

A just transport system: An attempt at a practicable model

Tom Cohen [& Dean Machin]

6th June 2016

First the credits

Research team

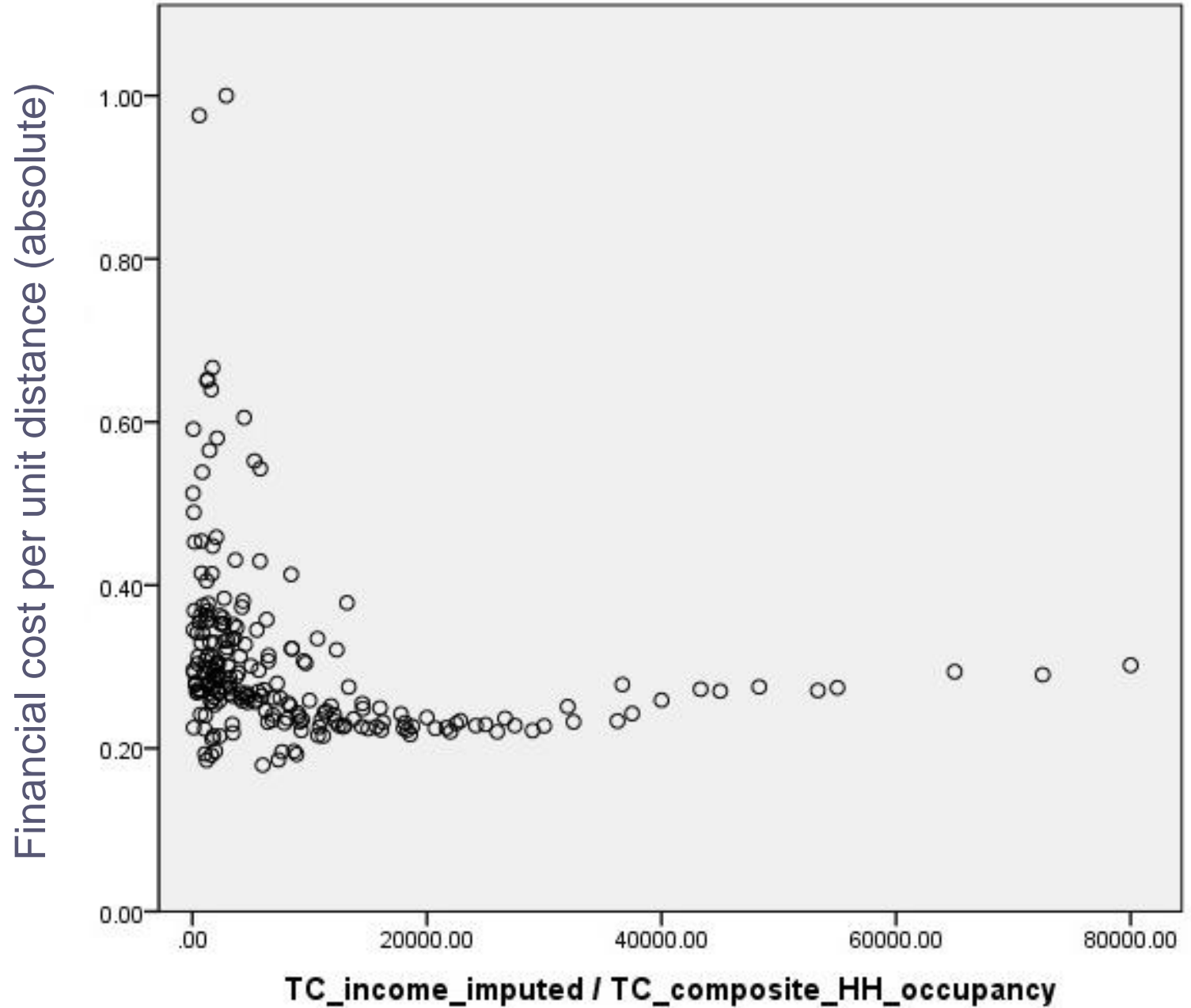
Nicole Badstuber, Emily Crampton,
Dan Durrant, Sapfo Lignou, Anna Plyushteva

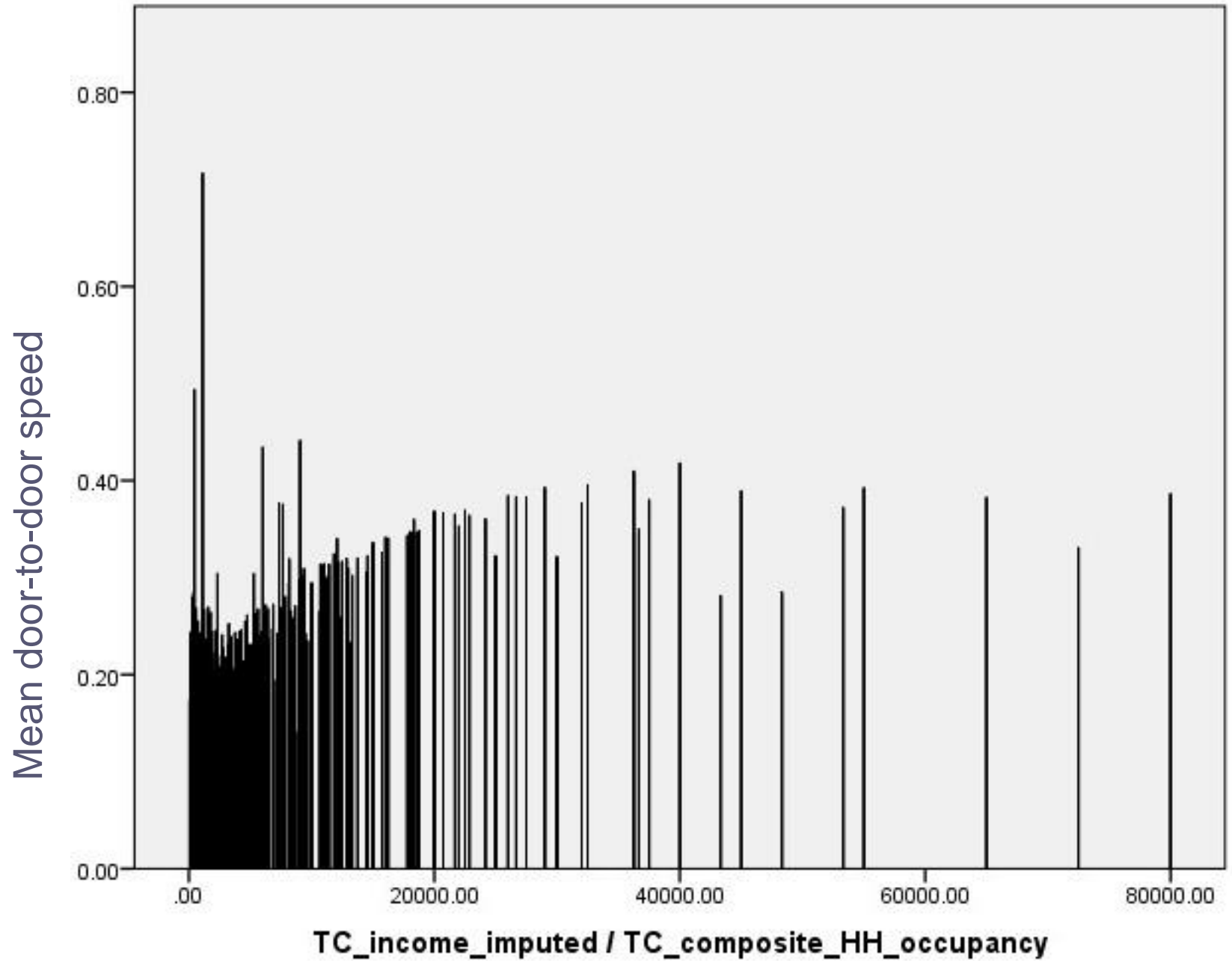
Sponsor team

Sarah Chaytor, Olivia Stevenson

Industry friend

Phillip Darnton





Practicable

Sufficientarianism rather than equality

“Sufficientarianism is a theory of distributive justice. Rather than being concerned with inequalities as such or with making the situation of the least well off as good as possible, sufficientarian justice aims at making sure that each of us has enough.”

<https://www.rep.routledge.com/articles/sufficientarianism>

Enough what?

Accessibility vs mobility
We choose **mobility**

Generalised cost

- The sum of the monetary and non-monetary costs of a journey

Monetary	Non-monetary
Fare on a public transport journey	“In-vehicle” time
Costs of fuel	Walking time
Wear and tear	Waiting time
Parking charge, toll or congestion charge	“Interchange penalty”

Simplified generalised cost

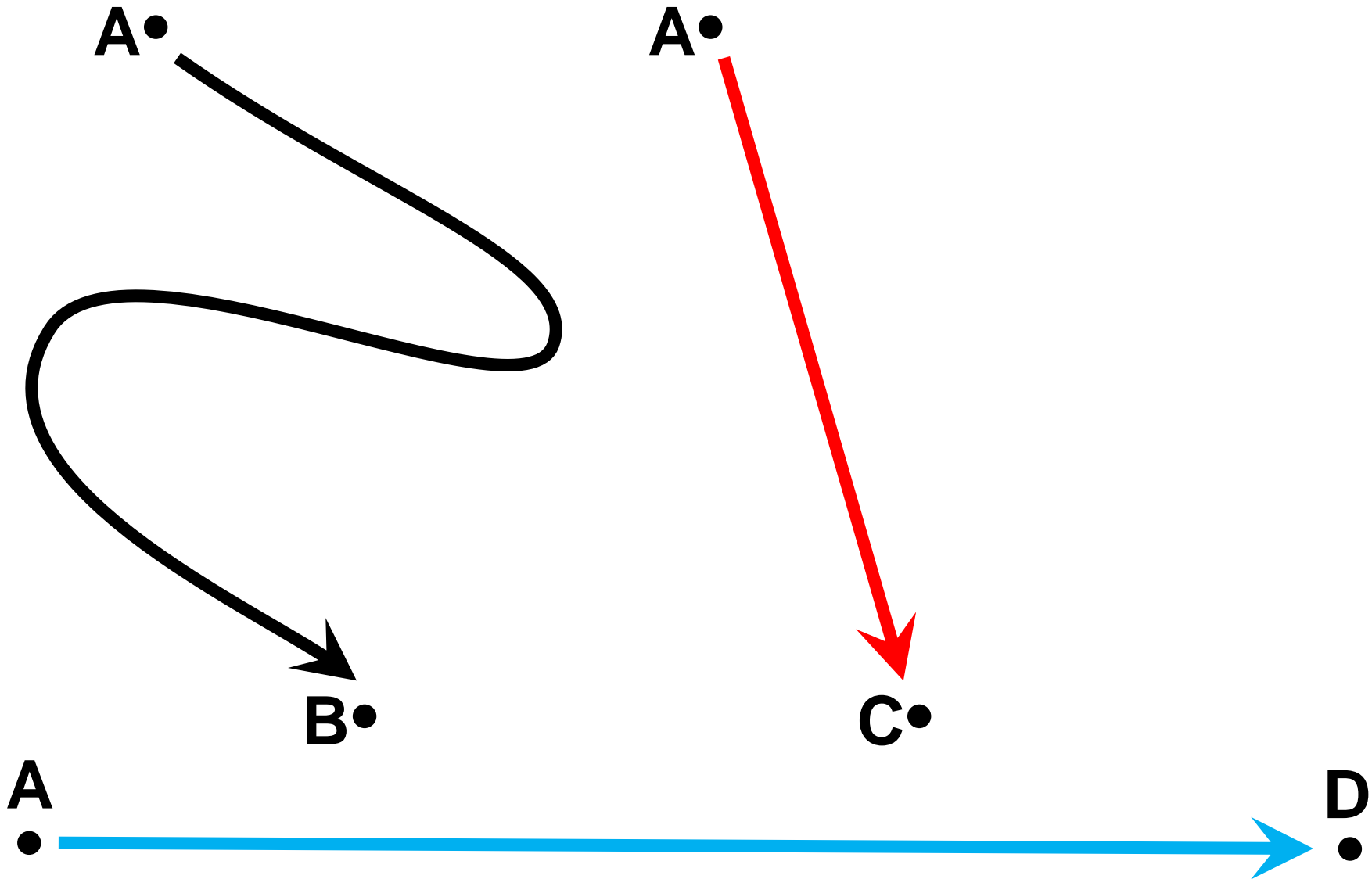
- Financial cost
 - Fares paid
 - Vehicle operating costs
- Time spent travelling
 - Door to door

Normalised simplified generalised cost

- Financial impact
normalised by disposable
income

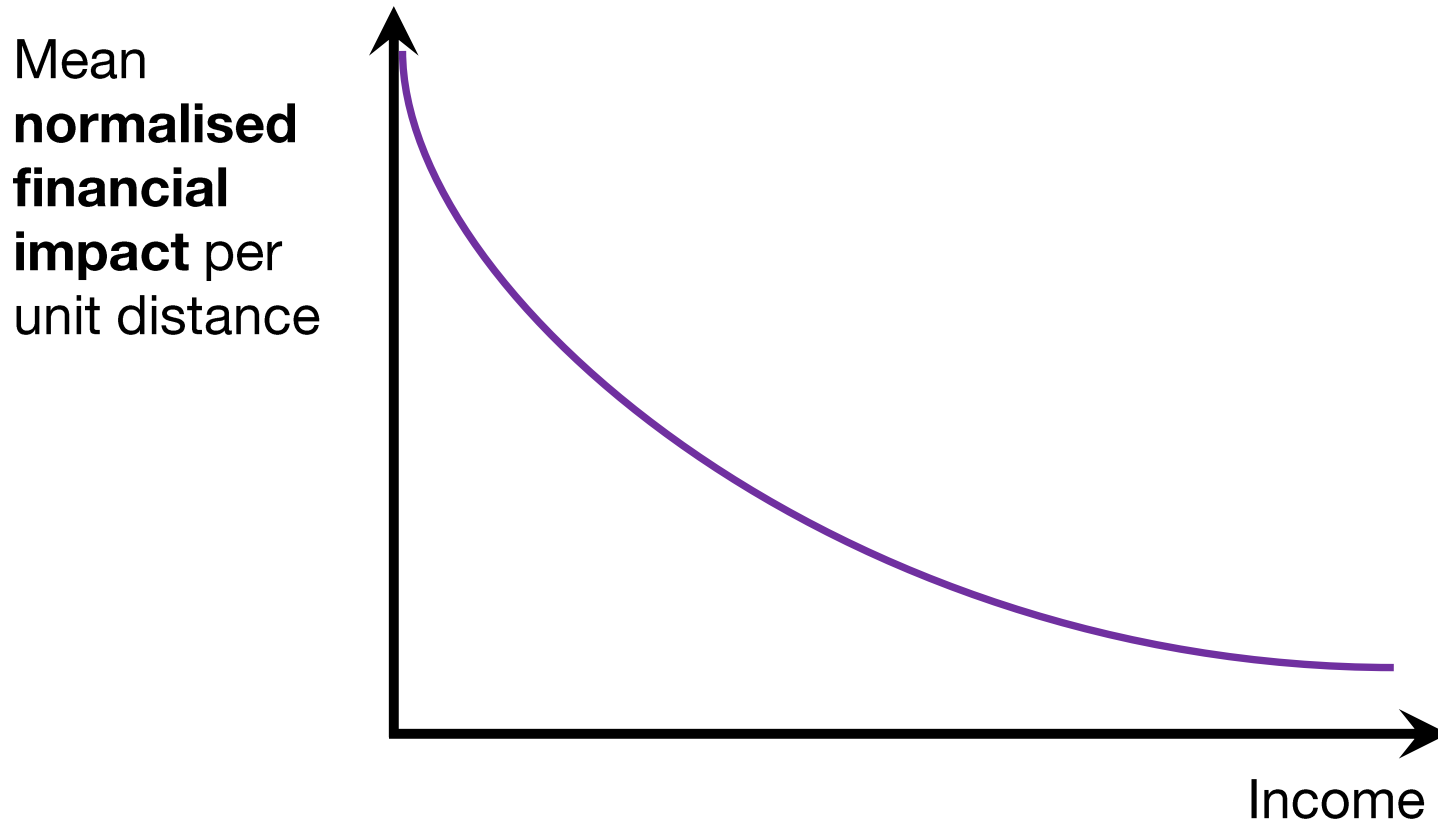
**And so, Ladies & Gentlemen,
to today's metric**

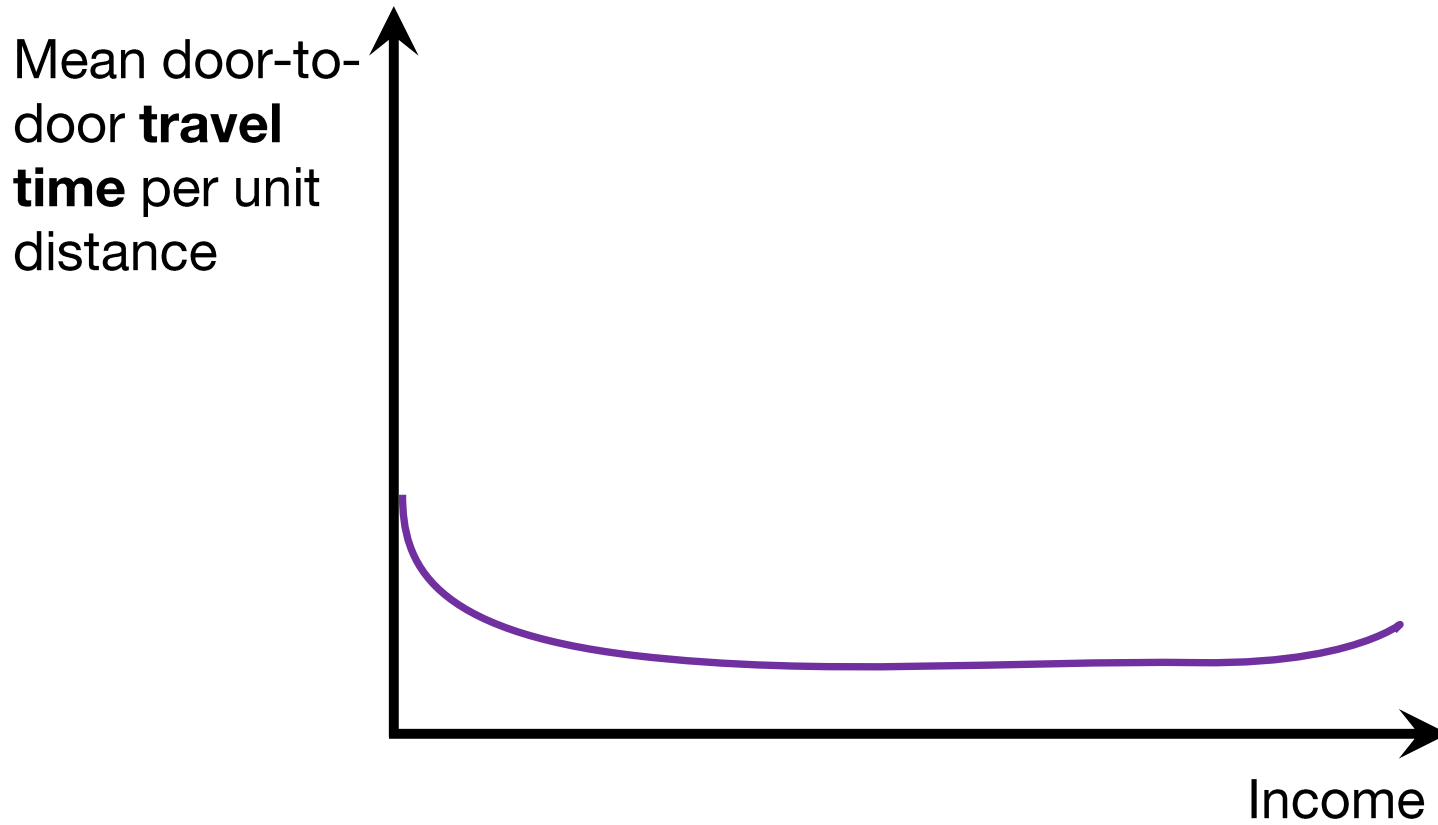
- Normalised simplified
generalised cost
per unit crow-flies distance
 - Hereafter “the Machin number”

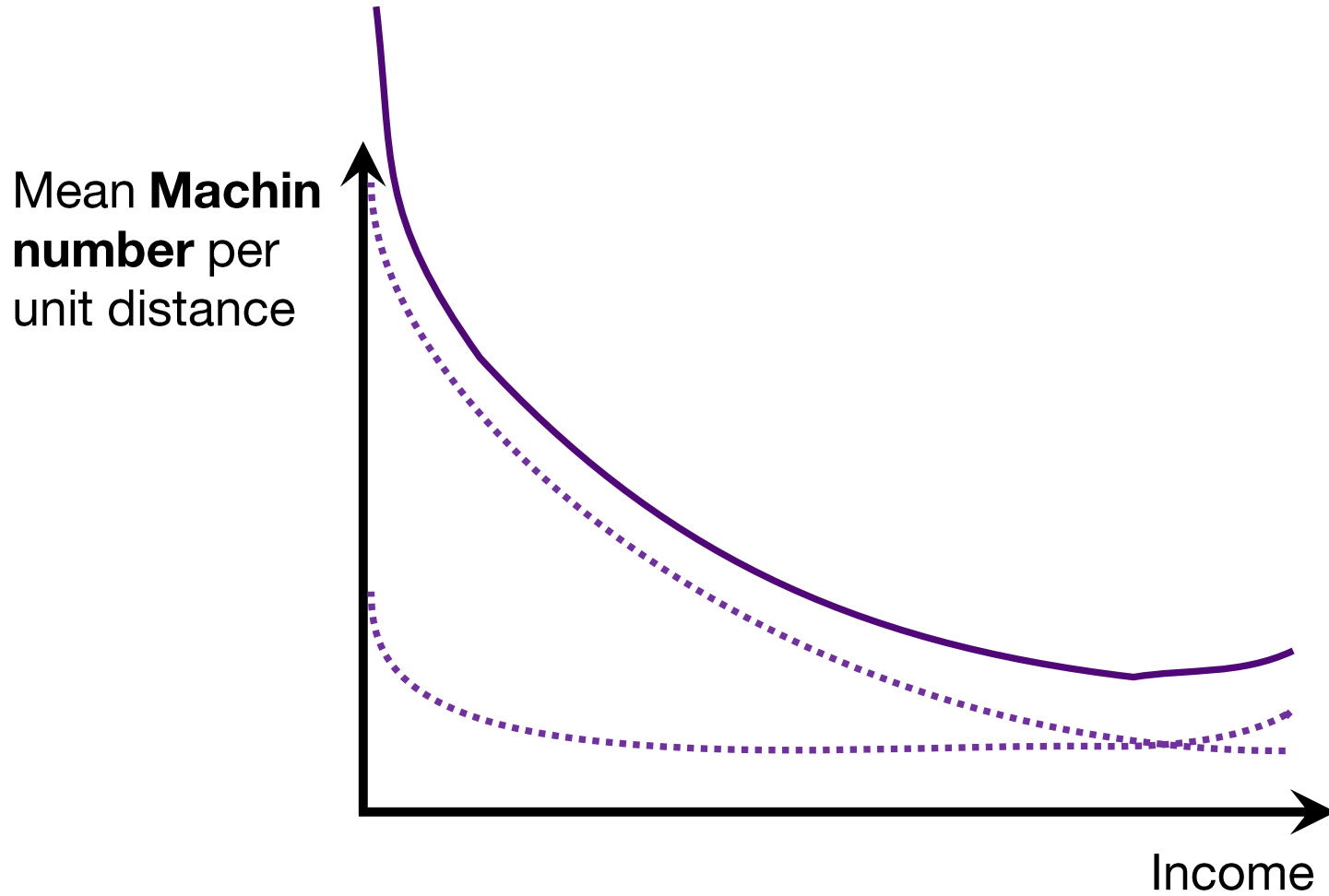


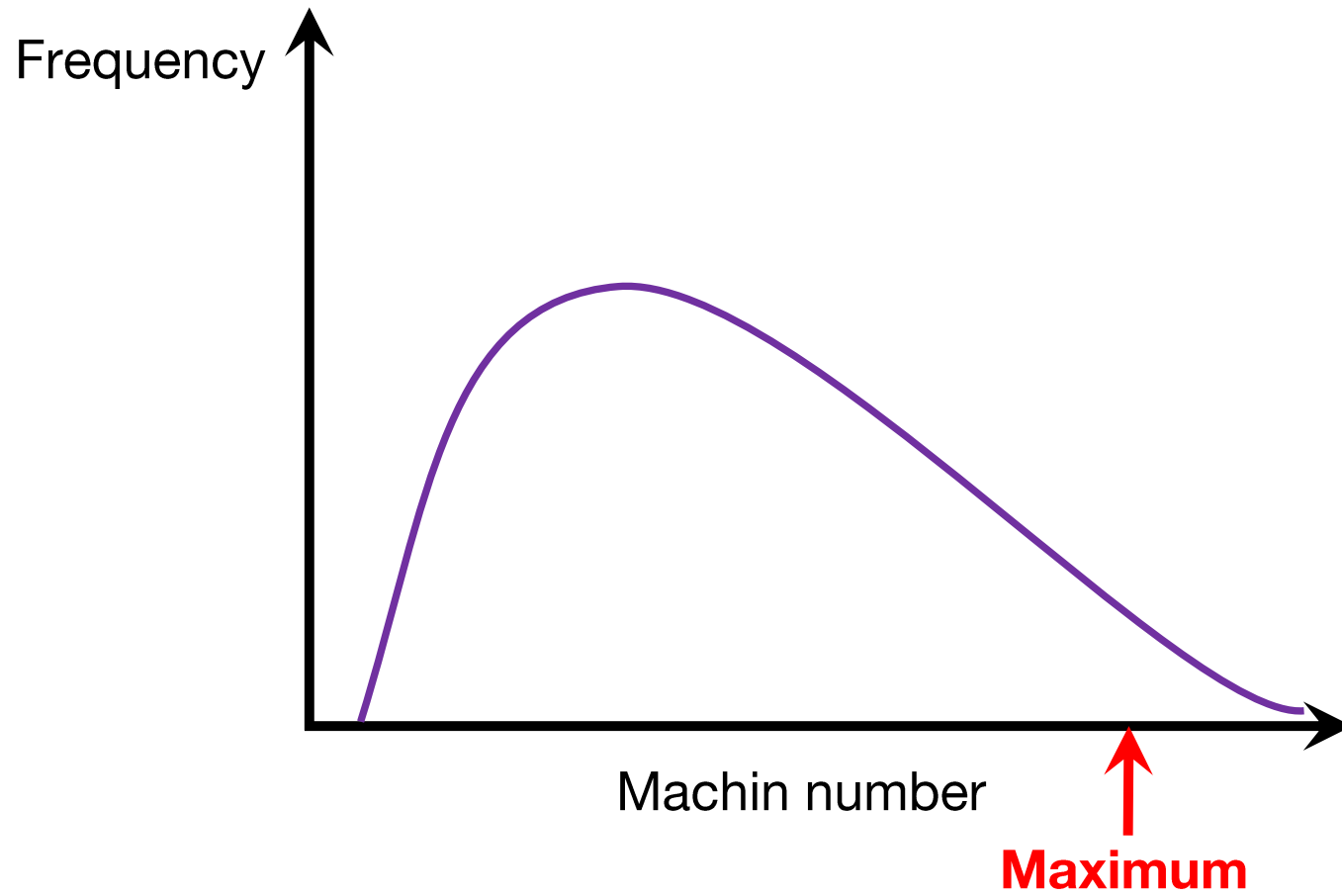
And our objective:

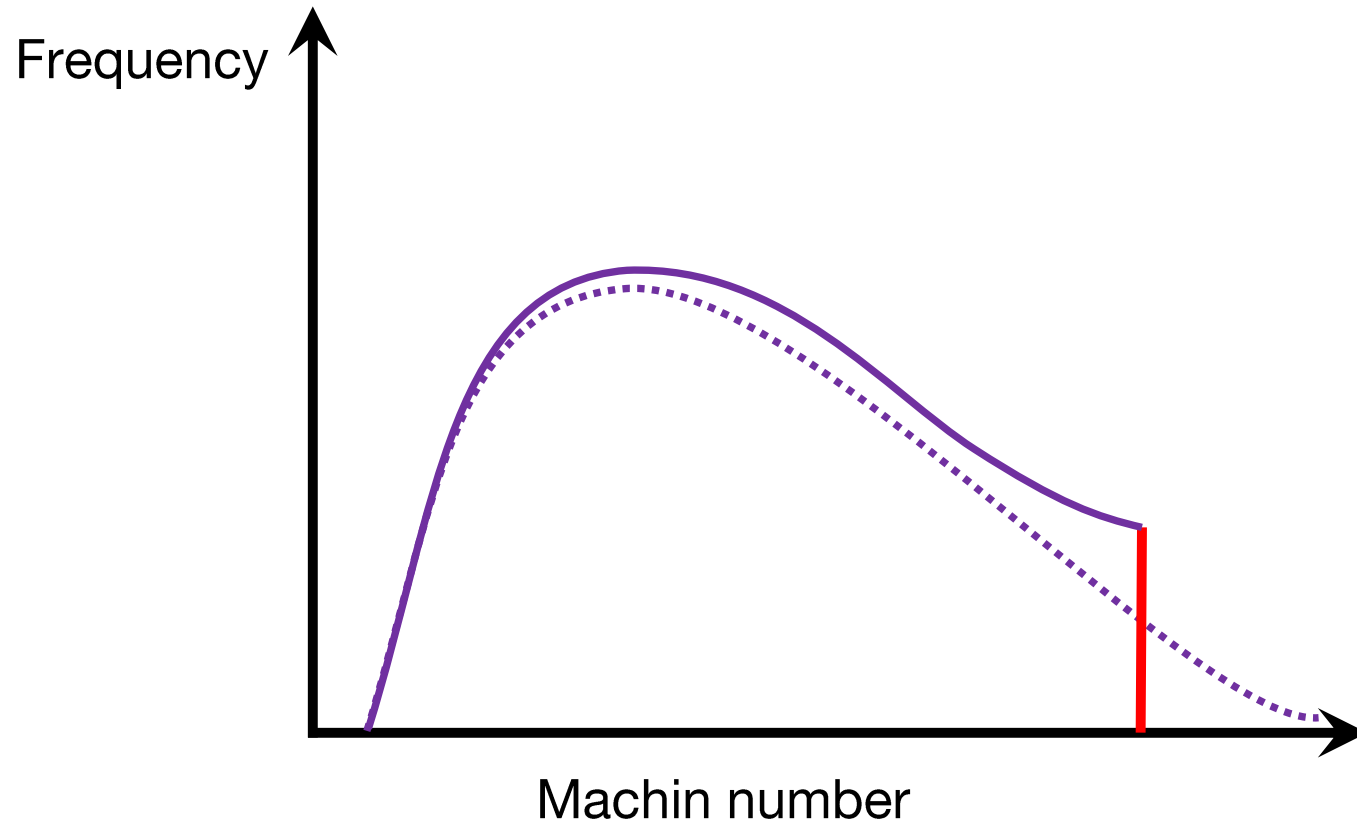
- That no one's Machin number should exceed a defined threshold
 - Threshold defined by citizens' assembly





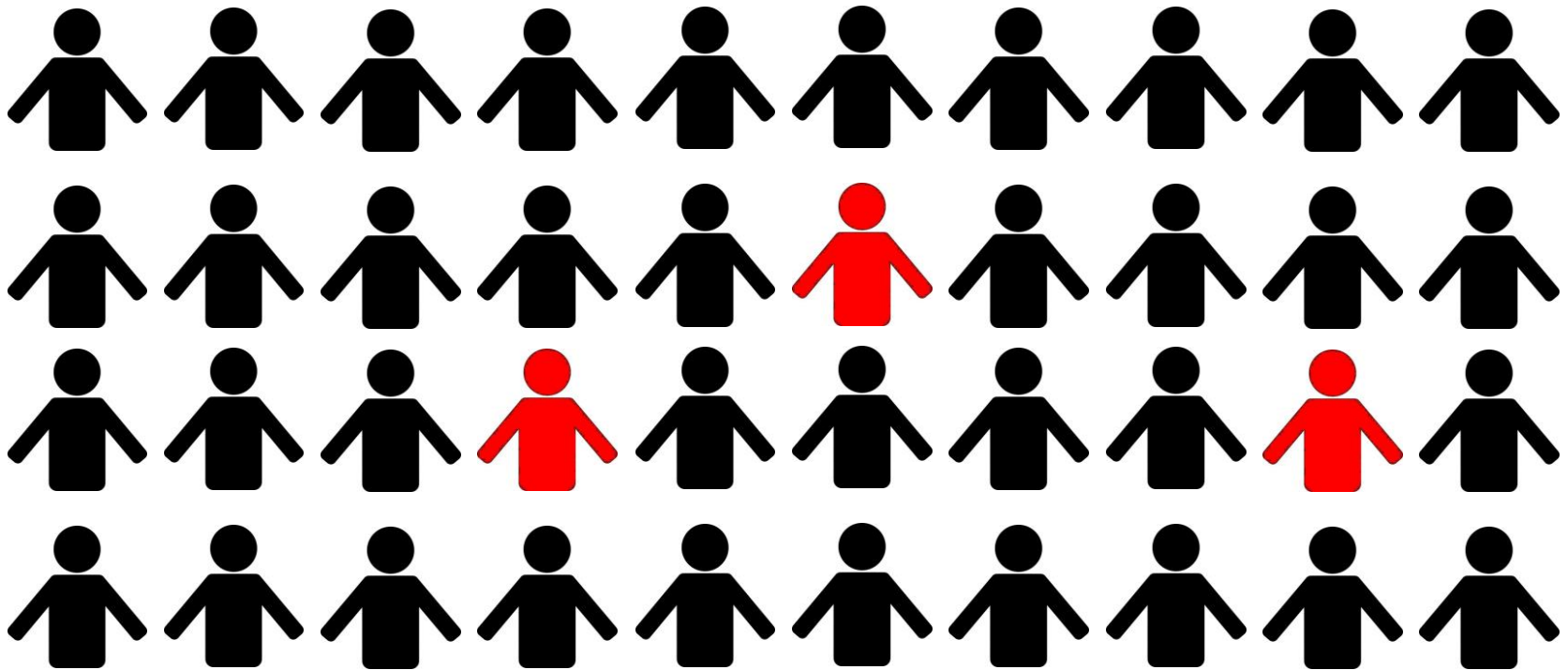


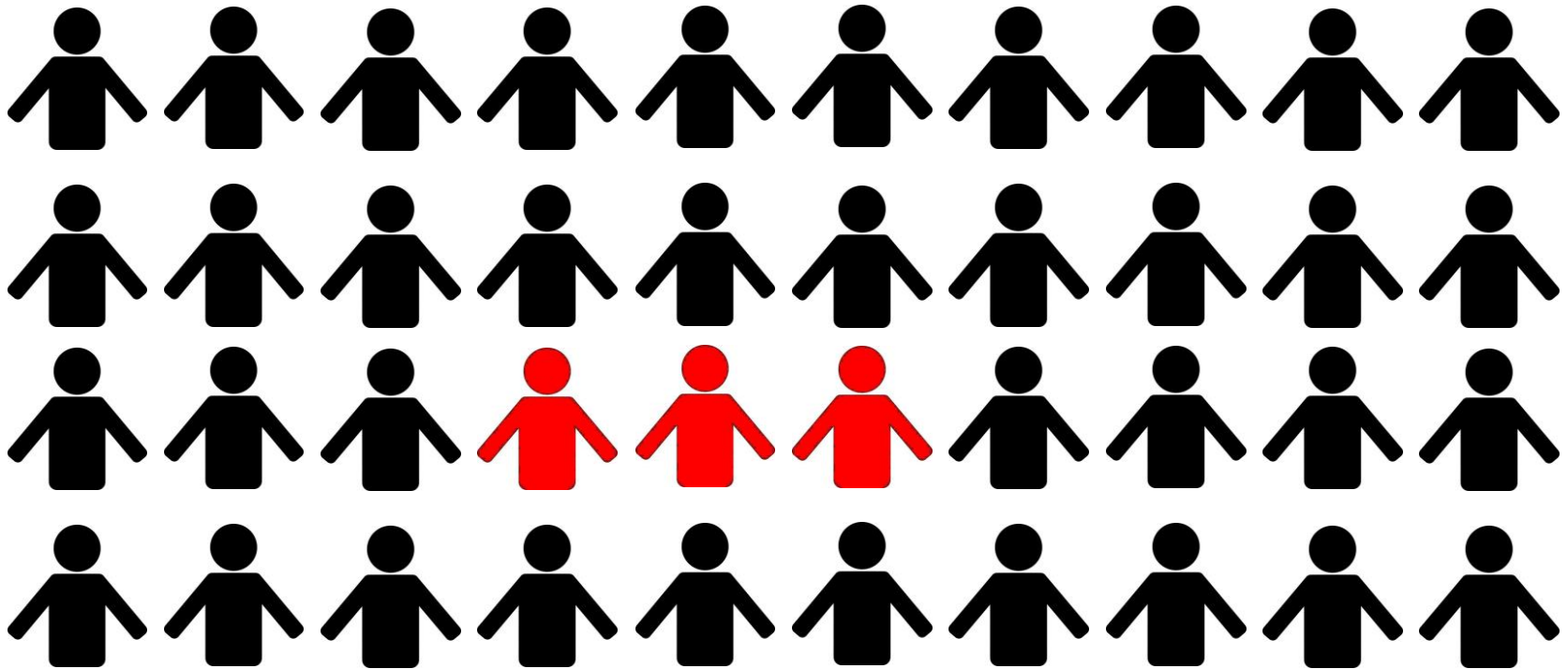


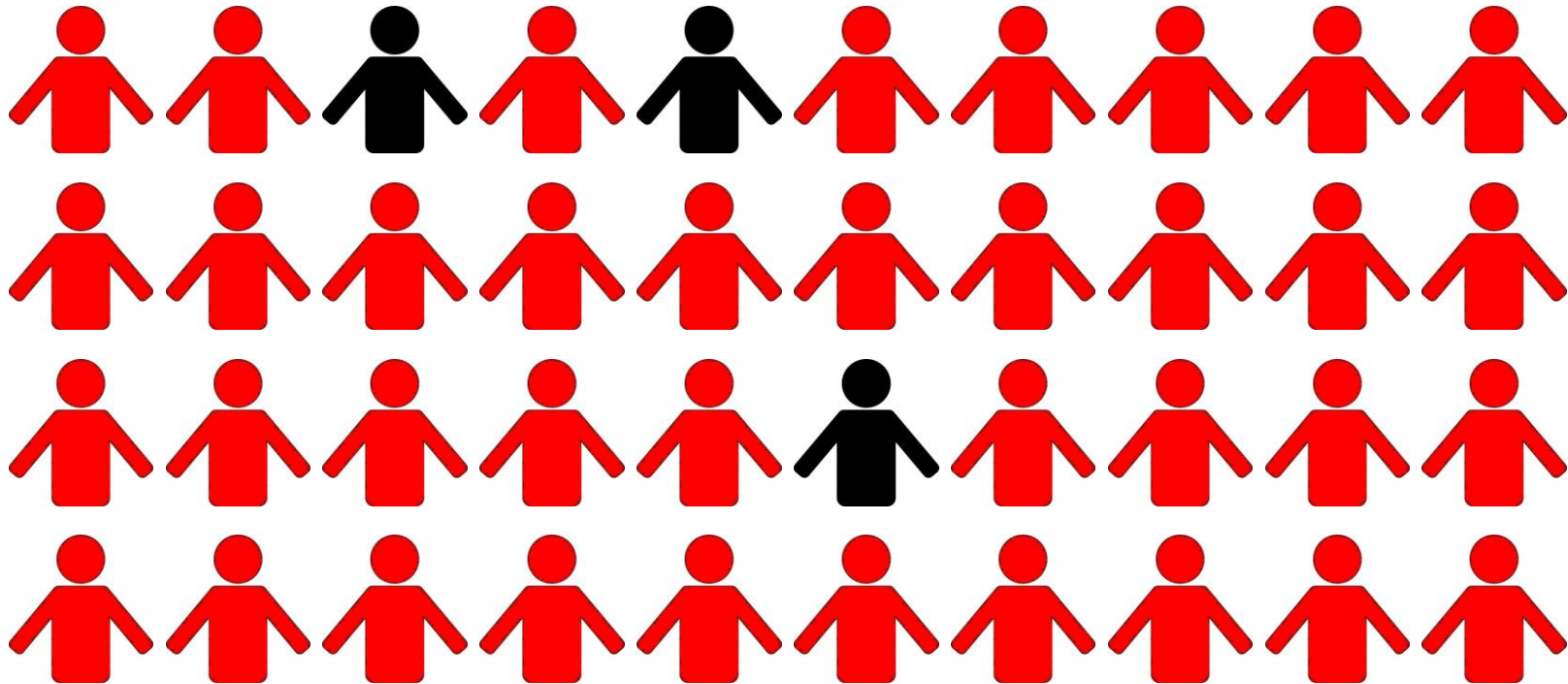


Possible policy implications

- Appraisal method
- Mitigation
- Interventions







Questions for you

- Sufficientarianism in transport?
- Does Machin number work?
- Paying people to compensate for slow journeys?

Thank you

tom.cohen@ucl.ac.uk
www.ucl.ac.uk/transport-institute

@UCLTI

d.machin@ucl.ac.uk
<https://deanmachin.com/>