

# Educational Outcomes in Higher Education

from Boxplots to Dashboards *via* Mixed Effects: R Showcase

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useR!, Salzburg, 9<sup>th</sup> July 2024







# Who is a commuter?

# Proportion of students who travel to campus more than x minutes

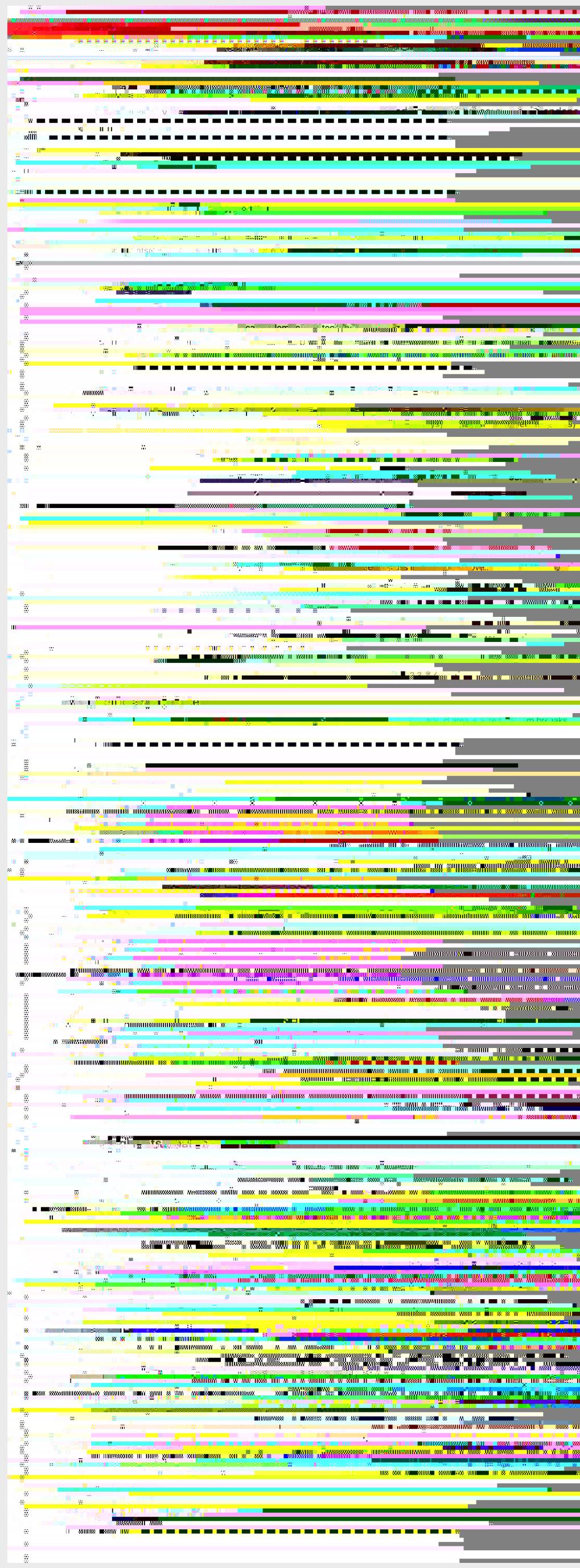
# Is poor/good attendance random?

...or are the same students usually attending poorly/well?











# Differential attainment

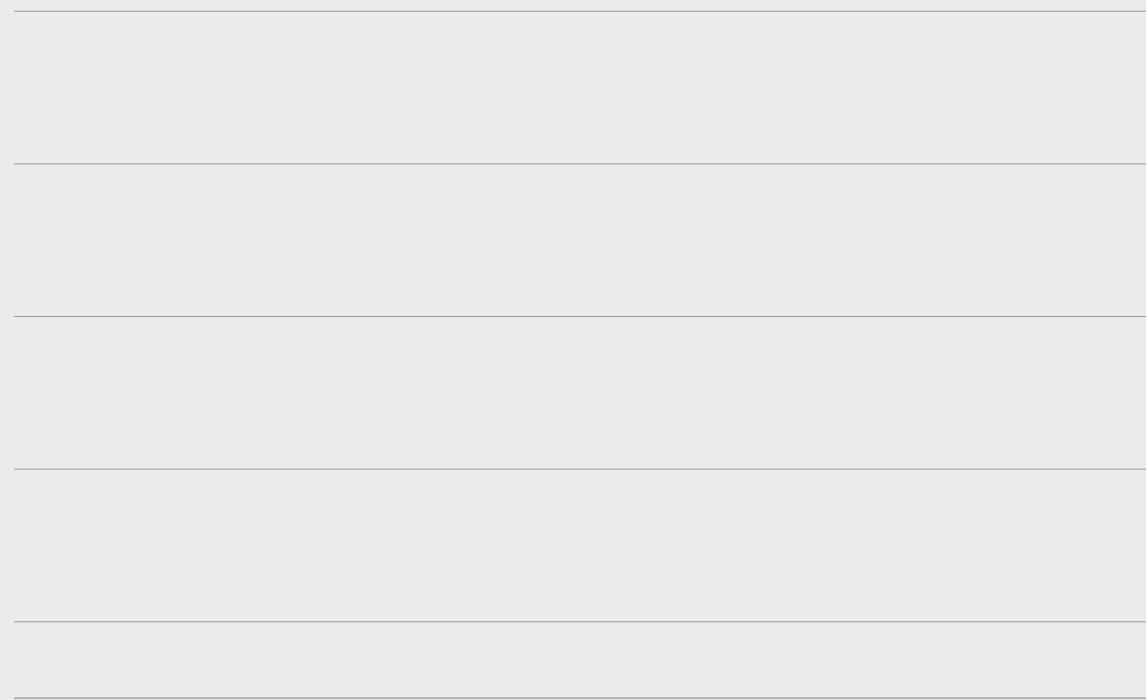
Proportion of “good outcomes” by ethnicity (

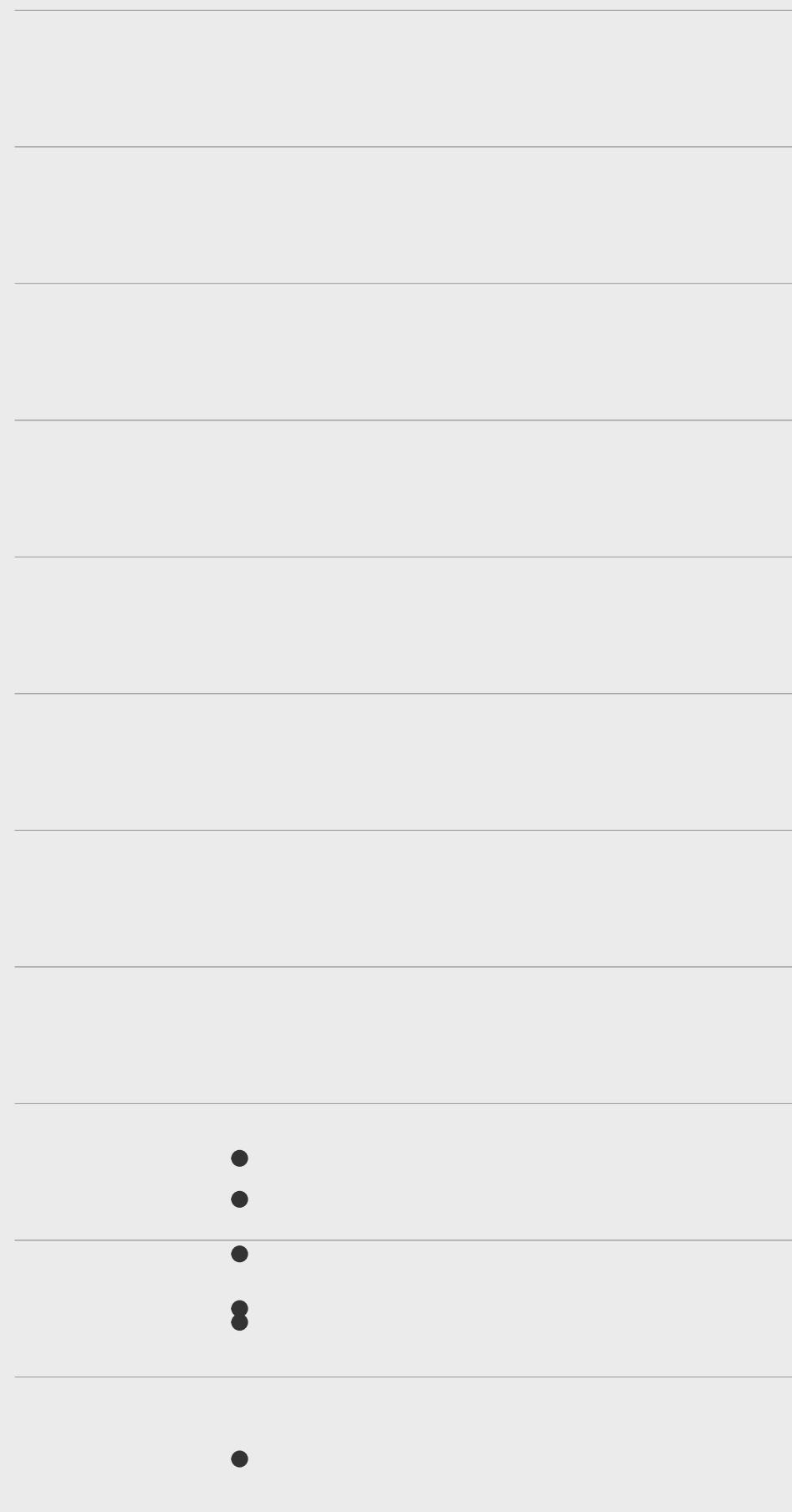
# Variation in attainment gap in individual schools

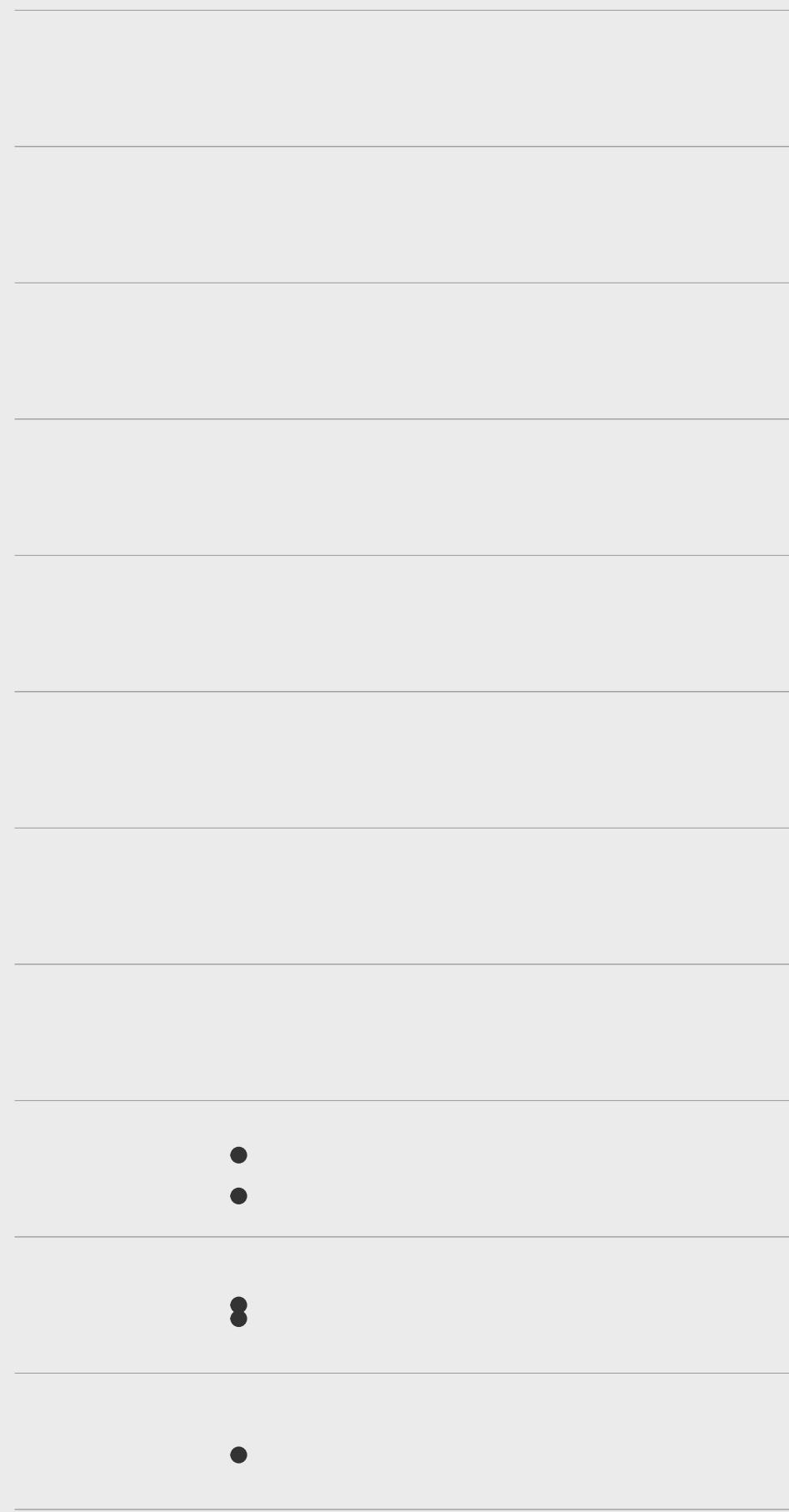
...is large - we can't consider institution as a whole

# But: average module marks of **white** vs **BAME** students

Wait, what? They are much closer?













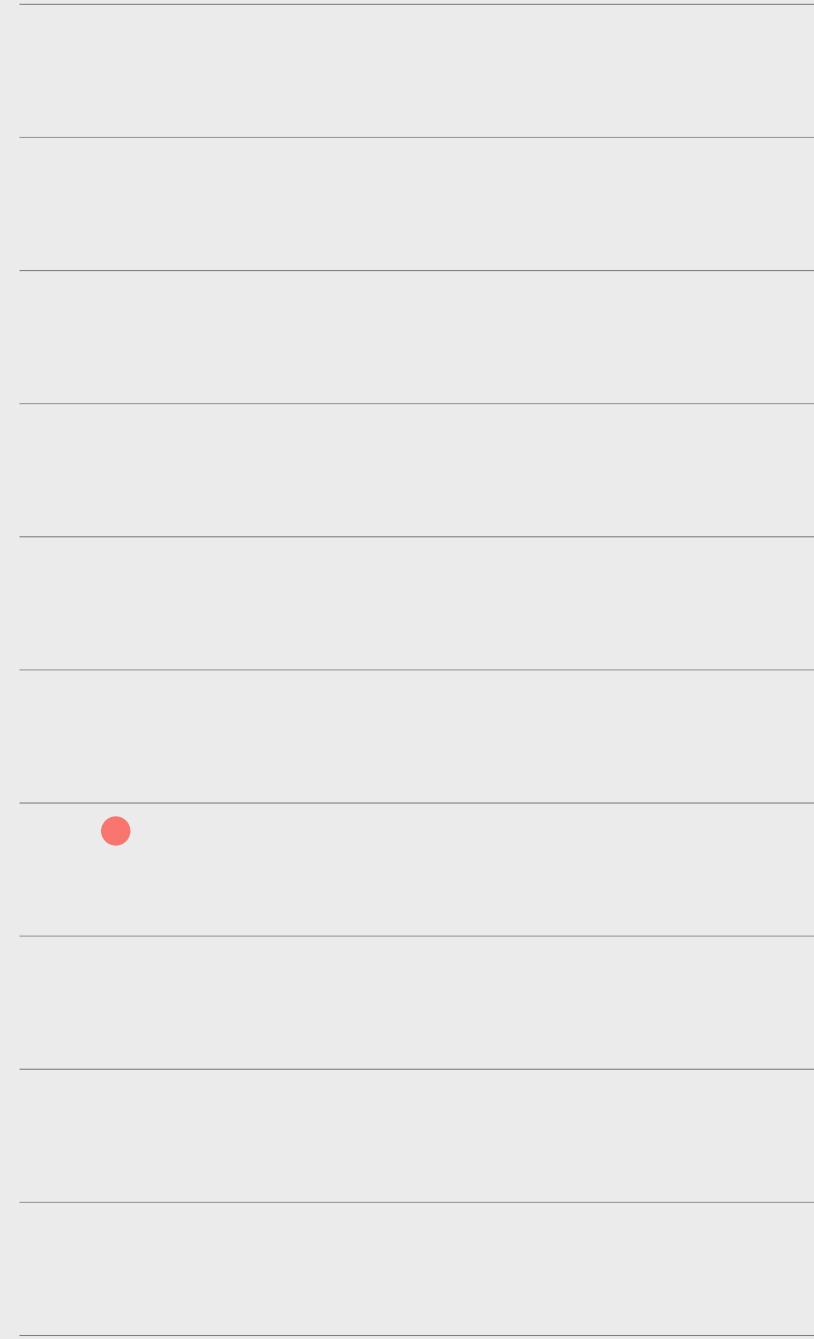
# Intersectionality is key

Proportion of ethnicities

Proportion of IMD levels  
(Index of Multiple Deprivations: 1 - most, 5 - least deprived)



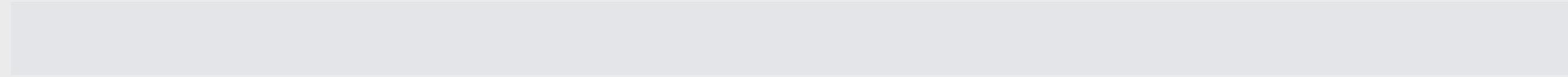
# Proportion of ethnicities in IMD levels





# How to disentangle these relationships?

...with statistics...



# Data: people who mine it and mind it

- Dr Keith McCabe and his team in the Planning and Business Intelligence group !

# Thank you.

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