Cycle path in Pinheiros, São Paulo: Impact study on local economic vitality

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Studies that value the economic impact of active transportation are essential to increase the political will to invest in pedestrian and cyclist infrastructures.

In Brazil, these studies are still incipient.
The study was coordinated by the Laboratory of Sustainable Mobility (LABMOB/UFRJ) in partnership with Ciclocidade and with the collaboration of the Sao Paulo Engineer and Traffic Company (CET/SP).
Objective

This study aims to analyze the impact of the implementation of a cycle connection in Pinheiros neighborhood, in São Paulo, on the local economic vitality.

The expectation is that the study’s results will inform different actors about the economic benefits of active transportation and will support future investments on cycling infrastructure.
The concept of economic vitality of an urban environment relates to the economic well-being of a community. **Economic vitality** is a process that generates a **healthy economy with quality of life for its inhabitants**, offering jobs opportunities and lively environments.

The cycle path will be implemented on a street with **mixed use, residential and commercial, with local shops on the ground floor**.

This local environment creates an **opportunity to study the impact of the intervention** on the local economic vitality.
The cycle path will connect existent routes with a train and metro station.
The study uses an impact evaluation methodology, based on the Propensity Score Matching (PSM) observational study method.

The method compares the effect of the intervention in two groups:

**Treatment group**: area that receives the intervention.

**Control group**: similar area that has not changed.

Both groups are compared by equal methods.
Impact evaluation methodology

- The comparison between treatment and control groups *reinforces the cause and effect relation* between the intervention and its impact.

- The study will *analyze the impact in the five following years* to collect data about the interventions effects.

- The data collected has the potential of *informing both private and public sector and also the civil society about the economic benefits of active transportation.*
Control group selection

Parameters for selection:

**Urban:**
Street dimensions;
Commercial use rates;
Number of street parking;
Street direction;
Maximum speed;
Access to public transportation;
Sidewalk tipology;
Tree shading.

**Economic:**
Population density rates;
Population income rates.
Treatment Group
Costa Carvalho and Eugenio de Medeiros Streets

Control Group
Ferreira de Araujo and Amaro Cavalheiro Streets
Data collection method

I – Retailers and visitors surveys;

II – Forms with built environment data;

III – Motor vehicles and active transportation counts (bikes and pedestrians).
Urban Environment:
- Land use profiles;
- Quality of urban design.

Mobility:
- Active transportation counts;
- Motor vehicules counts;
- Perception of road safety;
- Transport habits of visitors and clients;
- Simplified origin and destination survey.

Indicators

Economic:
- Consumption habits of visitors;
- Commercial activity profiles;
- Number of employees;
- Retail operating time;
- Retail sales;
- Clients flow.

Perception of impact:
- Visitors and retailers perception of impact.
Baselines results – November 2017

Survey sample

Visitors:
Treatment Group: 133
Control group: 147

Retailers:
Treatment Group – 33.59% of all local retailers identified.
Control Group – 27.45% of all local retailers identified.
Visitors habits and perceptions:

35% declared that the cycle path could encourage them to consume more on local retail.

50% declared that the cycle path could encourage them to access the street by bike more often.

80% visit the local by foot at least once a week.

22% declared that the cycle path could encourage them to consume more on local retail.

28% declared that the cycle path could encourage them to access the street by bike more often.

65% visit the local by foot at least once a week.
Baselines results – November 2017

Treatment Group:

Visitors modal share:

Control Group:

Visitors modal share:

- Walking
- Car
- Motorcycle
- Bus
- Train
- Metro
- Taxi, Uber or similar
## Baselines results – November 2017

### Treatment Group:

**Retailers perception of client’s modal share:**
- 46% believe that their clients arrive by foot.
- 36% believe that their clients arrive by car.

**Consumers modal share:**
- 80% of consumers arrived by foot.
- 4% arrived by car.

### Control Group:

**Retailers perception of client’s modal share:**
- 48% believe that their clients arrive by car.
- 33% believe that their clients arrive by foot.

**Consumers modal share:**
- 70% of consumers arrived by foot.
- 10% arrived by car.
Consumers spend modal share – Treatment Group

- **0 to R$18,60**
  - Taxi, Uber or similar
  - Car
  - Walking
  - Metro
  - Motor cycle

- **R$18,60 to 93,70**
  - Taxi, Uber or similar
  - Car
  - Walking
  - Metro
  - Motor cycle

- **93,70 to 468,50**
  - Taxi, Uber or similar
  - Car
  - Walking
  - Metro
  - Motor cycle

**Baselines results – November 2017**
Consumers spend modal share – Control Group

0 to R$18,60
R$18,60 to 93,70
93,70 to 468,50
468,50 +

Car  Walking  Metro  Motor cycle  Train  Bus
## Baselines results – November 2017

<table>
<thead>
<tr>
<th>Retailers perception of impact:</th>
<th>Treatment Group:</th>
<th>Control Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td>37% of retailers believe that the cycle path would have a negative impact to their business.</td>
<td>48% of retailers believe that impact would be indifferent.</td>
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<tr>
<td>30% believe that the impact would be positive.</td>
<td>33% believe that the impact would be negative.</td>
<td></td>
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<tr>
<td>18% believe that the impact would be indifferent.</td>
<td>19% believes that the impact would be positive.</td>
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</tbody>
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Visitors perception of impact:

Treatment Group:
- Indifferent: 54%
- Don’t know: 20%
- Negative: 18%
- Positive: 8%

Control Group:
- Indifferent: 36%
- Don’t know: 33%
- Negative: 19%
- Positive: 12%