Gender Analysis of December 1997 Household Survey

- Apoyo Opinión y Mercado S.A. conducted 557 personal surveys in Lima to male and female users of urban transportation in households of all socioeconomic levels.
- The design and size of the sample allow for estimations with an error margin of +4.2% with a 95% confidence interval (z=1.96) and a completely probabilistic selection of the persons interviewed.
- The issues investigated through the survey included: transportation habits, frequency of use, type of vehicles used, schedules, destinations, times of wait and length of trip, expenses, evaluation of the service, opinion on existing infrastructure, attitudes towards sound and air contamination, and road safety.

1. Urban transport vehicles utilized

Male and female usage of combis, buses and taxis is quite similar. However, in the use of mototaxis a substantial difference is observed: while women choose to ride mototaxis 13% of the time, only 6% of men mention this as one of their transport choices. In a similar fashion, 4% of men mention a private car (own or rented) as their usual means of transportation, compared to 1% of women. This disparity is also true for bicycle usage, where 3% of men mention this as one of their choices, vs. only 1% of women.

2. Frequency of use of public transportation

In general, women are less intensive users of public transportation. While only 24% of women utilize public transportation daily, 31% use it five to six times a week, where all these values are higher for men. In the “three to four times a week” category, however, we find 27% of women, and only 17% of men, evidencing different travel needs and patterns by gender.
According to the days of the week in which public transportation is required, the frequency of usage by men for every day of the week is consistently higher than that for women. Mondays (82%) and Fridays (80%) are the weekdays most mentioned by men, with Friday being the least mentioned weekday for women (66%). In general, for women there is a decrease in the demand for public transportation as the week progresses.

For both men and women, the most utilized type of transportation are the combis, mentioned 67% and 64% of the time respectively. Women tend to make more use of buses (32%) than men (28%).

3. Schedules
As seen in the graph above, the demand for public transportation by men and women follows different patterns, where the transportation needs of women are more evenly spread throughout the day than those of men. While a majority of men declare to travel between 7am and 8am, and the flow of men making use of transportation appears to decline between 9am and 5pm, women’s peak hours for travel are 8am to 9am and 4-5pm. Apparently, men would travel to their work destinations early and stay there for the remainder of the day, making their return trips after 3pm.

4. Destination

While men’s destinations are mainly concentrated around the workplace, followed by school, women’s travel destinations are much more spread among the different categories, with market/shopping and friends/family having significantly higher percentages for women than for men. In general, this will point out the existence of two women’s circuits: one which is structured around the neighborhood or the district, and another one (probably with longer distances and travel times) for women who work outside the home.
5. Wait Periods

For both men and women we find that most travelers wait only from 1 to 5 minutes on average for their public transportation vehicle. However, it is found that as the wait periods increase, do does the proportion of women who wait. This finding may be linked to the fact that lower socio-economic levels experience longer mean waiting times than average, and the fact -shown above- that many women’s travel patterns are structured around the neighborhood or district of residence. If these are located in low-income areas, women will have to wait on average, longer periods than men for public transportation.

6. Travel Times

Travel times of women to their workplaces are generally clustered around the smaller time brackets, with the exception of the 51 to 60 minute bracket, where another significant group of women are found. In their travel to the marketplace, women either travel for shorter
periods (≤ 30 minutes) probably to neighboring markets, or they travel over 1hr to markets further away (probably to wholesale markets or to La Parada).

![Travel Times to Marketplace](chart.png)

7. **Number of Vehicles Boarded**

![Pie Chart: Take only 1 vehicle to get to your destination? (Female)](chart1.png)

![Pie Chart: Take only 1 vehicle to get to your destination? (Male)](chart2.png)

The proportion of women who take only one vehicle to get to their main destination is smaller than that of men. This may indicate that women have less access to the household’s transportation budget and that women’s opportunity cost of time is not being as highly valued as that of men, and therefore they have less chances to make transfers between buses to get to their destination faster. This is confirmed by the fact that all women who declare to take more than one vehicle take only 2 vehicles, as compared to men, 6% of which take 3 or 4 vehicles.
8. Weekly Expenditures in Transportation

According to the survey women tend to be concentrated around the lower end of the expense curve. 80% of women spend less than S/.20 on transportation, compared to 66% of men. At the same time, only 3% of women spend more than S/.40, compared to 8% of men.

9. Need to Complain About Public Transportation Service

79% of women surveyed declare to have felt the need to complain about the public transportation service, compared to 66% of men.

The main reasons cited spontaneously for having felt this need, are as follows:

<table>
<thead>
<tr>
<th>Reason</th>
<th>% M</th>
<th>% F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units go too fast, competing among themselves, endangering passengers</td>
<td>25</td>
<td>38</td>
</tr>
<tr>
<td>Driver and collector mistreat passengers, are rude</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>Units are slow, they stop too many times</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Units are uncomfortable, too many people get in</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>Dirtiness, external appearance of the vehicles</td>
<td>7</td>
<td>4</td>
</tr>
</tbody>
</table>

This need to complain, however, does not generally lead to actual complaints being filed. Only 12% of men and women have ever filed a complaint about the public transport service. The reasons mentioned for not having complained formally are:

<table>
<thead>
<tr>
<th>Reason</th>
<th>% M</th>
<th>% F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not know where to file the complaint</td>
<td>42</td>
<td>41</td>
</tr>
<tr>
<td>It is not worthwhile to complain</td>
<td>37</td>
<td>40</td>
</tr>
<tr>
<td>Lack of time</td>
<td>26</td>
<td>18</td>
</tr>
<tr>
<td>Authorities in the administration are corrupt</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Other / No Answer</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>
10. Most Valued Attributes of Public Transportation

Driver’s ability and driving style, and security issues are the two primary concerns for both men and women. There are, however, some discrepancies in the way women and men value other attributes, such as the way the driver and collector treat passengers, price and speed to reach their destination. Women appear to be more sensitive to the way the driver and collector treat the passengers. This may indicate that women are being mistreated more than men, or that they are more aware of the mistreatment suffered by other groups as well, such as the elderly, and schoolchildren. Women also appear to be more sensitive to price, and this is consistent with the fact that women seem to command a smaller share of the household transportation budget. Finally, men are more sensitive to the speed of the vehicles, probably requiring to get to their workplaces at a specific time and not be stopped in traffic.

It is important to note that the attribute “security” has not been qualified in this survey, and therefore encompasses diverse aspects, such as security with respect to the vehicle, with respect to other passengers, with respect to the driver/collector and while waiting on the bus stop, among others.
11. Overall Satisfaction With the Current Public Transportation Service

On a scale from 1 to 7, where 1 is “not at all satisfied”, and 7 is “very satisfied”, women appear to be slightly more dissatisfied with the service than men, as they assigned an average of 3.4 to the service, while men rated it 3.7. In general, the satisfaction with the service is quite low for both men and women.

In terms of security, men assign an average value of 3.6 to their satisfaction with the service, while women only assign it a 3.3.

12. Proposed Alternatives to Improve the Public Transportation System

In general, women appear more vocal in proposing alternatives for the improvement of the Lima urban transport system. Their main proposals are consistent with their main complaints, as they demand more civil drivers and collectors, and more control over public transport units. With regard to their concern with potholes, this may be linked to the fact that roads in neighborhoods (where many women’s travel occurs) tend to not be properly maintained.
13. Opinion About the State of the Roads in Lima
Men and women’s distribution of opinion regarding the state of the roads in Lima is very similar. It is noteworthy that more than one-third of the people surveyed believe that the roads in Lima are bad or very bad.

14. Crossings in Main Avenues

Women feel more insecure when crossing main avenues: 57% of them declare it is not easy for them to cross over main avenues, compared to 52% of men.

The reasons invoked by women to explain this insecurity include: “no lights, no signs” (42%), “drivers don’t respect the traffic signals” (17%), “too many cars, too much traffic” (15%), “drivers don’t respect the speed limits” (13%).

Interestingly, 15% of men surveyed cite not having pedestrian bridges as a reason, compared to only 9% of women.
15. Ease of Travel Using Public Transportation

When asked if it is now (December 1997) easier to travel using public transportation, than it was 2 years before, 80% of women think it is, compared to 77% of men. 10% of men think it is now more difficult, compared to 7% of women.

This difference may be explained by the greater availability of public transportation units and routes that exist today compared to 1995.

16. Air Pollution and Noise Produced by Public Transportation

In general, men and women appear equally concerned with the air pollution produced by public transportation units. On a scale from 1 to 7, where 1 is “not concerned at all” and 7 is “very concerned”, men scored 6.4 and women 6.5.

With regard to noise, men scored 6.1 and women 6.0 to this issue.

17. Road Safety

10% of men and 9% of women surveyed have been the victims of accidents happened when using public transportation in the 6 months previous to the survey.