

# DEMAND FOR “SAFE SPACES”: AVOIDING HARASSMENT AND STIGMA



## Innovating in crowdsourcing information on harassment and social norms

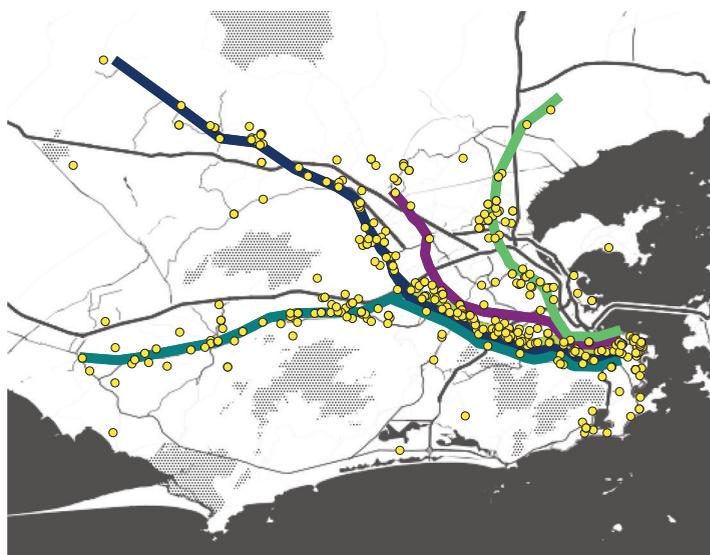
Our study is set on Rio’s suburban train system, the Supervia. This system comprises seven lines that connect downtown Rio with its outskirts, including many low-income areas. All lines radiate out of the central station, Central do Brasil.

The Supervia carries around 700,000 passengers a day, or about 10% of all public transport trips in the Rio metropolitan area. Half of Supervia’s passengers are women while the women reserved space accounts for one in eight or one in six carriages, depending on the train length.



### Context

Fear of sexual harassment and violence in the public space is pervasive for women worldwide. In survey of women in 22 countries, over 50% reported being physically harassed in public and over 70% reported being followed (Livingston, 2015). Most women report fearing that street harassment would escalate into violence (Kearl, 2014). These experiences impose direct costs on victims. They also impose indirect costs on all women who experience fear of harassment and violence, or take steps to reduce their exposure: for example, most women in London have adjusted their time or mode of journey in the last year because of fear of sexual harassment or violence (YouGov, 2016). Some policies aim to help women reduce exposure and avoid harassment, such as gender-segregated “safe spaces.” Yet by focusing on helping women stay within safe bounds, such approaches

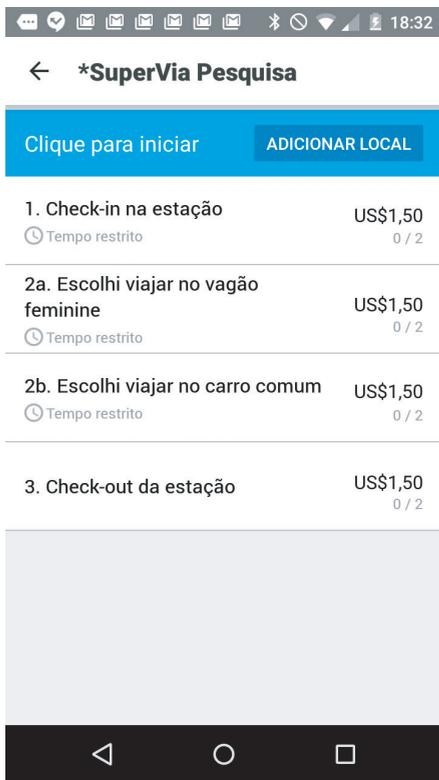


■ Ramal Belford Roxo    ■ Ramal Japeri    ■ Ramal Saracuruna  
■ Ramal Deodoro    ■ Ramal Santa Cruz

Distribution of recruited riders’ homes and Supervia lines

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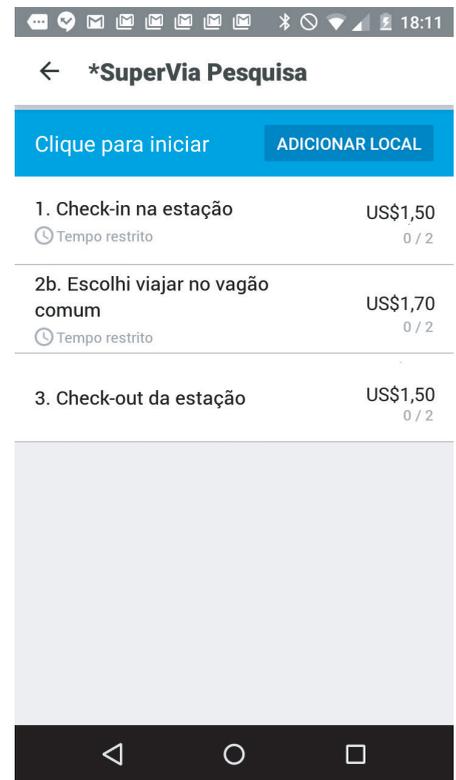




(a)



(b)



(c)

**Crowdsourcing app interface to capture rider experiences and preferences: (a) Revealed preference: zero opportunity cost; (b) Revealed preference: positive opportunity cost; (c) Randomized assignment to space.**

may in fact reinforce norms that see women outside those bounds as provocative, and assign the responsibility for harassment to the victim. This may further add stigma to the costs of harassment. Despite the prevalence of harassment and sexual violence in the public space, its costs have been little studied.

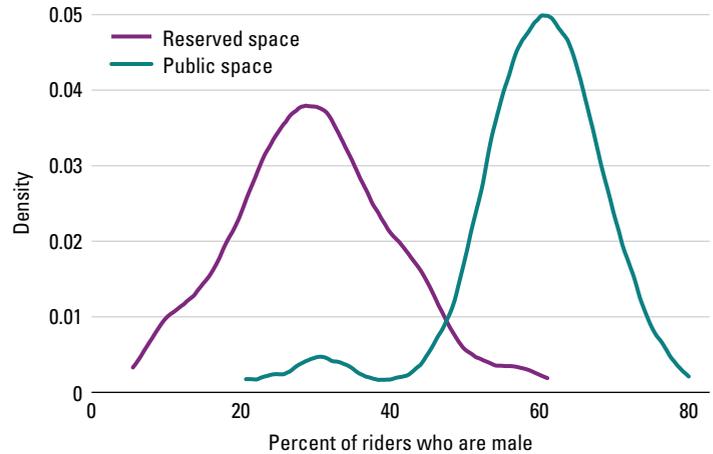
## Making an economic case for managing harassment in public transport

This study makes three central contributions on the economics of sexual harassment. We run a novel revealed-preference experiment to estimate the cost of harassment using crowdsourced data from 22,000 rides on public transit in Rio de Janeiro, Brazil. We exploit the presence of a women-reserved “safe space” on public transit in Rio de Janeiro to estimate women’s willingness to pay to use the women’s reserved space. We then use heterogeneity in responses and experimental variation in rides on the reserved and public spaces to document the recurring incidence of harassment and demonstrate that avoiding harassment, rather than other mechanisms, is the reason for this preference. Finally, we use a social norm survey and an Implicit Association Test to show that while this women-reserved “safe space” provides an avenue for individuals to avoid harassment, it is also associated with a stigma

on women’s movement in the public space. This stigma assigns blame to the victim of harassment, adding to its psychological cost.

## Findings and Lessons Learned

To understand these issues, we recruit women commuters to crowd-source information about their experience on the Rio de Janeiro transit system, including observations from public cars and a women-reserved space. Each rider reports data on a series of rides, allowing us to use within-respondent experimental variation in ride conditions and outcomes. Randomly assigning commuters across spaces corroborates that riders in the reserved space experience lower rates of verbal and physical harassment than in the public space. Women in the public space report that they are subjected to physical harassment in 2.6% of rides or once a month on average. The women-reserved space only offers an escape some of the time: there are often substantial numbers of men aboard, as the authorities have limited capacity to enforce the rule. However, when the policy is being followed, moving to the reserved space decreases a woman’s likelihood of being subjected to physical harassment by half. Participants also report reduced fear of physical harassment and reduced feelings of frustration when they use the women-reserved space.



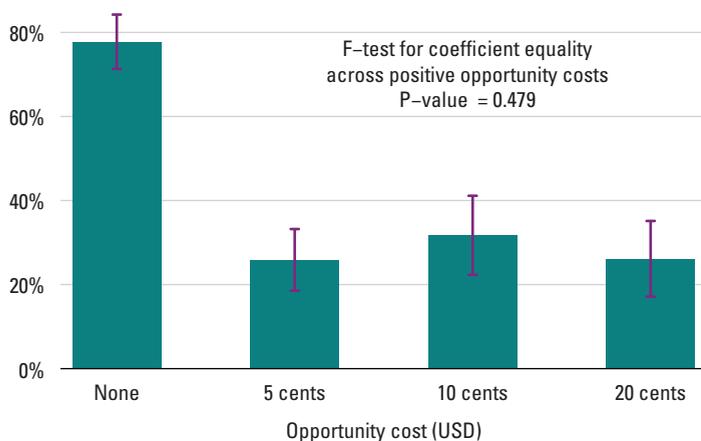
**Male presence across spaces — the policy reduces male presence in the reserved space but compliance is never perfect.**

We estimate the cost of exposure to harassment by using a revealed preference experiment to estimate women’s willingness to pay to avoid it. We offer participants a series of paid opportunities to ride either car, with a payment differential between the women’s and mixed cars which varies from ride to ride. We find that 26% of participants are willing to give up at least 20 US cents in income to switch to the women’s car on some of their rides and that this willingness increases when there are fewer men in women’s cars. This foregone payment is equal to \$1.17–\$2.25 per incident avoided or approximately 0.4% of minimum wage annually. Taken at face value, such wage penalty would cause 0.48-0.60% reduction in female labor supply (Vick 2017).

We also ask participants a series of traditional stated willingness to pay questions as a benchmark; we find that willingness to pay is significantly overstated in survey questions compared to

participants’ behavior, making our revealed-preference design a more reliable approach.

We rule out several alternative mechanisms besides harassment which could explain our findings on willingness to pay. First, crowding could be a confounder if the women’s car has fewer passengers and is generally more comfortable, however we find no difference between crowding on the women’s and mixed car. Second, we rule out the possibility that the results are driven by fear of other types of crime such as property crime, or because of a simple preference not to be near men. We find that women who have the greatest concern about harassment are more likely to choose the women’s car, but there is no such pattern for those who fear robbery or in areas with higher levels of crime based on administrative data. In addition, in an open-ended question, 80% of participants state they like the women’s car because it allows them to avoid harassment.



**Percent of riders who take up reserved space at least once at different opportunity costs**



**Implicit association test interface**

## Understanding the Unwanted Consequences of Well-Meaning Policies

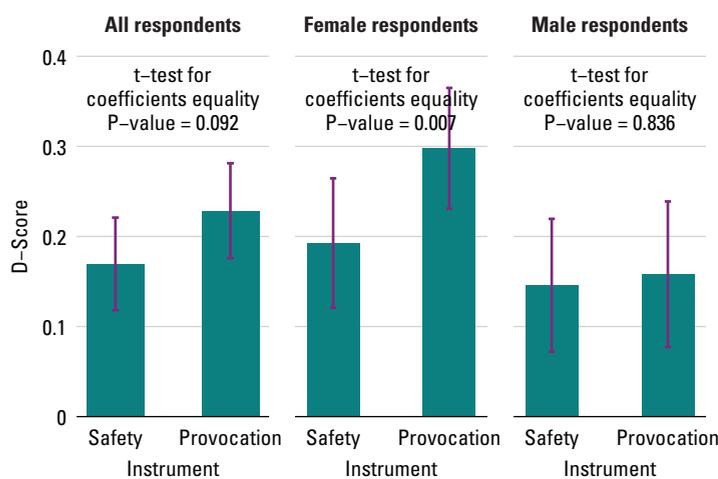
The “safe spaces” of the reserved space provide a limited avenue for escaping harassment. However, by identifying the reserved space as a “safe space,” segregation may inadvertently reinforce views that normalize harassment outside it (e.g., “women who dress a certain way are calling for a certain type of attention”; “she was looking for it, riding with men on the mixed car”). We investigate how these norms mediate women’s preference for “safe spaces” in a representative sample survey of rush-hour train users with a social norms survey and an Implicit Association Test. We find that half of the men agree that “women who chose to ride in a public space are more sexually open” and 20-24% agree that “if a woman is harassed in public space, it is partially her fault; she could have chosen the reserved space.” We further investigate these perceptions using an Implicit Association Test (IAT), an instrument designed to elicit respondents’ immediate, implicit response (“gut reaction”). It identifies participants’ perceptions of associations between ideas that are under-reported on survey questions because of social desirability bias (Poehlman et al., 2009). We designed a pair of IAT instruments to test whether respondents associate women’s choice of train car more with sexual provocation or concern for safety. We find that

respondents associate the women-reserved space with safety and the public space with sexual provocation. We cannot test whether the introduction of a gender-segregated “safe space” such as a women’s car causes greater stigma for victims of harassment or increases norms of gender segregation in other public spaces. However, the survey and IAT results suggest that the segregated space sets appropriate bounds for women during their commute: only if a reserved space exists can there be an expectation that women should stay within it to avoid harassment. In addition, these perceptions persist even though, due to crowding on the platform and in the train, women often report that they cannot get into the women’s car. Thus, they suffer a double burden: they are stuck on the public space and exposed to harassment, yet bear the blame for the harassment because they “choose” to expose themselves to it by riding the public space.

## Moving Forward

Our study contributes to the literature that aims to better understand economic aspects of the causes and consequences of crime, specifically gender-based violence and sexual crime. Our results demonstrate a clear link between sexual harassment and the cost to women of mobility in public. We also show that women who move in the non-segregated public space are indeed seen as more open to advances, but in fact this compounds the problem of the threat of harassment and violence, as they are then more likely to be blamed for non-consensual interactions and experience an additional cost of stigma.

Our results demonstrate that the costs of public harassment are not limited to settings in which women are frequently confined to the home or may respond by withdrawing from the labor market. In the context we study, women commute in similar numbers to men. In this context, women are highly mobile, but public harassment imposes significant costs on them daily. The findings highlight the importance of addressing the widespread, persistent sexual harassment faced by women in public. In addition, by shedding light on the role of stigma on those who do not take evasive action such as moving to “safe spaces,” our results highlight potential downsides of public policies focused on helping women avoid harassment. These results suggest the importance of policies that directly address the crime itself and its perpetrators.



**A positive score indicates a stereotypical association — respondents associate the reserved space with safety and the public space with provocation**



The ieConnect for Impact program links project teams with researchers to develop rigorous and innovative impact evaluations that both substantially improve the evidence-base for policy making and induce global shifts in transport policy. The ieConnect program is a collaboration between the World Bank’s Development Impact Evaluation (DIME) group and the Transport Global Practice. This program is part of the Impact Evaluation to Development Impact (i2i) multi-donor trust fund and is funded with UK aid from the UK government and by the European Union.