**Gender segregated public transport in Rio de Janeiro**

**Detailed description of methodology for Components 1 and 2**

Component 1 (fieldwork complete):

We recruit women who commute on Rio de Janeiro’s train system to report on their rides using a smartphone app in return for compensation. We randomly assign them to ride on a train carriage designated for women only to test whether this reduces their experience of harassment. In a separate stage of the experiment, we offer users the option to choose which carriage to ride, varying the payment across types of cars to estimate their willingness to pay to ride the women-only car. We gather evidence to test whether willingness to pay is due to harassment or other explanations such as different levels of crowding or exposure to general crime.

A total of 547 women were recruited for the study through online marketing, referrals, and flyers distributed at the train stations. Participants were offered approximately $4.50 USD to ride Supervia on any weekday between 6-9AM or 5-8PM.

On each ride, a participant chose to take either the women's-only or the mixed car. This choice and other observations including the purpose of their trip, the level of crowding and the number of men in the car were reported using a smartphone app. During the pre-pilot stage and the first 5 rides of the study, payments for both cars were the same. For the next 20 rides, the price for riding the mixed car increased by different levels. Participants could always see the payment for both options before starting the task. Each participant could complete paid rides as often as she chose, up to a twice a day, from any station and on any line she chose. Participants were not informed in advance of the schedule of price changes or of the total number of rides they would be able to complete for payment. We use this to quantify women’s willingness to pay to ride the women’s-only car.

In the next phase, each participant was randomly assigned each day to be offered a paid ride on only one of the car types. We use this to quantify the effect of riding the women’s car on the ride experience, including reported harassment and subjective wellbeing.

In parallel with these phases, we also did the following:

* We deployed a separate team of participants to regularly ride and report on the levels of crowding and the proportion of men and women on the mixed and women’s cars.
* We also partnered with the rail authorities to test a deployment of platform guards to attempt to increase compliance with the women’s-only rule on the women’s cars (i.e. stop men from entering these cars). This was intended to induce exogenous variation in the number of men on the car, to identify the effect of this variation on the main outcome variables of women’s willingness to pay and reported experience on the ride. However, this test was unsuccessful in affecting the proportion of men on the women’s cars, so it is not used in the analysis.

Component 2 (planned):

In a planned next stage of the study, we will gather survey data from a representative sample of riders to benchmark the results from the experiment. An enumeration team approaches a representative sample of male and of female riders of the Supervia system. Each consenting respondent is administered a short survey and invited to participate in the IAT exercise in return for a cash payment.

Each participant who consents to the IAT will participate in the IAT in a station on the platform, and will participate in a series of three IAT instruments in a randomly assigned order:

* A ``safety" IAT: A positive score means that the respondent associates users of the women's-only car in the Supervia system with seeking safety and users of the mixed gender car with less concern for safety.
* An ``openness to advances" IAT: a positive score means that the respondent associates users of the women's-only car with being less open to advances from men, and users of the mixed gender car with being more open to advances.
* A ``gender-career" IAT: a positive score means that the respondent associates women more strongly with home and men with career. This is a widely used tool which will be used as a benchmark.