 9:15 AM | | | | | | | 9:15 AM |
| 9:30 AM | | | | | | | 9:30 AM |
| 9:45 AM | | | | | | | 9:45 AM |
| 10:00 AM | | | | | | | 10:00 AM |
| 10:15 AM | | | | | | | 10:15 AM |
| 10:30 AM | | | | | | | 10:30 AM |
| 10:45 AM | | | | | | | 10:45 AM |
| 11:00 AM | | | | | | | 11:00 AM |
| 11:15 AM | 36 | 62 | 30 | | 128 | 11 | 11:15 AM |
| 11:30 AM | 44 | 54 | 19 | | 117 | 2 | 11:30 AM |
| 11:45 AM | 50 | 111 | 4 | | 165 | 11 | 11:45 AM |
| 12:00 PM | 57 | 108 | 35 | | 200 | 2 | 12:00 PM |
| 12:15 PM | | | | | | | 12:15 PM |
| 12:30 PM | | | | | | | 12:30 PM |
| 12:45 PM | | | | | | | 12:45 PM |
| 1:00 PM | | | | | | | 1:00 PM |
| 1:15 PM | | | | | | | 1:15 PM |
| 1:30 PM | | | | | | | 1:30 PM |
| 1:45 PM | | | | | | | 1:45 PM |
| 2:00 PM | | | | | | | 2:00 PM |
| 2:15 PM | 40 | 67 | 25 | | 132 | 2 | 2:15 PM |
| 2:30 PM | 37 | 86 | 17 | | 140 | 0 | 2:30 PM |
| 2:45 PM | 35 | 87 | 44 | | 166 | 6 | 2:45 PM |
| 3:00 PM | 44 | 68 | 2 | | 114 | 13 | 3:00 PM |
| 3:15 PM | | | | | | | 3:15 PM |
| 3:30 PM | | | | | | | 3:30 PM |
| 3:45 PM | | | | | | | 3:45 PM |
| 4:00 PM | | | | | | | 4:00 PM |
| 573 TOTALS | **343** | **643** | **176** | | **1162** | **47** | TOTALS |

## Ferrovia Weekday TAXI Extrapolation 1

| 7/9/01 | 6/19/01 | 7/4/01 | 7/5/01 | 7/13/01 | |
|---|---|---|---|---|---|
| Monday | Tuesday | Wednesday | Thursday | Friday | TIME |
| 4 | 5 | 8 | 2 | 5 | 9:15 AM |
| 14 | 17 | 27 | 8 | 16 | 9:30 AM |
| 3 | 4 | 6 | 2 | 4 | 9:45 AM |
| 8 | 4 | 6 | 2 | 4 | 10:00 AM |
| 16 | 10 | 16 | 5 | 9 | 10:15 AM |
| 3 | 8 | 13 | 4 | 8 | 10:30 AM |
| 4 | 2 | 3 | 1 | 2 | 10:45 AM |
| 5 | 6 | 9 | 3 | 6 | 11:00 AM |
| 3 | 4 | 5 | 2 | 11 | 11:15 AM |
| 2 | 2 | 18 | 1 | 2 | 11:30 AM |
| 5 | 6 | 42 | 3 | 11 | 11:45 AM |
| 10 | 12 | 8 | 4 | 2 | 12:00 PM |
| 0 | 0 | 0 | 9 | 0 | 12:15 PM |
| 5 | 6 | 9 | 0 | 6 | 12:30 PM |
| 11 | 14 | 22 | 0 | 13 | 12:45 PM |
| 0 | 0 | 0 | 0 | 0 | 1:00 PM |
| 0 | 0 | 0 | 0 | 0 | 1:15 PM |
| 0 | 0 | 0 | 0 | 0 | 1:30 PM |
| 0 | 0 | 0 | 0 | 0 | 1:45 PM |
| 6 | 25 | 39 | 11 | 24 | 2:00 PM |
| 4 | 0 | 0 | 0 | 2 | 2:15 PM |
| 16 | 12 | 19 | 5 | 0 | 2:30 PM |
| 3 | 14 | 22 | 6 | 6 | 2:45 PM |
| 0 | 0 | 0 | 0 | 13 | 3:00 PM |
| 2 | 2 | 4 | 5 | 2 | 3:15 PM |
| 4 | 5 | 9 | 3 | 5 | 3:30 PM |
| 24 | 30 | 18 | 0 | 28 | 3:45 PM |
| 10 | 13 | 12 | 16 | 12 | 4:00 PM |
| 161 | 201 | 315 | 91 | 189 | 957 |

Extrapolation Calculations

| Monday | | Verify | Fullday | |
|---|---|---|---|---|
| Morning Counts | | 31 | 24 | |
| Afternoon Counts | | 29 | 51 | Ratio |
| | Total | 60 | 75 | 0.8 |

| Wednesday | | Verify | Fullday | |
|---|---|---|---|---|
| Morning Counts | | 73 | 24 | |
| Afternoon Counts | | 43 | 50 | Ratio |
| | Total | 116 | 74 | 1.5675676 |

| Thursday | | Verify | Fullday | |
|---|---|---|---|---|
| Morning Counts | | 13 | 32 | |
| Afternoon Counts | | 24 | 50 | Ratio |
| | Total | 37 | 82 | 0.4512195 |

| Friday | | Verify | Fullday | |
|---|---|---|---|---|
| Morning Counts | | 26 | 24 | |
| Afternoon Counts | | 21 | 26 | Ratio |
| | Total | 47 | 50 | 0.94 |

## Ferrovia Weekday ACTV Extrapolation 1

| Date | 7/9/01 | 6/19/01 | 7/4/01 | 7/5/01 | 7/13/01 | |
|---|---|---|---|---|---|---|
| TIME | Monday | Tuesday | Wednesday | Thursday | Friday | TIME |
| 9:15 AM | 169 | 197 | 166 | 167 | 149 | 9:15 AM |
| 9:30 AM | 173 | 201 | 169 | 171 | 152 | 9:30 AM |
| 9:45 AM | 208 | 242 | 204 | 206 | 183 | 9:45 AM |
| 10:00 AM | 168 | 319 | 269 | 271 | 242 | 10:00 AM |
| 10:15 AM | 270 | 245 | 206 | 208 | 186 | 10:15 AM |
| 10:30 AM | 129 | 227 | 191 | 193 | 172 | 10:30 AM |
| 10:45 AM | 242 | 161 | 136 | 137 | 122 | 10:45 AM |
| 11:00 AM | 191 | 223 | 188 | 189 | 169 | 11:00 AM |
| 11:15 AM | 199 | 232 | 197 | 197 | 128 | 11:15 AM |
| 11:30 AM | 172 | 200 | 154 | 170 | 117 | 11:30 AM |
| 11:45 AM | 184 | 214 | 183 | 182 | 165 | 11:45 AM |
| 12:00 PM | 210 | 245 | 150 | 219 | 200 | 12:00 PM |
| 12:15 PM | 183 | 213 | 179 | 183 | 161 | 12:15 PM |
| 12:30 PM | 149 | 173 | 146 | 203 | 131 | 12:30 PM |
| 12:45 PM | 117 | 136 | 114 | 147 | 103 | 12:45 PM |
| 1:00 PM | 111 | 129 | 109 | 110 | 98 | 1:00 PM |
| 1:15 PM | 102 | 119 | 100 | 101 | 90 | 1:15 PM |
| 1:30 PM | 131 | 153 | 129 | 130 | 116 | 1:30 PM |
| 1:45 PM | 111 | 129 | 109 | 110 | 98 | 1:45 PM |
| 2:00 PM | 198 | 155 | 130 | 132 | 117 | 2:00 PM |
| 2:15 PM | 116 | 160 | 135 | 136 | 132 | 2:15 PM |
| 2:30 PM | 136 | 183 | 154 | 156 | 140 | 2:30 PM |
| 2:45 PM | 127 | 164 | 138 | 139 | 166 | 2:45 PM |
| 3:00 PM | 117 | 136 | 114 | 116 | 114 | 3:00 PM |
| 3:15 PM | 131 | 153 | 149 | 92 | 116 | 3:15 PM |
| 3:30 PM | 136 | 158 | 114 | 121 | 120 | 3:30 PM |
| 3:45 PM | 99 | 115 | 148 | 74 | 87 | 3:45 PM |
| 4:00 PM | 107 | 125 | 119 | 81 | 95 | 4:00 PM |
| **TOTALS** | 4386 | 5107 | 4300 | 4340 | 3869 | **22000** |

Extapolation Calculations

| Monday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 809 | 952 | |
| Afternoon Counts | | 577 | 662 | |
| | Total | 1386 | 1614 | 0.858736 |

| Wednesday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 684 | 891 | |
| Afternoon Counts | | 530 | 551 | |
| | Total | 1214 | 1442 | 0.841886 |

| Thursday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 752 | 767 | |
| Afternoon Counts | | 368 | 551 | |
| | Total | 1120 | 1318 | 0.849772 |

| Friday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 610 | 891 | |
| Afternoon Counts | | 552 | 643 | |
| | Total | 1162 | 1534 | 0.757497 |

22069

## Ferrovia Weekend Extrapolation

| | ACTV | Taxi | ACTV | Taxi |
|---|---|---|---|---|
| Date | 6/16/01 | 6/16/01 | 7/8/01 | 7/8/01 |
| TIME | Saturday | Saturday | Sunday | Sunday |
| 9:15 AM | 234 | 3 | 346 | 2 |
| 9:30 AM | 236 | 17 | 349 | 13 |
| 9:45 AM | 267 | 13 | 395 | 10 |
| 10:00 AM | 273 | 11 | 404 | 9 |
| 10:15 AM | 306 | 10 | 453 | 8 |
| 10:30 AM | 316 | 35 | 468 | 28 |
| 10:45 AM | 433 | 12 | 641 | 9 |
| 11:00 AM | 199 | 0 | 295 | 0 |
| 11:15 AM | 350 | 12 | 267 | 15 |
| 11:30 AM | 378 | 13 | 249 | 3 |
| 11:45 AM | 317 | 2 | 291 | 19 |
| 12:00 PM | 244 | 9 | 237 | 34 |
| 12:15 PM | 238 | 12 | 352 | 9 |
| 12:30 PM | 379 | 8 | 561 | 6 |
| 12:45 PM | 198 | 4 | 293 | 3 |
| 1:00 PM | 157 | 7 | 232 | 6 |
| 1:15 PM | 167 | 9 | 247 | 7 |
| 1:30 PM | 166 | 2 | 246 | 2 |
| 1:45 PM | 167 | 0 | 247 | 0 |
| 2:00 PM | 160 | 1 | 237 | 1 |
| 2:15 PM | 192 | 23 | 87 | 5 |
| 2:30 PM | 346 | 18 | 102 | 2 |
| 2:45 PM | 167 | 10 | 115 | 8 |
| 3:00 PM | 164 | 0 | 110 | 24 |
| 3:15 PM | 240 | 3 | 355 | 2 |
| 3:30 PM | 153 | 4 | 226 | 3 |
| 3:45 PM | 217 | 20 | 321 | 16 |
| 4:00 PM | 172 | 0 | 255 | 0 |
| **TOTALS** | 6836 | 258 | 8382 | 245 |

| ACTV | TAXI | Total |
|---|---|---|
| 15218 | 503 | 15721 |

| Extrapolation Calculations | | | | |
|---|---|---|---|---|
| **Actv** | | Fullday | Verify | |
| Morning Counts | | 1044 | 1289 | |
| Afternoon Counts | | 414 | 869 | Ratio |
| | Totals | 1458 | 2158 | 1.48011 |

| | | | | |
|---|---|---|---|---|
| **Taxi** | | Fullday | Verify | |
| Morning Counts | | 71 | 36 | |
| Afternoon Counts | | 39 | 51 | Ratio |
| | Totals | 110 | 87 | 0.790909 |

## Ferrovia Weekday 42-52-72 Extrapolation

| Date | 7/9/01 | 6/19/01 | 7/4/01 | 7/5/01 | 7/13/01 | |
|---|---|---|---|---|---|---|
| TIME | Monday | Tuesday | Wednesday | Thursday | Friday | TIME |
| 9:15 AM | 8 | 6 | 4 | 5 | 5 | 9:15 AM |
| 9:30 AM | 54 | 42 | 28 | 36 | 35 | 9:30 AM |
| 9:45 AM | 26 | 20 | 13 | 17 | 17 | 9:45 AM |
| 10:00 AM | 33 | 33 | 22 | 28 | 28 | 10:00 AM |
| 10:15 AM | 37 | 18 | 12 | 15 | 15 | 10:15 AM |
| 10:30 AM | 12 | 39 | 26 | 33 | 33 | 10:30 AM |
| 10:45 AM | 63 | 12 | 8 | 10 | 10 | 10:45 AM |
| 11:00 AM | 62 | 48 | 31 | 41 | 40 | 11:00 AM |
| 11:15 AM | 27 | 21 | 16 | 18 | 30 | 11:15 AM |
| 11:30 AM | 41 | 32 | 14 | 27 | 19 | 11:30 AM |
| 11:45 AM | 41 | 32 | 22 | 27 | 4 | 11:45 AM |
| 12:00 PM | 39 | 30 | 6 | 12 | 35 | 12:00 PM |
| 12:15 PM | 19 | 15 | 10 | 9 | 13 | 12:15 PM |
| 12:30 PM | 35 | 27 | 18 | 18 | 23 | 12:30 PM |
| 12:45 PM | 17 | 13 | 9 | 21 | 11 | 12:45 PM |
| 1:00 PM | 26 | 20 | 13 | 17 | 17 | 1:00 PM |
| 1:15 PM | 23 | 18 | 12 | 15 | 15 | 1:15 PM |
| 1:30 PM | 24 | 19 | 12 | 16 | 16 | 1:30 PM |
| 1:45 PM | 24 | 19 | 12 | 16 | 16 | 1:45 PM |
| 2:00 PM | 28 | 6 | 4 | 5 | 5 | 2:00 PM |
| 2:15 PM | 29 | 17 | 11 | 14 | 25 | 2:15 PM |
| 2:30 PM | 13 | 23 | 15 | 20 | 17 | 2:30 PM |
| 2:45 PM | 18 | 33 | 22 | 28 | 44 | 2:45 PM |
| 3:00 PM | 27 | 21 | 14 | 18 | 2 | 3:00 PM |
| 3:15 PM | 10 | 8 | 5 | 8 | 7 | 3:15 PM |
| 3:30 PM | 22 | 17 | 0 | 14 | 14 | 3:30 PM |
| 3:45 PM | 10 | 8 | 35 | 12 | 7 | 3:45 PM |
| 4:00 PM | 4 | 3 | 1 | 9 | 3 | 4:00 PM |
| Extrapolated | 772 | 600 | 393 | 511 | 505 | |
| Verify | 772 | 600 | 393 | 511 | 505 | **2782** |
| Counts | 233 | 600 | 99 | 103.00 | 176 | |

Extrapolation Calculations

| Monday | Verify | Fullday | |
|---|---|---|---|
| Morning Counts | 145 | 102 | |
| Afternoon Counts | 88 | 79 | Ratio |
| Total | 233 | 181 | 1.287293 |
| | | Ratio | |
| | | 0.301667 | |

| Wednesday | Verify | Fullday | |
|---|---|---|---|
| Morning Counts | 58 | 115 | |
| Afternoon Counts | 41 | 36 | Ratio |
| Total | 99 | 151 | 0.655629 |
| | | Ratio | |
| | | 0.251667 | |

| Thursday | Verify | Fullday | |
|---|---|---|---|
| Morning Counts | 60 | 85 | |
| Afternoon Counts | 43 | 36 | Ratio |
| Total | 103 | 121 | 0.85124 |
| | | Ratio | |
| | | 0.201667 | |

| Friday | Verify | Fullday | |
|---|---|---|---|
| Morning Counts | 88 | 115 | |
| Afternoon Counts | 88 | 94 | Ratio |
| Total | 176 | 209 | 0.842105 |
| | | Ratio | |
| | | 0.348333 | |

## Ferrovia Weekday 1-41-51-71 Extrapolation

| Date | 7/9/01 | 6/19/01 | 7/4/01 | 7/5/01 | 7/13/01 | |
|---|---|---|---|---|---|---|
| TIME | Monday | Tuesday | Wednesday | Thursday | Friday | TIME |
| 9:15 AM | 88 | 130 | 79 | 61 | 100 | 9:15 AM |
| 9:30 AM | 68 | 101 | 61 | 47 | 77 | 9:30 AM |
| 9:45 AM | 67 | 99 | 60 | 46 | 76 | 9:45 AM |
| 10:00 AM | 27 | 126 | 77 | 59 | 96 | 10:00 AM |
| 10:15 AM | 59 | 131 | 80 | 61 | 100 | 10:15 AM |
| 10:30 AM | 33 | 85 | 52 | 40 | 65 | 10:30 AM |
| 10:45 AM | 47 | 51 | 31 | 24 | 39 | 10:45 AM |
| 11:00 AM | 47 | 70 | 43 | 33 | 54 | 11:00 AM |
| 11:15 AM | 53 | 78 | 72 | 36 | 36 | 11:15 AM |
| 11:30 AM | 32 | 48 | 57 | 22 | 44 | 11:30 AM |
| 11:45 AM | 45 | 67 | 32 | 31 | 50 | 11:45 AM |
| 12:00 PM | 74 | 110 | 49 | 44 | 57 | 12:00 PM |
| 12:15 PM | 46 | 68 | 41 | 24 | 52 | 12:15 PM |
| 12:30 PM | 45 | 66 | 40 | 35 | 51 | 12:30 PM |
| 12:45 PM | 29 | 43 | 26 | 31 | 33 | 12:45 PM |
| 1:00 PM | 30 | 45 | 27 | 21 | 34 | 1:00 PM |
| 1:15 PM | 30 | 45 | 27 | 21 | 34 | 1:15 PM |
| 1:30 PM | 30 | 45 | 27 | 21 | 34 | 1:30 PM |
| 1:45 PM | 35 | 52 | 32 | 24 | 40 | 1:45 PM |
| 2:00 PM | 76 | 53 | 32 | 25 | 41 | 2:00 PM |
| 2:15 PM | 44 | 40 | 24 | 19 | 40 | 2:15 PM |
| 2:30 PM | 63 | 39 | 24 | 18 | 37 | 2:30 PM |
| 2:45 PM | 30 | 35 | 21 | 16 | 35 | 2:45 PM |
| 3:00 PM | 21 | 31 | 19 | 14 | 44 | 3:00 PM |
| 3:15 PM | 37 | 55 | 35 | 32 | 42 | 3:15 PM |
| 3:30 PM | 35 | 52 | 24 | 23 | 40 | 3:30 PM |
| 3:45 PM | 41 | 60 | 28 | 21 | 46 | 3:45 PM |
| 4:00 PM | 40 | 59 | 25 | 29 | 45 | 4:00 PM |
| Extrapolate | 1275 | 1884 | 1147 | 878 | 1442 | |
| Verify | 1275 | 1884 | 1147 | 878 | 1442 | 6626 |
| Counts | 379 | 1884 | 322 | 239 | 343 | |

Extrapolation Calculations

| Monday | | Verify | Fullday | |
|---|---|---|---|---|
| Morning Counts | | 166 | 393 | |
| Afternoon Counts | | 213 | 167 | Ratio |
| | Total | 379 | 560 | 0.676786 |
| | | | Ratio | |
| | | | 0.29724 | |

| Wednesday | | Verify | Fullday | |
|---|---|---|---|---|
| Morning Counts | | 210 | 303 | |
| Afternoon Counts | | 112 | 226 | Ratio |
| | Total | 322 | 529 | 0.608696 |
| | | | Ratio | |
| | | | 0.280786 | |

| Thursday | | Verify | Fullday | |
|---|---|---|---|---|
| Morning Counts | | 134 | 287 | |
| Afternoon Counts | | 105 | 226 | Ratio |
| | Total | 239 | 513 | 0.465887 |
| | | | Ratio | |
| | | | 0.272293 | |

| Friday | | Verify | Fullday | |
|---|---|---|---|---|
| Morning Counts | | 187 | 303 | |
| Afternoon Counts | | 156 | 145 | Ratio |
| | Total | 343 | 448 | 0.765625 |
| | | | Ratio | |
| | | | 0.237792 | |

## Ferrovia Weekday 82-3-N-4 Extrapolation

| Date | 7/9/01 | 6/19/01 | 7/4/01 | 7/5/01 | 7/13/01 | |
|---|---|---|---|---|---|---|
| TIME | Monday | Tuesday | Wednesday | Thursday | Friday | TIME |
| 9:15 AM | 54 | 61 | 63 | 69 | 45 | 9:15 AM |
| 9:30 AM | 51 | 58 | 60 | 66 | 43 | 9:30 AM |
| 9:45 AM | 109 | 123 | 128 | 140 | 90 | 9:45 AM |
| 10:00 AM | 108 | 160 | 167 | 182 | 117 | 10:00 AM |
| 10:15 AM | 174 | 96 | 100 | 109 | 70 | 10:15 AM |
| 10:30 AM | 84 | 103 | 107 | 117 | 76 | 10:30 AM |
| 10:45 AM | 132 | 98 | 102 | 111 | 72 | 10:45 AM |
| 11:00 AM | 93 | 105 | 109 | 119 | 77 | 11:00 AM |
| 11:15 AM | 118 | 133 | 109 | 151 | 62 | 11:15 AM |
| 11:30 AM | 106 | 120 | 83 | 136 | 54 | 11:30 AM |
| 11:45 AM | 102 | 115 | 129 | 131 | 111 | 11:45 AM |
| 12:00 PM | 93 | 105 | 95 | 163 | 108 | 12:00 PM |
| 12:15 PM | 115 | 130 | 135 | 150 | 95 | 12:15 PM |
| 12:30 PM | 71 | 80 | 83 | 150 | 59 | 12:30 PM |
| 12:45 PM | 71 | 80 | 83 | 95 | 59 | 12:45 PM |
| 1:00 PM | 57 | 64 | 67 | 73 | 47 | 1:00 PM |
| 1:15 PM | 50 | 56 | 58 | 64 | 41 | 1:15 PM |
| 1:30 PM | 79 | 89 | 93 | 101 | 65 | 1:30 PM |
| 1:45 PM | 51 | 58 | 60 | 66 | 43 | 1:45 PM |
| 2:00 PM | 94 | 96 | 100 | 109 | 70 | 2:00 PM |
| 2:15 PM | 43 | 103 | 107 | 117 | 67 | 2:15 PM |
| 2:30 PM | 60 | 121 | 126 | 138 | 86 | 2:30 PM |
| 2:45 PM | 79 | 96 | 100 | 109 | 87 | 2:45 PM |
| 3:00 PM | 74 | 84 | 87 | 96 | 68 | 3:00 PM |
| 3:15 PM | 80 | 90 | 109 | 52 | 66 | 3:15 PM |
| 3:30 PM | 79 | 89 | 90 | 84 | 65 | 3:30 PM |
| 3:45 PM | 42 | 47 | 85 | 41 | 34 | 3:45 PM |
| 4:00 PM | 56 | 63 | 93 | 43 | 46 | 4:00 PM |
| Extrapolated | 2326 | 2623 | 2730 | 2983 | 1923 | |
| Verify | 2326 | 2623 | 2730 | 2983 | 1923 | **12585** |
| Counts | 774 | 2623 | 793 | 778 | 643 | |

Extrapolation Calculations

| Monday | | Verify | Fullday | |
|---|---|---|---|---|
| Morning Counts | | 498 | 457 | |
| Afternoon Counts | | 276 | 416 | Ratio |
| | Total | 774 | 873 | 0.886598 |
| | | | Ratio | |
| | | | 0.332825 | |

| Wednesday | | Verify | Fullday | |
|---|---|---|---|---|
| Morning Counts | | 416 | 473 | |
| Afternoon Counts | | 377 | 289 | Ratio |
| | Total | 793 | 762 | 1.040682 |
| | | | Ratio | |
| | | | 0.290507 | |

| Thursday | | Verify | Fullday | |
|---|---|---|---|---|
| Morning Counts | | 558 | 395 | |
| Afternoon Counts | | 220 | 289 | Ratio |
| | Total | 778 | 684 | 1.137427 |
| | | | Ratio | |
| | | | 0.26077 | |

| Friday | | Verify | Fullday | |
|---|---|---|---|---|
| Morning Counts | | 335 | 473 | |
| Afternoon Counts | | 308 | 404 | Ratio |
| | Total | 643 | 877 | 0.733181 |
| | | | Ratio | |
| | | | 0.33435 | |

## Ferrovia Weekend Extrapolation

| | 1-41-51-71 | 82-3-N-4 | 42-52-72 | 1-41-51-71 | 82-3-N-4 | 42-52-72 |
|---|---|---|---|---|---|---|
| Date | 6/16/01 | 6/16/01 | 6/16/01 | 7/8/01 | 7/8/01 | 7/8/01 |
| TIME | Saturday | Saturday | Saturday | Sunday | Sunday | Sunday |
| 9:15 AM | 44 | 152 | 38 | 37 | 88 | 27 |
| 9:30 AM | 81 | 120 | 35 | 67 | 69 | 25 |
| 9:45 AM | 76 | 134 | 57 | 63 | 78 | 41 |
| 10:00 AM | 74 | 122 | 77 | 62 | 71 | 55 |
| 10:15 AM | 102 | 155 | 49 | 85 | 90 | 35 |
| 10:30 AM | 93 | 150 | 73 | 77 | 87 | 53 |
| 10:45 AM | 113 | 217 | 103 | 94 | 126 | 74 |
| 11:00 AM | 35 | 130 | 34 | 29 | 75 | 25 |
| 11:15 AM | 81 | 216 | 53 | 91 | 129 | 47 |
| 11:30 AM | 84 | 214 | 80 | 80 | 142 | 27 |
| 11:45 AM | 130 | 148 | 39 | 110 | 125 | 56 |
| 12:00 PM | 71 | 127 | 46 | 83 | 121 | 33 |
| 12:15 PM | 80 | 128 | 30 | 67 | 74 | 22 |
| 12:30 PM | 114 | 175 | 90 | 95 | 101 | 65 |
| 12:45 PM | 50 | 118 | 30 | 42 | 68 | 22 |
| 1:00 PM | 33 | 102 | 22 | 27 | 59 | 16 |
| 1:15 PM | 62 | 79 | 26 | 52 | 46 | 19 |
| 1:30 PM | 69 | 80 | 17 | 57 | 46 | 12 |
| 1:45 PM | 38 | 100 | 29 | 32 | 58 | 21 |
| 2:00 PM | 48 | 90 | 22 | 40 | 52 | 16 |
| 2:15 PM | 42 | 146 | 4 | 30 | 48 | 9 |
| 2:30 PM | 109 | 193 | 44 | 42 | 36 | 24 |
| 2:45 PM | 72 | 71 | 24 | 47 | 50 | 18 |
| 3:00 PM | 57 | 82 | 25 | 55 | 42 | 13 |
| 3:15 PM | 78 | 139 | 23 | 65 | 80 | 17 |
| 3:30 PM | 38 | 87 | 28 | 32 | 50 | 20 |
| 3:45 PM | 43 | 140 | 34 | 36 | 81 | 25 |
| 4:00 PM | 55 | 114 | 3 | 46 | 66 | 2 |
| Totals | 1972 | 3729 | 1135 | 1642 | 2159 | 818 |
| Verify | 1972 | 3729 | 1135 | 1642 | 2159 | 818 |
| Counts | 1972 | 3729 | 1135 | 538 | 693 | 227 |

Extrapolation Calculations

| 1-41-51-71 | | Fullday | Verify | |
|---|---|---|---|---|
| Morning Counts | | 366 | 364 | |
| Afternoon Counts | | 280 | 174 | Ratio |
| | Totals | 646 | 538 | 0.832817 |
| | | Ratio | | |
| | | 0.3275862 | | |

| 82-3-N-4 | | Fullday | Verify | |
|---|---|---|---|---|
| Morning Counts | | 705 | 517 | |
| Afternoon Counts | | 492 | 176 | Ratio |
| | Totals | 1197 | 693 | 0.578947 |
| | | Ratio | | |
| | | 0.3209976 | | |

| 42-52-72 | | Fullday | Verify | |
|---|---|---|---|---|
| Morning Counts | | 218 | 163 | |
| Afternoon Counts | | 97 | 64 | Ratio |
| | Totals | 315 | 227 | 0.720635 |
| | | Ratio | | |
| | | 0.277533 | | |

| ACTV | TAXI | |
|---|---|---|
| 2510 | 4422 | 6932 |

# Ferrovia Extrapolation Totals

| | ACTV | Taxi |
|---|---|---|
| Weekend | 15218 | 503 |
| Weekday | 22000 | 957 |
| Total | 37218 | 1460 |

## Total by Type For Each Day

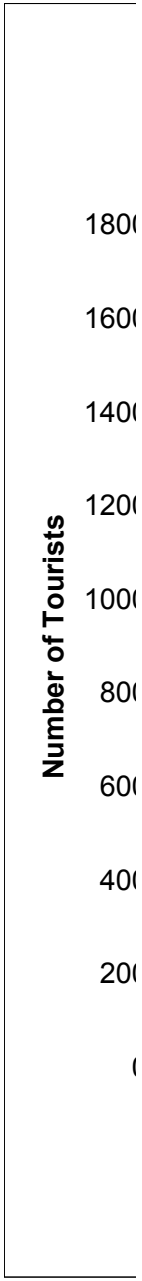
| | M | T | W | T | F | S | S | total |
|---|---|---|---|---|---|---|---|---|
| ACTV | **4386** | 5107 | 4300 | 4340 | 3869 | **6836** | 8382 | 37218 |
| Taxi | 161 | 201 | 315 | 91 | 189 | 258 | 245 | 1460 |

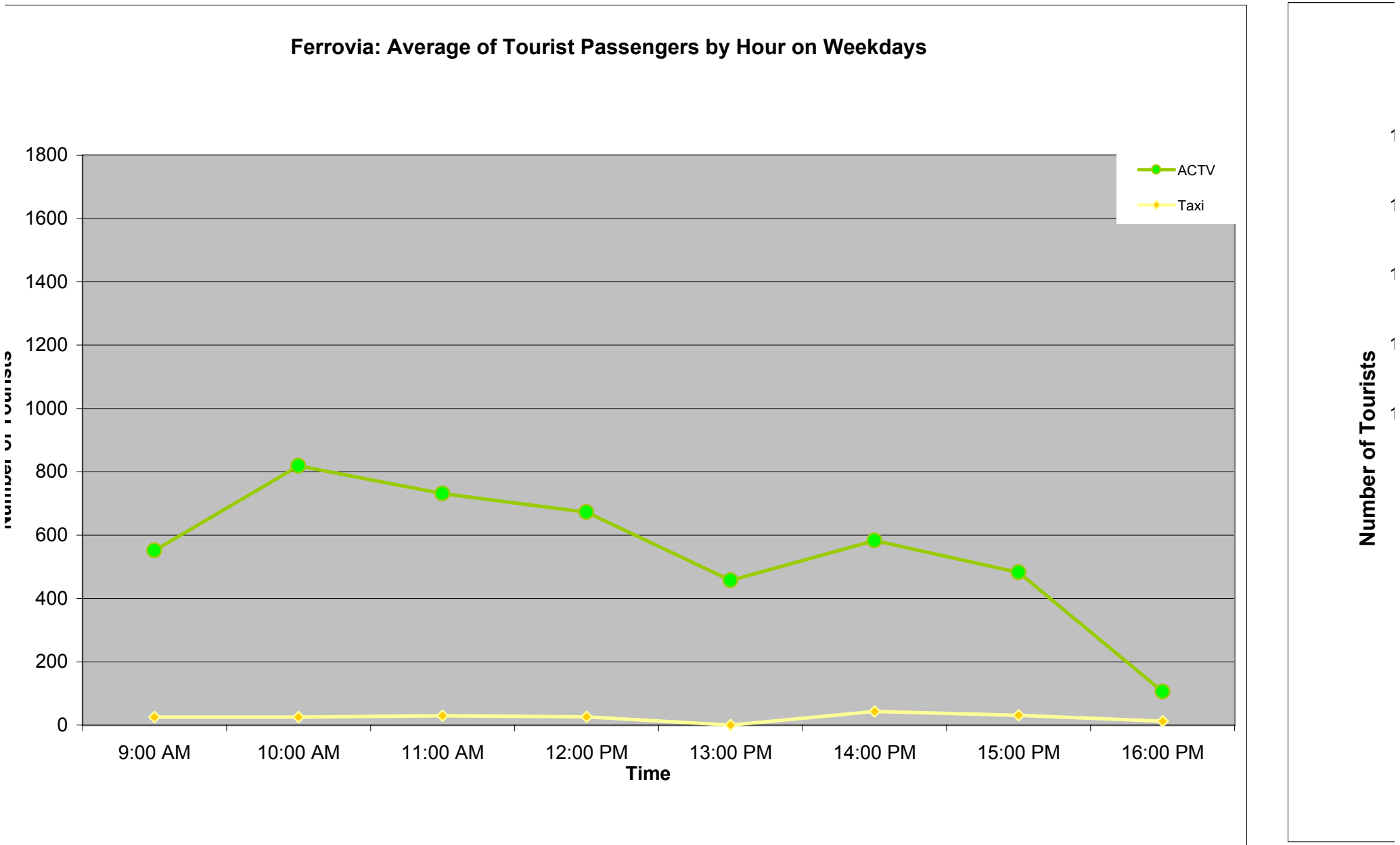
Ferrovia Extrapolations by Counting Location

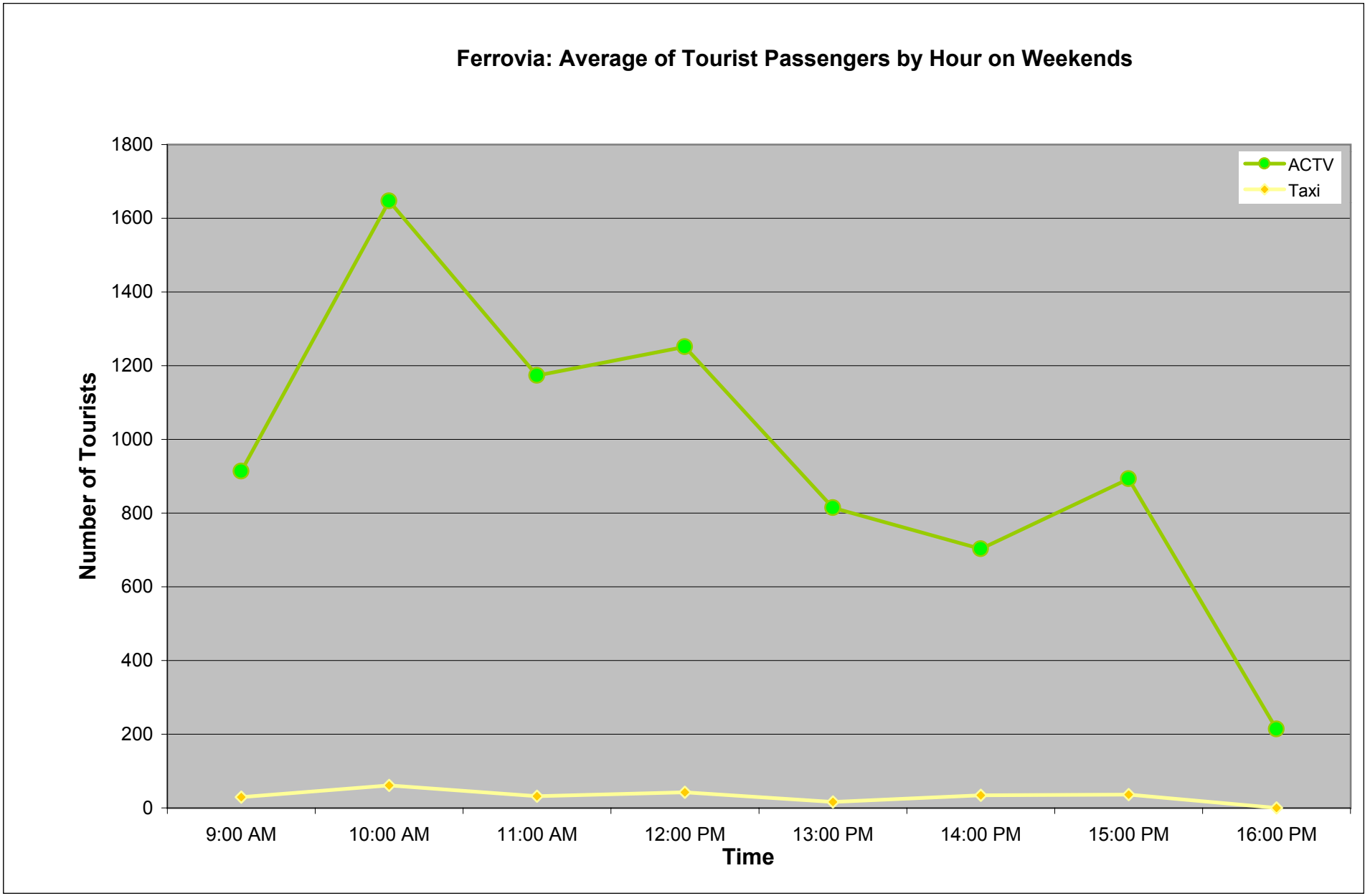
| Date | 7/9/01 | 6/19/01 | 7/4/01 | 7/5/01 | 7/13/01 | 37058 | 37080 | |
|---|---|---|---|---|---|---|---|---|
| Location | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday | Totals |
| A | 379 | 1884 | 322 | 239 | 343 | 1972 | 538 | 5677 |
| B | 774 | 2623 | 793 | 778 | 643 | 3729 | 693 | 10033 |
| C | 233 | 600 | 99 | 103 | 176 | 1135 | 227 | 2573 |

Extrapolated Counts

| Date | 7/9/01 | 6/19/01 | 7/4/01 | 7/5/01 | 7/13/01 | 37058 | 37080 | |
|---|---|---|---|---|---|---|---|---|
| Location | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday | Totals |
| 1-41-51-71 | 1275 | 1884 | 1147 | 878 | 1442 | 1972 | 1642 | 10240 |
| 82-3-4-72 | 2326 | 2623 | 2730 | 4153 | 1923 | 3729 | 2159 | 19642 |
| 42-52-72 | 772 | 600 | 393 | 511 | 505 | 1135 | 363 | 4280 |




Ferrovia: Average of Tourist Passengers by Hour on Weekdays
1800
1600
1400
1200
1000
800
600
400
200
0
ACTV
Taxi
9:00 AM
10:00 AM
11:00 AM
12:00 PM
13:00 PM
14:00 PM
15:00 PM
16:00 PM
Time
Number of Tourists


Ferrovia: Average of Tourist Passengers by Hour on Weekends
Number of Tourists
1800
1600
1400
1200
1000
800
600
400
200
0
9:00 AM
10:00 AM
11:00 AM
12:00 PM
13:00 PM
14:00 PM
15:00 PM
16:00 PM
Time
ACTV
Taxi

**Results of Full Day Counts**

# Tronchetto

## WEEKDAY

Date 6/21/01 Thursday

| TIME | Charter Boats CB1 | CB2 | CB Totals | Totals of ACTV | Totals of Taxis |
|---|---|---|---|---|---|
| 9:15 AM | 0 | 390 | 390 | 51 | 24 |
| 9:30 AM | 0 | 142 | 142 | 83 | 12 |
| 9:45 AM | 0 | 200 | 200 | 125 | 0 |
| 10:00 AM | 0 | 401 | 401 | 86 | 56 |
| 10:15 AM | 0 | 658 | 658 | 150 | 0 |
| 10:30 AM | 0 | 374 | 374 | 204 | 16 |
| 10:45 AM | 74 | 294 | 368 | 44 | 7 |
| 11:00 AM | 0 | 274 | 274 | 202 | 22 |
| 11:15 AM | 52 | 381 | 433 | 130 | 23 |
| 11:30 AM | 20 | 425 | 445 | 140 | 6 |
| 11:45 AM | 34 | 257 | 291 | 220 | 7 |
| 12:00 PM | 0 | 330 | 330 | 70 | 12 |
| 12:15 PM | 49 | 306 | 355 | 136 | 5 |
| 12:30 PM | 0 | 222 | 222 | 138 | 9 |
| 12:45 PM | 0 | 101 | 101 | 54 | 7 |
| 1:00 PM | 0 | 34 | 34 | 71 | 0 |
| 1:15 PM | 0 | 176 | 176 | 45 | 31 |
| 1:30 PM | 53 | 75 | 128 | 27 | 0 |
| 1:45 PM | 0 | 79 | 79 | 29 | 48 |
| 2:00 PM | 0 | 255 | 255 | 25 | 0 |
| 2:15 PM | 0 | 159 | 159 | 9 | 0 |
| 2:30 PM | 0 | 156 | 156 | 29 | 0 |
| 2:45 PM | 0 | 159 | 159 | 36 | 0 |
| 3:00 PM | 0 | 84 | 84 | 40 | 0 |
| 3:15 PM | 0 | 73 | 73 | 31 | 0 |
| 3:30 PM | 0 | 24 | 24 | 22 | 0 |
| 3:45 PM | 0 | 0 | 0 | 85 | 0 |
| 4:00 PM | 0 | 0 | 0 | 32 | 0 |
| **TOTALS** | **282** | **6029** | **6311** | **2314** | **285** |

## WEEKEND

Date 6/23/01 Saturday

| TIME | Charter Boats CB1 | CB2 | CB Totals | Totals of Taxis | Totals of ACTV |
|---|---|---|---|---|---|
| 9:15 AM | 0 | 251 | 251 | 20 | 95 |
| 9:30 AM | 0 | 168 | 168 | 84 | 129 |
| 9:45 AM | 0 | 524 | 524 | 4 | 72 |
| 10:00 AM | 0 | 206 | 206 | 0 | 109 |
| 10:15 AM | 0 | 440 | 440 | 29 | 110 |
| 10:30 AM | 0 | 315 | 315 | 11 | 78 |
| 10:45 AM | 0 | 465 | 465 | 13 | 119 |
| 11:00 AM | 25 | 310 | 335 | 3 | 49 |
| 11:15 AM | 0 | 263 | 263 | 0 | 98 |
| 11:30 AM | 77 | 211 | 288 | 11 | 28 |
| 11:45 AM | 0 | 223 | 223 | 48 | 92 |
| 12:00 PM | 0 | 146 | 146 | 14 | 112 |
| 12:15 PM | 0 | 313 | 313 | 20 | 95 |
| 12:30 PM | 0 | 158 | 158 | 58 | 95 |
| 12:45 PM | 0 | 38 | 38 | 0 | 69 |
| 1:00 PM | 0 | 117 | 117 | 0 | 35 |
| 1:15 PM | 0 | 128 | 128 | 13 | 50 |
| 1:30 PM | 0 | 119 | 119 | 2 | 112 |
| 1:45 PM | 0 | 181 | 181 | 0 | 52 |
| 2:00 PM | 42 | 283 | 325 | 0 | 35 |
| 2:15 PM | 0 | 266 | 266 | 0 | 35 |
| 2:30 PM | 0 | 497 | 497 | 8 | 34 |
| 2:45 PM | 0 | 230 | 230 | 0 | 38 |
| 3:00 PM | 0 | 137 | 137 | 0 | 52 |
| 3:15 PM | 0 | 131 | 131 | 0 | 108 |
| 3:30 PM | 0 | 113 | 113 | 0 | 49 |
| 3:45 PM | 0 | 241 | 241 | 0 | 23 |
| 4:00 PM | 0 | 94 | 94 | 0 | 31 |
| **TOTALS** | **144** | **6568** | **6712** | **338** | **2004** |

**Analysis of Full Day Counts**

# Tronchetto

## WEEKDAY

| Date | 6/21/01 Thursday | | |
|---|---|---|---|
| TIME | Percent ACTV | Percent Taxis | Percent Charter |
| 9:15 AM | 10.97 | 5.16 | 83.87 |
| 9:30 AM | 35.02 | 5.06 | 59.92 |
| 9:45 AM | 38.46 | 0.00 | 61.54 |
| 10:00 AM | 15.84 | 10.31 | 73.85 |
| 10:15 AM | 18.56 | 0.00 | 81.44 |
| 10:30 AM | 34.34 | 2.69 | 62.96 |
| 10:45 AM | 10.50 | 1.67 | 87.83 |
| 11:00 AM | 40.56 | 4.42 | 55.02 |
| 11:15 AM | 22.18 | 3.92 | 73.89 |
| 11:30 AM | 23.69 | 1.02 | 75.30 |
| 11:45 AM | 42.47 | 1.35 | 56.18 |
| 12:00 PM | 16.99 | 2.91 | 80.10 |
| 12:15 PM | 27.42 | 1.01 | 71.57 |
| 12:30 PM | 37.40 | 2.44 | 60.16 |
| 12:45 PM | 33.33 | 4.32 | 62.35 |
| 1:00 PM | 67.62 | 0.00 | 32.38 |
| 1:15 PM | 17.86 | 12.30 | 69.84 |
| 1:30 PM | 17.42 | 0.00 | 82.58 |
| 1:45 PM | 18.59 | 30.77 | 50.64 |
| 2:00 PM | 8.93 | 0.00 | 91.07 |
| 2:15 PM | 5.36 | 0.00 | 94.64 |
| 2:30 PM | 15.68 | 0.00 | 84.32 |
| 2:45 PM | 18.46 | 0.00 | 81.54 |
| 3:00 PM | 32.26 | 0.00 | 67.74 |
| 3:15 PM | 29.81 | 0.00 | 70.19 |
| 3:30 PM | 47.83 | 0.00 | 52.17 |
| 3:45 PM | 100.00 | 0.00 | 0.00 |
| 4:00 PM | 100.00 | 0.00 | 0.00 |
| **TOTALS** | **25.97** | **3.20** | **70.83** |

## WEEKEND

| | Date | 6/23/01 Saturday | |
|---|---|---|---|
| TIME | Percent ACTV | Percent Taxis | Percent Charter |
| 9:15 AM | 25.96 | 5.46 | 68.57923 |
| 9:30 AM | 33.86 | 22.05 | 44.09449 |
| 9:45 AM | 12.00 | 0.67 | 87.33333 |
| 10:00 AM | 34.60 | 0.00 | 65.39683 |
| 10:15 AM | 19.00 | 5.01 | 75.99309 |
| 10:30 AM | 19.31 | 2.72 | 77.9703 |
| 10:45 AM | 19.93 | 2.18 | 77.88945 |
| 11:00 AM | 12.66 | 0.78 | 86.56331 |
| 11:15 AM | 27.15 | 0.00 | 72.85319 |
| 11:30 AM | 8.56 | 3.36 | 88.07339 |
| 11:45 AM | 25.34 | 13.22 | 61.43251 |
| 12:00 PM | 41.18 | 5.15 | 53.67647 |
| 12:15 PM | 22.20 | 4.67 | 73.13084 |
| 12:30 PM | 30.55 | 18.65 | 50.80386 |
| 12:45 PM | 64.49 | 0.00 | 35.51402 |
| 1:00 PM | 23.03 | 0.00 | 76.97368 |
| 1:15 PM | 26.18 | 6.81 | 67.01571 |
| 1:30 PM | 48.07 | 0.86 | 51.07296 |
| 1:45 PM | 22.32 | 0.00 | 77.6824 |
| 2:00 PM | 9.72 | 0.00 | 90.27778 |
| 2:15 PM | 11.63 | 0.00 | 88.37209 |
| 2:30 PM | 6.31 | 1.48 | 92.20779 |
| 2:45 PM | 14.18 | 0.00 | 85.8209 |
| 3:00 PM | 27.51 | 0.00 | 72.48677 |
| 3:15 PM | 45.19 | 0.00 | 54.81172 |
| 3:30 PM | 30.25 | 0.00 | 69.75309 |
| 3:45 PM | 8.71 | 0.00 | 91.28788 |
| 4:00 PM | 24.80 | 0.00 | 75.2 |
| **TOTALS** | **22.13** | **3.73** | **74.13298** |

# Tronchetto Counting Verification

| Date | Monday | | 2/7/01 | | |
|---|---|---|---|---|---|
| TIME | GT1 | GT2 | GT Totals | ACTV | Taxi |
| 9:15 AM | | | | | |
| 9:30 AM | | | | | |
| 9:45 AM | | | | | |
| 10:00 AM | | | | | |
| 10:15 AM | | | | | |
| 10:30 AM | | | | | |
| 10:45 AM | | | | | |
| 11:00 AM | | | | | |
| 11:15 AM | 230 | 0 | 230 | 92 | 16 |
| 11:30 AM | 248 | 29 | 277 | 35 | 4 |
| 11:45 AM | 422 | 0 | 422 | 97 | 32 |
| 12:00 PM | 100 | 0 | 100 | 122 | 21 |
| 12:15 PM | | | | | |
| 12:30 PM | | | | | |
| 12:45 PM | | | | | |
| 1:00 PM | | | | | |
| 1:15 PM | | | | | |
| 1:30 PM | | | | | |
| 1:45 PM | | | | | |
| 2:00 PM | | | | | |
| 2:15 PM | 150 | 20 | 170 | 49 | 0 |
| 2:30 PM | 88 | 28 | 116 | 43 | 5 |
| 2:45 PM | 71 | 0 | 71 | 17 | 14 |
| 3:00 PM | 0 | 34 | 34 | 49 | 103 |
| 3:15 PM | | | | | |
| 3:30 PM | | | | | |
| 3:45 PM | | | | | |
| 4:00 PM | | | | | |
| **TOTALS** | **1309** | **111** | **1420** | **504** | **195** |

**2119**

| Date | Tuesday | | 3/7/01 | | |
|---|---|---|---|---|---|
| TIME | GT1 | GT2 | GT Totals | ACTV | Taxi |
| 9:15 AM | | | | | |
| 9:30 AM | | | | | |
| 9:45 AM | | | | | |
| 10:00 AM | | | | | |
| 10:15 AM | 264 | 0 | 264 | 80 | 0 |
| 10:30 AM | 519 | 0 | 519 | 98 | 2 |
| 10:45 AM | 387 | 0 | 387 | 185 | 27 |
| 11:00 AM | 765 | 0 | 765 | 190 | 26 |
| 11:15 AM | | | | | |
| 11:30 AM | | | | | |
| 11:45 AM | | | | | |
| 12:00 PM | | | | | |
| 12:15 PM | | | | | |
| 12:30 PM | | | | | |
| 12:45 PM | | | | | |
| 1:00 PM | | | | | |
| 1:15 PM | | | | | |
| 1:30 PM | | | | | |
| 1:45 PM | | | | | |
| 2:00 PM | | | | | |
| 2:15 PM | | | | | |
| 2:30 PM | | | | | |
| 2:45 PM | | | | | |
| 3:00 PM | | | | | |
| 3:15 PM | 68 | 0 | 68 | 114 | 3 |
| 3:30 PM | 0 | 0 | 0 | 35 | 1 |
| 3:45 PM | 87 | 0 | 87 | 85 | 0 |
| 4:00 PM | 32 | 0 | 32 | 31 | 0 |
| **TOTALS** | **2122** | **0** | **2122** | **818** | **59** |

# Tronchetto Counting Verification

| Date | Wednesday | | 7/4/01 | | | Date | Friday | | 7/6/01 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TIME | GT1 | GT2 | GT Totals | ACTV | Taxi | TIME | GT1 | GT2 | GT Totals | ACTV | Taxi |
| 9:15 AM | | | | | | 9:15 AM | | | | | |
| 9:30 AM | | | | | | 9:30 AM | | | | | |
| 9:45 AM | | | | | | 9:45 AM | | | | | |
| 10:00 AM | 481 | 0 | 481 | 116 | 0 | 10:00 AM | 285 | 60 | 345 | 95 | 0 |
| 10:15 AM | 212 | 51 | 263 | 132 | 30 | 10:15 AM | 140 | 0 | 140 | 113 | 0 |
| 10:30 AM | 183 | 0 | 183 | 200 | 5 | 10:30 AM | 210 | 57 | 267 | 130 | 42 |
| 10:45 AM | 324 | 27 | 351 | 119 | 0 | 10:45 AM | 231 | 0 | 231 | 65 | 15 |
| 11:00 AM | | | | | | 11:00 AM | | | | | |
| 11:15 AM | | | | | | 11:15 AM | | | | | |
| 11:30 AM | | | | | | 11:30 AM | | | | | |
| 11:45 AM | | | | | | 11:45 AM | | | | | |
| 12:00 PM | | | | | | 12:00 PM | | | | | |
| 12:15 PM | | | | | | 12:15 PM | | | | | |
| 12:30 PM | | | | | | 12:30 PM | | | | | |
| 12:45 PM | | | | | | 12:45 PM | | | | | |
| 1:00 PM | | | | | | 1:00 PM | | | | | |
| 1:15 PM | | | | | | 1:15 PM | | | | | |
| 1:30 PM | | | | | | 1:30 PM | | | | | |
| 1:45 PM | | | | | | 1:45 PM | | | | | |
| 2:00 PM | | | | | | 2:00 PM | | | | | |
| 2:15 PM | | | | | | 2:15 PM | | | | | |
| 2:30 PM | | | | | | 2:30 PM | | | | | |
| 2:45 PM | | | | | | 2:45 PM | | | | | |
| 3:00 PM | | | | | | 3:00 PM | | | | | |
| 3:15 PM | | | | | | 3:15 PM | 0 | 45 | 45 | 27 | 0 |
| 3:30 PM | | | | | | 3:30 PM | 0 | 0 | 0 | 15 | 0 |
| 3:45 PM | | | | | | 3:45 PM | 0 | 44 | 44 | 33 | 39 |
| 4:00 PM | | | | | | 4:00 PM | 58 | 68 | 126 | 38 | 0 |
| **TOTALS** | **1200** | **78** | **1278** | **567** | 35 | **TOTALS** | 924 | 274 | 1198 | 516 | 96 |

# Tronchetto Counting Verification

| Date | Sunday | 7/8/01 | | 7/8/01 | |
|---|---|---|---|---|---|
| TIME | GT1 | GT2 | GT Totals | ACTV | Taxi |
| 9:15 AM | | | | | |
| 9:30 AM | | | | | |
| 9:45 AM | | | | | |
| 10:00 AM | 192 | 0 | 192 | 96 | 3 |
| 10:15 AM | 261 | 0 | 261 | 122 | 0 |
| 10:30 AM | 225 | 0 | 225 | 51 | 0 |
| 10:45 AM | 216 | 28 | 244 | 64 | 0 |
| 11:00 AM | | | | | |
| 11:15 AM | | | | | |
| 11:30 AM | | | | | |
| 11:45 AM | | | | | |
| 12:00 PM | | | | | |
| 12:15 PM | | | | | |
| 12:30 PM | | | | | |
| 12:45 PM | | | | | |
| 1:00 PM | | | | | |
| 1:15 PM | | | | | |
| 1:30 PM | | | | | |
| 1:45 PM | | | | | |
| 2:00 PM | | | | | |
| 2:15 PM | | | | | |
| 2:30 PM | | | | | |
| 2:45 PM | | | | | |
| 3:00 PM | | | | | |
| 3:15 PM | 0 | 12 | 12 | 28 | 0 |
| 3:30 PM | 258 | 0 | 258 | 39 | 0 |
| 3:45 PM | 170 | 0 | 170 | 30 | 0 |
| 4:00 PM | 68 | 59 | 127 | 22 | 0 |
| **TOTALS** | 1390 | 99 | 1489 | 452 | 3 |

1944

| Date | Wednesday | 7/11/01 | | | |
|---|---|---|---|---|---|
| TIME | GT1 | GT2 | GT Totals | ACTV | Taxi |
| 9:15 AM | | | | | |
| 9:30 AM | | | | | |
| 9:45 AM | | | | | |
| 10:00 AM | | | | | |
| 10:15 AM | | | | | |
| 10:30 AM | | | | | |
| 10:45 AM | | | | | |
| 11:00 AM | | | | | |
| 11:15 AM | | | | | |
| 11:30 AM | | | | | |
| 11:45 AM | | | | | |
| 12:00 PM | | | | | |
| 12:15 PM | | | | | |
| 12:30 PM | | | | | |
| 12:45 PM | | | | | |
| 1:00 PM | | | | | |
| 1:15 PM | | | | | |
| 1:30 PM | | | | | |
| 1:45 PM | | | | | |
| 2:00 PM | 55 | 0 | 55 | 60 | 41 |
| 2:15 PM | 119 | 0 | 119 | 0 | 0 |
| 2:30 PM | 39 | 0 | 39 | 8 | 0 |
| 2:45 PM | 63 | 0 | 63 | 87 | 0 |
| 3:00 PM | | | | | |
| 3:15 PM | | | | | |
| 3:30 PM | | | | | |
| 3:45 PM | | | | | |
| 4:00 PM | | | | | |
| **TOTALS** | 276 | 0 | 276 | 155 | 41 |

## Tronchetto Weekday Taxi Extrapolation

| Date | 7/2/01 | 7/3/01 | 7/4/01 | 6/21/01 | 7/6/01 |
|---|---|---|---|---|---|
| TIME | Monday | Tuesday | Wednesday | Thursday | Friday |
| 9:15 AM | 98 | 31 | 23 | 24 | 29 |
| 9:30 AM | 49 | 16 | 12 | 12 | 15 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 |
| 10:00 AM | 228 | 73 | 0 | 56 | 0 |
| 10:15 AM | 0 | 0 | 30 | 0 | 0 |
| 10:30 AM | 65 | 2 | 5 | 16 | 42 |
| 10:45 AM | 28 | 27 | 0 | 7 | 15 |
| 11:00 AM | 89 | 26 | 21 | 22 | 27 |
| 11:15 AM | 16 | 30 | 22 | 23 | 28 |
| 11:30 AM | 4 | 8 | 6 | 6 | 7 |
| 11:45 AM | 32 | 9 | 7 | 7 | 9 |
| 12:00 PM | 21 | 16 | 12 | 12 | 15 |
| 12:15 PM | 20 | 7 | 5 | 5 | 6 |
| 12:30 PM | 37 | 12 | 9 | 9 | 11 |
| 12:45 PM | 28 | 9 | 7 | 7 | 9 |
| 1:00 PM | 0 | 0 | 0 | 0 | 0 |
| 1:15 PM | 126 | 41 | 30 | 31 | 38 |
| 1:30 PM | 0 | 0 | 0 | 0 | 0 |
| 1:45 PM | 195 | 63 | 46 | 48 | 58 |
| 2:00 PM | 0 | 0 | 41 | 0 | 0 |
| 2:15 PM | 0 | 0 | 0 | 0 | 0 |
| 2:30 PM | 5 | 0 | 0 | 0 | 0 |
| 2:45 PM | 14 | 0 | 0 | 0 | 0 |
| 3:00 PM | 103 | 0 | 0 | 0 | 0 |
| 3:15 PM | 0 | 3 | 0 | 0 | 0 |
| 3:30 PM | 0 | 1 | 0 | 0 | 0 |
| 3:45 PM | 0 | 0 | 0 | 0 | 39 |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 |
| **TOTALS** | **1158** | 374 | 274 | 285 | **346** |

Extrapolation Calculations

| Monday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 73 | 48 | |
| Afternoon Counts | | 122 | 0 | |
| | Total | 195 | 48 | 4.063 |

| Tuesday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 55 | 45 | |
| Afternoon Counts | | 4 | 0 | |
| | Total | 59 | 45 | 1.311 |

| Wednesday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 35 | 79 | |
| Afternoon Counts | | 41 | 0 | |
| | Total | 76 | 79 | 0.962 |

| Friday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 57 | 79 | |
| Afternoon Counts | | 39 | 0 | |
| | Total | 96 | 79 | 1.215 |

## Tronchetto Weekday ACTV Extrapolation

| Date | 7/2/01 | 7/3/01 | 7/4/01 | 6/21/01 | 7/6/01 | |
|---|---|---|---|---|---|---|
| TIME | Monday | Tuesday | Wednesda | Thursday | Friday | TIME |
| 9:15 AM | 38 | 54 | 63 | 51 | 40 | 9:15 AM |
| 9:30 AM | 62 | 88 | 103 | 83 | 65 | 9:30 AM |
| 9:45 AM | 93 | 133 | 155 | 125 | 99 | 9:45 AM |
| 10:00 AM | 64 | 91 | 116 | 86 | 95 | 10:00 AM |
| 10:15 AM | 112 | 80 | 132 | 150 | 113 | 10:15 AM |
| 10:30 AM | 153 | 98 | 200 | 204 | 130 | 10:30 AM |
| 10:45 AM | 33 | 185 | 119 | 44 | 65 | 10:45 AM |
| 11:00 AM | 151 | 190 | 250 | 202 | 159 | 11:00 AM |
| 11:15 AM | 92 | 138 | 161 | 130 | 103 | 11:15 AM |
| 11:30 AM | 35 | 149 | 173 | 140 | 110 | 11:30 AM |
| 11:45 AM | 97 | 234 | 272 | 220 | 174 | 11:45 AM |
| 12:00 PM | 122 | 74 | 87 | 70 | 55 | 12:00 PM |
| 12:15 PM | 102 | 144 | 168 | 136 | 107 | 12:15 PM |
| 12:30 PM | 103 | 147 | 171 | 138 | 109 | 12:30 PM |
| 12:45 PM | 40 | 57 | 67 | 54 | 43 | 12:45 PM |
| 1:00 PM | 53 | 75 | 88 | 71 | 56 | 1:00 PM |
| 1:15 PM | 34 | 48 | 56 | 45 | 36 | 1:15 PM |
| 1:30 PM | 20 | 29 | 33 | 27 | 21 | 1:30 PM |
| 1:45 PM | 22 | 31 | 36 | 29 | 23 | 1:45 PM |
| 2:00 PM | 19 | 27 | 60 | 25 | 20 | 2:00 PM |
| 2:15 PM | 49 | 10 | 0 | 9 | 7 | 2:15 PM |
| 2:30 PM | 43 | 31 | 8 | 29 | 23 | 2:30 PM |
| 2:45 PM | 17 | 38 | 87 | 36 | 28 | 2:45 PM |
| 3:00 PM | 49 | 42 | 50 | 40 | 32 | 3:00 PM |
| 3:15 PM | 23 | 114 | 38 | 31 | 27 | 3:15 PM |
| 3:30 PM | 16 | 35 | 27 | 22 | 15 | 3:30 PM |
| 3:45 PM | 64 | 85 | 105 | 85 | 33 | 3:45 PM |
| 4:00 PM | 24 | 31 | 40 | 32 | 38 | 4:00 PM |
| **TOTALS** | **1730** | 2458 | 2866 | 2314 | **1826** | **11194** |

Extrapolation Calculations

| Monday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 346 | 560 | |
| Afternoon Counts | | 158 | 114 | |
| | Total | 504 | 674 | 0.747774 |

| Tuesday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 553 | 600 | |
| Afternoon Counts | | 265 | 170 | |
| | Total | 818 | 770 | 1.062338 |

| Wednesday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 567 | 484 | |
| Afternoon Counts | | 155 | 99 | |
| | Total | 722 | 583 | 1.238422 |

| Friday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 403 | 484 | |
| Afternoon Counts | | 113 | 170 | |
| | Total | 516 | 654 | 0.788991 |

## Tronchetto Weekday Gran Turismo Extrapolation

| Date | 7/2/01 | 7/3/01 | 7/4/01 | 6/21/01 | 7/6/01 | |
|---|---|---|---|---|---|---|
| TIME | Monday | Tuesday | Wednesda y | Thursday | Friday | TIME |
| 9:15 AM | 269 | 467 | 240 | 390 | 246 | 9:15 AM |
| 9:30 AM | 98 | 170 | 87 | 142 | 90 | 9:30 AM |
| 9:45 AM | 138 | 240 | 123 | 200 | 126 | 9:45 AM |
| 10:00 AM | 277 | 480 | 481 | 401 | 345 | 10:00 AM |
| 10:15 AM | 454 | 264 | 263 | 658 | 140 | 10:15 AM |
| 10:30 AM | 258 | 519 | 183 | 374 | 267 | 10:30 AM |
| 10:45 AM | 254 | 387 | 351 | 368 | 231 | 10:45 AM |
| 11:00 AM | 189 | 765 | 168 | 274 | 173 | 11:00 AM |
| 11:15 AM | 230 | 519 | 266 | 433 | 273 | 11:15 AM |
| 11:30 AM | 277 | 533 | 273 | 445 | 281 | 11:30 AM |
| 11:45 AM | 422 | 349 | 179 | 291 | 184 | 11:45 AM |
| 12:00 PM | 100 | 395 | 203 | 330 | 208 | 12:00 PM |
| 12:15 PM | 245 | 425 | 218 | 355 | 224 | 12:15 PM |
| 12:30 PM | 153 | 266 | 136 | 222 | 140 | 12:30 PM |
| 12:45 PM | 70 | 121 | 62 | 101 | 64 | 12:45 PM |
| 1:00 PM | 23 | 41 | 21 | 34 | 21 | 1:00 PM |
| 1:15 PM | 121 | 211 | 108 | 176 | 111 | 1:15 PM |
| 1:30 PM | 88 | 153 | 79 | 128 | 81 | 1:30 PM |
| 1:45 PM | 55 | 95 | 49 | 79 | 50 | 1:45 PM |
| 2:00 PM | 176 | 306 | 55 | 255 | 161 | 2:00 PM |
| 2:15 PM | 170 | 191 | 119 | 159 | 100 | 2:15 PM |
| 2:30 PM | 116 | 187 | 39 | 156 | 98 | 2:30 PM |
| 2:45 PM | 71 | 191 | 63 | 159 | 100 | 2:45 PM |
| 3:00 PM | 34 | 101 | 52 | 84 | 53 | 3:00 PM |
| 3:15 PM | 50 | 68 | 45 | 73 | 45 | 3:15 PM |
| 3:30 PM | 17 | 0 | 15 | 24 | 0 | 3:30 PM |
| 3:45 PM | 0 | 87 | 0 | 0 | 44 | 3:45 PM |
| 4:00 PM | 0 | 32 | 0 | 0 | 126 | 4:00 PM |
| **TOTALS** | **4357** | 7562 | 3876 | 6311 | **3983** | **26089** |

Extrapolation Calculations

| Monday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 1029 | 1499 | |
| Afternoon Counts | | 391 | 558 | |
| | Total | 1420 | 2057 | 0.6903257 |

| Tuesday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 1935 | 1674 | |
| Afternoon Counts | | 187 | 97 | |
| | Total | 2122 | 1771 | 1.1981931 |

| Wednesday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 1278 | 1801 | |
| Afternoon Counts | | 276 | 729 | |
| | Total | 1554 | 2530 | 0.6142292 |

| Friday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 983 | 1801 | |
| Afternoon Counts | | 215 | 97 | |
| | Total | 1198 | 1898 | 0.6311907 |

## Tronchetto Weekend Gran Turismo Extrapolation

| Date | 6/23/01 | 7/8/01 |
|---|---|---|
| TIME | Saturday | Sunday |
| 9:15 AM | 251 | 181 |
| 9:30 AM | 168 | 121 |
| 9:45 AM | 524 | 378 |
| 10:00 AM | 206 | 96 |
| 10:15 AM | 440 | 122 |
| 10:30 AM | 315 | 51 |
| 10:45 AM | 465 | 64 |
| 11:00 AM | 335 | 241 |
| 11:15 AM | 263 | 190 |
| 11:30 AM | 288 | 208 |
| 11:45 AM | 223 | 161 |
| 12:00 PM | 146 | 105 |
| 12:15 PM | 313 | 226 |
| 12:30 PM | 158 | 114 |
| 12:45 PM | 38 | 27 |
| 1:00 PM | 117 | 84 |
| 1:15 PM | 128 | 92 |
| 1:30 PM | 119 | 86 |
| 1:45 PM | 181 | 130 |
| 2:00 PM | 325 | 234 |
| 2:15 PM | 266 | 192 |
| 2:30 PM | 497 | 358 |
| 2:45 PM | 230 | 166 |
| 3:00 PM | 137 | 99 |
| 3:15 PM | 131 | 28 |
| 3:30 PM | 113 | 39 |
| 3:45 PM | 241 | 30 |
| 4:00 PM | 94 | 22 |
| **TOTALS** | **6712** | 3845 |

Extrapolation Calculations

| Sunday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 333 | 1426 | |
| Afternoon Counts | | 119 | 579 | |
| | Total | 452 | 2005 | 0.22543641 |

**10557**

## Tronchetto Weekend ACTV Extrapolation

| Date | 6/23/01 | 7/8/01 |
|---|---|---|
| TIME | Saturday | Sunday |
| 9:15 AM | 95 | 68 |
| 9:30 AM | 129 | 93 |
| 9:45 AM | 72 | 52 |
| 10:00 AM | 109 | 96 |
| 10:15 AM | 110 | 122 |
| 10:30 AM | 78 | 51 |
| 10:45 AM | 119 | 64 |
| 11:00 AM | 49 | 35 |
| 11:15 AM | 98 | 71 |
| 11:30 AM | 28 | 20 |
| 11:45 AM | 92 | 66 |
| 12:00 PM | 112 | 81 |
| 12:15 PM | 95 | 68 |
| 12:30 PM | 95 | 68 |
| 12:45 PM | 69 | 50 |
| 1:00 PM | 35 | 25 |
| 1:15 PM | 50 | 36 |
| 1:30 PM | 112 | 81 |
| 1:45 PM | 52 | 37 |
| 2:00 PM | 35 | 25 |
| 2:15 PM | 35 | 25 |
| 2:30 PM | 34 | 25 |
| 2:45 PM | 38 | 27 |
| 3:00 PM | 52 | 37 |
| 3:15 PM | 108 | 28 |
| 3:30 PM | 49 | 39 |
| 3:45 PM | 23 | 30 |
| 4:00 PM | 31 | 22 |
| **TOTALS** | **2004** | 1445 |

Extrapolation Calculations

| Sunday | | Verify | Fullday | Difference |
|---|---|---|---|---|
| Morning Counts | | 333 | 416 | |
| Afternoon Counts | | 119 | 211 | |
| | Total | 452 | 627 | 0.7208931 |

**3449**

## Tronchetto Weekend Taxi Extrapolation

| Date | 6/23/01 | 7/8/01 | |
|---|---|---|---|
| TIME | Saturday | Sunday | |
| 9:15 AM | 20 | 1 | |
| 9:30 AM | 84 | 5 | |
| 9:45 AM | 4 | 0 | |
| 10:00 AM | 0 | 3 | |
| 10:15 AM | 29 | 0 | |
| 10:30 AM | 11 | 0 | Extrapolation Calculations |
| 10:45 AM | 13 | 0 | |
| 11:00 AM | 3 | 0 | |
| 11:15 AM | 0 | 0 | Sunday |
| 11:30 AM | 11 | 1 | Morning Counts |
| 11:45 AM | 48 | 3 | Afternoon Counts |
| 12:00 PM | 14 | 1 | Total |
| 12:15 PM | 20 | 1 | |
| 12:30 PM | 58 | 3 | |
| 12:45 PM | 0 | 0 | |
| 1:00 PM | 0 | 0 | |
| 1:15 PM | 13 | 1 | |
| 1:30 PM | 2 | 0 | |
| 1:45 PM | 0 | 0 | |
| 2:00 PM | 0 | 0 | |
| 2:15 PM | 0 | 0 | |
| 2:30 PM | 8 | 0 | |
| 2:45 PM | 0 | 0 | |
| 3:00 PM | 0 | 0 | |
| 3:15 PM | 0 | 0 | |
| 3:30 PM | 0 | 0 | |
| 3:45 PM | 0 | 0 | |
| 4:00 PM | 0 | 0 | |
| **TOTALS** | **338** | 19 | **357** |

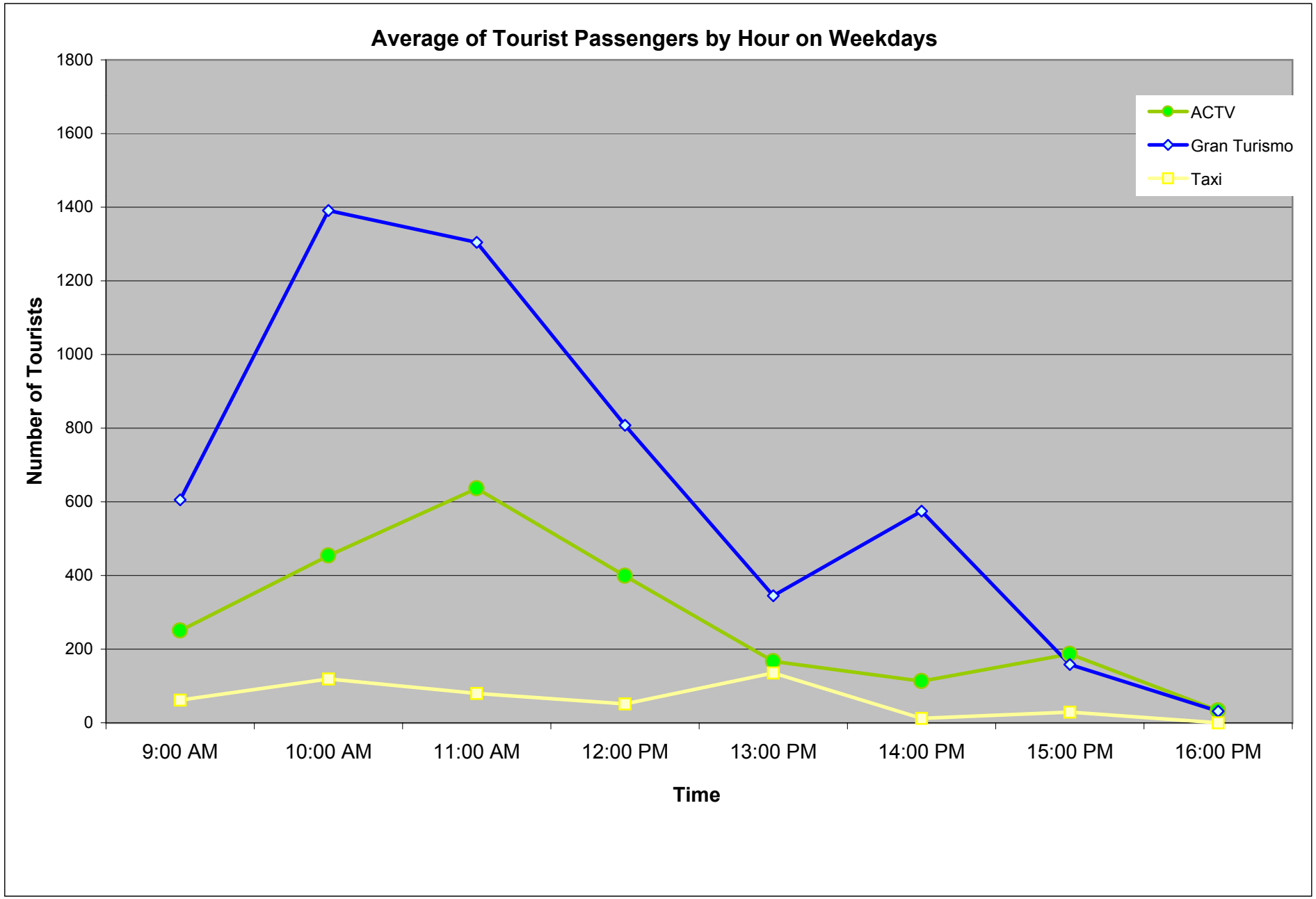
| | Verify | Fulld | Difference |
|---|---|---|---|
| | 3 | 53 | |
| | 0 | 0 | |
| | 3 | 53 | 0.056603774 |

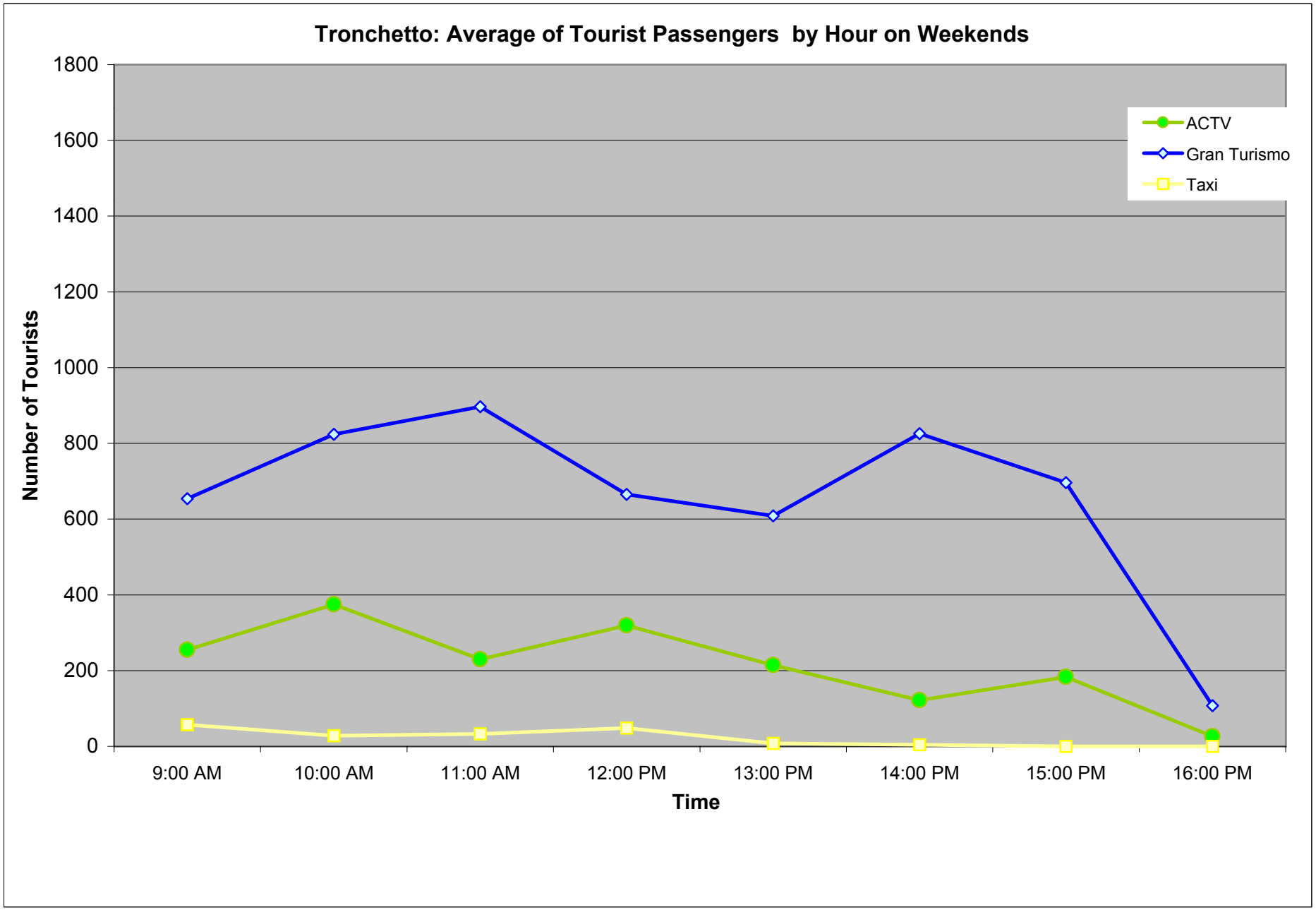
## Tronchetto Extrapolation Totals

| | Gturismo | ACTV | Taxi |
|---|---|---|---|
| Weekend | 10557 | 3449 | 357 |
| Weekday | 26089 | 11194 | 0 |
| Total | 36647 | 14643 | 357 |

**Tronchetto Total by Type for Each Day of Week**

| | M | T | W | T | F | S | S | total |
|---|---|---|---|---|---|---|---|---|
| GT | 4357 | 7562 | 3876 | 6311 | 3983 | 6712 | 3845 | 36647 |
| ACTV | 1730 | 2458 | 2866 | 2314 | 1826 | 2004 | 1445 | 14643 |
| Taxi | 1158 | 374 | 274 | 285 | 346 | 338 | 19 | 2794 |


Average of Tourist Passengers by Hour on Weekdays
Number of Tourists
1800
1600
1400
1200
1000
800
600
400
200
0
9:00 AM
10:00 AM
11:00 AM
12:00 PM
13:00 PM
14:00 PM
15:00 PM
16:00 PM
Time
ACTV
Gran Turismo
Taxi


Tronchetto: Average of Tourist Passengers by Hour on Weekends
Number of Tourists
1800
1600
1400
1200
1000
800
600
400
200
0
9:00 AM
10:00 AM
11:00 AM
12:00 PM
13:00 PM
14:00 PM
15:00 PM
16:00 PM
Time
ACTV
Gran Turismo
Taxi

**Results of Full Day Counts**

# P. Roma

**WEEKDAY**

| Date | 6/27/01 Wednesday |
|---|---|

| | ACTV Lines | | | Taxi Stands | | Totals of | Totals of | Notes: |
|---|---|---|---|---|---|---|---|---|
| TIME | 82-3-N-4 | 1-41-51-71 | 52-42-72 | MOTOSCOFO | TAXI | ACTV | Taxis | |
| 9:15 AM | 15 | 7 | 27 | 0 | 0 | 49 | 0 | |
| 9:30 AM | 2 | 16 | 25 | 2 | 0 | 43 | 2 | |
| 9:45 AM | 40 | 15 | 21 | 0 | 0 | 76 | 0 | |
| 10:00 AM | 17 | 30 | 54 | 0 | 2 | 101 | 2 | |
| 10:15 AM | 19 | 33 | 35 | 0 | 0 | 87 | 0 | |
| 10:30 AM | 27 | 28 | 20 | 0 | 0 | 75 | 0 | |
| 10:45 AM | 38 | 17 | 27 | 0 | 0 | 82 | 0 | |
| 11:00 AM | 35 | 30 | 10 | 0 | 5 | 75 | 5 | |
| 11:15 AM | 98 | 19 | 8 | 9 | 0 | 125 | 9 | |
| 11:30 AM | 81 | 42 | 10 | 0 | 0 | 133 | 0 | |
| 11:45 AM | 108 | 53 | 10 | 0 | 7 | 171 | 7 | |
| 12:00 PM | 59 | 40 | 9 | 0 | 2 | 108 | 2 | |
| 12:15 PM | 62 | 27 | 0 | 0 | 4 | 89 | 4 | |
| 12:30 PM | 32 | 24 | 16 | 0 | 0 | 72 | 0 | |
| 12:45 PM | 95 | 38 | 4 | 12 | 2 | 137 | 14 | |
| 1:00 PM | 74 | 45 | 19 | 0 | 0 | 138 | 0 | |
| 1:15 PM | 67 | 41 | 14 | 0 | 2 | 122 | 2 | |
| 1:30 PM | 95 | 41 | 6 | 0 | 2 | 142 | 2 | |
| 1:45 PM | 64 | 42 | 3 | 0 | 0 | 109 | 0 | |
| 2:00 PM | 54 | 33 | 8 | 0 | 2 | 95 | 2 | |
| 2:15 PM | 47 | 50 | 2 | 0 | 0 | 99 | 0 | |
| 2:30 PM | 11 | 36 | 9 | 0 | 0 | 56 | 0 | |
| 2:45 PM | 33 | 25 | 7 | 0 | 3 | 65 | 3 | |
| 3:00 PM | 20 | 34 | 5 | 0 | 5 | 59 | 5 | |
| 3:15 PM | 30 | 21 | 3 | 5 | 12 | 54 | 17 | |
| 3:30 PM | 34 | 13 | 7 | 0 | 0 | 54 | 0 | |
| 3:45 PM | 19 | 14 | 6 | 0 | 4 | 39 | 4 | |
| 4:00 PM | 25 | 13 | 0 | 4 | 4 | 38 | 8 | |
| **TOTALS** | **1301** | **827** | **365** | **32** | **56** | **2493** | **88** | **2581** |

**Results of Full Day Counts**

# P. Roma

**WEEKEND**

Date 6/24/01 Sunday

| | ACTV Lines | | | Taxi Stands | | Totals of | Totals of | Notes: |
|---|---|---|---|---|---|---|---|---|
| TIME | 82-3-N-4 | 1-41-61-71 | 52-42-72 | MOTOSC | TAXI | ACTV | Taxis | |
| 9:15 AM | 76 | 85 | 14 | 0 | 0 | 175 | 0 | warm&sun |
| 9:30 AM | 71 | 63 | 23 | 0 | 4 | 157 | 4 | |
| 9:45 AM | 92 | 65 | 48 | 0 | 1 | 205 | 1 | |
| 10:00 AM | 101 | 64 | 73 | 12 | 1 | 238 | 13 | taxi 1 family |
| 10:15 AM | 104 | 60 | 52 | 0 | 12 | 216 | 12 | no taxis |
| 10:30 AM | 88 | 59 | 67 | 2 | 9 | 214 | 11 | |
| 10:45 AM | 85 | 60 | 54 | 4 | 9 | 199 | 13 | |
| 11:00 AM | 91 | 50 | 61 | 0 | 5 | 202 | 5 | |
| 11:15 AM | 126 | 61 | 37 | 2 | 0 | 224 | 2 | |
| 11:30 AM | 112 | 69 | 42 | 0 | 4 | 223 | 4 | |
| 11:45 AM | 100 | 58 | 18 | 2 | 3 | 176 | 5 | |
| 12:00 PM | 96 | 49 | 48 | 0 | 0 | 193 | 0 | |
| 12:15 PM | 98 | 46 | 22 | 7 | 2 | 166 | 9 | |
| 12:30 PM | 74 | 40 | 17 | 0 | 1 | 131 | 1 | |
| 12:45 PM | 73 | 61 | 17 | 0 | 2 | 151 | 2 | 1-41-61-71 |
| 1:00 PM | 81 | 72 | 30 | 10 | 6 | 183 | 16 | 25 tour grp |
| 1:15 PM | 97 | 66 | 17 | 0 | 0 | 180 | 0 | |
| 1:30 PM | 92 | 58 | 2 | 2 | 3 | 152 | 5 | |
| 1:45 PM | 66 | 69 | 0 | 0 | 6 | 135 | 6 | |
| 2:00 PM | 67 | 40 | 6 | 0 | 4 | 113 | 4 | |
| 2:15 PM | 98 | 39 | 3 | 5 | 0 | 140 | 5 | |
| 2:30 PM | 71 | 33 | 0 | 2 | 7 | 104 | 9 | |
| 2:45 PM | 77 | 44 | 14 | 0 | 0 | 135 | 0 | |
| 3:00 PM | 124 | 31 | 9 | 0 | 2 | 164 | 2 | |
| 3:15 PM | 107 | 26 | 5 | 0 | 0 | 138 | 0 | |
| 3:30 PM | 60 | 21 | 10 | 3 | 4 | 91 | 7 | |
| 3:45 PM | 97 | 30 | 0 | 0 | 0 | 127 | 0 | |
| 4:00 PM | 78 | 19 | 1 | 0 | 3 | 98 | 3 | |
| **TOTALS** | **2502** | **1438** | **690** | **51** | **88** | **4630** | **139** | **4769** |

## P.Roma Counting Verification

Date 7/3/01 Tuesday

| | ACTV Lines | | | | | Total | Total |
|---|---|---|---|---|---|---|---|
| TIME | 1-41-51-71 | 82-4-N-3 | 52-42-72 | Taxi | Motoscafi | ACTV | Taxi |
| 9:15 AM | | | | | | | |
| 9:30 AM | | | | | | | |
| 9:45 AM | | | | | | | |
| 10:00 AM | | | | | | | |
| 10:15 AM | | | | | | | |
| 10:30 AM | | | | | | | |
| 10:45 AM | | | | | | | |
| 11:00 AM | | | | | | | |
| 11:15 AM | 45 | 135 | 6 | 11 | 5 | 186 | 16 |
| 11:30 AM | 49 | 145 | 10 | 0 | 6 | 204 | 6 |
| 11:45 AM | 50 | 100 | 3 | 0 | 0 | 153 | 0 |
| 12:00 PM | 36 | 174 | 4 | 2 | 0 | 214 | 2 |
| 12:15 PM | | | | | | | |
| 12:30 PM | | | | | | | |
| 12:45 PM | | | | | | | |
| 1:00 PM | | | | | | | |
| 1:15 PM | | | | | | | |
| 1:30 PM | | | | | | | |
| 1:45 PM | | | | | | | |
| 2:00 PM | 30 | 102 | 2 | 3 | 2 | 134 | 5 |
| 2:15 PM | 13 | 82 | 2 | 1 | 0 | 97 | 1 |
| 2:30 PM | 28 | 67 | 4 | 0 | 0 | 99 | 0 |
| 2:45 PM | 15 | 70 | 7 | 0 | 0 | 92 | 0 |
| 3:00 PM | | | | | | | |
| 3:15 PM | | | | | | | |
| 3:30 PM | | | | | | | |
| 3:45 PM | | | | | | | |
| 4:00 PM | | | | | | | |
| **TOTALS** | **266** | **875** | **38** | **17** | **13** | **1179** | **30** |

1209

## P.Roma Counting Verification

Date 7/5/01 Thursday

| | | | | | | Total | Total |
|---|---|---|---|---|---|---|---|
| TIME | 1-41-51-71 | 82-4-N-3 | 52-42-72 | Taxi | Motoscafi | ACTV | Taxi |
| 9:15 AM | | | | | | | |
| 9:30 AM | | | | | | | |
| 9:45 AM | | | | | | | |
| 10:00 AM | | | | | | | |
| 10:15 AM | | | | | | | |
| 10:30 AM | | | | | | | |
| 10:45 AM | | | | | | | |
| 11:00 AM | | | | | | | |
| 11:15 AM | 19 | 123 | 17 | 0 | 0 | 159 | 0 |
| 11:30 AM | 11 | 89 | 13 | 0 | 0 | 113 | 0 |
| 11:45 AM | 14 | 162 | 14 | 0 | 3 | 190 | 3 |
| 12:00 PM | 13 | 149 | 10 | 0 | 0 | 172 | 0 |
| 12:15 PM | | | | | | | |
| 12:30 PM | | | | | | | |
| 12:45 PM | | | | | | | |
| 1:00 PM | | | | | | | |
| 1:15 PM | | | | | | | |
| 1:30 PM | | | | | | | |
| 1:45 PM | | | | | | | |
| 2:00 PM | 18 | 108 | 3 | 0 | 2 | 129 | 2 |
| 2:15 PM | 16 | 76 | 13 | 0 | 4 | 105 | 4 |
| 2:30 PM | 19 | 68 | 6 | 0 | 0 | 93 | 0 |
| 2:45 PM | 19 | 58 | 7 | 0 | 0 | 84 | 0 |
| 3:00 PM | | | | | | | |
| 3:15 PM | | | | | | | |
| 3:30 PM | | | | | | | |
| 3:45 PM | | | | | | | |
| 4:00 PM | | | | | | | |
| **TOTALS** | **129** | **833** | **83** | **0** | **9** | **1045** | **9** |

1054

## P.Roma Counting Verification

Date 7/9/01 Monday

| | | | | | | Total | Total |
|---|---|---|---|---|---|---|---|
| TIME | 1-41-51-71 | 82-4-N-3 | 52-42-72 | Taxi | Motoscafi | ACTV | Taxi |
| 9:15 AM | | | | | | | |
| 9:30 AM | | | | | | | |
| 9:45 AM | | | | | | | |
| 10:00 AM | | | | | | | |
| 10:15 AM | | | | | | | |
| 10:30 AM | | | | | | | |
| 10:45 AM | | | | | | | |
| 11:00 AM | | | | | | | |
| 11:15 AM | 19 | 112 | 35 | 0 | 0 | 166 | 0 |
| 11:30 AM | 65 | 184 | 21 | 2 | 0 | 270 | 2 |
| 11:45 AM | 34 | 128 | 26 | 0 | 2 | 188 | 2 |
| 12:00 PM | 55 | 205 | 20 | 0 | 4 | 280 | 4 |
| 12:15 PM | | | | | | | |
| 12:30 PM | | | | | | | |
| 12:45 PM | | | | | | | |
| 1:00 PM | | | | | | | |
| 1:15 PM | | | | | | | |
| 1:30 PM | | | | | | | |
| 1:45 PM | | | | | | | |
| 2:00 PM | | | | | | | |
| 2:15 PM | | | | | | | |
| 2:30 PM | | | | | | | |
| 2:45 PM | | | | | | | |
| 3:00 PM | | | | | | | |
| 3:15 PM | 27 | 47 | 12 | 0 | 2 | 86 | 2 |
| 3:30 PM | 31 | 59 | 14 | 0 | 0 | 104 | 0 |
| 3:45 PM | 25 | 52 | 11 | 7 | 0 | 88 | 7 |
| 4:00 PM | 25 | 60 | 12 | 0 | 0 | 97 | 0 |
| **TOTALS** | **281** | **847** | **151** | **9** | **8** | **1279** | **17** |

## P.Roma Counting Verification

| | | Friday | 7/6/01 | | | Total | Total |
|---|---|---|---|---|---|---|---|
| TIME | 1-41-51-71 | 82-4-N-3 | 52-42-72 | Taxi | Motoscafi | ACTV | Taxi |
| 9:15 AM | | | | | | | |
| 9:30 AM | | | | | | | |
| 9:45 AM | | | | | | | |
| 10:00 AM | | | | | | | |
| 10:15 AM | | | | | | | |
| 10:30 AM | | | | | | | |
| 10:45 AM | | | | | | | |
| 11:00 AM | | | | | | | |
| 11:15 AM | 46 | 88 | 19 | 0 | 0 | 153 | 0 |
| 11:30 AM | 31 | 120 | 38 | 2 | 0 | 189 | 2 |
| 11:45 AM | 19 | 117 | 12 | 4 | 0 | 148 | 4 |
| 12:00 PM | 15 | 95 | 4 | 0 | 2 | 114 | 2 |
| 12:15 PM | | | | | | | |
| 12:30 PM | | | | | | | |
| 12:45 PM | | | | | | | |
| 1:00 PM | | | | | | | |
| 1:15 PM | | | | | | | |
| 1:30 PM | | | | | | | |
| 1:45 PM | | | | | | | |
| 2:00 PM | 45 | 87 | 9 | 0 | 0 | 141 | 0 |
| 2:15 PM | 6 | 62 | 4 | 0 | 0 | 72 | 0 |
| 2:30 PM | 10 | 86 | 0 | 6 | 0 | 96 | 6 |
| 2:45 PM | 6 | 44 | 4 | 0 | 0 | 54 | 0 |
| 3:00 PM | | | | | | | |
| 3:15 PM | | | | | | | |
| 3:30 PM | | | | | | | |
| 3:45 PM | | | | | | | |
| 4:00 PM | | | | | | | |
| **TOTALS** | **178** | **699** | **90** | **12** | **2** | **967** | **14** |

## P.Roma Counting Verification

| | | Saturday | 7/7/01 | | | Total | Total |
|---|---|---|---|---|---|---|---|
| TIME | 1-41-51-71 | 82-4-N-3 | 52-42-72 | Taxi | Motoscaf | ACTV | Taxi |
| 9:15 AM | | | | | | | |
| 9:30 AM | | | | | | | |
| 9:45 AM | | | | | | | |
| 10:00 AM | | | | | | | |
| 10:15 AM | | | | | | | |
| 10:30 AM | | | | | | | |
| 10:45 AM | | | | | | | |
| 11:00 AM | | | | | | | |
| 11:15 AM | | | | | | | |
| 11:30 AM | | | | | | | |
| 11:45 AM | 39 | 56 | 20 | 3 | 9 | 115 | 12 |
| 12:00 PM | 23 | 240 | 21 | 0 | 0 | 284 | 0 |
| 12:15 PM | 45 | 130 | 15 | 7 | 2 | 190 | 9 |
| 12:30 PM | 14 | 86 | 48 | 4 | 0 | 148 | 4 |
| 12:45 PM | | | | | | | |
| 1:00 PM | | | | | | | |
| 1:15 PM | | | | | | | |
| 1:30 PM | | | | | | | |
| 1:45 PM | | | | | | | |
| 2:00 PM | | | | | | | |
| 2:15 PM | | | | | | | |
| 2:30 PM | 33 | 51 | 2 | 0 | 0 | 86 | 0 |
| 2:45 PM | 19 | 59 | 10 | 3 | 7 | 88 | 10 |
| 3:00 PM | 43 | 74 | 12 | 9 | 0 | 129 | 9 |
| 3:15 PM | 11 | 58 | 11 | 2 | 0 | 80 | 2 |
| 3:30 PM | | | | | | | |
| 3:45 PM | | | | | | | |
| 4:00 PM | | | | | | | |
| **TOTALS** | **227** | **754** | **139** | **28** | **18** | **1120** | **46** |

1166

## P.Roma Weekday TAXI Extrapolation

| Date | 7/9/01 | 7/3/01 | 6/27/01 | 7/5/01 | 7/6/01 | |
|---|---|---|---|---|---|---|
| TIME | Monday | Tuesday | Wednesday | Thursday | Friday | TIME |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 9:15 AM |
| 9:30 AM | 1 | 3 | 2 | 1 | 1 | 9:30 AM |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 9:45 AM |
| 10:00 AM | 1 | 3 | 2 | 1 | 1 | 10:00 AM |
| 10:15 AM | 0 | 0 | 0 | 0 | 0 | 10:15 AM |
| 10:30 AM | 0 | 0 | 0 | 0 | 0 | 10:30 AM |
| 10:45 AM | 0 | 0 | 0 | 0 | 0 | 10:45 AM |
| 11:00 AM | 2 | 7 | 5 | 2 | 3 | 11:00 AM |
| 11:15 AM | 0 | 16 | 9 | 0 | 0 | 11:15 AM |
| 11:30 AM | 2 | 6 | 0 | 0 | 2 | 11:30 AM |
| 11:45 AM | 2 | 0 | 7 | 3 | 4 | 11:45 AM |
| 12:00 PM | 4 | 2 | 2 | 0 | 2 | 12:00 PM |
| 12:15 PM | 1 | 5 | 4 | 2 | 2 | 12:15 PM |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 12:30 PM |
| 12:45 PM | 5 | 18 | 14 | 5 | 9 | 12:45 PM |
| 1:00 PM | 0 | 0 | 0 | 0 | 0 | 1:00 PM |
| 1:15 PM | 1 | 3 | 2 | 1 | 1 | 1:15 PM |
| 1:30 PM | 1 | 3 | 2 | 1 | 1 | 1:30 PM |
| 1:45 PM | 0 | 0 | 0 | 0 | 0 | 1:45 PM |
| 2:00 PM | 1 | 5 | 2 | 2 | 0 | 2:00 PM |
| 2:15 PM | 0 | 1 | 0 | 4 | 0 | 2:15 PM |
| 2:30 PM | 0 | 0 | 0 | 0 | 0 | 2:30 PM |
| 2:45 PM | 1 | 0 | 3 | 0 | 6 | 2:45 PM |
| 3:00 PM | 2 | 7 | 5 | 2 | 3 | 3:00 PM |
| 3:15 PM | 2 | 22 | 17 | 7 | 10 | 3:15 PM |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 3:30 PM |
| 3:45 PM | 7 | 5 | 4 | 2 | 2 | 3:45 PM |
| 4:00 PM | 0 | 10 | 8 | 3 | 5 | 4:00 PM |
| **Totals** | **32** | 115 | 88 | 34 | **54** | **323** |

| Monday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 8 | 18 | |
| Afternoon Counts | | 9 | 29 | |
| | Total | 17 | 47 | 0.361702 |

| Tuesday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 24 | 18 | |
| Afternoon Counts | | 6 | 5 | |
| | Total | 30 | 23 | 1.304348 |

| Thursday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 3 | 18 | |
| Afternoon Counts | | 6 | 5 | |
| | Total | 9 | 23 | 0.391304 |

| Friday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 8 | 18 | |
| Afternoon Counts | | 6 | 5 | |
| | Total | 14 | 23 | 0.608696 |

## P.Roma Weekday ACTV Extrapolation

| Date | 7/9/01 | 7/3/01 | 6/27/01 | 7/5/01 | 7/6/01 | |
|---|---|---|---|---|---|---|
| TIME | Monday | Tuesday | Wednesday | Thursday | Friday | TIME |
| 9:15 AM | 87 | 68 | 49 | 60 | 56 | 9:15 AM |
| 9:30 AM | 76 | 60 | 43 | 53 | 49 | 9:30 AM |
| 9:45 AM | 135 | 105 | 76 | 93 | 86 | 9:45 AM |
| 10:00 AM | 179 | 140 | 101 | 124 | 115 | 10:00 AM |
| 10:15 AM | 154 | 120 | 87 | 107 | 99 | 10:15 AM |
| 10:30 AM | 133 | 104 | 75 | 92 | 85 | 10:30 AM |
| 10:45 AM | 145 | 113 | 82 | 101 | 93 | 10:45 AM |
| 11:00 AM | 133 | 104 | 75 | 92 | 85 | 11:00 AM |
| 11:15 AM | 166 | 186 | 125 | 159 | 153 | 11:15 AM |
| 11:30 AM | 270 | 204 | 133 | 113 | 189 | 11:30 AM |
| 11:45 AM | 188 | 153 | 171 | 190 | 148 | 11:45 AM |
| 12:00 PM | 280 | 214 | 108 | 172 | 114 | 12:00 PM |
| 12:15 PM | 158 | 123 | 89 | 109 | 101 | 12:15 PM |
| 12:30 PM | 128 | 100 | 72 | 88 | 82 | 12:30 PM |
| 12:45 PM | 243 | 190 | 137 | 168 | 155 | 12:45 PM |
| 1:00 PM | 244 | 191 | 138 | 169 | 157 | 1:00 PM |
| 1:15 PM | 216 | 169 | 122 | 150 | 138 | 1:15 PM |
| 1:30 PM | 252 | 197 | 142 | 174 | 161 | 1:30 PM |
| 1:45 PM | 193 | 151 | 109 | 134 | 124 | 1:45 PM |
| 2:00 PM | 168 | 134 | 95 | 129 | 141 | 2:00 PM |
| 2:15 PM | 175 | 97 | 99 | 105 | 72 | 2:15 PM |
| 2:30 PM | 99 | 99 | 56 | 93 | 96 | 2:30 PM |
| 2:45 PM | 115 | 92 | 65 | 84 | 54 | 2:45 PM |
| 3:00 PM | 105 | 82 | 59 | 72 | 67 | 3:00 PM |
| 3:15 PM | 86 | 75 | 54 | 66 | 61 | 3:15 PM |
| 3:30 PM | 104 | 75 | 54 | 66 | 61 | 3:30 PM |
| 3:45 PM | 88 | 54 | 39 | 48 | 44 | 3:45 PM |
| 4:00 PM | 97 | 53 | 38 | 47 | 43 | 4:00 PM |
| **Totals** | **4416** | 3450 | 2493 | 3058 | **2829** | **16246** |

| Monday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 904 | 537 | |
| Afternoon Counts | | 375 | 185 | |
| | Total | 1279 | 722 | 1.771468 |

| Tuesday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 757 | 537 | |
| Afternoon Counts | | 422 | 315 | |
| | Total | 1179 | 852 | 1.383803 |

| Thursday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 634 | 537 | |
| Afternoon Counts | | 411 | 315 | |
| | Total | 1045 | 852 | 1.226526 |

| Friday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 604 | 537 | |
| Afternoon Counts | | 363 | 315 | |
| | Total | 967 | 852 | 1.134977 |

## P.Roma Weekdend ACTV Extrapolation

| | 7/7/01 | 6/24/01 | |
|---|---|---|---|
| TIME | Satuday | Sunday | Total |
| 9:15 AM | 162 | 175 | |
| 9:30 AM | 146 | 157 | |
| 9:45 AM | 190 | 205 | |
| 10:00 AM | 221 | 238 | |
| 10:15 AM | 200 | 216 | |
| 10:30 AM | 199 | 214 | |
| 10:45 AM | 185 | 199 | |
| 11:00 AM | 187 | 202 | |
| 11:15 AM | 208 | 224 | |
| 11:30 AM | 207 | 223 | |
| 11:45 AM | 115 | 176 | |
| 12:00 PM | 284 | 193 | |
| 12:15 PM | 190 | 166 | |
| 12:30 PM | 148 | 131 | |
| 12:45 PM | 140 | 151 | |
| 1:00 PM | 170 | 183 | |
| 1:15 PM | 167 | 180 | |
| 1:30 PM | 141 | 152 | |
| 1:45 PM | 125 | 135 | |
| 2:00 PM | 105 | 113 | |
| 2:15 PM | 130 | 140 | |
| 2:30 PM | 86 | 104 | |
| 2:45 PM | 88 | 135 | |
| 3:00 PM | 129 | 164 | |
| 3:15 PM | 80 | 138 | |
| 3:30 PM | 84 | 91 | |
| 3:45 PM | 118 | 127 | |
| 4:00 PM | 91 | 98 | |
| **Totals** | **4296** | 4630 | **8926** |

| Saturday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 737 | 666 | |
| Afternoon Counts | | 383 | 541 | |
| | Total | 1120 | 1207 | 0.92792 |

## P.Roma Weekdend TAXI Extrapolation

| | 7/7/01 | 6/24/01 | |
|---|---|---|---|
| TIME | Satuday | Sunday | Total |
| 9:15 AM | 0 | 0 | |
| 9:30 AM | 7 | 4 | |
| 9:45 AM | 2 | 1 | |
| 10:00 AM | 23 | 13 | |
| 10:15 AM | 21 | 12 | |
| 10:30 AM | 19 | 11 | |
| 10:45 AM | 23 | 13 | |
| 11:00 AM | 9 | 5 | |
| 11:15 AM | 4 | 2 | |
| 11:30 AM | 7 | 4 | |
| 11:45 AM | 12 | 5 | |
| 12:00 PM | 0 | 0 | |
| 12:15 PM | 9 | 9 | |
| 12:30 PM | 4 | 1 | |
| 12:45 PM | 4 | 2 | |
| 1:00 PM | 28 | 16 | |
| 1:15 PM | 0 | 0 | |
| 1:30 PM | 9 | 5 | |
| 1:45 PM | 11 | 6 | |
| 2:00 PM | 7 | 4 | |
| 2:15 PM | 9 | 5 | |
| 2:30 PM | 0 | 9 | |
| 2:45 PM | 10 | 0 | |
| 3:00 PM | 9 | 2 | |
| 3:15 PM | 2 | 0 | |
| 3:30 PM | 12 | 7 | |
| 3:45 PM | 0 | 0 | |
| 4:00 PM | 5 | 3 | |
| **Totals** | **246** | 139 | **385** |

| Saturday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 25 | 15 | |
| Afternoon Counts | | 21 | 11 | |
| | Total | 46 | 26 | 1.7692308 |

## P.Roma Weekday 82-3-N-4 Extrapolation

| Date | 7/9/01 | 7/3/01 | 6/27/01 | 7/5/01 | 7/6/01 | |
|---|---|---|---|---|---|---|
| TIME | Monday | Tuesday | Wednesday | Thursday | Friday | TIME |
| 9:15 AM | 28 | 27 | 15 | 25 | 21 | 9:15 |
| 9:30 AM | 4 | 4 | 2 | 3 | 3 | 9:30 |
| 9:45 AM | 75 | 71 | 40 | 68 | 57 | 9:45 |
| 10:00 AM | 32 | 30 | 17 | 29 | 24 | 10:00 |
| 10:15 AM | 35 | 34 | 19 | 32 | 27 | 10:15 |
| 10:30 AM | 50 | 48 | 27 | 46 | 38 | 10:30 |
| 10:45 AM | 71 | 68 | 38 | 64 | 54 | 10:45 |
| 11:00 AM | 65 | 62 | 35 | 59 | 50 | 11:00 |
| 11:15 AM | 112 | 135 | 98 | 123 | 88 | 11:15 |
| 11:30 AM | 184 | 145 | 81 | 89 | 120 | 11:30 |
| 11:45 AM | 128 | 100 | 108 | 162 | 117 | 11:45 |
| 12:00 PM | 205 | 174 | 59 | 149 | 95 | 12:00 |
| 12:15 PM | 116 | 110 | 62 | 105 | 88 | 12:15 |
| 12:30 PM | 60 | 57 | 32 | 54 | 46 | 12:30 |
| 12:45 PM | 177 | 169 | 95 | 161 | 135 | 12:45 |
| 1:00 PM | 138 | 132 | 74 | 126 | 105 | 13:00 |
| 1:15 PM | 125 | 119 | 67 | 114 | 95 | 13:15 |
| 1:30 PM | 177 | 169 | 95 | 161 | 135 | 13:30 |
| 1:45 PM | 119 | 114 | 64 | 109 | 91 | 13:45 |
| 2:00 PM | 101 | 102 | 54 | 108 | 87 | 14:00 |
| 2:15 PM | 88 | 82 | 47 | 76 | 62 | 14:15 |
| 2:30 PM | 21 | 67 | 11 | 68 | 86 | 14:30 |
| 2:45 PM | 62 | 70 | 33 | 58 | 44 | 14:45 |
| 3:00 PM | 37 | 36 | 20 | 34 | 28 | 15:00 |
| 3:15 PM | 47 | 53 | 30 | 51 | 43 | 15:15 |
| 3:30 PM | 59 | 61 | 34 | 58 | 48 | 15:30 |
| 3:45 PM | 52 | 34 | 19 | 32 | 27 | 15:45 |
| 4:00 PM | 60 | 45 | 25 | 42 | 36 | 16:00 |
| **Totals** | 2427 | 2318 | 1301 | 2207 | 1852 | |
| verify | 2427 | 2318 | 1301 | 2207 | 1852 | 10106 |
| total count | **847** | 875 | 1301 | 833 | **699** | **4555** |

| Monday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 629 | 346 | |
| Afternoon Counts | | 218 | 108 | |
| | Total | 847 | 454 | 1.86563877 |
| | | | Ratio | |
| | | | 0.348962 | |

| Tuesday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 554 | 346 | |
| Afternoon Counts | | 321 | 145 | |
| | Total | 875 | 491 | 1.78207739 |
| | | | Ratio | |
| | | | 0.377402 | |

| Thursday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 523 | 346 | |
| Afternoon Counts | | 310 | 145 | |
| | Total | 833 | 491 | 1.69653768 |
| | | | Ratio | |
| | | | 0.377402 | |

| Friday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 420 | 346 | |
| Afternoon Counts | | 279 | 145 | |
| | Total | 699 | 491 | 1.42362525 |
| | | | Ratio | |
| | | | 0.377402 | |

## P.Roma Weekday 1-41-51-71 Extrapolation

| Date | 7/9/01 | 7/3/01 | 6/27/01 | 7/5/01 | 7/6/01 | |
|---|---|---|---|---|---|---|
| TIME | Monday | Tuesday | Wednesday | Thursday | Friday | TIME |
| 9:15 AM | 9 | 6 | 7 | 3 | 4 | 9:15 |
| 9:30 AM | 21 | 14 | 16 | 7 | 10 | 9:30 |
| 9:45 AM | 20 | 13 | 15 | 6 | 9 | 9:45 |
| 10:00 AM | 39 | 27 | 30 | 13 | 18 | 10:00 |
| 10:15 AM | 43 | 29 | 33 | 14 | 20 | 10:15 |
| 10:30 AM | 37 | 25 | 28 | 12 | 17 | 10:30 |
| 10:45 AM | 22 | 15 | 17 | 7 | 10 | 10:45 |
| 11:00 AM | 39 | 27 | 30 | 13 | 18 | 11:00 |
| 11:15 AM | 19 | 45 | 19 | 19 | 46 | 11:15 |
| 11:30 AM | 65 | 49 | 42 | 11 | 31 | 11:30 |
| 11:45 AM | 34 | 50 | 53 | 14 | 19 | 11:45 |
| 12:00 PM | 55 | 36 | 40 | 13 | 15 | 12:00 |
| 12:15 PM | 35 | 24 | 27 | 12 | 16 | 12:15 |
| 12:30 PM | 31 | 21 | 24 | 10 | 14 | 12:30 |
| 12:45 PM | 50 | 34 | 38 | 16 | 23 | 12:45 |
| 1:00 PM | 59 | 40 | 45 | 19 | 27 | 13:00 |
| 1:15 PM | 54 | 37 | 41 | 18 | 24 | 13:15 |
| 1:30 PM | 54 | 37 | 41 | 18 | 24 | 13:30 |
| 1:45 PM | 55 | 37 | 42 | 18 | 25 | 13:45 |
| 2:00 PM | 43 | 30 | 33 | 18 | 45 | 14:00 |
| 2:15 PM | 65 | 13 | 50 | 16 | 6 | 14:15 |
| 2:30 PM | 47 | 28 | 36 | 19 | 10 | 14:30 |
| 2:45 PM | 33 | 15 | 25 | 19 | 6 | 14:45 |
| 3:00 PM | 44 | 30 | 34 | 15 | 20 | 15:00 |
| 3:15 PM | 27 | 19 | 21 | 9 | 13 | 15:15 |
| 3:30 PM | 31 | 12 | 13 | 6 | 8 | 15:30 |
| 3:45 PM | 25 | 12 | 14 | 6 | 8 | 15:45 |
| 4:00 PM | 25 | 12 | 13 | 6 | 8 | 16:00 |
| **Totals** | 1081 | 738 | 827 | 358 | 494 | |
| Extrapolated | 1081 | 738 | 827 | 358 | 494 | 3498 |
| Total Count | **281** | 266 | 827 | 129 | **178** | |

| Monday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 173 | 154 | |
| Afternoon Counts | | 108 | 61 | |
| | Total | 281 | 215 | 1.306977 |
| | | | Ratio | |
| | | | 0.259976 | |

| Tuesday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 180 | 154 | |
| Afternoon Counts | | 86 | 144 | |
| | Total | 266 | 298 | 0.892617 |
| | | | Ratio | |
| | | | 0.360339 | |

| Thursday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 57 | 154 | |
| Afternoon Counts | | 72 | 144 | |
| | Total | 129 | 298 | 0.432886 |
| | | | Ratio | |
| | | | 0.360339 | |

| Friday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 111 | 154 | |
| Afternoon Counts | | 67 | 144 | |
| | Total | 178 | 298 | 0.597315 |
| | | | Ratio | |
| | | | 0.360339 | |

## P.Roma Weekday 42-52-72 Extrapolation

| Date | 7/9/01 | 7/3/01 | 6/27/01 | 7/5/01 | 7/6/01 | |
|---|---|---|---|---|---|---|
| TIME | Monday | Tuesday | Wednesda | Thursday | Friday | TIME |
| 9:15 AM | 77 | 16 | 27 | 36 | 39 | 9:15 |
| 9:30 AM | 71 | 15 | 25 | 33 | 36 | 9:30 |
| 9:45 AM | 60 | 13 | 21 | 28 | 30 | 9:45 |
| 10:00 AM | 154 | 33 | 54 | 71 | 77 | 10:00 |
| 10:15 AM | 100 | 21 | 35 | 46 | 50 | 10:15 |
| 10:30 AM | 57 | 12 | 20 | 26 | 29 | 10:30 |
| 10:45 AM | 77 | 16 | 27 | 36 | 39 | 10:45 |
| 11:00 AM | 28 | 6 | 10 | 13 | 14 | 11:00 |
| 11:15 AM | 35 | 6 | 8 | 17 | 19 | 11:15 |
| 11:30 AM | 21 | 10 | 10 | 13 | 38 | 11:30 |
| 11:45 AM | 26 | 3 | 10 | 14 | 12 | 11:45 |
| 12:00 PM | 20 | 4 | 9 | 10 | 4 | 12:00 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 12:15 |
| 12:30 PM | 46 | 10 | 16 | 21 | 23 | 12:30 |
| 12:45 PM | 11 | 2 | 4 | 5 | 6 | 12:45 |
| 1:00 PM | 54 | 11 | 19 | 25 | 27 | 13:00 |
| 1:15 PM | 40 | 8 | 14 | 18 | 20 | 13:15 |
| 1:30 PM | 17 | 4 | 6 | 8 | 9 | 13:30 |
| 1:45 PM | 9 | 2 | 3 | 4 | 4 | 13:45 |
| 2:00 PM | 23 | 2 | 8 | 3 | 9 | 14:00 |
| 2:15 PM | 6 | 2 | 2 | 13 | 4 | 14:15 |
| 2:30 PM | 26 | 4 | 9 | 6 | 0 | 14:30 |
| 2:45 PM | 20 | 7 | 7 | 7 | 4 | 14:45 |
| 3:00 PM | 14 | 3 | 5 | 7 | 7 | 15:00 |
| 3:15 PM | 12 | 2 | 3 | 4 | 4 | 15:15 |
| 3:30 PM | 14 | 4 | 7 | 9 | 10 | 15:30 |
| 3:45 PM | 11 | 4 | 6 | 8 | 9 | 15:45 |
| 4:00 PM | 12 | 0 | 0 | 0 | 0 | 16:00 |
| **Totals** | 1040 | 220 | 365 | 481 | 521 | **727** |
| Verify | 1040 | 220 | 365 | 481 | 521 | 2627 |
| Total Count | **151** | 38 | 365 | 83 | **90** | |

| Monday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 102 | 37 | |
| Afternoon Counts | | 49 | 16 | |
| | Total | 151 | 53 | 2.849057 |
| | | | Ratio | |
| | | | 0.145205 | |

| Tuesday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 23 | 37 | |
| Afternoon Counts | | 15 | 26 | |
| | Total | 38 | 63 | 0.603175 |
| | | | Ratio | |
| | | | 0.172603 | |

| Thursday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 54 | 37 | |
| Afternoon Counts | | 29 | 26 | |
| | Total | 83 | 63 | 1.31746 |
| | | | Ratio | |
| | | | 0.172603 | |

| Friday | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 73 | 37 | |
| Afternoon Counts | | 17 | 26 | |
| | Total | 90 | 63 | 1.428571 |
| | | | Ratio | |
| | | | 0.172603 | |

## P.Roma Weekdend ACTV Extrapolation

| | 7/7/01 | Saturday | | 6/24/01 | Sunday | |
|---|---|---|---|---|---|---|
| TIME | 82-3-N-4 | 1-41-61-71 | 52-42-72 | 82-3-N-4 | 1-41-61-71 | 52-42-72 |
| 9:15 AM | 77 | 59 | 15 | 76 | 85 | 14 |
| 9:30 AM | 72 | 44 | 24 | 71 | 63 | 23 |
| 9:45 AM | 93 | 45 | 50 | 92 | 65 | 48 |
| 10:00 AM | 102 | 44 | 76 | 101 | 64 | 73 |
| 10:15 AM | 105 | 42 | 54 | 104 | 60 | 52 |
| 10:30 AM | 89 | 41 | 70 | 88 | 59 | 67 |
| 10:45 AM | 86 | 42 | 56 | 85 | 60 | 54 |
| 11:00 AM | 92 | 35 | 64 | 91 | 50 | 61 |
| 11:15 AM | 127 | 42 | 39 | 126 | 61 | 37 |
| 11:30 AM | 113 | 48 | 44 | 112 | 69 | 42 |
| 11:45 AM | 56 | 39 | 20 | 100 | 58 | 18 |
| 12:00 PM | 240 | 23 | 21 | 96 | 49 | 48 |
| 12:15 PM | 130 | 45 | 15 | 98 | 46 | 22 |
| 12:30 PM | 86 | 14 | 48 | 74 | 40 | 17 |
| 12:45 PM | 74 | 42 | 18 | 73 | 61 | 17 |
| 1:00 PM | 82 | 50 | 31 | 81 | 72 | 30 |
| 1:15 PM | 98 | 46 | 18 | 97 | 66 | 17 |
| 1:30 PM | 93 | 40 | 2 | 92 | 58 | 2 |
| 1:45 PM | 67 | 48 | 0 | 66 | 69 | 0 |
| 2:00 PM | 68 | 28 | 6 | 67 | 40 | 6 |
| 2:15 PM | 99 | 27 | 3 | 98 | 39 | 3 |
| 2:30 PM | 51 | 33 | 2 | 71 | 33 | 0 |
| 2:45 PM | 59 | 19 | 10 | 77 | 44 | 14 |
| 3:00 PM | 74 | 43 | 12 | 124 | 31 | 9 |
| 3:15 PM | 58 | 11 | 11 | 107 | 26 | 5 |
| 3:30 PM | 61 | 15 | 10 | 60 | 21 | 10 |
| 3:45 PM | 98 | 21 | 0 | 97 | 30 | 0 |
| 4:00 PM | 79 | 13 | 1 | 78 | 19 | 1 |
| **Totals** | 2525 | 998 | 721 | 2502 | 1438 | 690 |
| Extrapolated | 2525 | 998 | 721 | 2502 | 1438 | 690 |
| | **754** | **227** | **139** | | | |

| 82-3-N-4 | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 512 | 368 | |
| Afternoon Counts | | 242 | 379 | |
| | Total | 754 | 747 | 1.009371 |
| | | | Ratio | |
| | | | 0.298561 | |

| 1-41-61-71 | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 121 | 193 | |
| Afternoon Counts | | 106 | 134 | |
| | Total | 227 | 327 | 0.69419 |
| | | | Ratio | |
| | | | 0.227399 | |

| 52-42-72 | | Verify | Fullday | Ratio |
|---|---|---|---|---|
| Morning Counts | | 104 | 105 | |
| Afternoon Counts | | 35 | 28 | |
| | Total | 139 | 133 | 1.045113 |
| | | | Ratio | |
| | | | 0.192754 | |

# P.Roma Extrapolation Totals

| | ACTV | Taxi |
|---|---|---|
| Weekend | 8926 | 385 |
| Weekday | 16246 | 323 |
| Total | 25173 | 708 |

**Proma Totals by Type for Each Day of the Week**

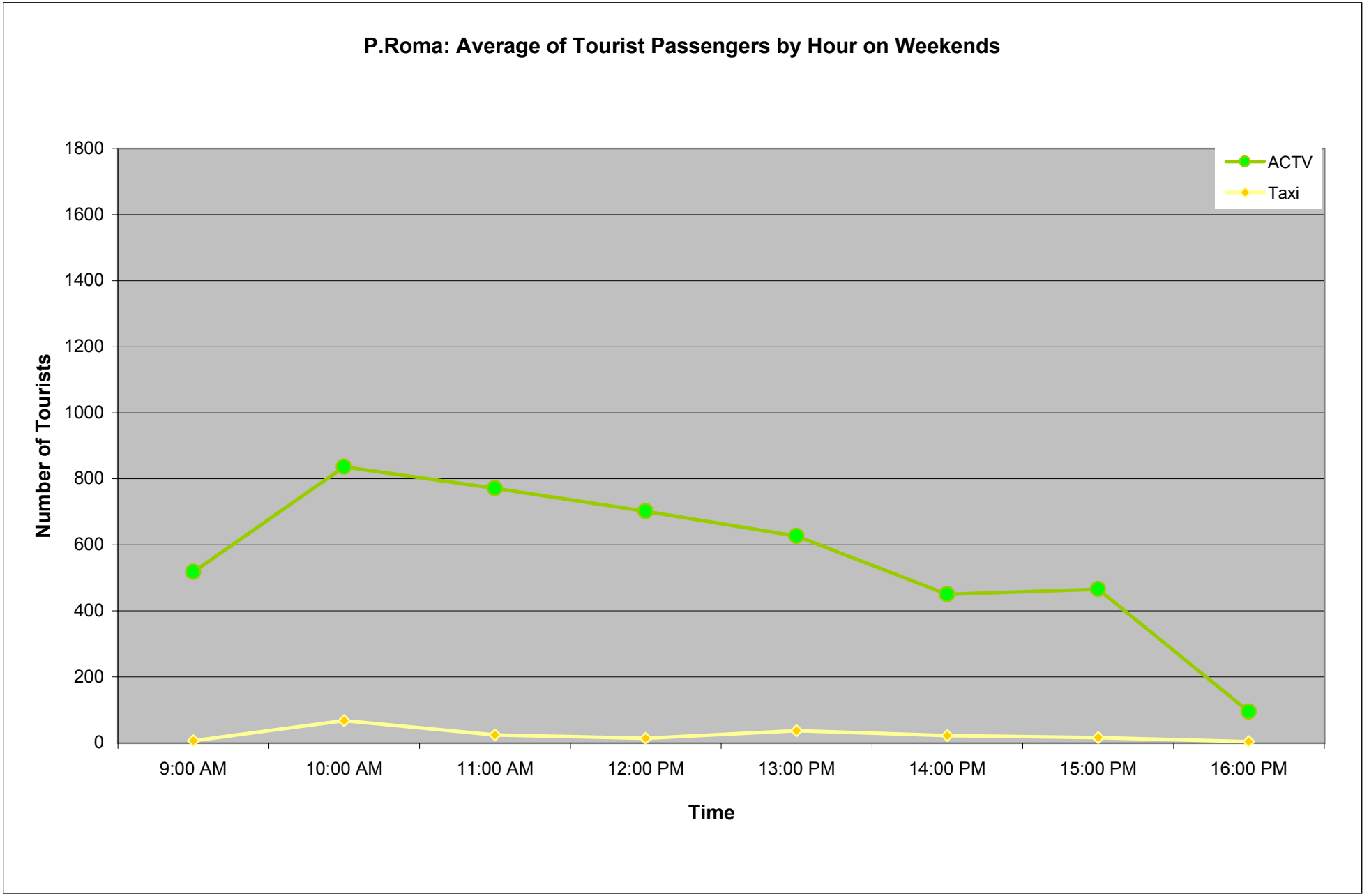
| | M | T | W | T | F | S | S | total |
|---|---|---|---|---|---|---|---|---|
| ACTV | 4416 | 3450 | 2493 | 3058 | 2829 | **4296** | 4630 | 25173 |
| Taxi | 32 | 115 | 88 | 34 | 54 | 246 | 139 | 708 |

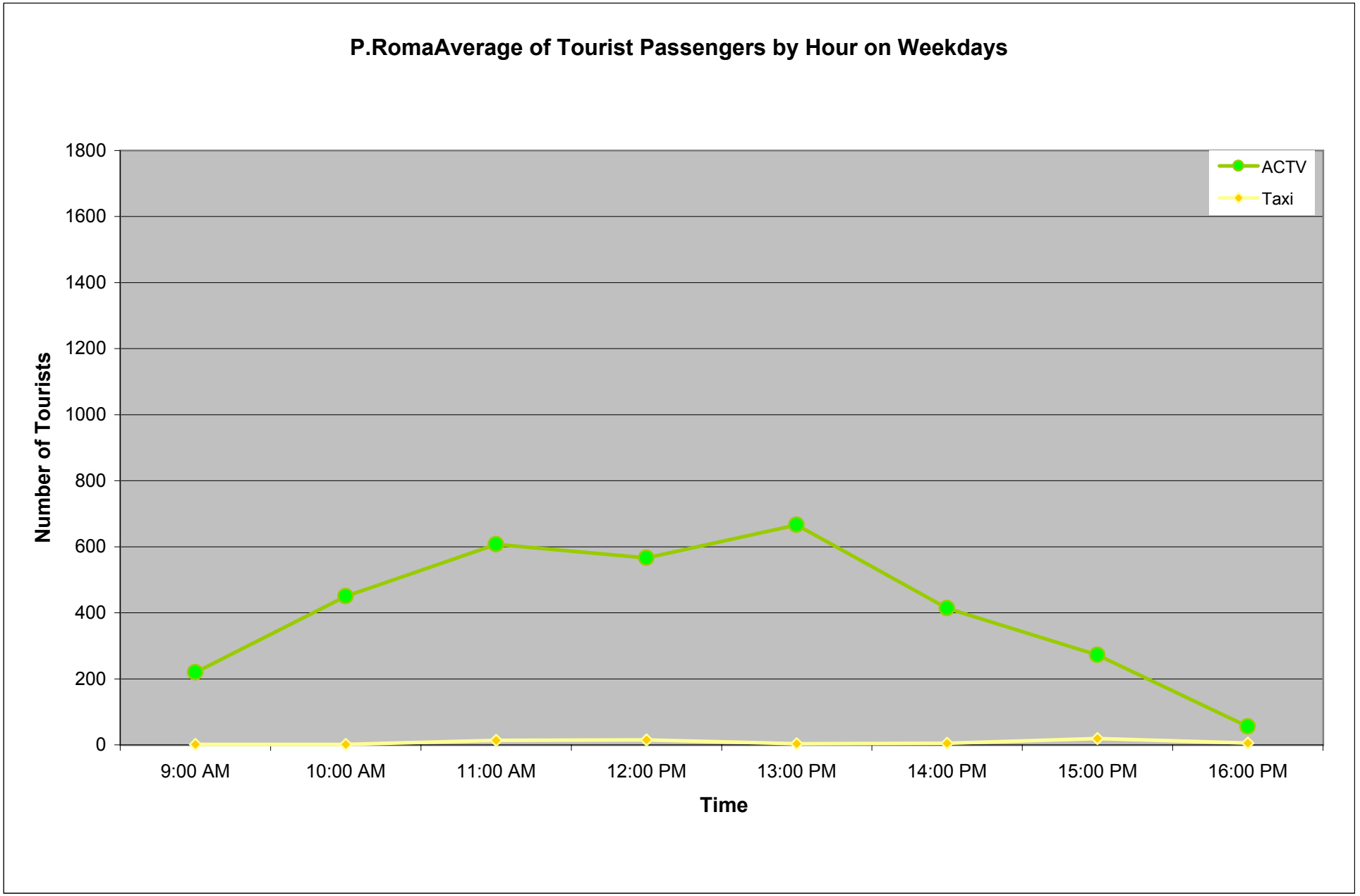
Original Counts by ACTV Count Locations

| Date | 7/9/01 | 7/3/01 | 6/27/01 | 7/5/01 | 7/6/01 | 7/7/01 | 6/24/01 |
|---|---|---|---|---|---|---|---|
| C.Location | Monday | Tuesday | Wednesda | Thursday | Friday | Saturday | Sunday |
| B | 847 | 875 | 1301 | 833 | 699 | 754 | 2502 |
| D | 281 | 266 | 827 | 129 | 178 | 227 | 1438 |
| E | 151 | 38 | 365 | 83 | 90 | 139 | 690 |

Extrapolated Counts by ACTV Count Locations

| Date | 7/9/01 | 7/3/01 | 6/27/01 | 7/5/01 | 7/6/01 | 7/7/01 | 6/24/01 | |
|---|---|---|---|---|---|---|---|---|
| C.Location | Monday | Tuesday | Wednesda | Thursday | Friday | Saturday | Sunday | Total |
| 82-3-4-N | 2427 | 2318 | 1301 | 2207 | 1852 | 3912 | 2502 | 16520 |
| 1-41-51-71 | 1081 | 738 | 827 | 358 | 494 | 988 | 1438 | 5924 |
| 42-52-72 | 1040 | 220 | 365 | 481 | 521 | 466 | 690 | 3783 |


P.Roma: Average of Tourist Passengers by Hour on Weekends
1800
1600
1400
1200
1000
800
600
400
200
0
Number of Tourists
ACTV
Taxi
9:00 AM
10:00 AM
11:00 AM
12:00 PM
13:00 PM
14:00 PM
15:00 PM
16:00 PM
Time


P.RomaAverage of Tourist Passengers by Hour on Weekdays
1800
1600
1400
1200
1000
800
600
400
200
0
Number of Tourists
ACTV
Taxi
9:00 AM
10:00 AM
11:00 AM
12:00 PM
13:00 PM
14:00 PM
15:00 PM
16:00 PM
Time

## Extrapolated Weekly Average by Hour

**Weekends**

| Station Name | Boat Type | 9:00 AM | 10:00 AM | 11:00 AM | 12:00 PM | 13:00 PM | 14:00 PM | 15:00 PM | 16:00 PM |
|---|---|---|---|---|---|---|---|---|---|
| Ferrovia | ACTV | 914 | 1647 | 1173 | 1251 | 815 | 703 | 893 | 214 |
| Ferrovia | Taxi | 29 | 61 | 32 | 43 | 17 | 34 | 36 | 0 |
| Piazzale Roma | ACTV | 518 | 836 | 771 | 702 | 627 | 451 | 466 | 95 |
| Piazzale Roma | Taxi | 7 | 68 | 24 | 15 | 38 | 22 | 16 | 4 |
| Tronchetto | ACTV | 255 | 375 | 230 | 319 | 214 | 122 | 183 | 27 |
| Tronchetto | Gran Turismo | 654 | 824 | 897 | 666 | 609 | 826 | 697 | 108 |
| Tronchetto | Taxi | 57 | 28 | 33 | 49 | 8 | 4 | 0 | 0 |
| Overall | ACTV Weekend | 1686 | 2858 | 2174 | 2272 | 1655 | 1276 | 1542 | 335 |
| Overall | Taxi Weekend | 93 | 157 | 89 | 106 | 62 | 60 | 52 | 4 |
| Overall | Gran Turismo Weekend | 654 | 824 | 897 | 666 | 609 | 826 | 697 | 108 |

**Weekdays**

| Station Name | Boat Type | 9:00 AM | 10:00 AM | 11:00 AM | 12:00 PM | 13:00 PM | 14:00 PM | 15:00 PM | 16:00 PM |
|---|---|---|---|---|---|---|---|---|---|
| Ferrovia | ACTV | 551 | 819 | 731 | 672 | 457 | 583 | 482 | 105 |
| Ferrovia | Taxi | 25 | 26 | 29 | 26 | 0 | 43 | 31 | 13 |
| Piazzale Roma | ACTV | 219 | 450 | 607 | 566 | 666 | 414 | 272 | 56 |
| Piazzale Roma | Taxi | 2 | 2 | 14 | 15 | 3 | 5 | 19 | 5 |
| Tronchetto | ACTV | 250 | 454 | 636 | 399 | 167 | 113 | 187 | 33 |
| Tronchetto | Gran Turismo | 605 | 1391 | 1305 | 808 | 345 | 574 | 158 | 32 |
| Tronchetto | Taxi | 62 | 119 | 80 | 51 | 135 | 12 | 29 | 0 |
| Overall | ACTV Weekday | 1021 | 1723 | 1974 | 1637 | 1290 | 1110 | 941 | 194 |
| Overall | Taxi Weekday | 88 | 146 | 123 | 93 | 138 | 60 | 79 | 18 |
| Overall | Gran Turismo Weekday | 605 | 1391 | 1305 | 808 | 345 | 574 | 158 | 32 |

# Extrapolation for Whole Year

| Month | Hist. Cent. | Lido | Total in Venice | ACTV | Taxi | Gran Turismo | Total |
|---|---|---|---|---|---|---|---|
| Jan | 67971 | 3861 | 71832 | 152776 | 9840 | 72679 | 235295 |
| Feb | 84902 | 8084 | 92986 | 197768 | 12737 | 94082 | 304587 |
| Mar | 114271 | 16024 | 130295 | 277118 | 17848 | 131831 | 426797 |
| Apr | 124868 | 21672 | 146540 | 311669 | 20073 | 148267 | 480010 |
| May | 130247 | 25730 | 155977 | 331740 | 21366 | 157816 | 510922 |
| Jun | 130814 | 24423 | 155237 | 330166 | 21265 | 157067 | 508498 |
| Jul | 133317 | 20289 | 153606 | 326697 | 21041 | 155417 | 503155 |
| Aug | 124840 | 17652 | 142492 | 303059 | 19519 | 144172 | 466750 |
| Sep | 135712 | 22309 | 158021 | 336087 | 21646 | 159884 | 517617 |
| Oct | 140548 | 25309 | 165857 | 352753 | 22719 | 167812 | 543285 |
| Nov | 93545 | 9565 | 103110 | 219300 | 14124 | 104326 | 337749 |
| Dec | 65282 | 4811 | 70093 | 149077 | 9601 | 70919 | 229598 |
| **Total** | 1346317 | 199729 | 1546046 | 3288212 | 211780 | 1564271 | 5064264 |
| Gross Income | | | | L.19,729,270,709 | L.5,294,498,202 | L.15,642,714,500 | |

| | Week | Month of June |
|---|---|---|
| ACTV | 77034 | 330166 |
| Taxi | 4961 | 21265 |
| Gran Turismo | 36647 | 157067 |
| Total | 118642 | 508498 |

| | Cost |
|---|---|
| Gran Turismo | 10000 |
| ACTV | 6000 |
| Taxi | 25000 |

**Results of Full Day Counts**

# WEEKDAY Totals
## Totals by Station

| | | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday | Totals |
|---|---|---|---|---|---|---|---|---|---|
| Tronchetto | ACTV | 1730 | 2458 | 2866 | 2314 | 1826 | 2004 | 1445 | 14643 |
| | Taxi | 1158 | 374 | 274 | 285 | 346 | 338 | 19 | 2794 |
| | GT | 4357 | 7562 | 3876 | 6311 | 3983 | 6712 | 3845 | 36647 |
| Piazzale Roma | ACTV | 4416 | 3450 | 2493 | 3058 | 2829 | 4296 | 4630 | 25173 |
| | Taxi | 32 | 115 | 88 | 34 | 54 | 246 | 139 | 708 |
| Ferrovia | ACTV | 4386 | 5107 | 4300 | 4340 | 3869 | 6836 | 8382 | 37218 |
| | Taxi | 161 | 201 | 315 | 91 | 189 | 258 | 245 | 1460 |
| Totals | | | | | | | | | 118642 |

Totals By Type of Transportation for Each Day of Week

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday | |
|---|---|---|---|---|---|---|---|---|
| ACTV | 10532 | 11015 | 9658 | 9712 | 8524 | 13136 | 14457 | 77034 |
| Taxi | 1350 | 689 | 677 | 410 | 589 | 842 | 403 | 4961 |
| Gran Turismo | 4357 | 7562 | 3876 | 6311 | 3983 | 6712 | 3845 | 36647 |
| | | | | | | | | 118642 |

Totals Extrapolated by type

| | number of people | cost |
|---|---|---|
| Gran Turismo | 36647 | L.366,465,318 |
| ACTV | 77034 | L.462,201,871 |
| Taxi | 4961 | L.173,649,515 |
| | 118642 | |

| | |
|---|---|
| | 10000 |
| | 6000 |
| | 35000 |

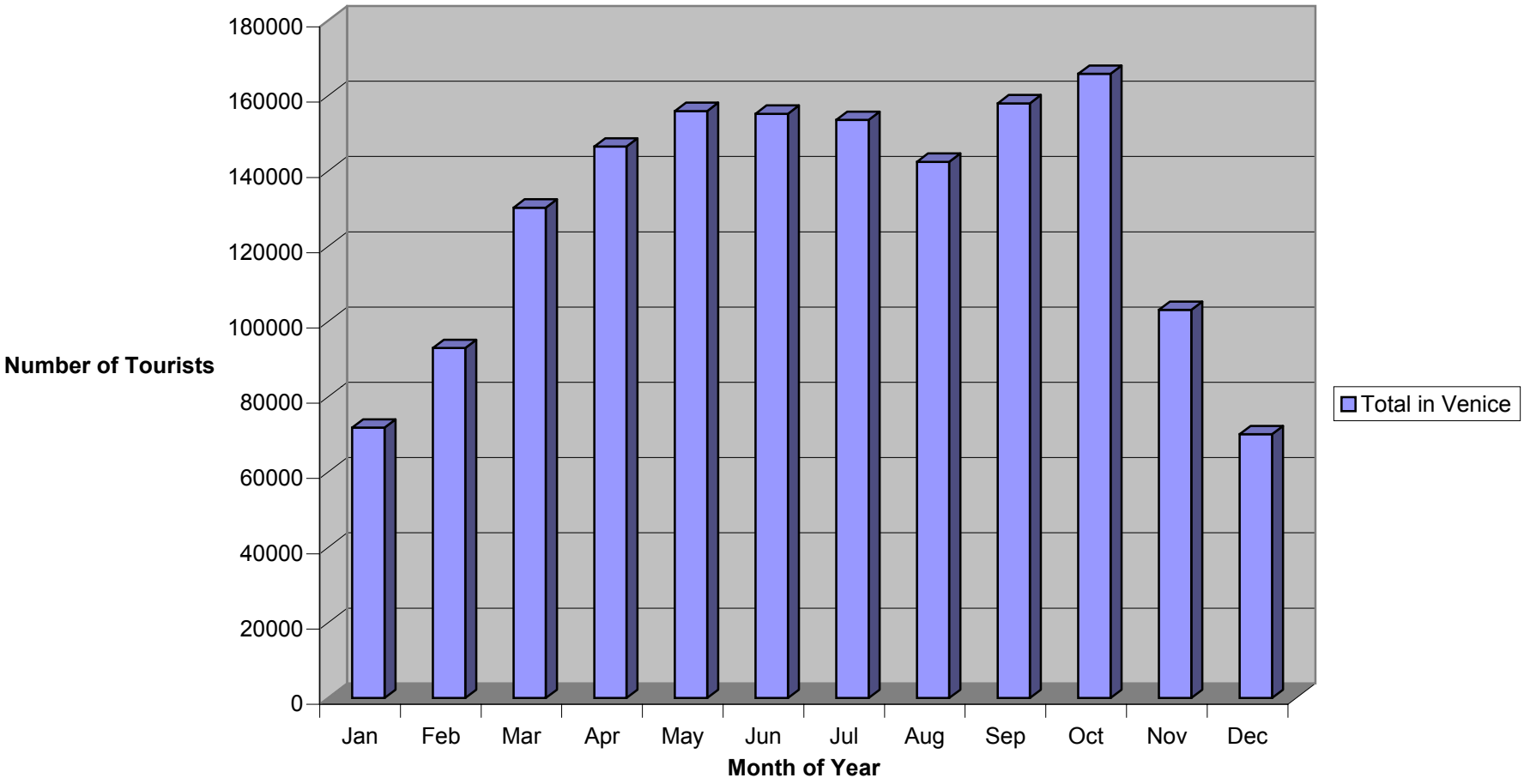
Total Counted Tourists

| | |
|---|---|
| Ferrovia | 24593 |
| Proma | 13056 |
| Tronchetto | 28844 |
| | 66493 |

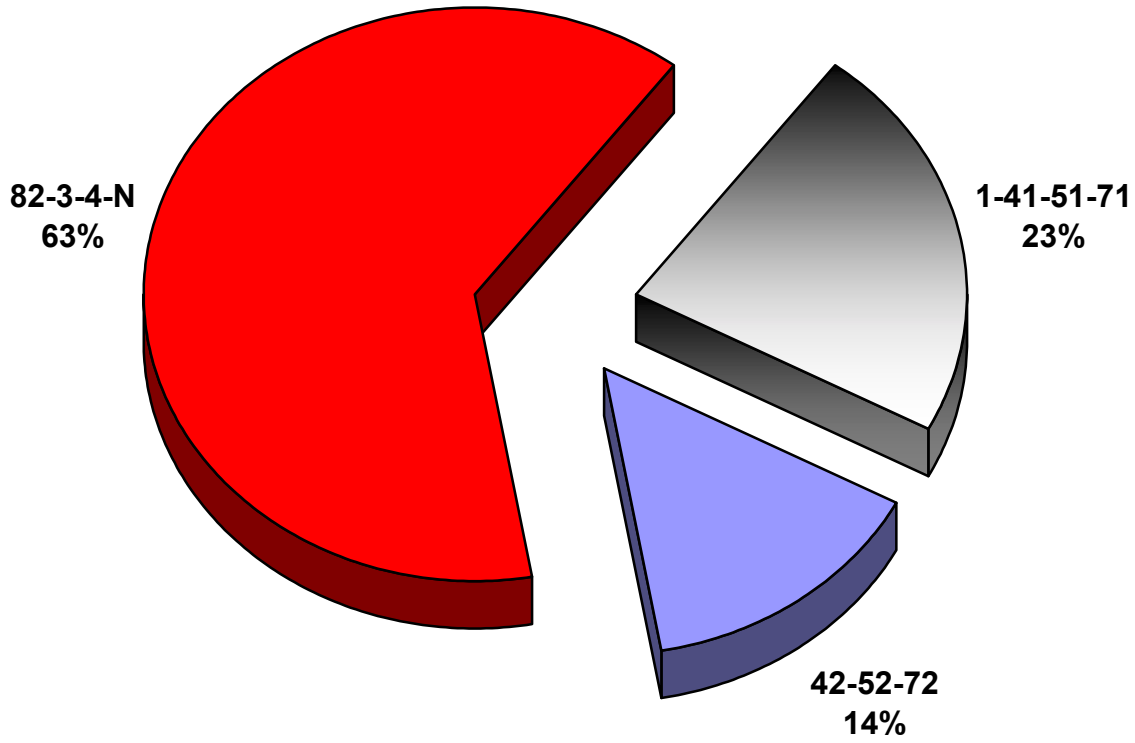
Total Extrapolation By Type

| | ACTV | Gran Turismo | Taxi |
|---|---|---|---|
| Ferrovia | 32097 | 0 | 1641 |
| Tronchetto | 14824 | 44339 | 1624 |
| PROma | 25457 | 0 | 760 |
| Total | 72377 | 44339 | 4025 |

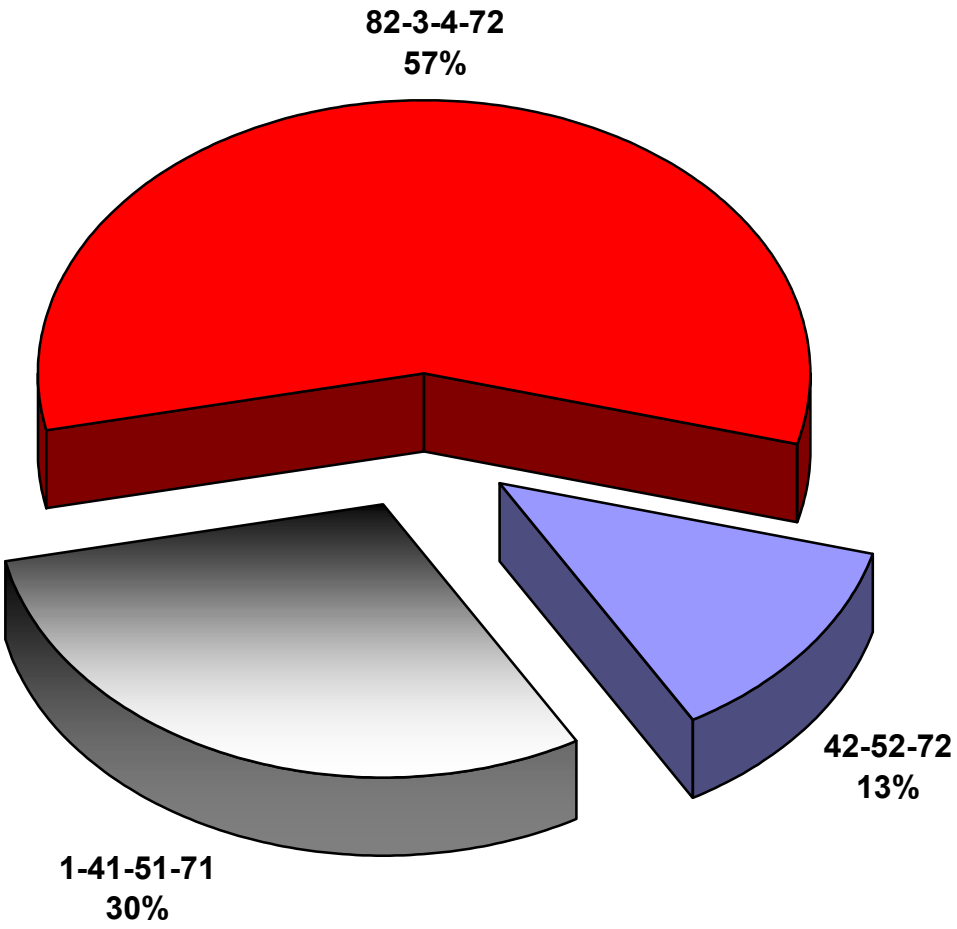
## Tourists Staying in Hotels



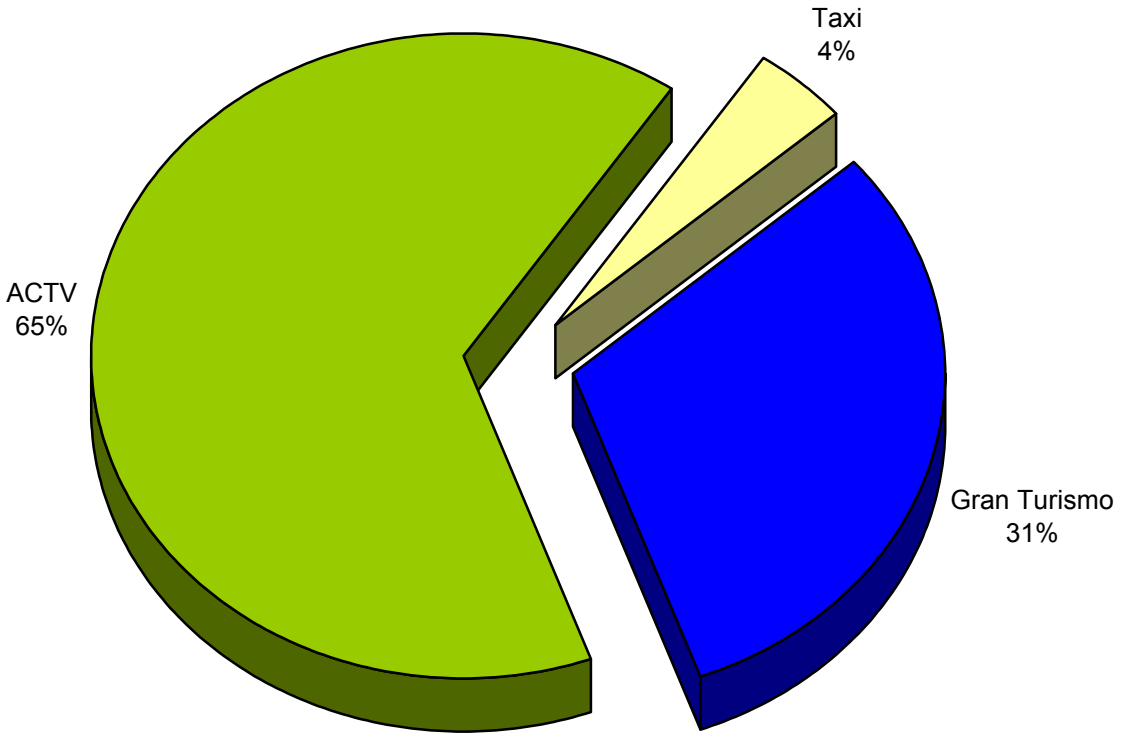
## Passenger Distribution on Each Station



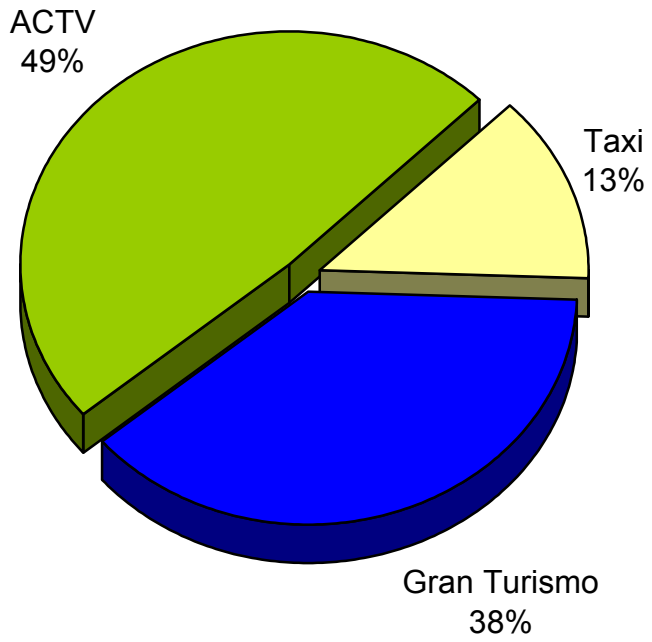
**Passenger Distribution on Each Station**



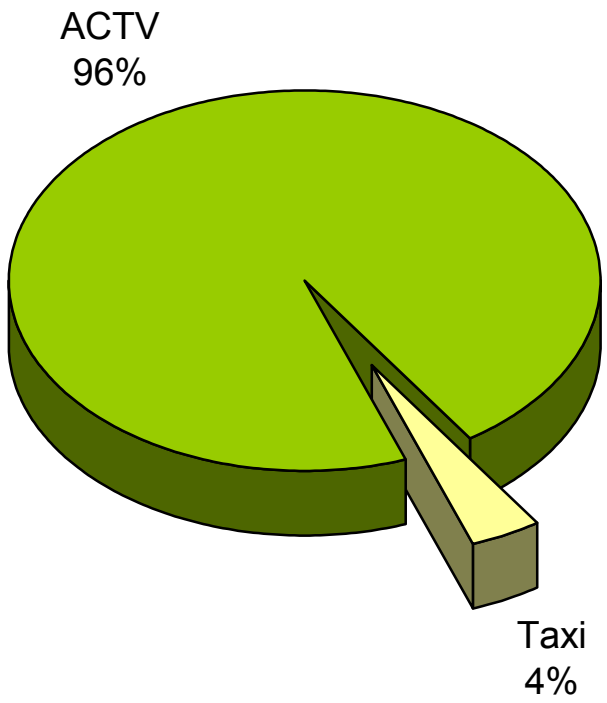
**Total Number of Passengers Extrapolated for a Year by Motor Transportation Type**



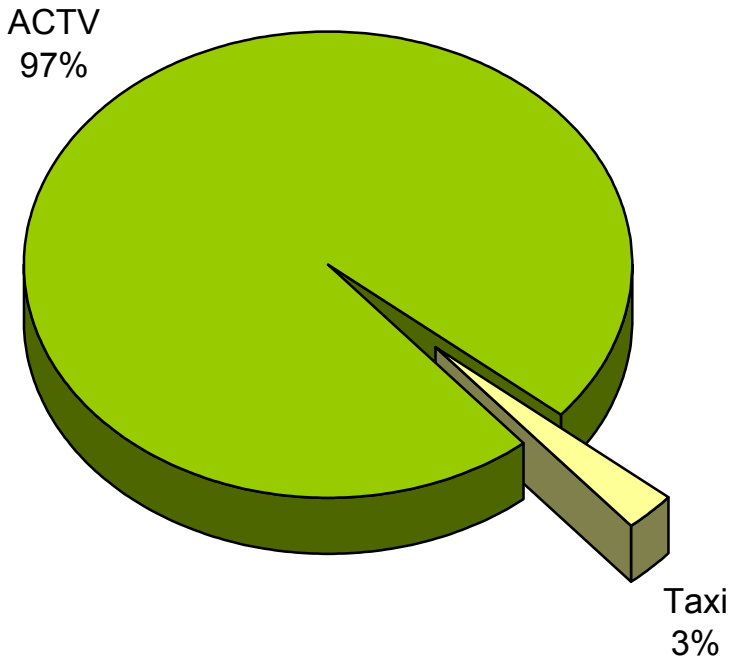
**Gross Income Extrapolated for a Year by Motor Transportation Type**



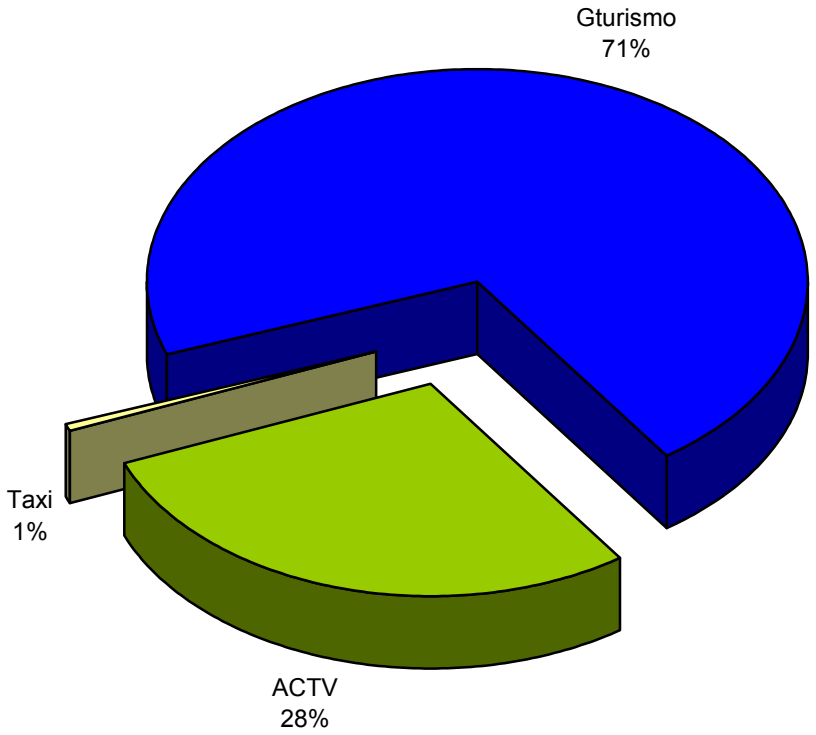
**Ferrovia Total Extrapolation**



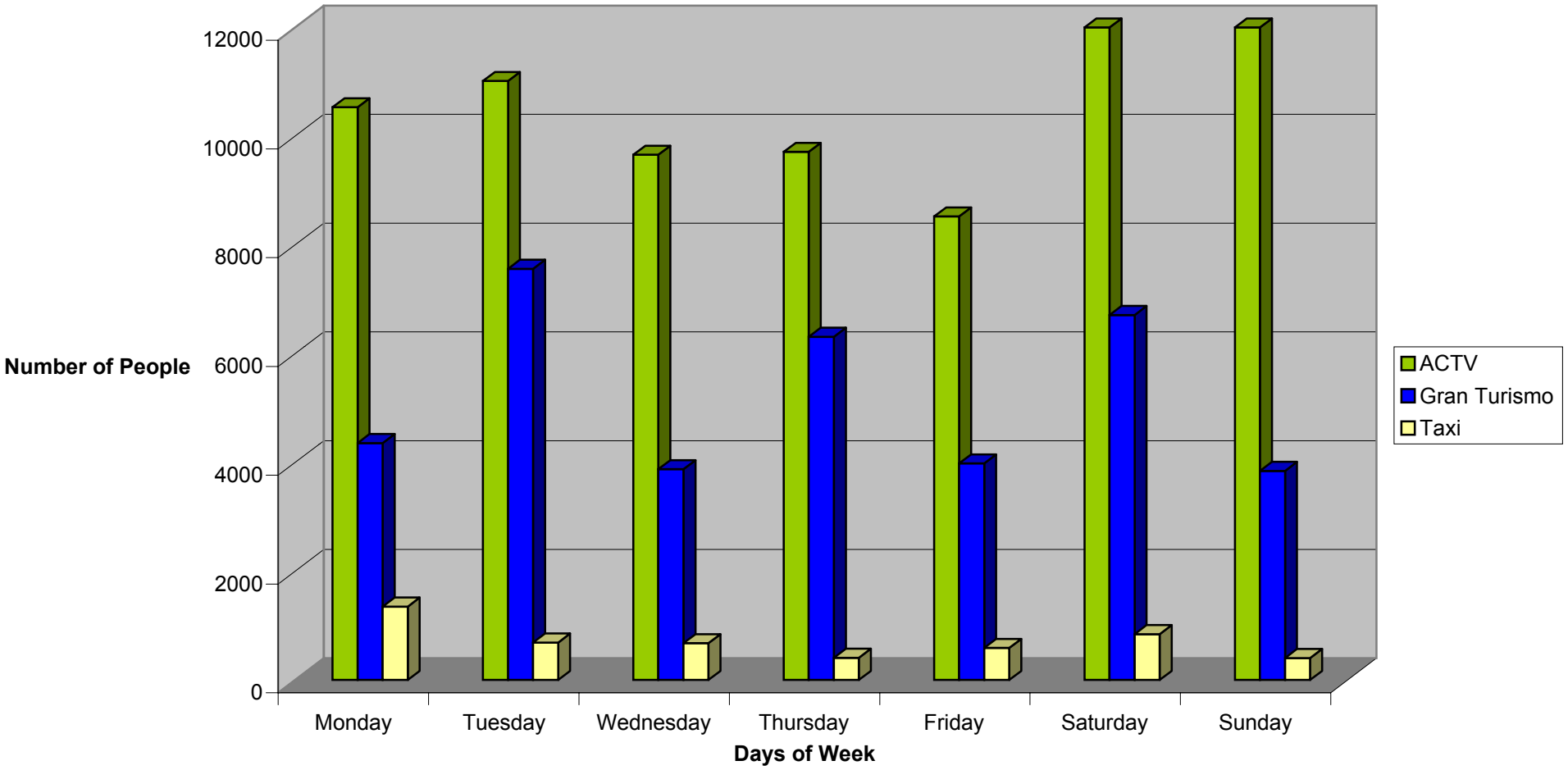
**P.Roma Total Extrapolation**



## Tronchetto Total Extrapolation



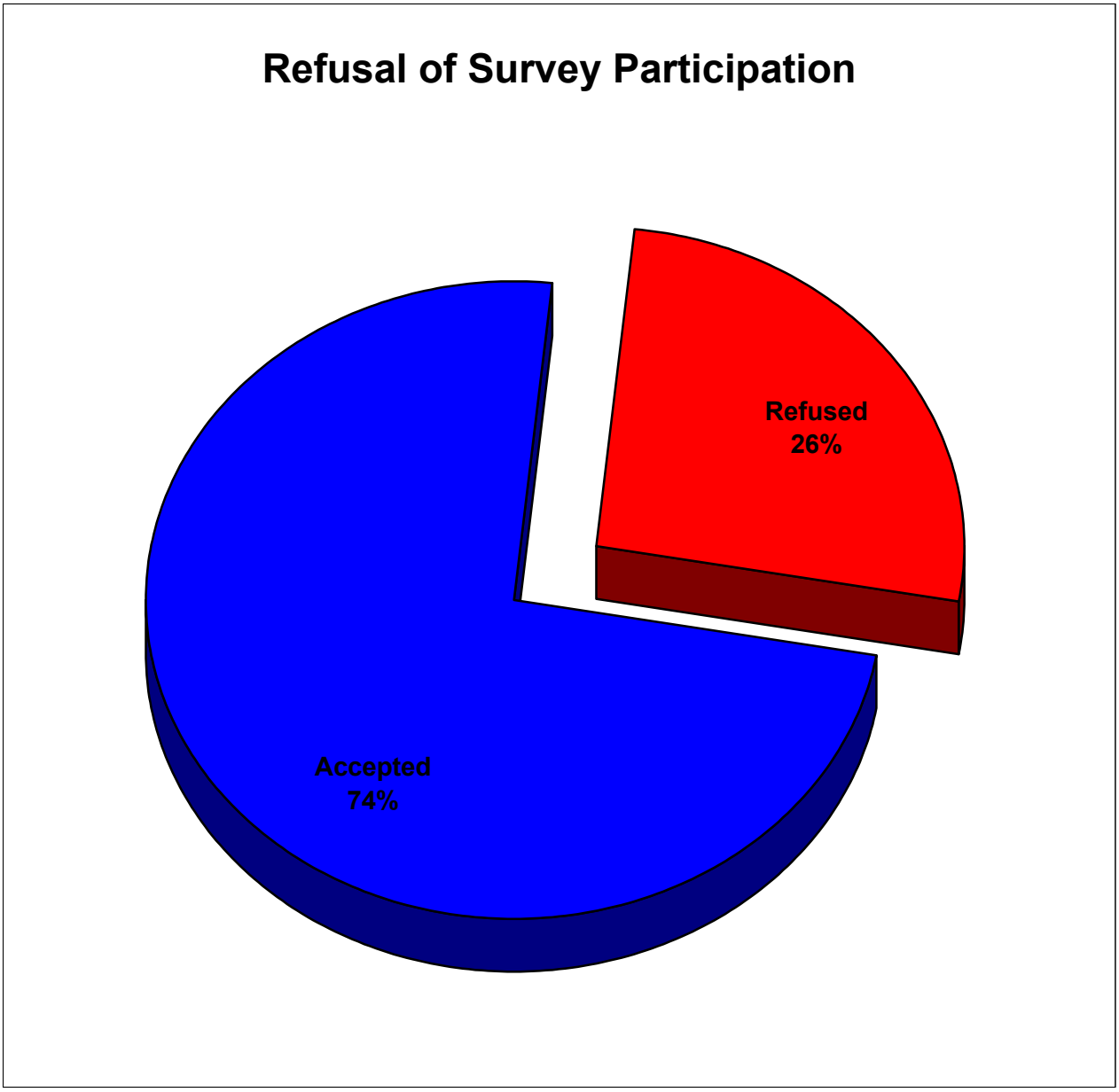
## Extrapolated Totals by Transportation Type for Each Day of the Week



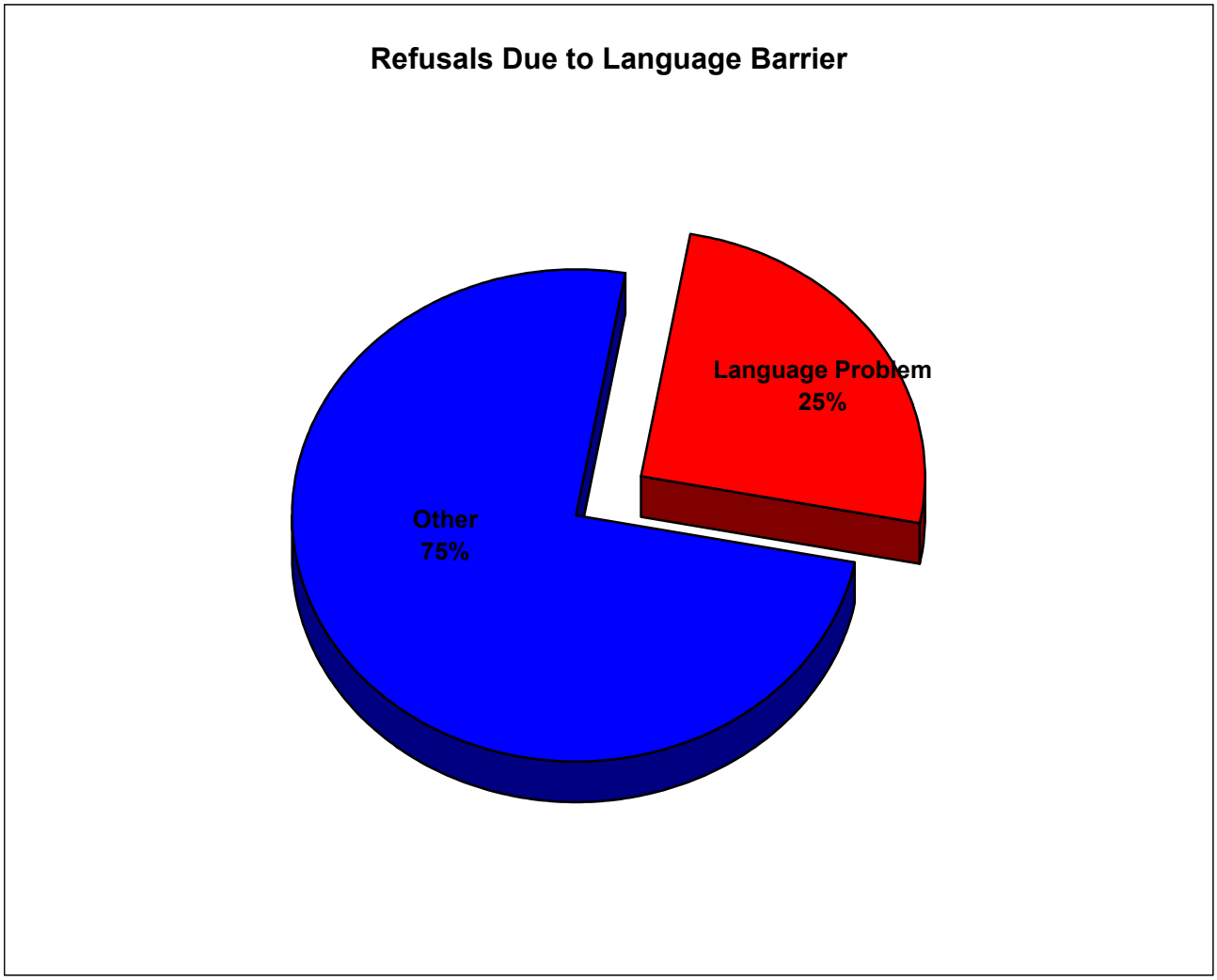
## *7.3 Appendix C- Survey Database*

# Survey Refusals

| Refusal of Survey Participation | |
|---|---|
| Accepted | Refused |
| 201 | 71 |

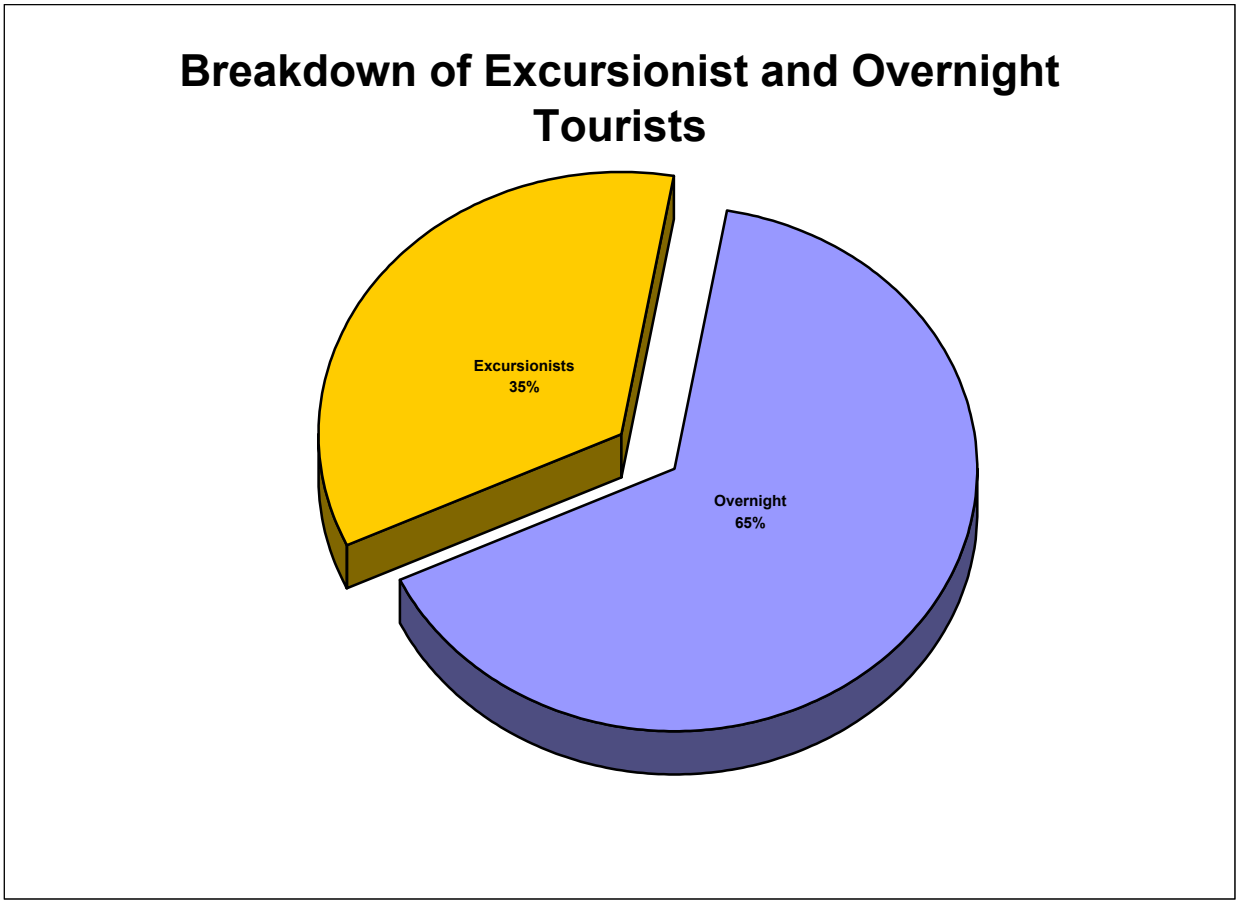


| Refusals Due to Language Barrier | | | |
|---|---|---|---|
| Total Refusals | Language Problem | Other | |
| 71 | 18 | 53 | |

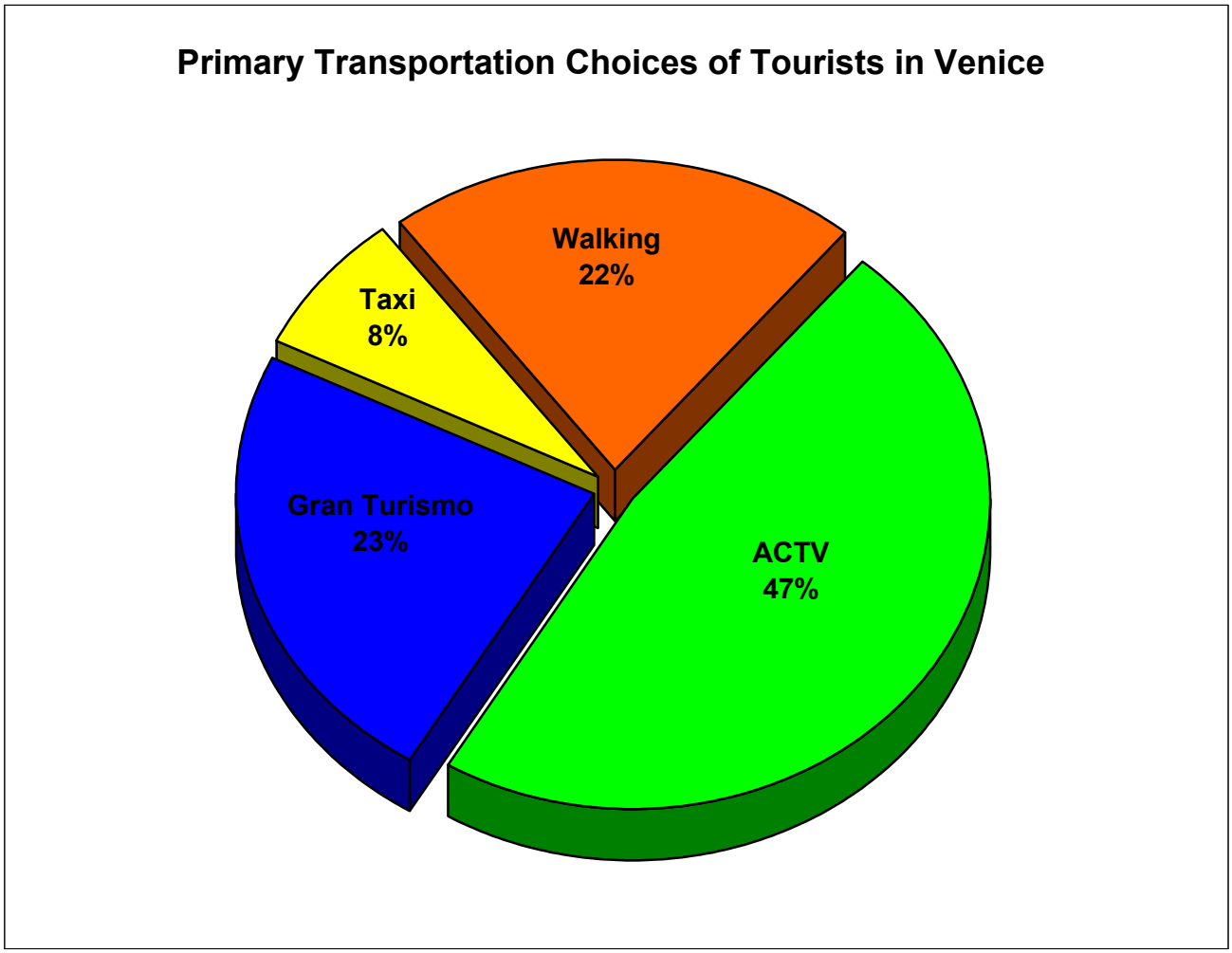


# Excursionists vs. Overnight Tourists

| Overnight Stays | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Nights | 0 | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 11 | 20 | 21 | 30 | Overnight | Excursionists |
| Number of People | 70 | 40 | 58 | 11 | 7 | 7 | 2 | 1 | 1 | 2 | 1 | 1 | 131 | 70 |



| Primary Transportation Choices | | | |
|---|---|---|---|
| Waterbus | Gran Turismo | Taxi | Walking |
| 95 | 47 | 15 | 43 |



# Languages Understood

| Languages Understood By Tourists in Venice | | | | |
|---|---|---|---|---|
| English | French | German Italian | | Spanish |
| 172 | 59 | 65 | 23 | 42 |

| Percent of Visitors Understanding English | | | |
|---|---|---|---|
| English | No English | Responses Total | |
| 172 | 29 | 201 | |

| Percent of Visitors Understanding French | | | |
|---|---|---|---|
| French | No French | Responses Total | |
| 59 | 142 | 201 | |

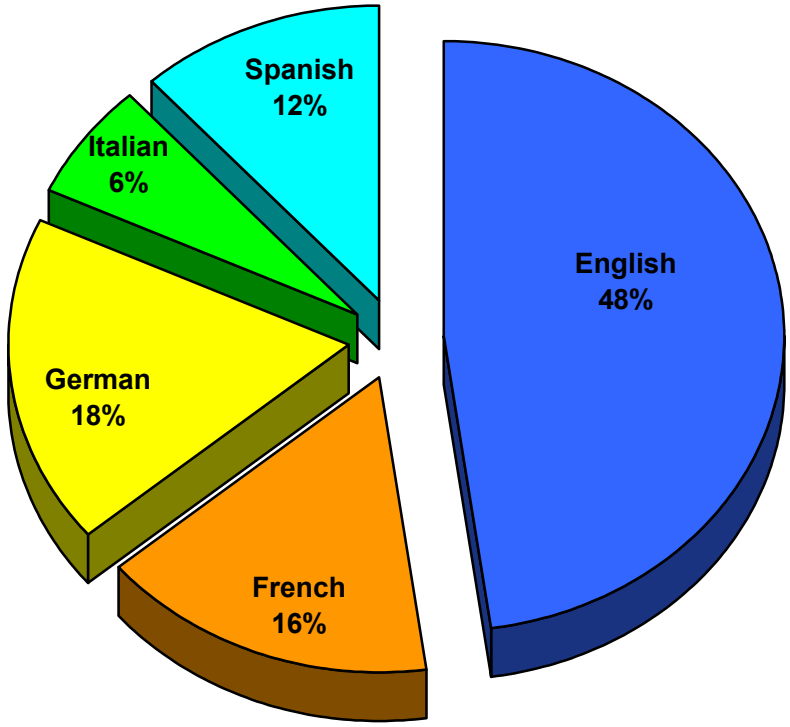
| Percent of Visitors Understanding German | | | |
|---|---|---|---|
| German | No German | Responses Total | |
| 65 | 136 | 201 | |

| Percent of Visitors Understanding Italian | | | |
|---|---|---|---|
| Italian | No Italian | Responses Total | |
| 23 | 178 | 201 | |

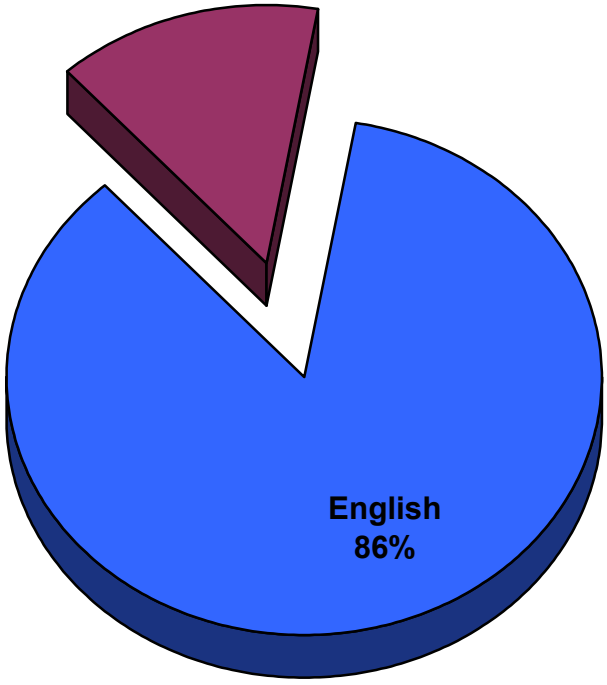
| Percent of Visitors Understanding Spanish | | | |
|---|---|---|---|
| Spanish | No Spanish | Responses Total | |
| 42 | 159 | 201 | |

## Languages Understood by Visitors to Venice

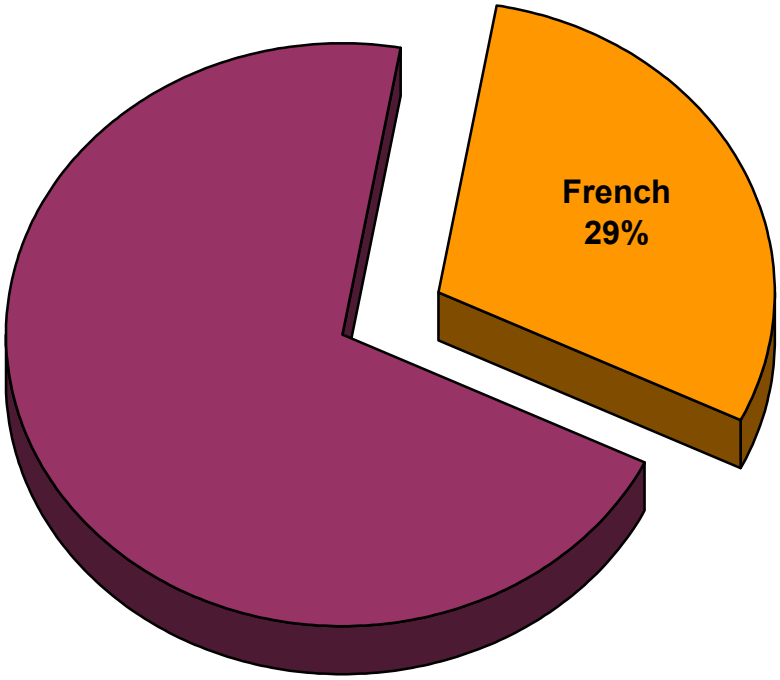
## Languages Understood by Visitors to Venice



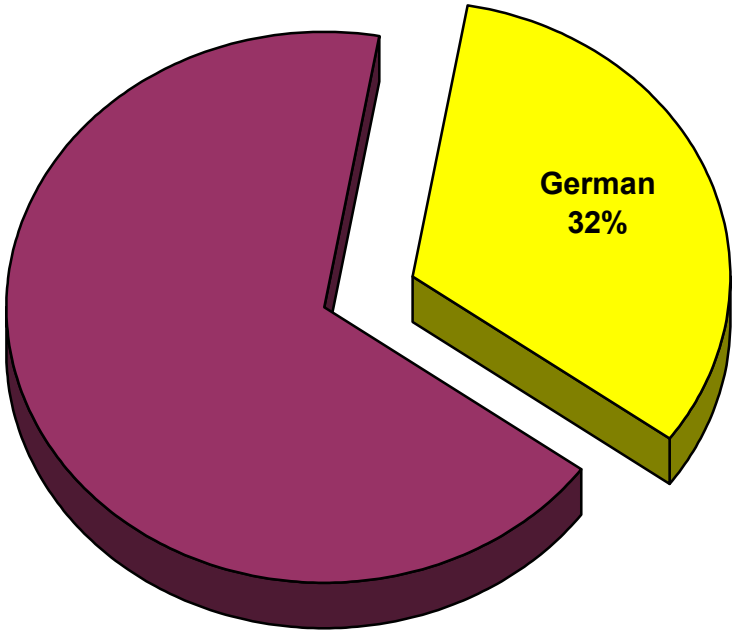

## Percent of Tourists Understanding English



## Percentage of Tourists Understanding French

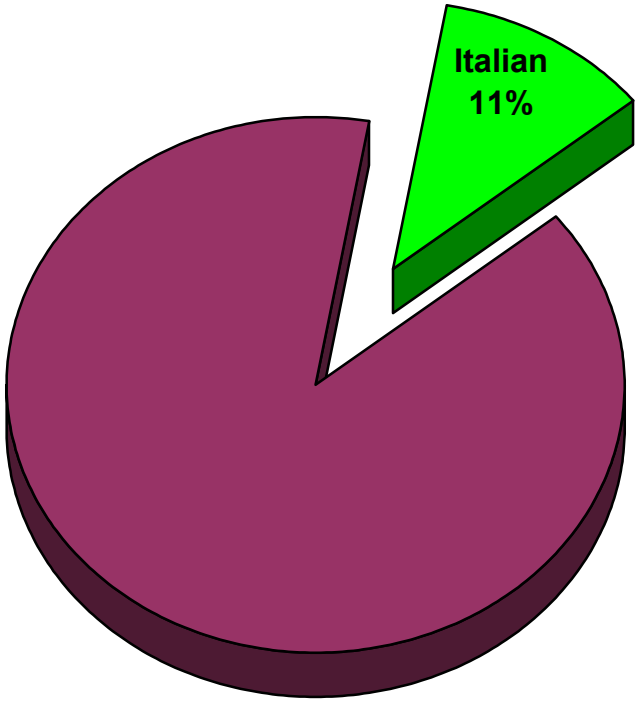



## Percentage of Tourists Understanding German

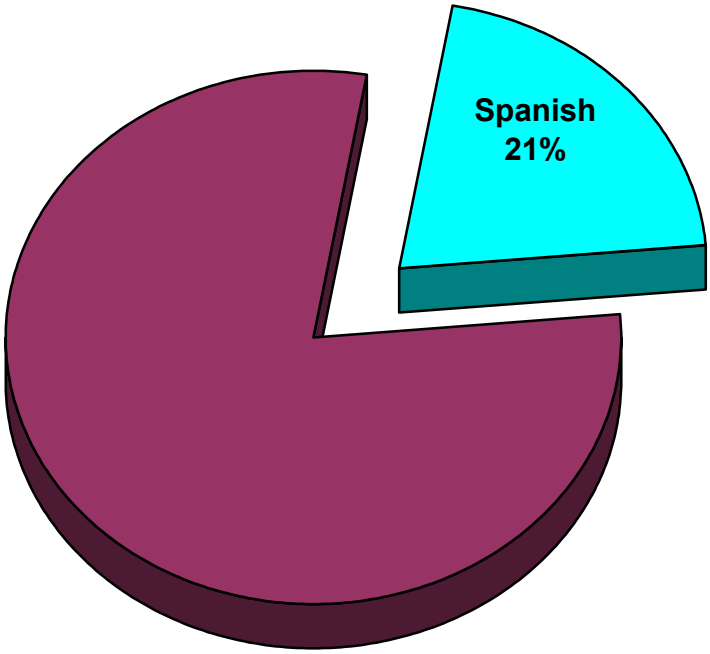



## Percentage of Tourists Understanding Italian

## Percentage of Tourists Understanding Italian

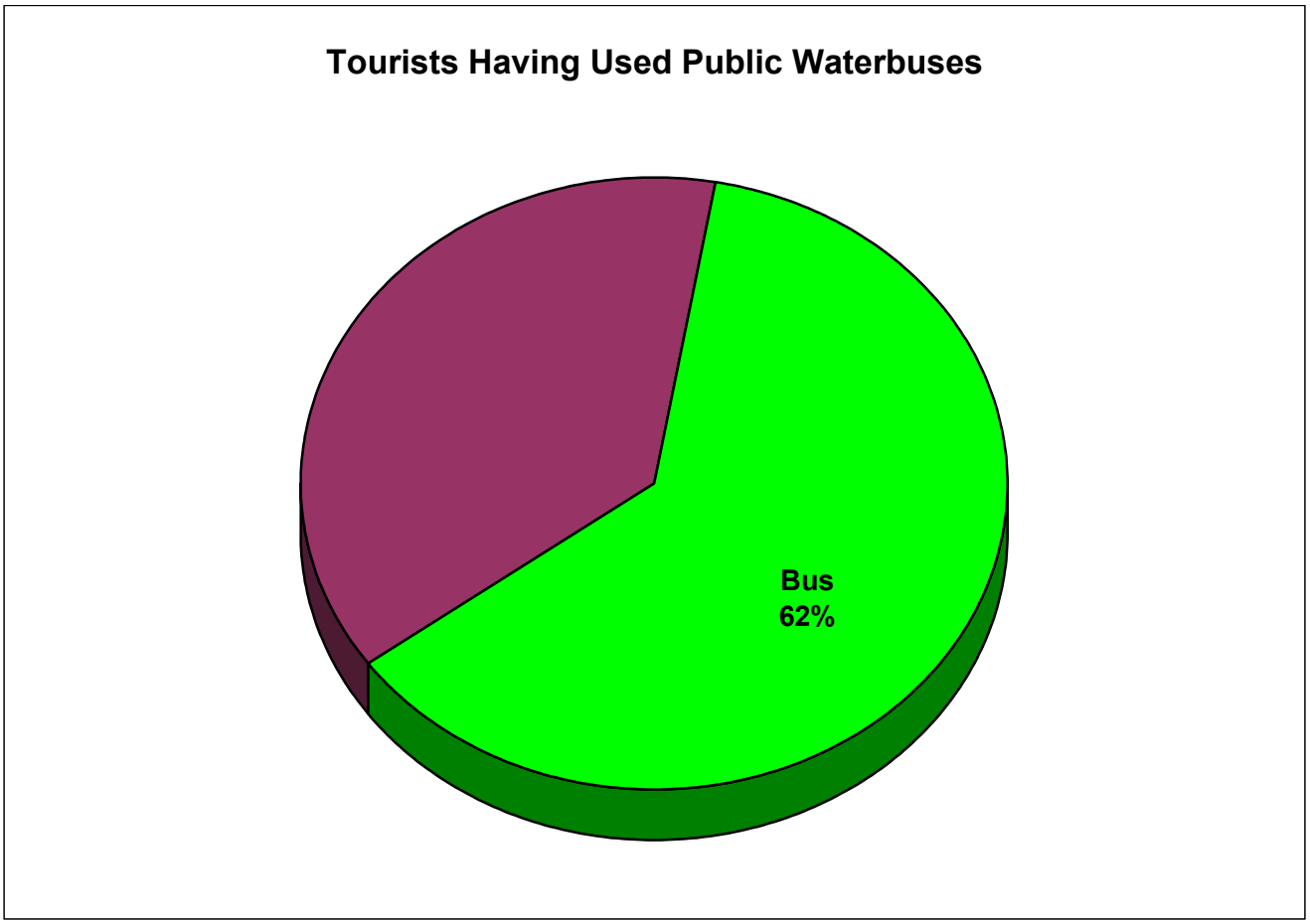



## Percentage of Tourists Understanding Spanish



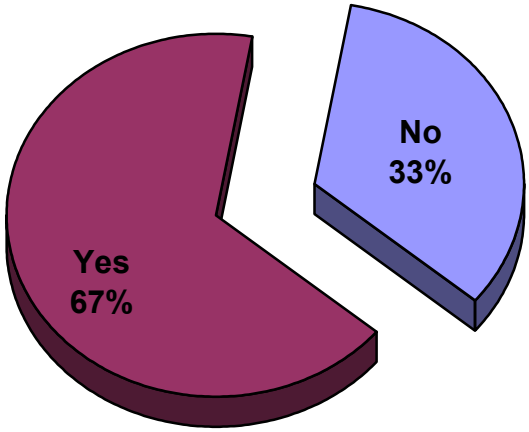
# Number of Tourists Using Buses & Taxis

| Tourists Having Used Public Waterbuses | | |
|---|---|---|
| Bus | No Bus | Total Tourists |
| 125 | 76 | 201 |

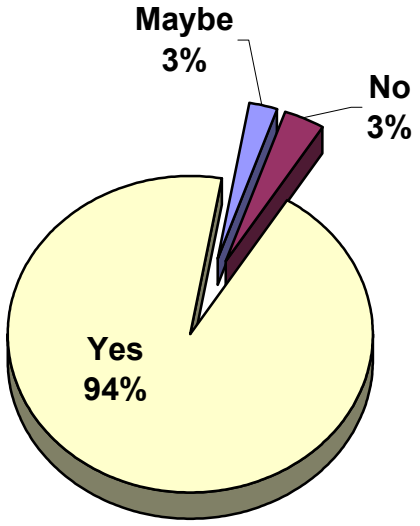


| Future Use of ACTV by Tourists | | | |
|---|---|---|---|
| WB1 Taken Bus | Maybe | No | Yes |
| Have not Used | | 3 | 6 |
| Have Used | 3 | 4 | 108 |

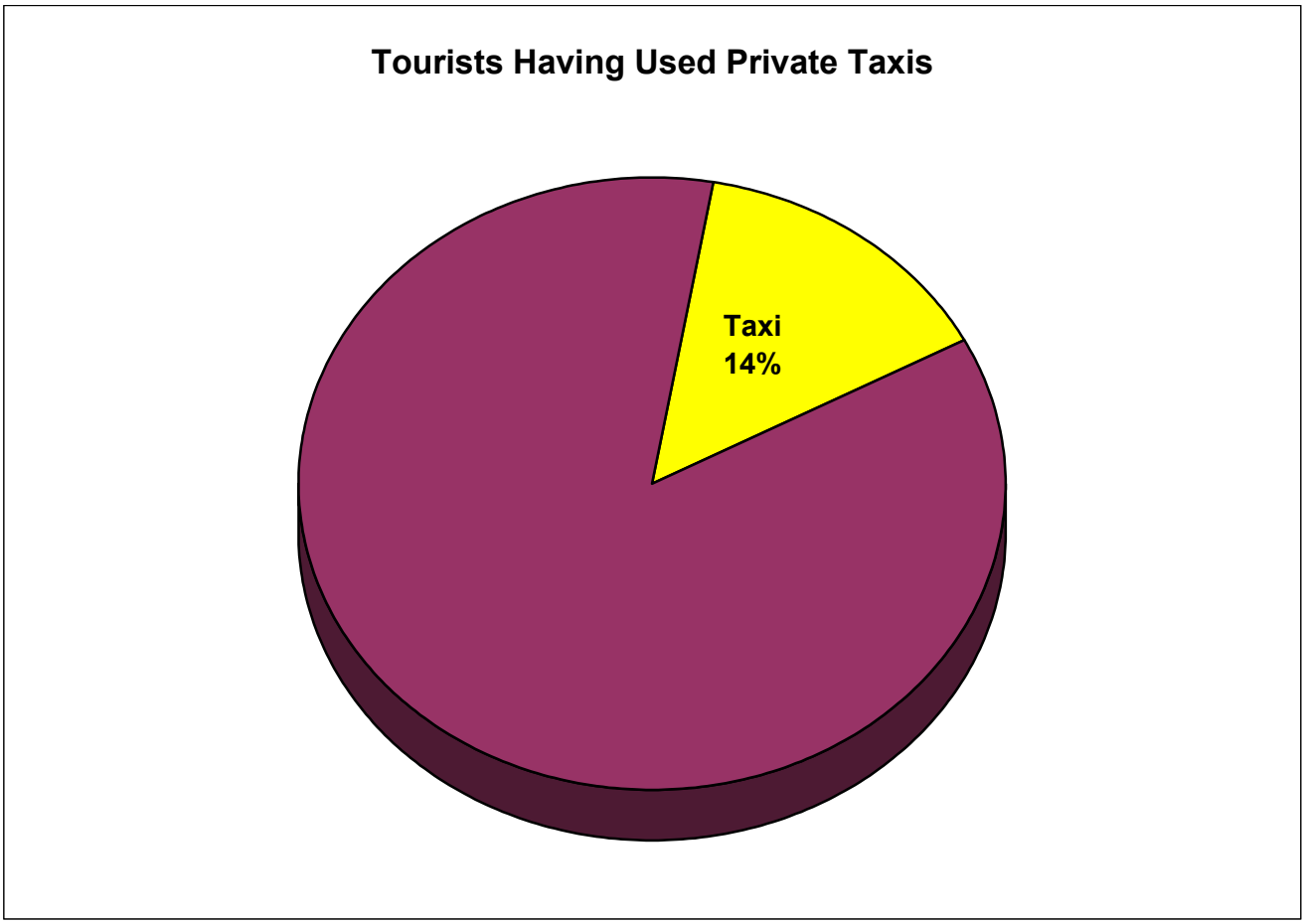
**Future Use of ACTV by Tourists Having NOT Taken it Before**




**Future Use of ACTV by Tourists Having Taken it Before**

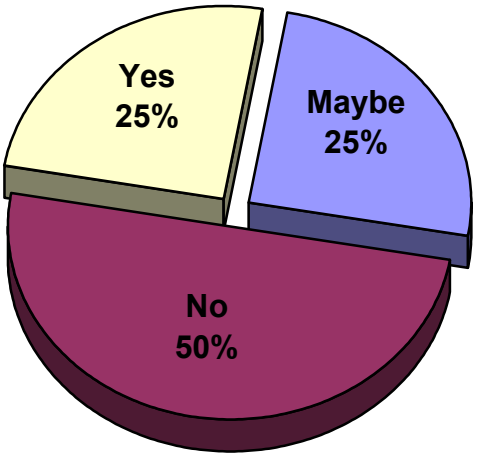


| Tourists Having Used Private Taxis | | | |
|---|---|---|---|
| Taxi | No Taxi | otal Tourists | |
| 29 | 172 | 201 | |

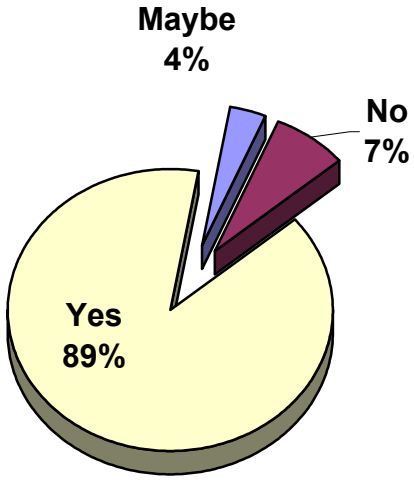


| Furure Use of Taxis by Tourist | | | |
|---|---|---|---|
| T1a Taken Taxi | Maybe | No | Yes |
| Have not Used | 1 | 2 | 1 |
| Have Used | 1 | 2 | 24 |

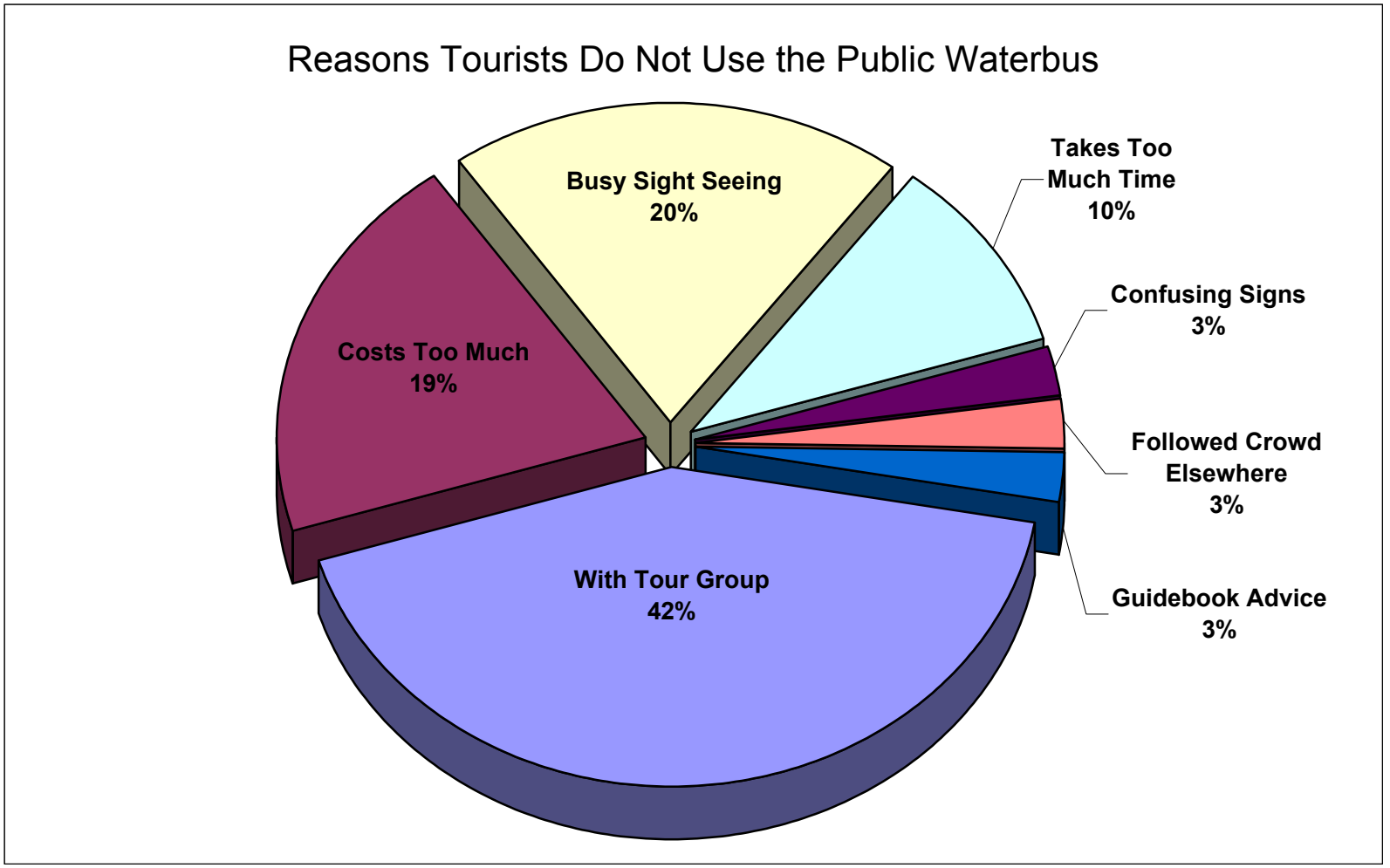
**Future Use of Taxis by Tourists Having Taken it Before**




**Future Use of Taxis by Tourists Having NOT Taken it Before**

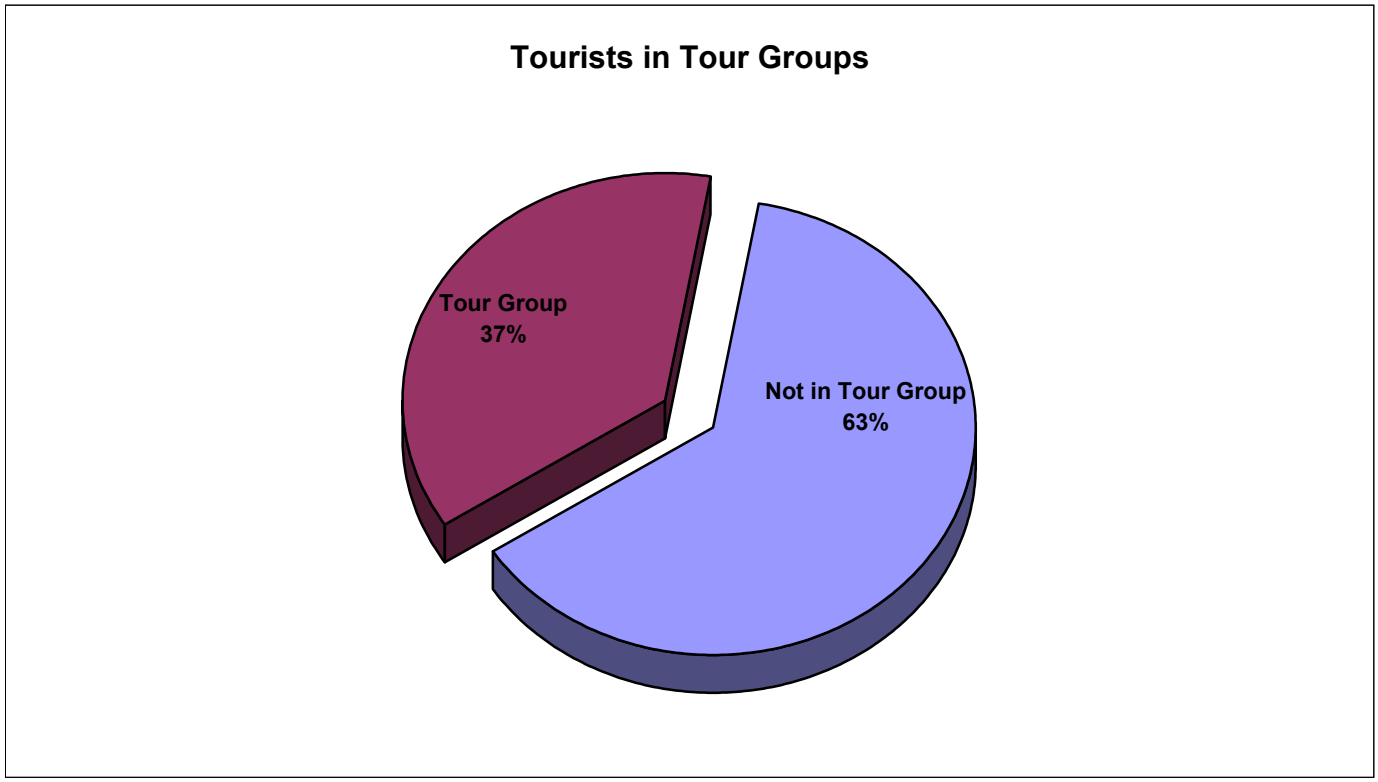


| Reasons Tourists Do Not Use the Public Waterbus | | | | | | |
|---|---|---|---|---|---|---|
| With Tour Group | Costs Too Much | Busy Sight Seeing | Takes Too Much Time | Confusing Signs | Followed Crowd Elsewhere | Guidebook Advice |
| 17 | 8 | 8 | 4 | 1 | 1 | 1 |



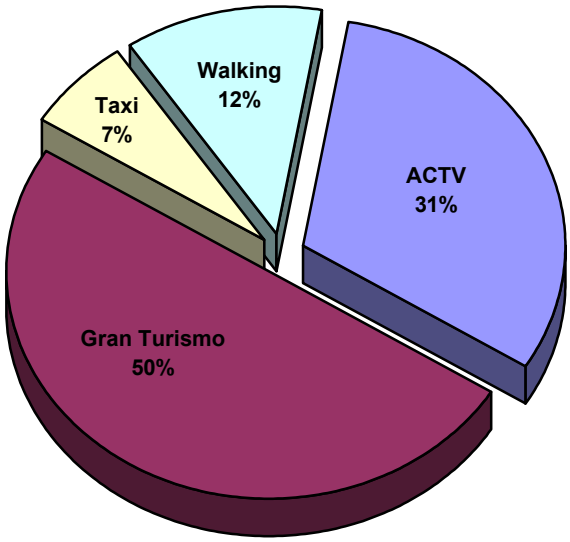
# Tour Group Assessment

| Tourists in a Tour Group | |
|---|---|
| No | Yes |
| 126 | 74 |

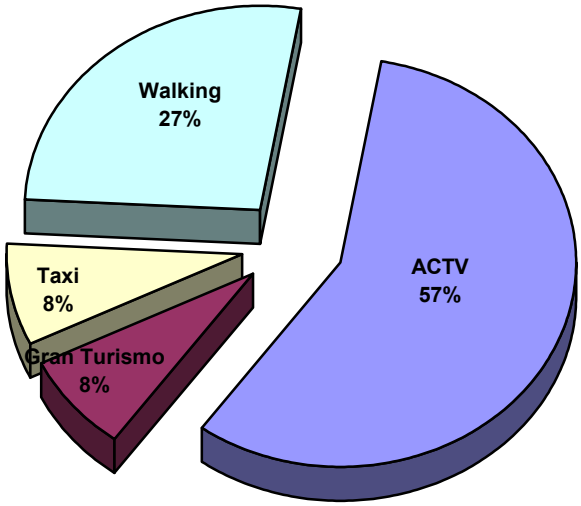


| With Group | Bus | Charter | Taxi | Walking |
|---|---|---|---|---|
| Yes | 23 | 37 | 5 | 9 |
| No | 72 | 10 | 10 | 34 |
| Total | 95 | 47 | 15 | 43 |

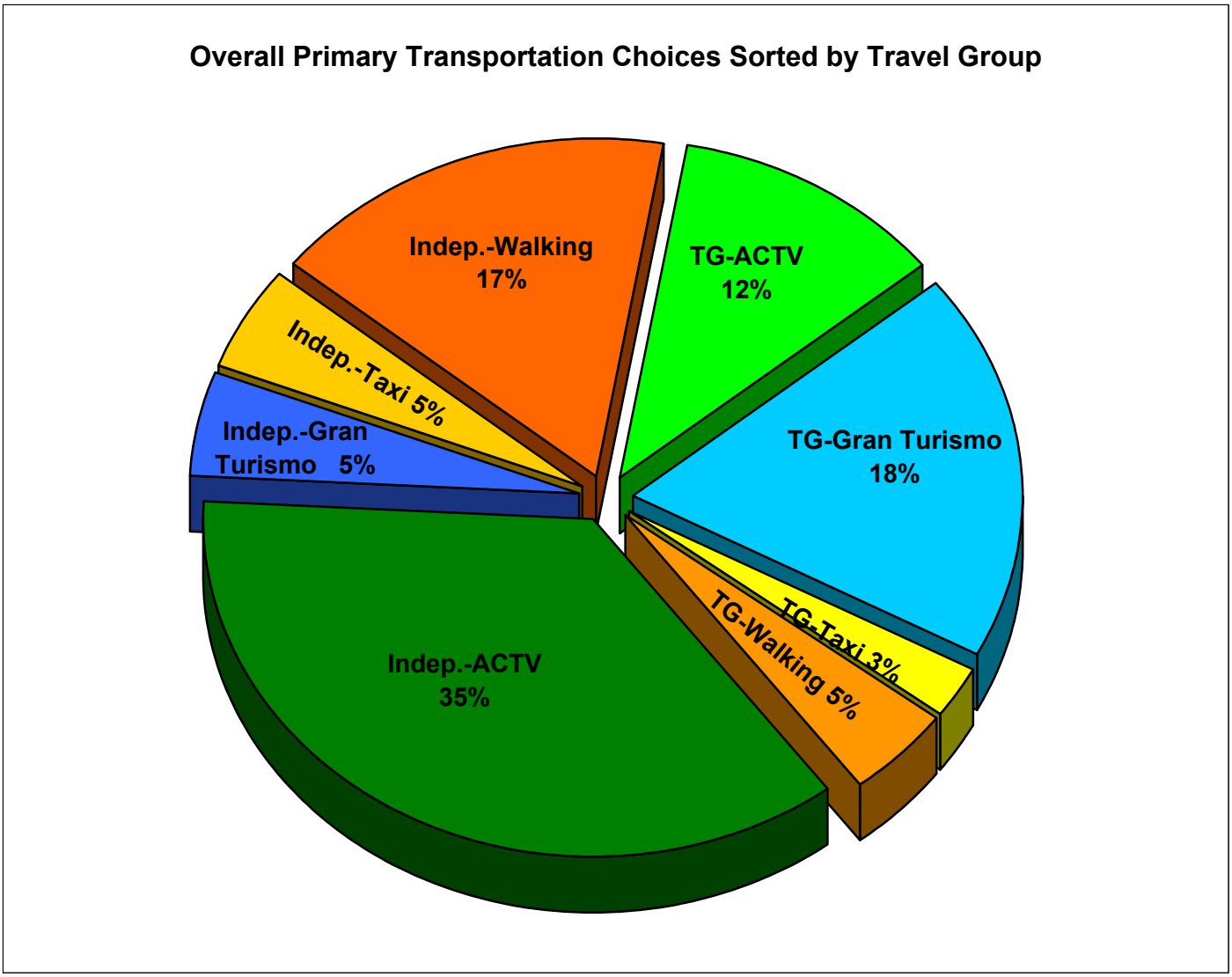
**Primary Transportation Choice for Tourists in Tour Groups**




**Primary Transportation Choice for Tourists NOT in Tour Groups**

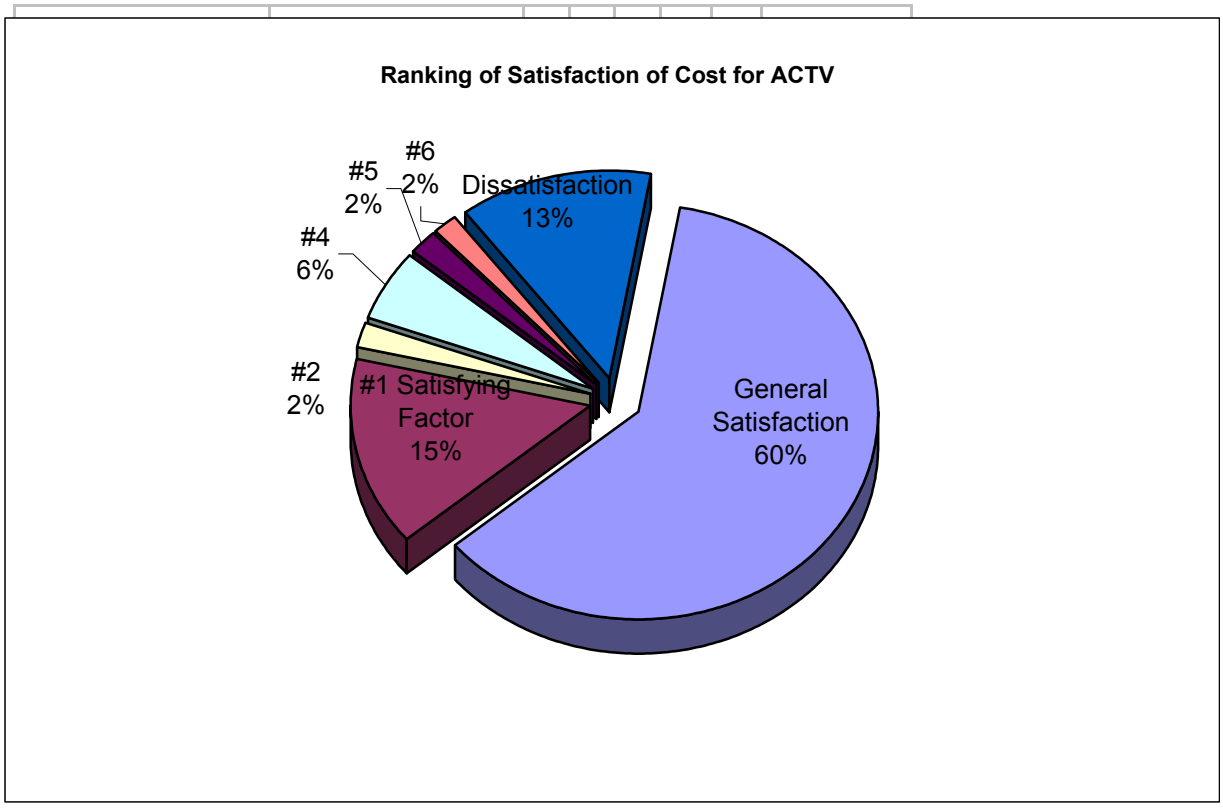


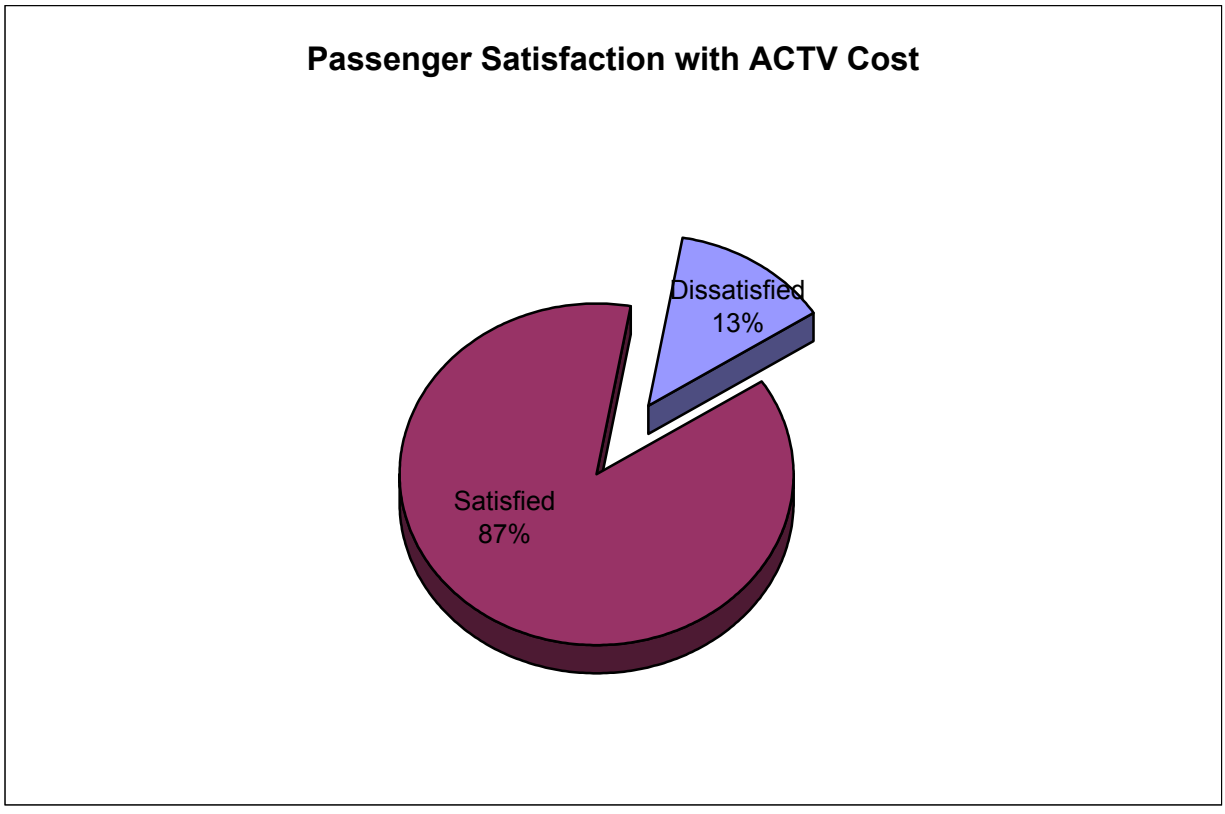
| Primary Transportation Choices by Tour Group | | | | | | | |
|---|---|---|---|---|---|---|---|
| TG-ACTV | Gran Turi | TG-Taxi | TG-Walking | Indep.-ACTV | Indep.-Gran Turismo | Indep.-Taxi | Indep.-Walking |
| 23 | 37 | 5 | 9 | 72 | 10 | 10 | 34 |



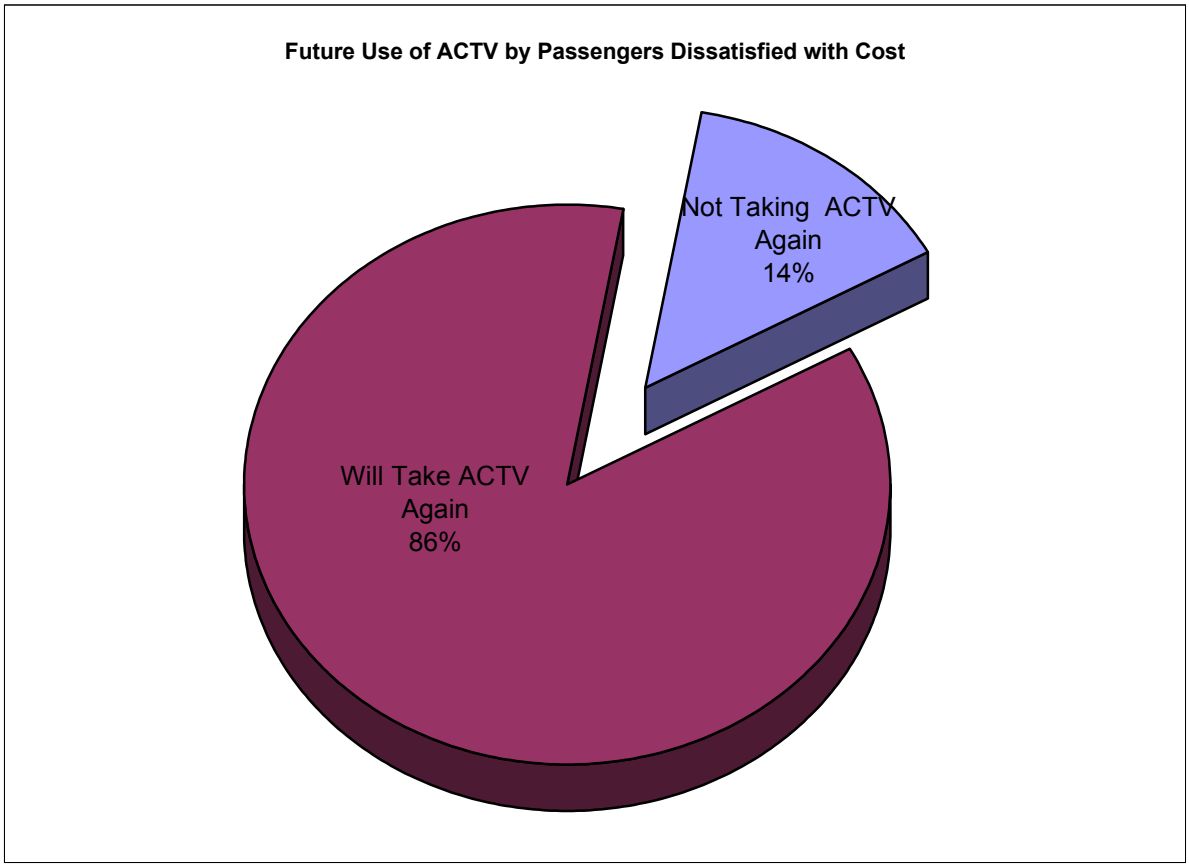
# Ranking Satisfaction of Cost for ACTV

| WB1 Taken Bus | Ranking | 0 | 1 | 2 | 4 | 5 | 6 | Dissatisfied | Satisfied |
|---|---|---|---|---|---|---|---|---|---|
| Yes | Number of People | 33 | 8 | 1 | 3 | 1 | 1 | 7 | 47 |



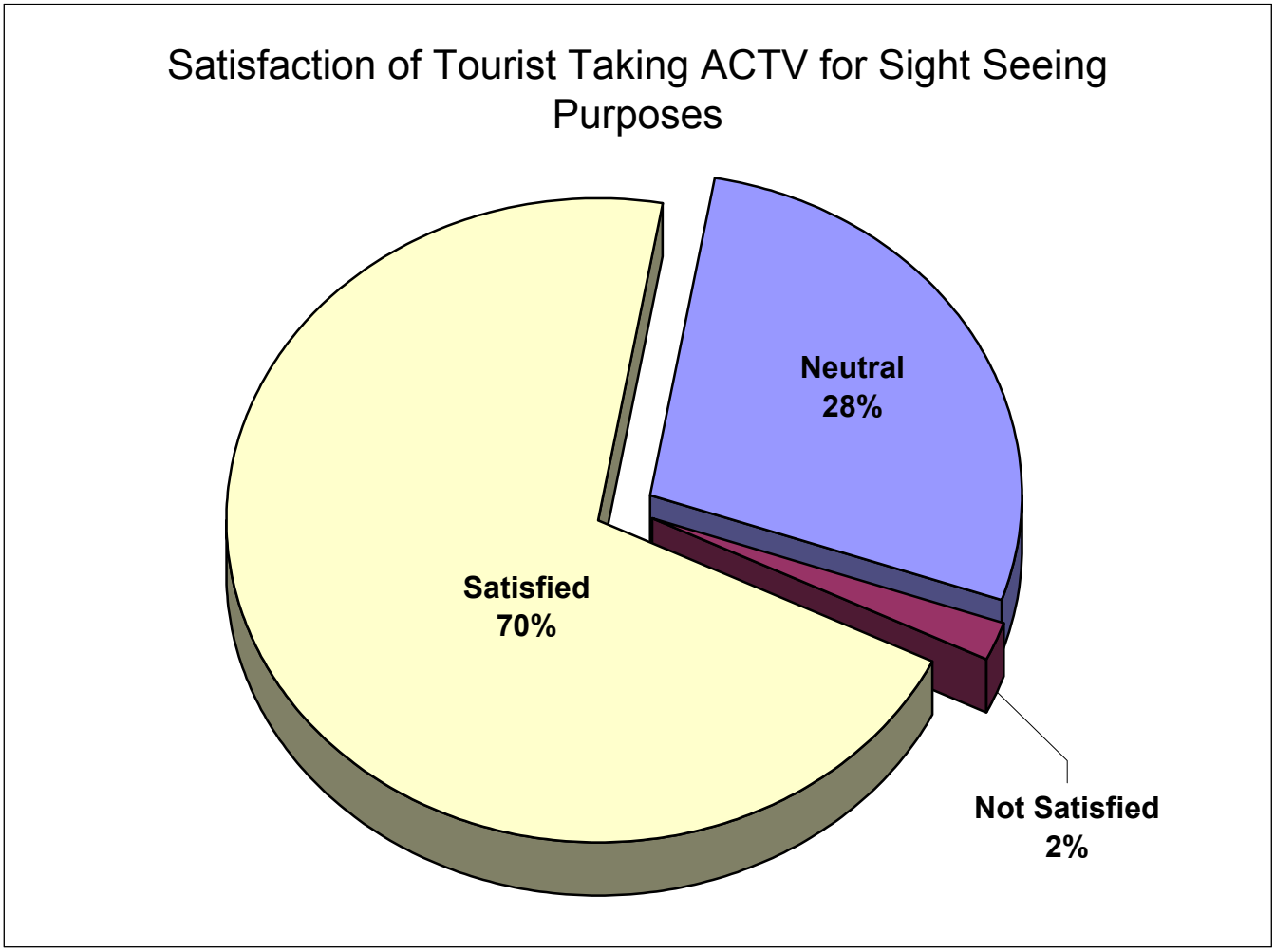



| WB11 Rank Cost | <> | Maybe | No | Yes |
|---|---|---|---|---|
| | 144 | 3 | 6 | 64 |
| 0 | 2 | | | 31 |
| 1 | | | | 8 |
| 2 | | | | 2 |
| 4 | | | | 3 |
| 5 | | | | 1 |
| 6 | | | | 1 |
| Dissatisfied | | | 1 | 6 |
| Satisfied | | | | 46 |



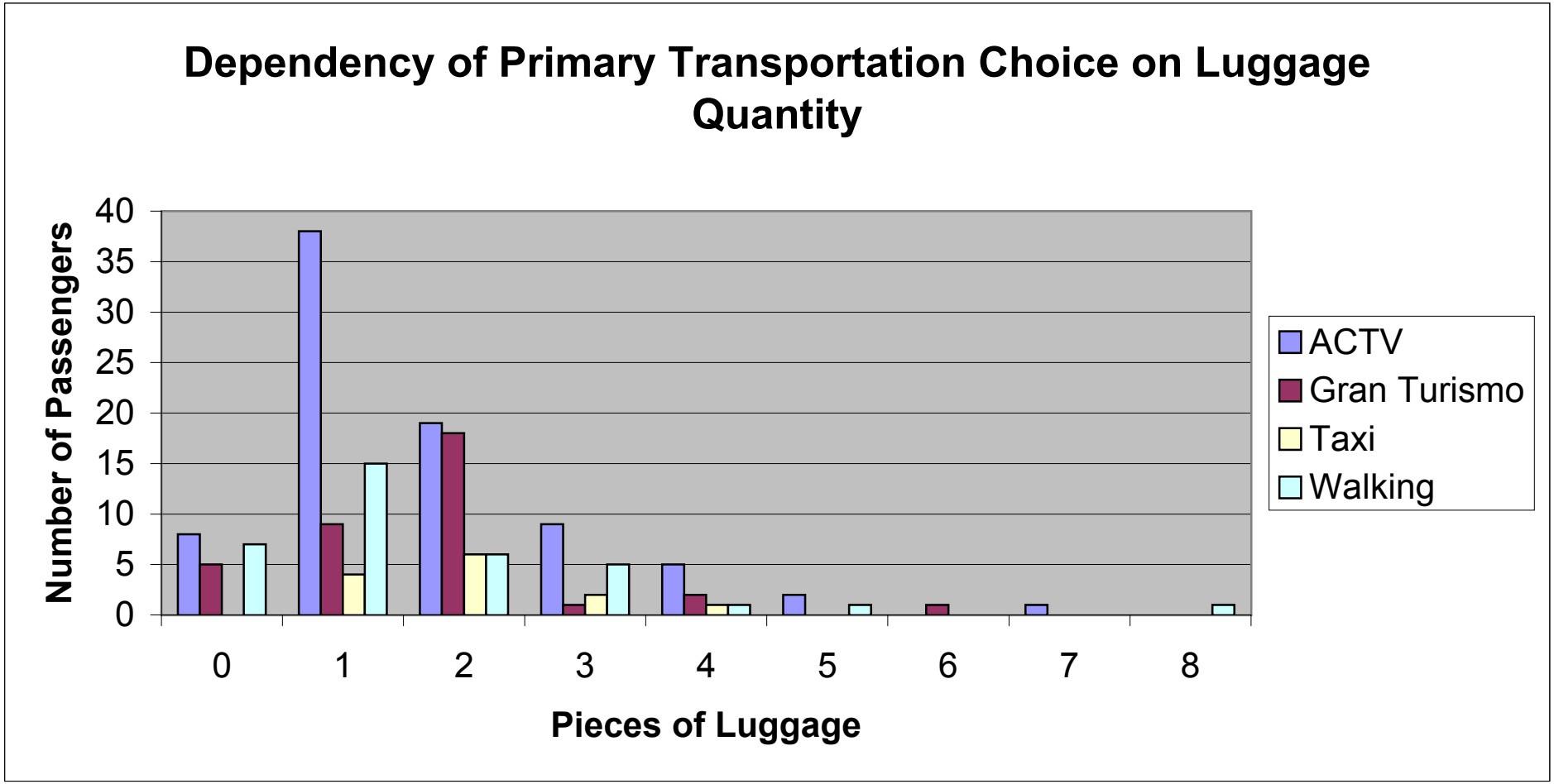
# Sight Seeing Assessment

| | 0 | 1 | 2 | 3 | 5 | Total |
|---|---|---|---|---|---|---|
| Neutral | 4 | 3 | 2 | 6 | 1 | 16 |
| Not Satisfied | | | 1 | | | 1 |
| Satisfied | 23 | 9 | 6 | 3 | | 41 |

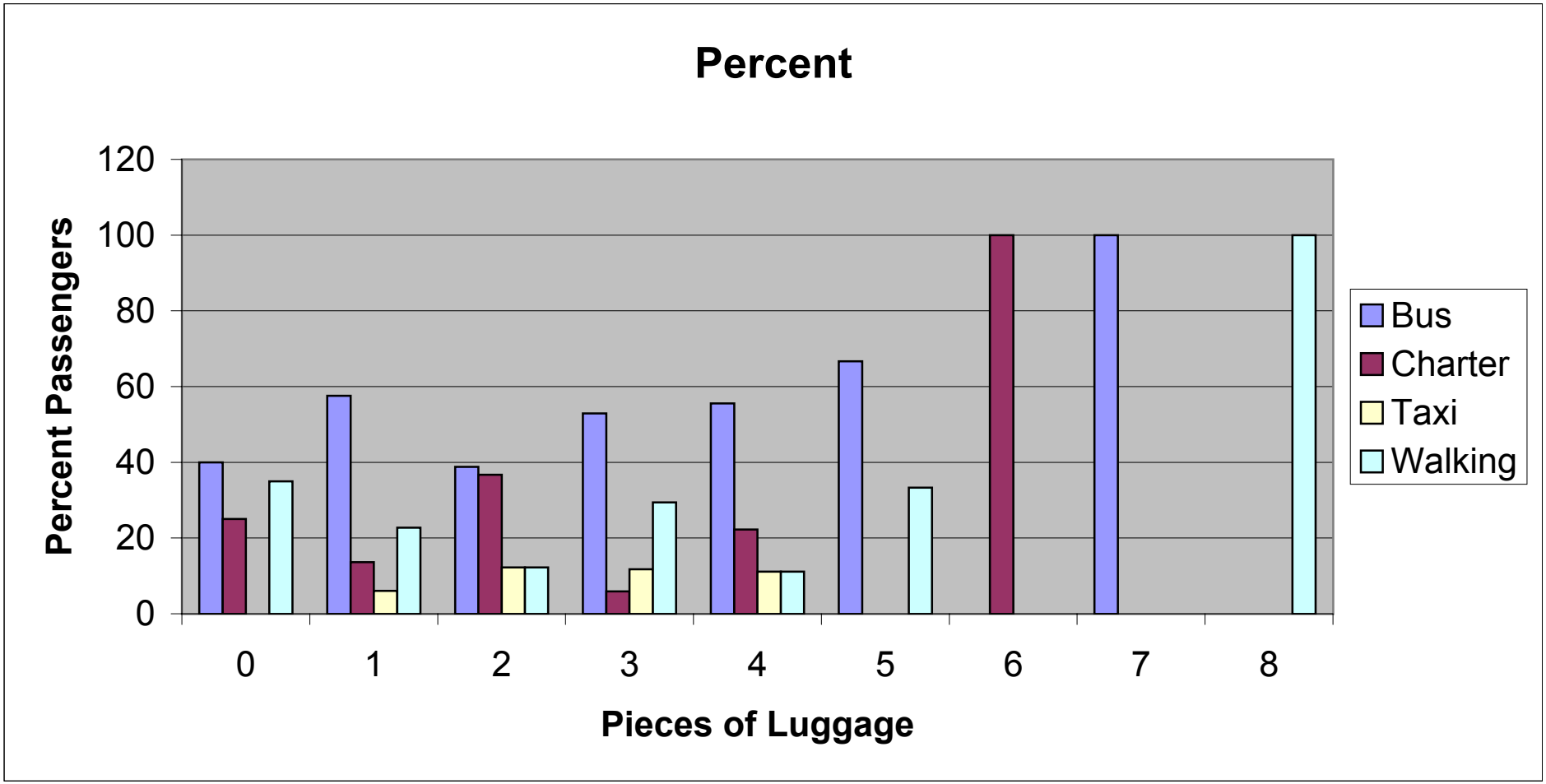


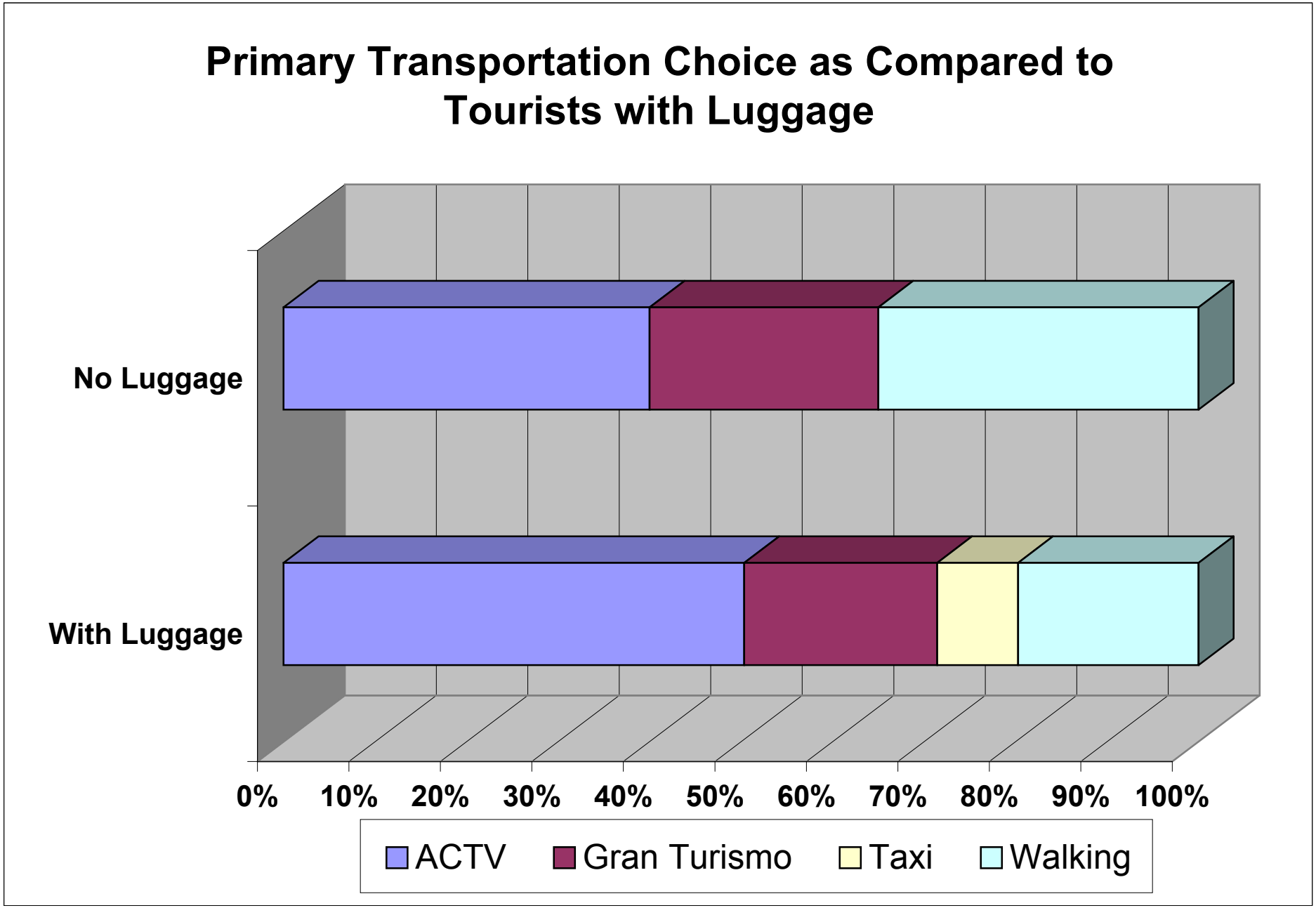
## Luggage Assessment

| First Form | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | With Luggage | No Luggage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bus | 8 | 38 | 19 | 9 | 5 | 2 | | 1 | | 74 | 8 |
| Charter | 5 | 9 | 18 | 1 | 2 | | 1 | | | 31 | 5 |
| Taxi | | 4 | 6 | 2 | 1 | | | | | 13 | 0 |
| Walking | 7 | 15 | 6 | 5 | 1 | 1 | | | 1 | 29 | 7 |



| 6 First Form | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| Bus | 40 | 58 | 39 | 53 | 56 | 67 | 0 | 100 | 0 |
| Charter | 25 | 14 | 37 | 6 | 22 | 0 | 100 | 0 | 0 |
| Taxi | 0 | 6 | 12 | 12 | 11 | 0 | 0 | 0 | 0 |
| Walking | 35 | 23 | 12 | 29 | 11 | 33 | 0 | 0 | 100 |




Primary Transportation Choice as Compared to Tourists with Luggage
No Luggage
With Luggage
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
ACTV
Gran Turismo
Taxi
Walking

| Amount of Luggage Compared to Dissatisfaction with Luggage Space | | | | | | |
|---|---|---|---|---|---|---|
| 3 Luggage | 0 | 2 | 3 | 6 | Dissatisfied | Satisfied |
| | | | | | 4 | 0 |
| 0 | 1 | | 1 | | | 2 |
| 1 | 4 | | | 1 | 2 | 5 |
| 2 | 1 | 1 | | | 3 | 2 |
| 3 | 1 | | | | | 1 |
| 4 | | | 1 | | 1 | 1 |
| 5 | | | | | | 0 |
| 6 | | | | | | 0 |
| 7 | | | | | | 0 |
| 8 | | | | | | 0 |

# Satisfaction Assessment

| | Slow | Quick | Confusing Signs | Clear Signs | Crowded Ride | Pleasent Ride | No Luggage Space | Luggage Help | Expensive | Cheap | Incorrect Destination | Correct Destination | Other Bad Things | Other Good Things | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Not Satisfied | | 0 | | 0 | 2 | 0 | | 1 | 1 | 0 | | 0 | | 1 | 5 |
| Neutral | 8 | 8 | 5 | 4 | 5 | 6 | | 0 | 4 | 9 | 1 | 8 | | 0 | 50 |
| Satisfied | 6 | 35 | 4 | 20 | 7 | 31 | 1 | 15 | 2 | 39 | | 25 | 1 | 15 | 195 |
| Totals | 14 | 43 | 9 | 24 | 12 | 37 | 1 | 15 | 6 | 48 | 1 | 33 | 1 | 15 | |

**Dissatisfying Factors of ACTV**

| | Slow | nfusing Si | Crowded Ride | Luggage Spa | Expensive | correct Destinati | Other Bad Things |
|---|---|---|---|---|---|---|---|
| Not Satisfied | | | 2 | | 1 | | |
| Neutral | 8 | 5 | 5 | | 4 | 1 | |
| Satisfied | 6 | 4 | 7 | 1 | 2 | | 1 |
| Totals | 14 | 9 | 12 | 1 | 6 | 1 | 1 |

**Satisfying Factors of ACTV**

| | Quick | lear Sign | Pleasant Ride | Luggage Help | Cheap | orrect Destinatio | Other Good Things |
|---|---|---|---|---|---|---|---|
| Not Satisfied | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Neutral | 8 | 4 | 6 | 0 | 9 | 8 | 0 |
| Satisfied | 35 | 20 | 31 | 15 | 39 | 25 | 15 |
| Totals | 43 | 24 | 37 | 15 | 48 | 33 | 15 |

**Luggage**

| Satisfaction | <> | 0 | 4 | No Luggage Space | Help With Luggage |
|---|---|---|---|---|---|
| Not Satisfied | 3 | 1 | | | 1 |
| Neutral | 29 | | | | 0 |
| Satisfied | 77 | 14 | 1 | 1 | 15 |

**Other**

| WB10 Satisfied | <> | 0 | 4 | Other Bad Things | Other Good Things |
|---|---|---|---|---|---|
| Not Satisfied | 3 | 1 | | | 1 |
| Neutral | 29 | | | | 0 |
| Satisfied | 77 | 14 | 1 | 1 | 15 |

## Time

| Satisfaction | <> | 0 | 1 | 2 | 3 | 4 | Slow | Quick |
|---|---|---|---|---|---|---|---|---|
| Not Satisfied | 4 | | | | | | | 0 |
| Neutral | 13 | 6 | 1 | 1 | | | 8 | 8 |
| Satisfied | 52 | 21 | 1 | 8 | 2 | 3 | 6 | 35 |

## Signs

| Satisfaction | <> | 0 | 1 | 2 | 3 | 4 | 5 | Confusing Signs | Clear Signs |
|---|---|---|---|---|---|---|---|---|---|
| Not Satisfied | 4 | | | | | | | | 0 |
| Neutral | 20 | 3 | 1 | | | | | 5 | 4 |
| Satisfied | 69 | 11 | 3 | 1 | 3 | 1 | 1 | 4 | 20 |

## Ride

| Satisfaction | <> | 0 | 1 | 2 | 3 | 4 | 6 | Pleasant Ride | Crowded Ride |
|---|---|---|---|---|---|---|---|---|---|
| Not Satisfied | 2 | | | | | | | 2 | 0 |
| Neutral | 18 | 6 | | | | | | 5 | 6 |
| Satisfied | 55 | 25 | 2 | 1 | 1 | 1 | 1 | 7 | 31 |

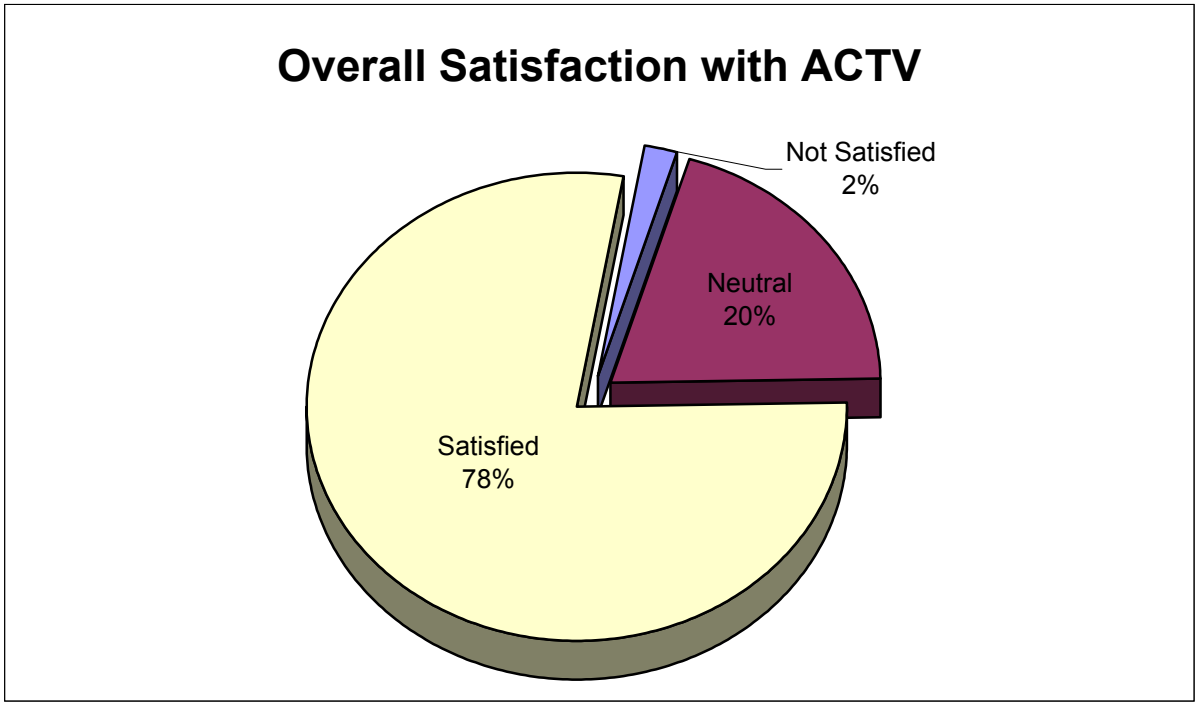
## Destination

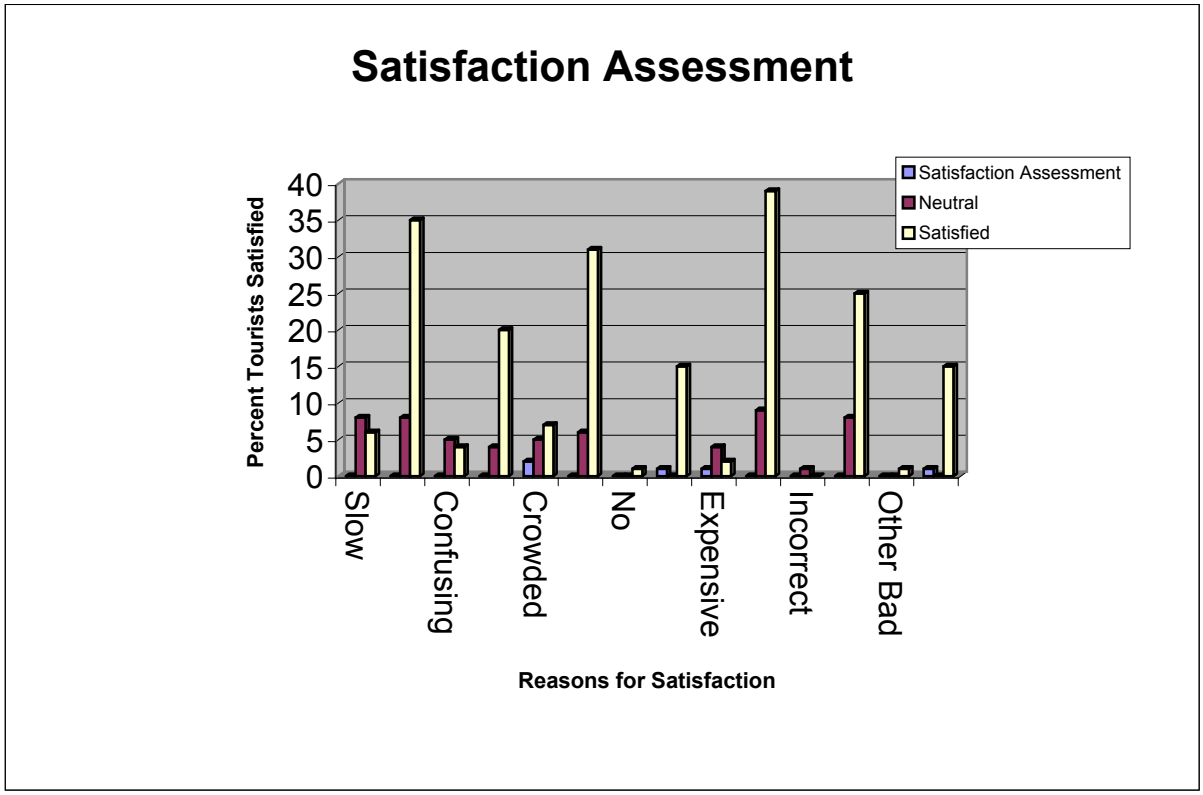
| WB10 Satisfied | <> | 0 | 1 | 2 | 3 | 4 | 5 | Incorrect Destination | Correct Destination |
|---|---|---|---|---|---|---|---|---|---|
| Not Satisfied | 4 | | | | | | | | 0 |
| Neutral | 20 | 8 | | | | | | 1 | 8 |
| Satisfied | 68 | 12 | 3 | 5 | 3 | 1 | 1 | | 25 |

## Cost

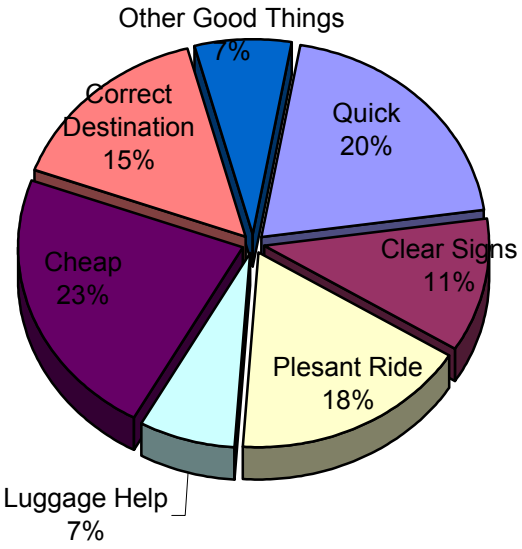
| Satisfaction | <> | 0 | 1 | 2 | 4 | 5 | 6 | Expensive | Cheap |
|---|---|---|---|---|---|---|---|---|---|
| Not Satisfied | 3 | | | | | | | 1 | 0 |
| Neutral | 16 | 6 | 1 | 2 | | | | 4 | 9 |
| Satisfied | 52 | 27 | 7 | | 3 | 1 | 1 | 2 | 39 |

# ACTV Satisfaction Infrormation

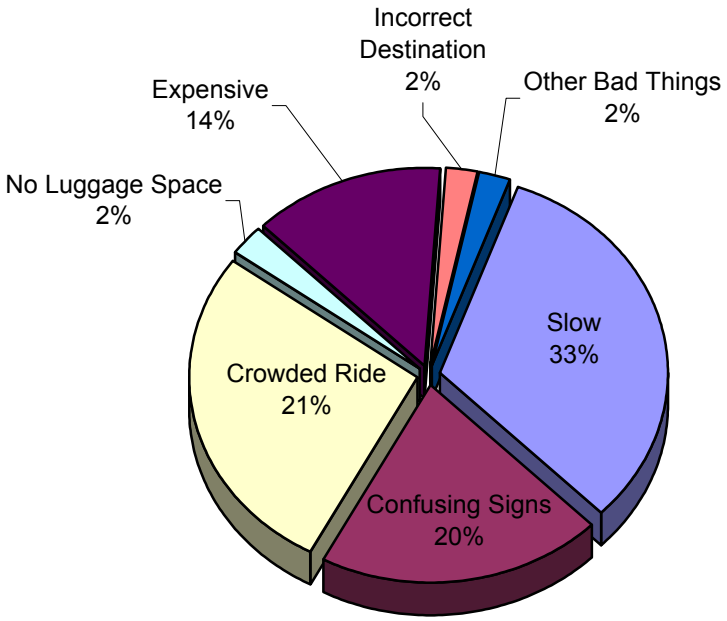


## Satisfying Factors of ACTV




## Dissatisfying Factors of ACTV



## *7.4 Appendix D- Tour Group Listing*

Tour Group Names Obtained by Survey

Wallace Arnold
TUI
Travel Selections
Trafalgar
Thompsons
Tennessee Ambassadors of Music
Sound of America
Princess Cruise
Queen Cruise
Rimon
Rainbow Tours
Poznanski Travel
Perillo
Passports
Paige & Mary
New Millenium
Mountain Tours
Millenium Cruises
Millenium-Celebrity
Marco Polo
Kourni
Jugendweihe – Reise
JIAKA
International Heritage
Insight
Holiday Resen
Halcon Viajes
Grand Circle
GoGo (Netherlands)
El Corte Ingles
EF Tours
Educational Tours
Donna Franca
Cosmos
Contiki
City Tours
CHA
Celebrity Cruises
Buzz's Euopean Adventure
Armaggi Travel
American Music Abroad
American Express
Air Tours

Tour Group Names Obtained by Observation

(Using Gran Turismo)
Visionale
Kingway Tours
Butterfields & History
Cosmo
Tropics
Transnational
Cox & Kings
Canettini
American Celebration of Music
People to People
Kingsley Tours
Spagne Insight Vacations
Club Med

(Using Taxi)
Santara

(Using ACTV)
ACIS
Star Tour
Fritta Rasor

## *7.5 Appendix E- Available Information Database*

Station Name: **Ferrovia**

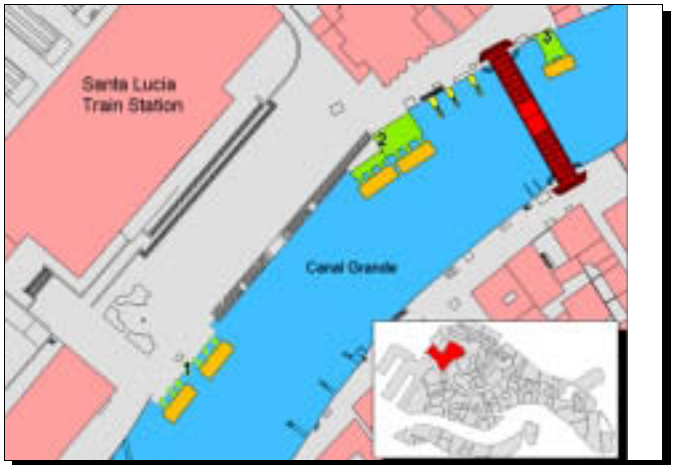
Station_code: FVIA

Last Update: 7/23/01

Ticket Booth ☐ Timetable ☐

Price Chart of Tickets ☐ Information Desk ☐

Map




# Approdo

Station_Name: Ferrovia

Station_Code: FVIA

Approdo_Num: 1

Approdo_Code: FVIA1

Last Update: 7/23/01

General Line Map ☑

Higlighted Line Map ☑

Dock Directions by Line ☑

Ticket Booth ☑

Price Chart of Tickets ☑

Timetable ☑

Information Desk ☐

Small Map Charts ☑

Electronic Signs ☑

Stamp Ticket Sign ☑

Number of Ticket Stamps: 2

Electronic Exit ☑

Number of Phones: 1

Missing:

Repair:

## Pontile

Station_Name: Ferrovia

Approdo_Num: 1

Pontile_Location: R

Pontile_code: FVIA1_R

Last Update: 7/23/01

General Line Map ☑

Dock Directions by Line ☑

Stops + Arrow ☑

Number of Bilboards: 0

Missing:

F1) Left - Center Pontile

## Pontile

Station_Name: Ferrovia

Approdo_Num: 1

Pontile_Location: L

Pontile_code: FVIA1_L

Last Update: 7/23/01

General Line Map ☑

Dock Directions by Line ☑

Stops + Arrow ☑

Number of Bilboards: 0

Missing:

Station Name: **Ferrovia**

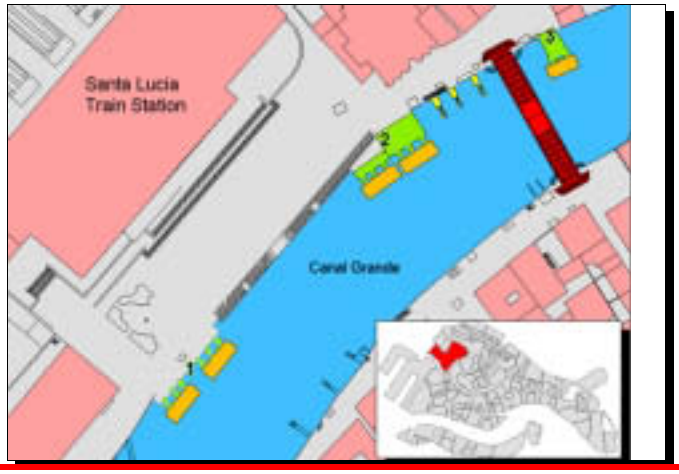
Station_code: FVIA

Last Update: 7/23/01

Ticket Booth ☐ Timetable ☐

Price Chart of Tickets ☐ Information Desk ☐

Map




# Approdo

Station_Name: Ferrovia

Station_Code: FVIA

Approdo_Num: 2

Approdo_Code: FVIA2

Last Update: 7/23/01

General Line Map ☑

Higlighted Line Map ☐

Dock Directions by Line ☑

Ticket Booth ☑

Price Chart of Tickets ☑

Timetable ☑

Information Desk ☑

Small Map Charts ☑

Electronic Signs ☑

Stamp Ticket Sign ☐

Number of Ticket Stamps: 2

Electronic Exit ☑

Number of Phones: 3

Missing:

Repair:

## Pontile

Station_Name: Ferrovia

Approdo_Num: 2

Pontile_Location: L

Pontile_code: FVIA2_L

Last Update: 7/23/01

General Line Map ☑

Dock Directions by Line ☑

Stops + Arrow ☑

Number of Bilboards: 0

Missing:

F1) Left - Center Pontile

## Pontile

Station_Name: Ferrovia

Approdo_Num: 2

Pontile_Location: R

Pontile_code: FVIA2_R

Last Update: 7/23/01

General Line Map ☑

Dock Directions by Line ☑

Stops + Arrow ☑

Number of Bilboards: 0

Missing:

Station Name: **Ferrovia**

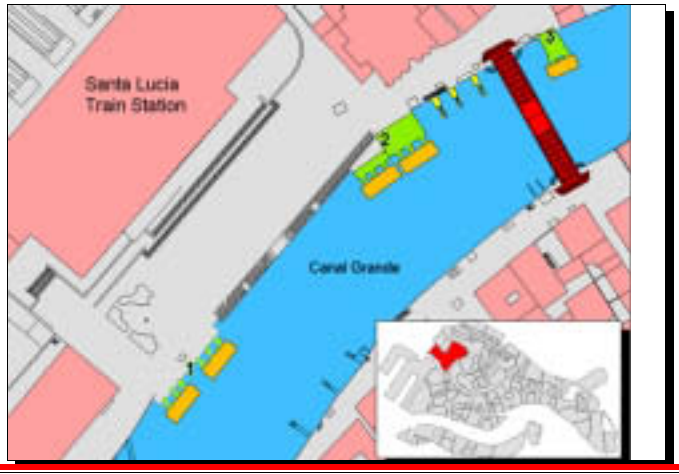
Station_code: FVIA

Last Update: 7/23/01

Ticket Booth ☐ Timetable ☐

Price Chart of Tickets ☐ Information Desk ☐

Map




# Approdo

Station_Name: Ferrovia

Station_Code: FVIA

Approdo_Num: 3

Approdo_Code: FVIA3

Last Update: 7/23/01

General Line Map ☑

Higlighted Line Map ☑

Dock Directions by Line ☑

Ticket Booth ☑

Price Chart of Tickets ☑

Timetable ☑

Information Desk ☐

Small Map Charts ☐

Electronic Signs ☐

Stamp Ticket Sign ☐

Number of Ticket Stamps: 1

Electronic Exit ☑

Number of Phones: 0

Missing:

Repair:

# Pontile

Station_Name: Ferrovia

Approdo_Num: 3

Pontile_Location: C

Pontile_code: FVIA3_C

Last Update: 7/23/01

General Line Map ☑

Dock Directions by Line ☑

Stops + Arrow ☑

Number of Bilboards: 0

Missing:

F1) Left - Center Pontile

Station Name: **Piazzale Roma**

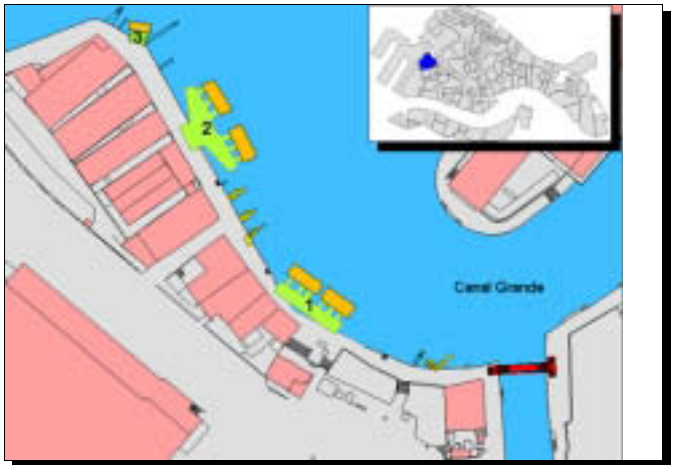
Station_code: PROM

Last Update: 7/23/01

Ticket Booth ☑ Timetable ☐

Price Chart of Tickets ☐ Information Desk ☑

Map




# Approdo

Station_Name: Piazzale Roma

Station_Code: PROM

Approdo_Num: 1

Approdo_Code: PROM1

Last Update: 7/23/01

General Line Map ☑

Higlighted Line Map ☐

Dock Directions by Line ☑

Ticket Booth ☑

Price Chart of Tickets ☑

Timetable ☑

Information Desk ☐

Small Map Charts ☑

## Pontile

Station_Name: Piazzale Roma

Approdo_Num: 1

Pontile_Location: L

Pontile_code: PROM1_L

Last Update: 7/23/01

General Line Map ☑

Dock Directions by Line ☑

Stops + Arrow ☑

Number of Bilboards: 10

Missing:

F1) Left - Center Pontile

## Pontile

Station_Name: Piazzale Roma

Approdo_Num: 1

Pontile_Location: R

Pontile_code: PROM1_R

Last Update: 7/23/01

General Line Map ☑

Dock Directions by Line ☑

Stops + Arrow ☑

Number of Bilboards: 11

Missing:

Electronic Signs ☑

Stamp Ticket Sign ☐

Number of Ticket Stamps: 2

Electronic Exit ☐

Number of Phones: 1

Missing:

Repair:

Station Name: **Piazzale Roma**

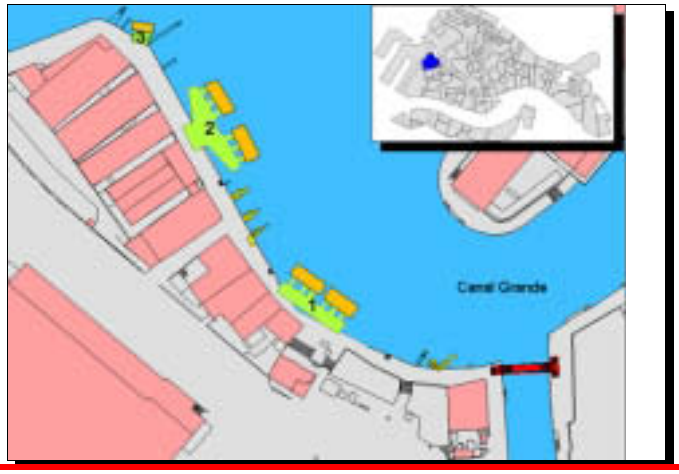
Station_code: PROM

Last Update: 7/23/01

Ticket Booth ☑ Timetable ☐

Price Chart of Tickets ☐ Information Desk ☑

Map




# Approdo

Station_Name: Piazzale Roma

Station_Code: PROM

Approdo_Num: 2

Approdo_Code: PROM2

Last Update: 7/23/01

General Line Map ☑

Higlighted Line Map ☐

Dock Directions by Line ☑

Ticket Booth ☑

Price Chart of Tickets ☑

Timetable ☑

Information Desk ☐

Small Map Charts ☑


Electronic Signs ☑

Stamp Ticket Sign ☐

Number of Ticket Stamps: 2

Electronic Exit ☑

Number of Phones: 0

Missing:

Repair:

## Pontile

Station_Name: Piazzale Roma

Approdo_Num: 2

Pontile_Location: R

Pontile_code: PROM2_R

Last Update: 7/23/01

General Line Map ☑

Dock Directions by Line ☑

Stops + Arrow ☑

Number of Bilboards: 11

Missing:

F1) Left - Center Pontile

## Pontile

Station_Name: Piazzale Roma

Approdo_Num: 2

Pontile_Location: L

Pontile_code: PROM2_L

Last Update: 7/23/01

General Line Map ☑

Dock Directions by Line ☑

Stops + Arrow ☑

Number of Bilboards: 11

Missing:

Station Name **Piazzale Roma**

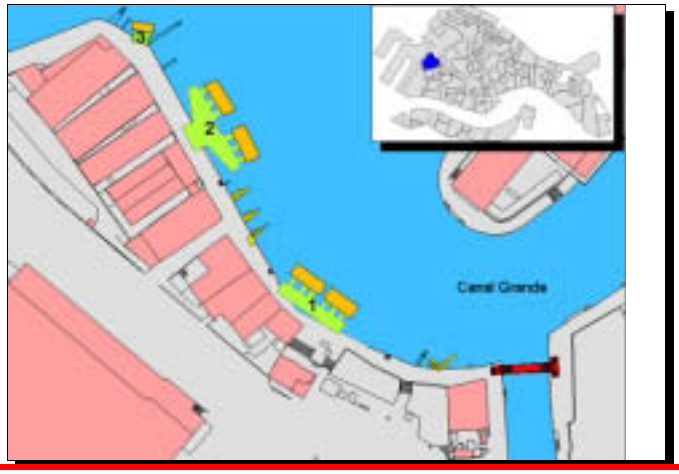
Station_code PROM

Last Update 7/23/01

Ticket Booth ☑ Timetable ☐

Price Chart of Tickets ☐ Information Desk ☑

Map




# Approdo

Station_Name Piazzale Roma

Station_Code PROM

Approdo_Num 3

Approdo_Code PROM3

Last Update 7/23/01

General Line Map ☑

Higlighted Line Map ☐

Dock Directions by Line ☑

Ticket Booth ☑

Price Chart of Tickets ☐

Timetable ☑

Information Desk ☐

Small Map Charts ☐

Electronic Signs ☐

Stamp Ticket Sign ☐

Number of Ticket Stamps 1

Electronic Exit ☑

Number of Phones 0

Missing

Repair

# Pontile

Station_Name Piazzale Roma

Approdo_Num 3

Pontile_Location C

Pontile_code PROM3_C

Last Update 7/23/01

General Line Map ☑

Dock Directions by Line ☑

Stops + Arrow ☑

Number of Bilboards 12

Missing

F1) Left - Center Pontile

Station Name **Tronchetto**

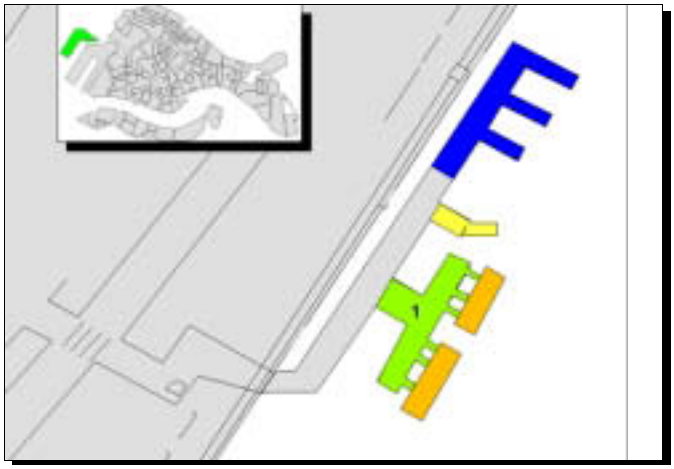
Station_code TRON

Last Update 7/23/01

Ticket Booth ☑ Timetable ☑

Price Chart of Tickets ☑ Information Desk ☐

Map



# Approdo

Station_Name Tronchetto

Station_Code TRON

Approdo_Num 1

Approdo_Code TRON1

Last Update 7/23/01

General Line Map ☑

Higlighted Line Map ☐

Dock Directions by Line ☑

Ticket Booth ☐

Price Chart of Tickets ☐

Timetable ☑

Information Desk ☐

Small Map Charts ☐

Electronic Signs ☐

Stamp Ticket Sign ☑

Number of Ticket Stamps 2

Electronic Exit ☐

Number of Phones 0

Missing

Repair

## Pontile

Station_Name Tronchetto

Approdo_Num 1

Pontile_Location L

Pontile_code TRON1_L

Last Update 7/23/01

General Line Map ☑

Dock Directions by Line ☑

Stops + Arrow ☑

Number of Bilboards 0

Missing

F1) Left - Center Pontile

## Pontile

Station_Name Tronchetto

Approdo_Num 1

Pontile_Location R

Pontile_code TRON1_R

Last Update 7/23/01

General Line Map ☑

Dock Directions by Line ☑

Stops + Arrow ☑

Number of Bilboards 0

Missing

Station Name **Tronchetto**

Station_code TRON

Last Update 7/23/01

Ticket Booth ☑ Timetable ☑

Price Chart of Tickets ☑ Information Desk ☐

Map