

Do we move in the
same manner?

A project by
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Transport and Income Inequality in Madrid

Is there
inequality on
the way we
move through a
city?

●

We aim to link the **income** of the people who move across the Community of **Madrid**, to check whether there exists **inequality on our transportation**.

Data

Three main sources have been used (2018):



CRTM



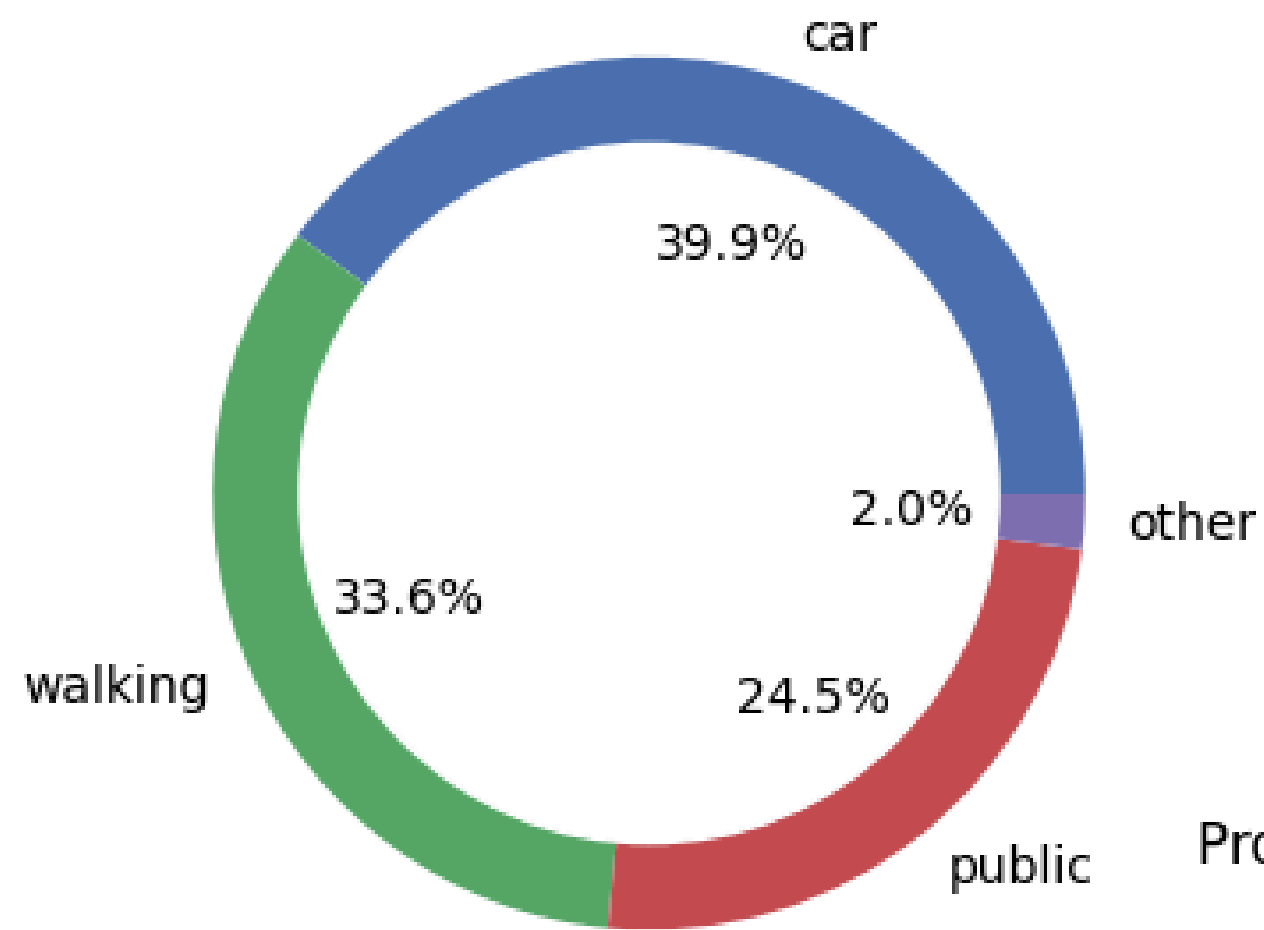
ECV



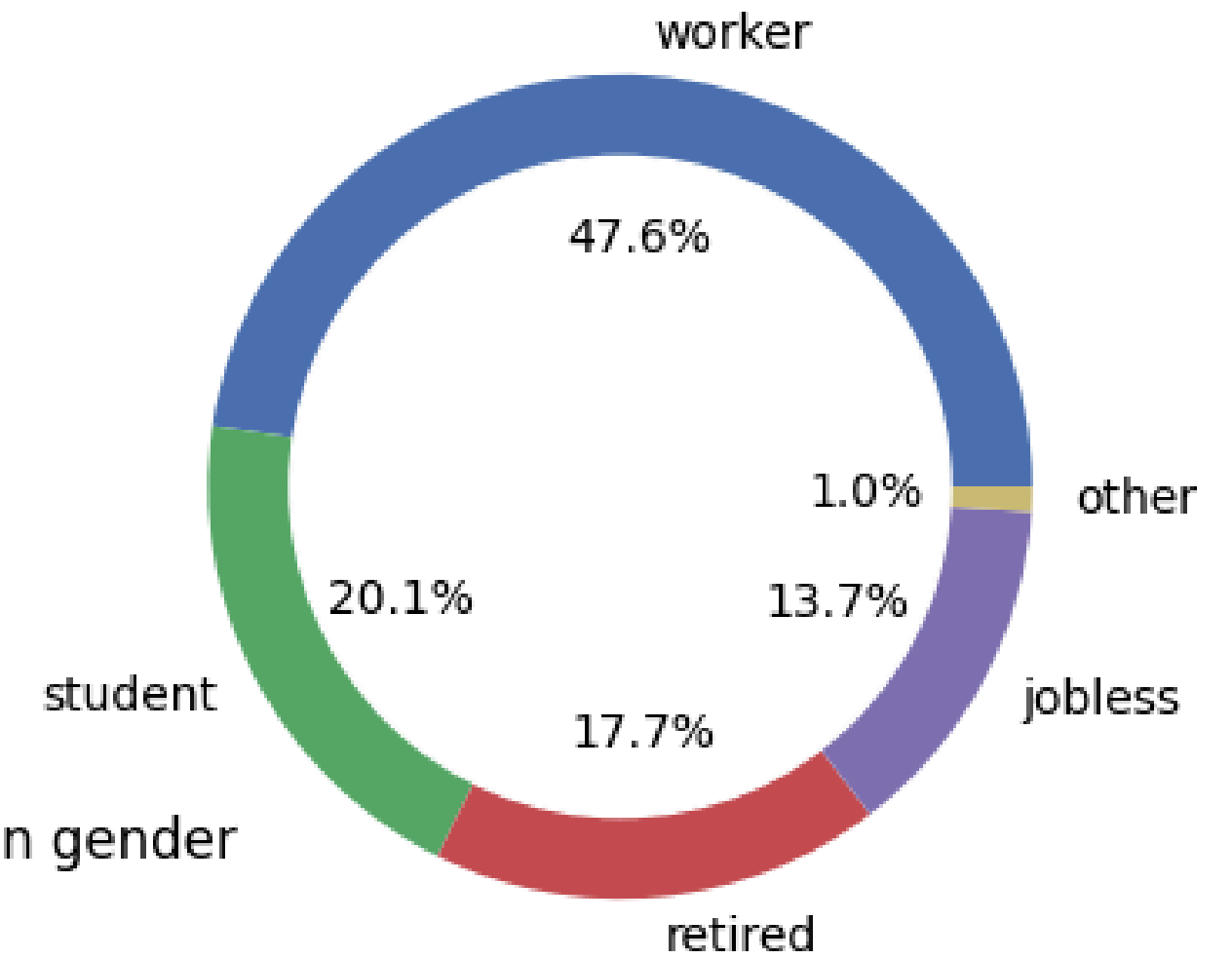
AEMET

Data

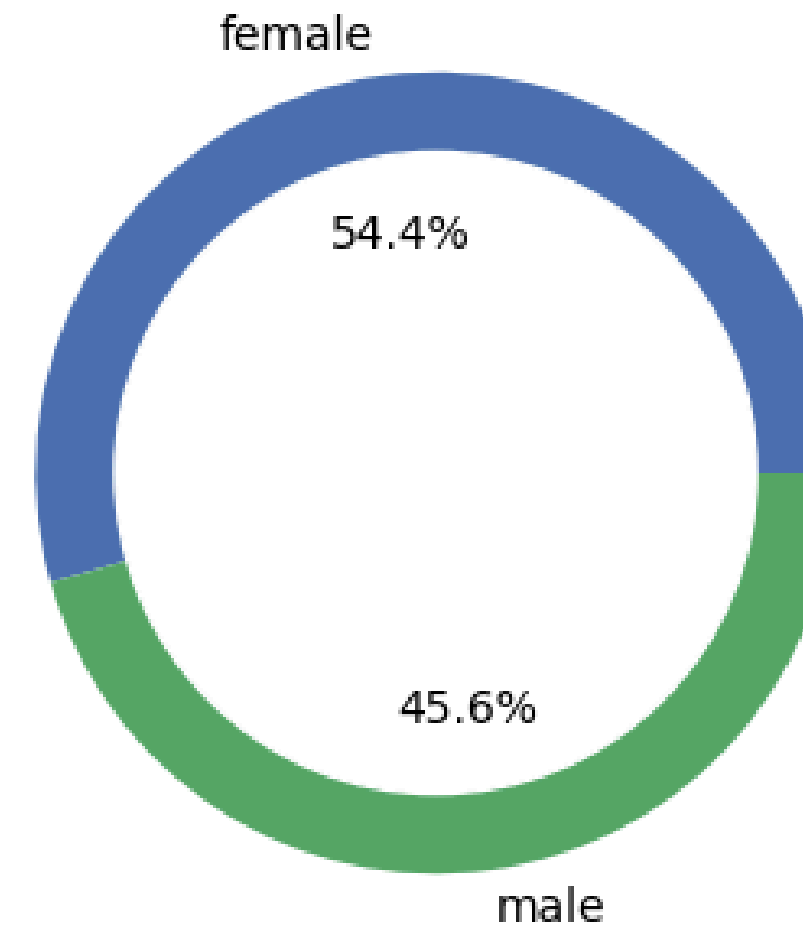
Proportions of the column transport



Proportions of the column activity



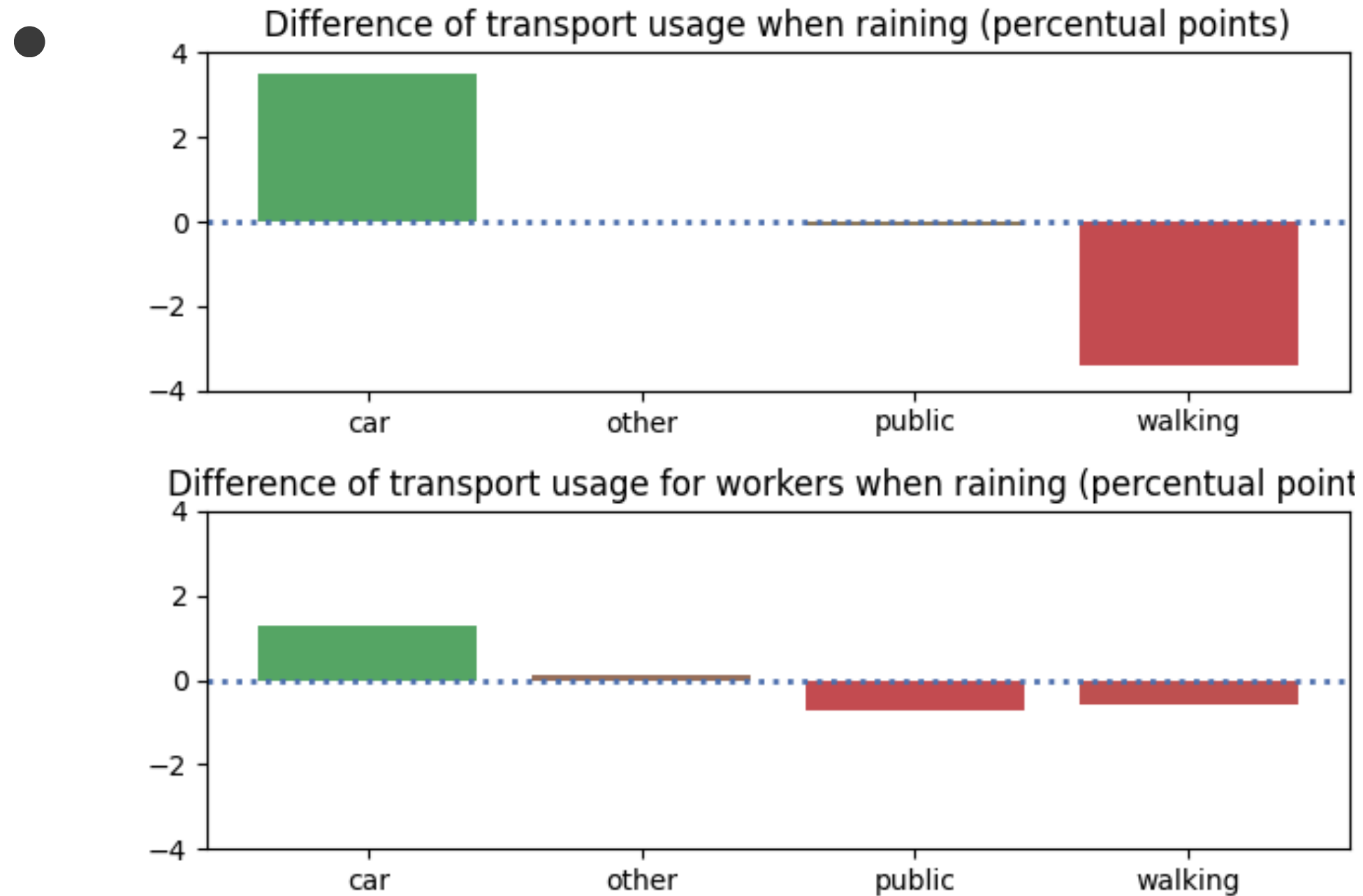
Proportions of the column gender



Which data is used?

Data

What about weather?



- The study will focus on **workers** and **dry days**

Income

- We create the **expected** income as an aggregated indicator

This way:

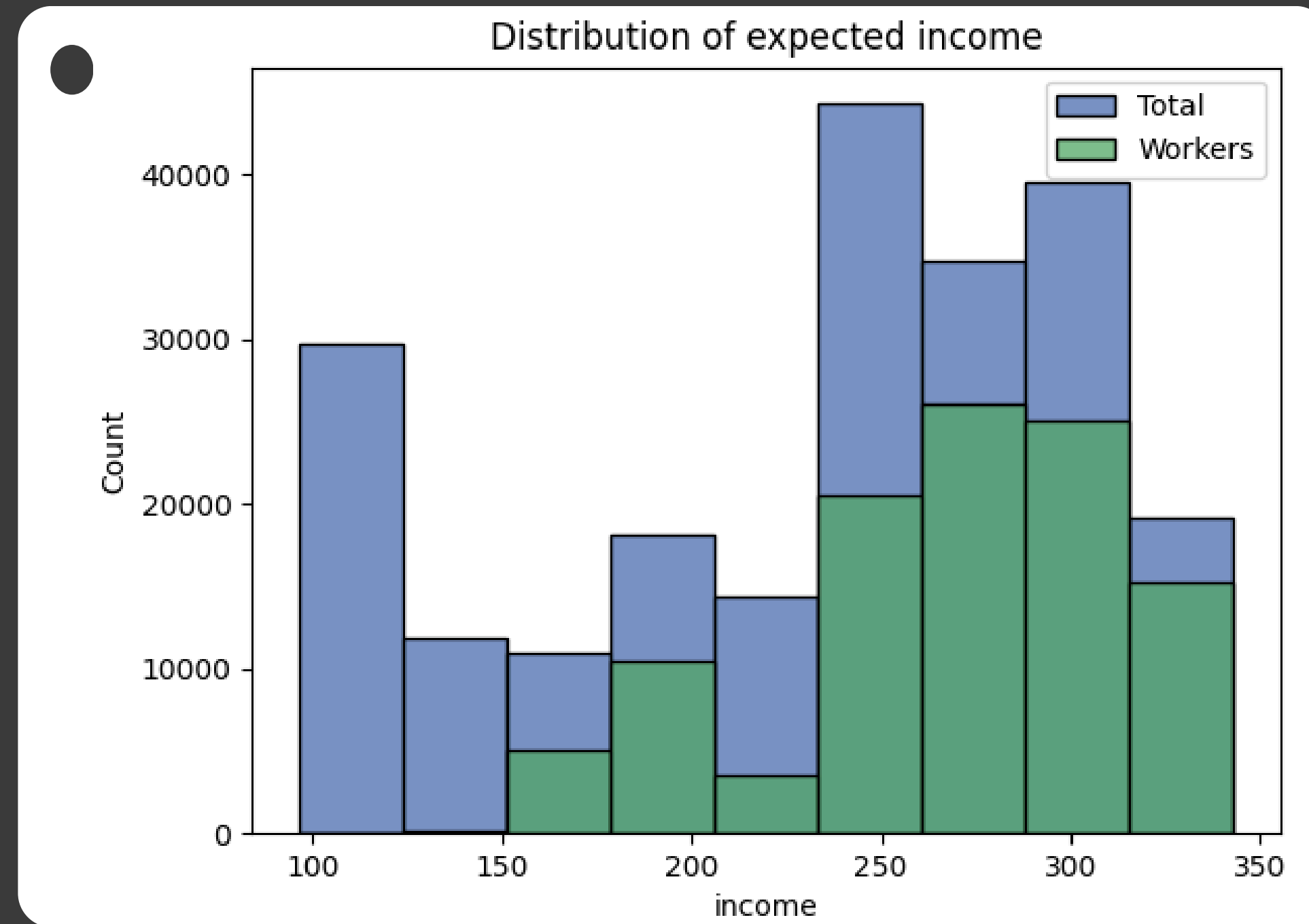
$$\begin{aligned} &\text{Base Value} \\ &+ \\ &25 \times \text{Education Index} \\ &+ \\ &25 \times \text{Occupation Index} \\ &+ \\ &25 \times \text{Gender Index} \\ &+ \\ &25 \times \text{Age Index} \\ &\downarrow \\ &\text{Expected income} \end{aligned}$$

Income

Two examples:

Valor	Condition	Condition	Valor
100	Base	Base	100
50,5	Retired	Student	-1,5
39,6	Man Older than 65	Man Younger than 16	4,25
6,75	Primary Education	Secondary Education (2nd tier)	17,5
<u>196,85</u>	Total	Total	<u>120,25</u>

Income



How does the expected income distribute?

Income

Caution with this indicator...

122

Total unique values

Very concentrated
values on the
range:

200-340

37

Unique values for
workers

240-310

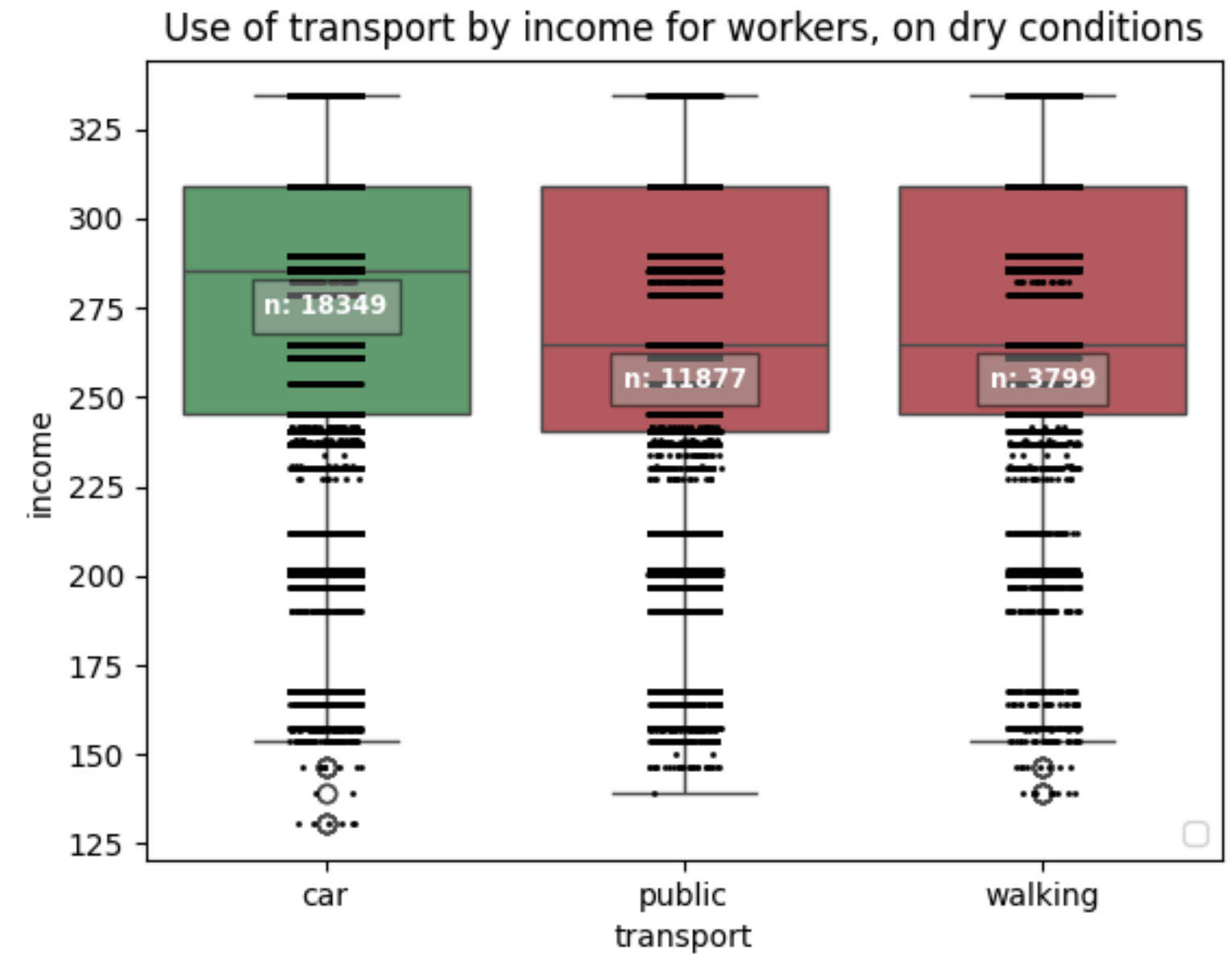
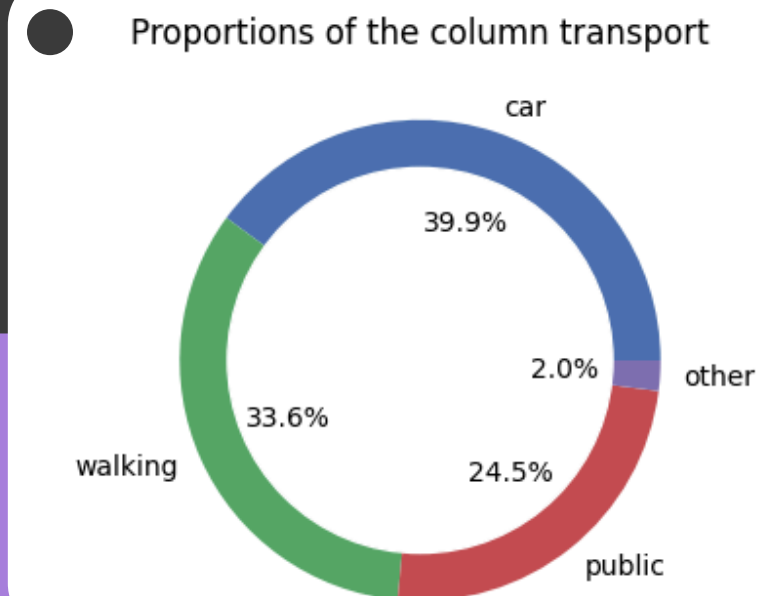
For workers



**Let's take a
look at the
results...**

Main hypothesis

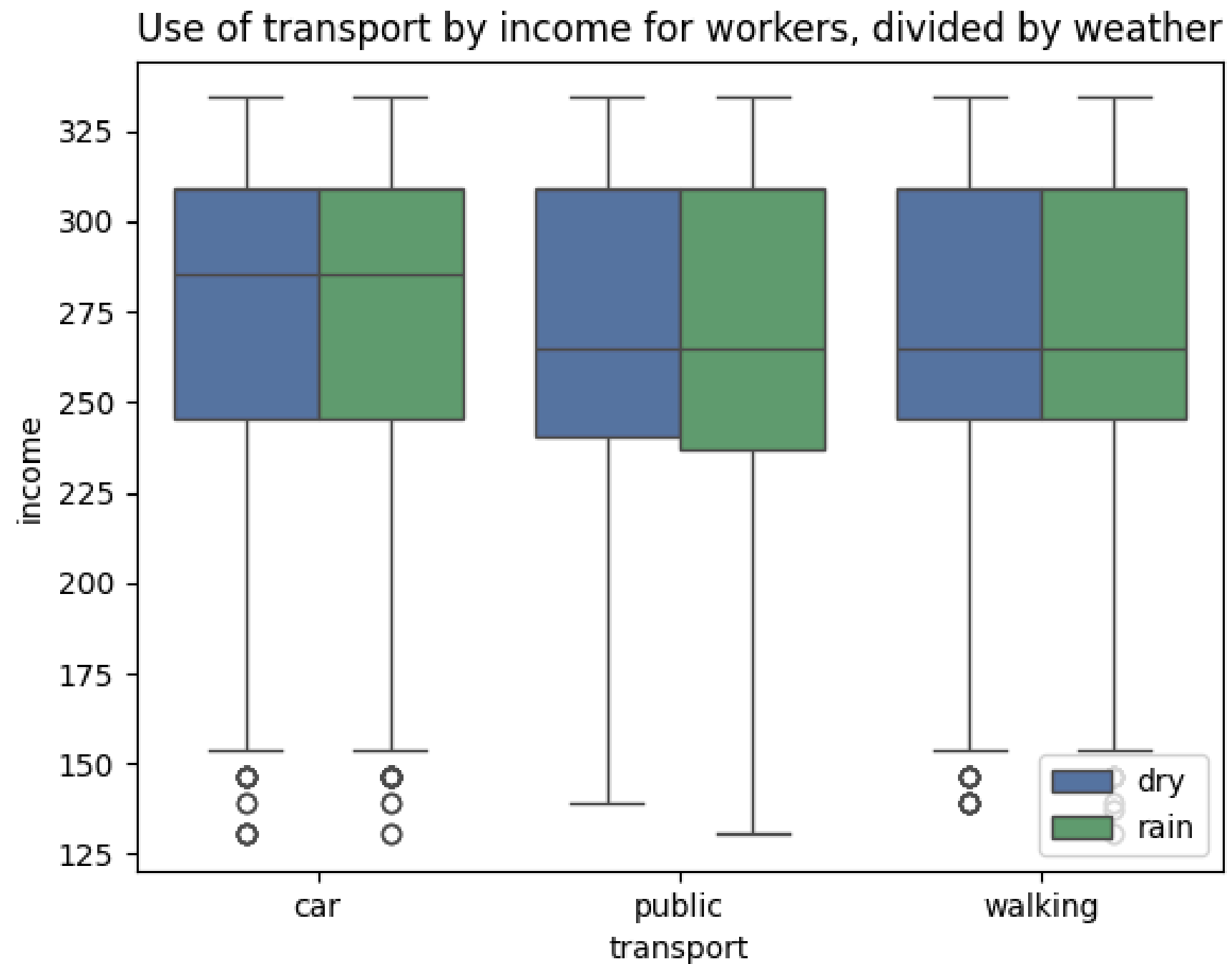
Remember...



Workers who use car have higher income

Main hypothesis

Any effects from rain?

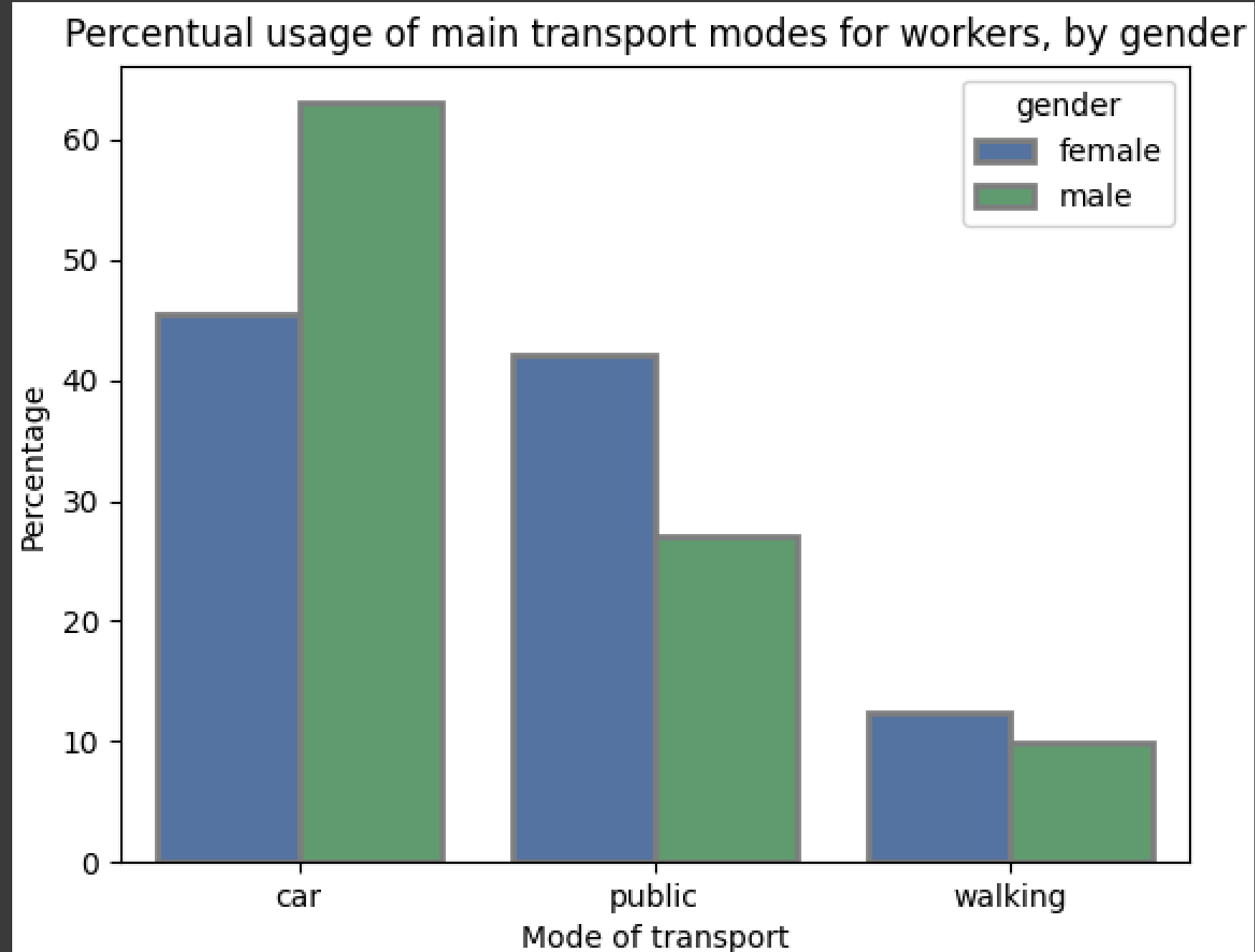


- There is barely any change on the results.

Are there any
differences on
how **men** and
women workers
move?

Secondary
hypothesis

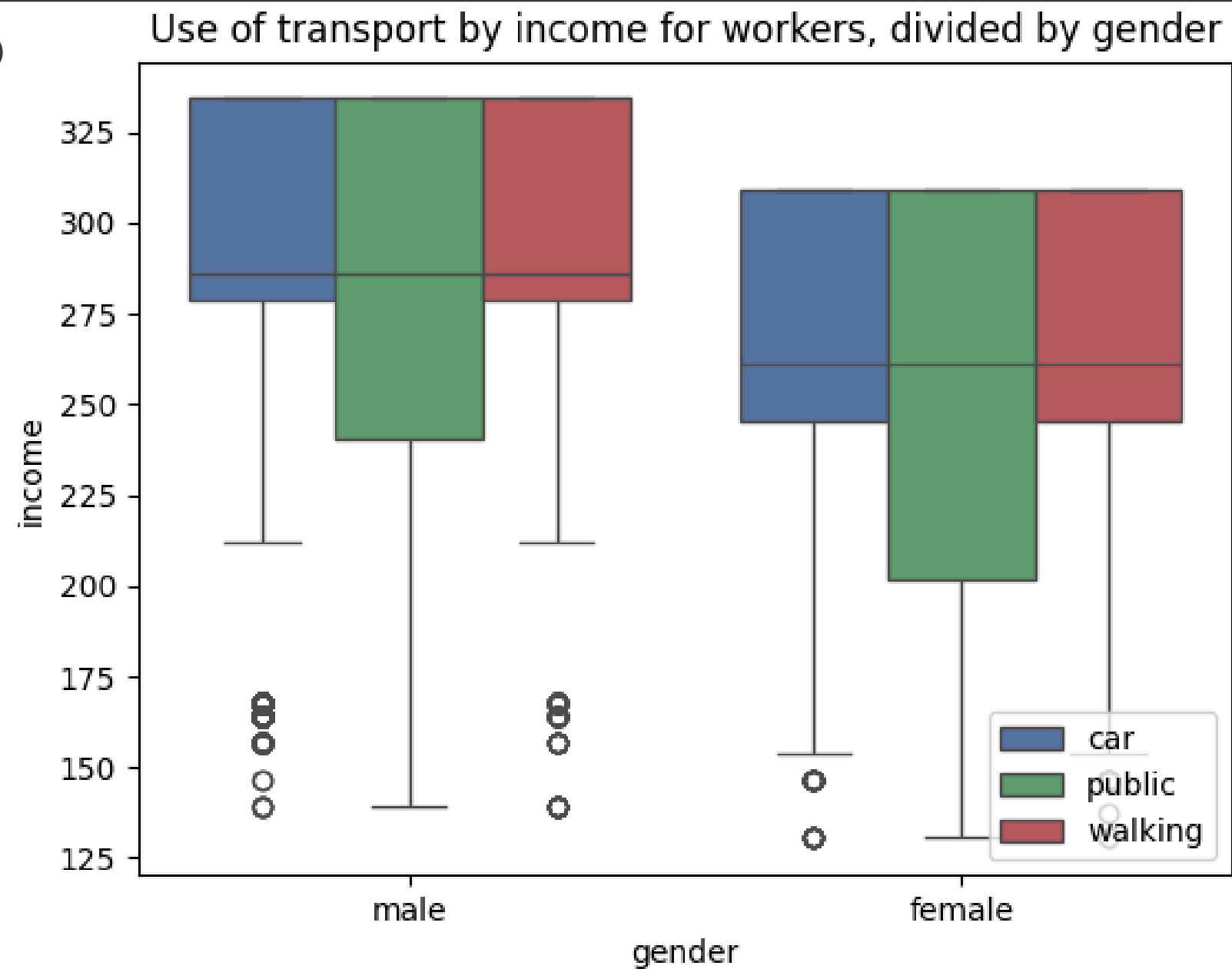
There is.



• Too much
difference?

Secondary hypothesis

Comparison between transportation modes



- Inferior percentiles are lower on both men and women for public transport

Concluussions

- **Transport and income**

A relation is found for workers: higher income use the car more frequently, even when we isolate the gender as a variable.

- Investment on public transport can be considered as a measure against inequality.

Actions

- Women workers use public transport more frequently than men.

Gender

- **Next steps**

Nurture the income indicator with more socioeconomic data.

Broaden the scope of the analysis, beyond workers.



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Thank you!