



Ministerie van Infrastructuur  
en Waterstaat

# Car ownership in Dutch households

MPN symposium 2023

Toon Zijlstra

Jan-Jelle Witte

**Kennisinstituut voor Mobiliteitsbeleid**

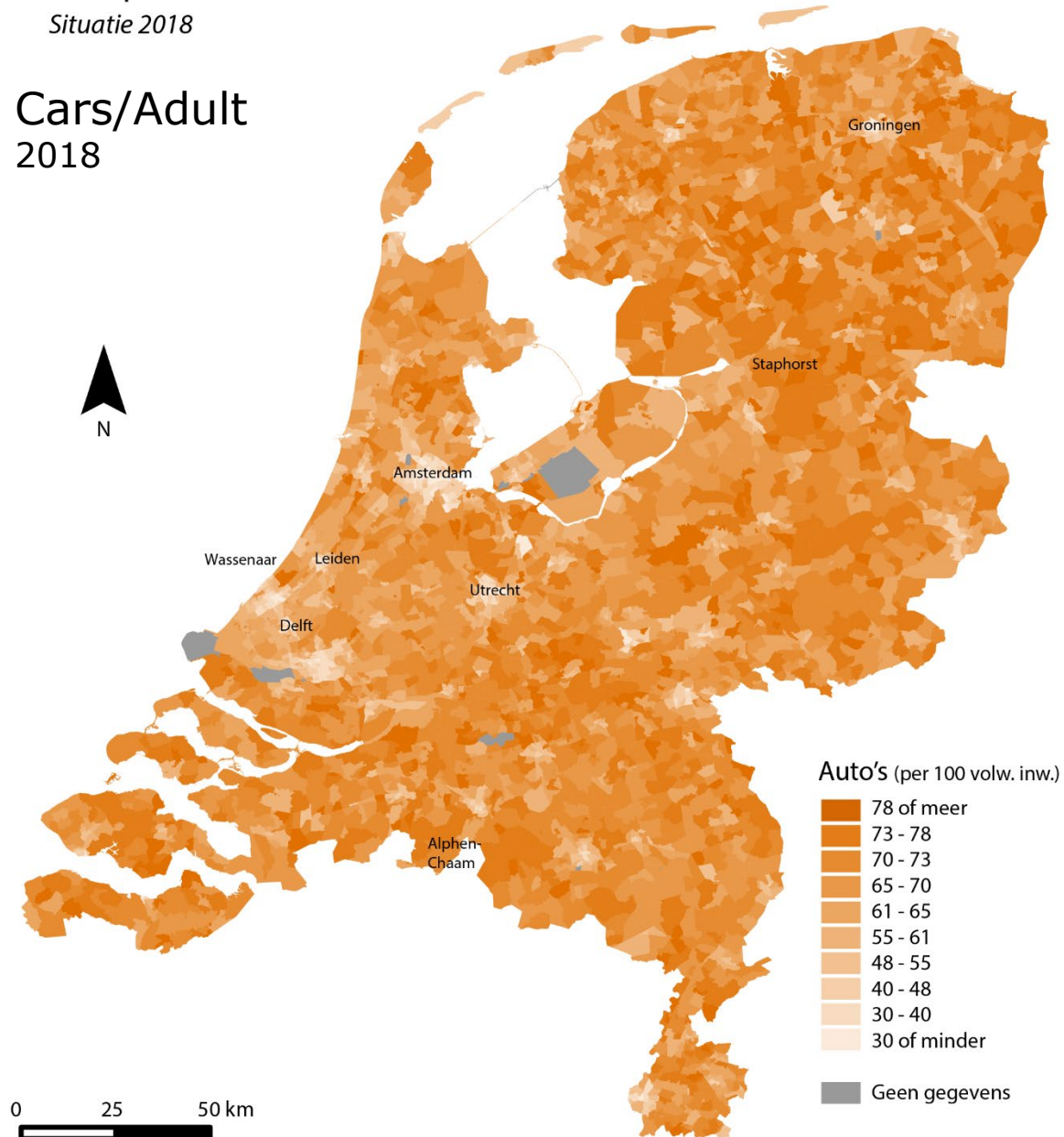


## Auto's per volwassen inwoner

Situatie 2018

### Cars/Adult 2018

Countries Situation 2019	Cars per 1,000 inhab.	Cars per km <sup>2</sup>
<b>Netherlands</b>	499	<b>229</b>
<b>Belgium</b>	511	192
<b>Luxembourg</b>	681	164
<b>Germany</b>	574	133
<b>Italy</b>	<b>663</b>	131
<b>United Kingdom</b>	473	127
<b>Czech Republic</b>	554	75
<b>Denmark</b>	455	61
<b>France</b>	482	59
<b>Sweden</b>	473	11

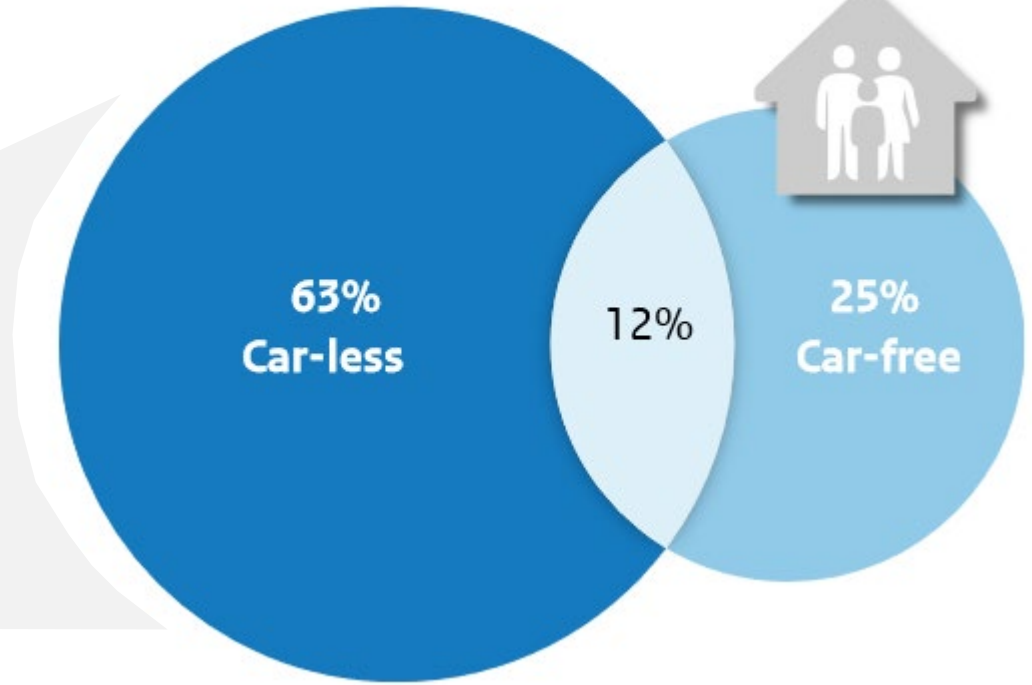
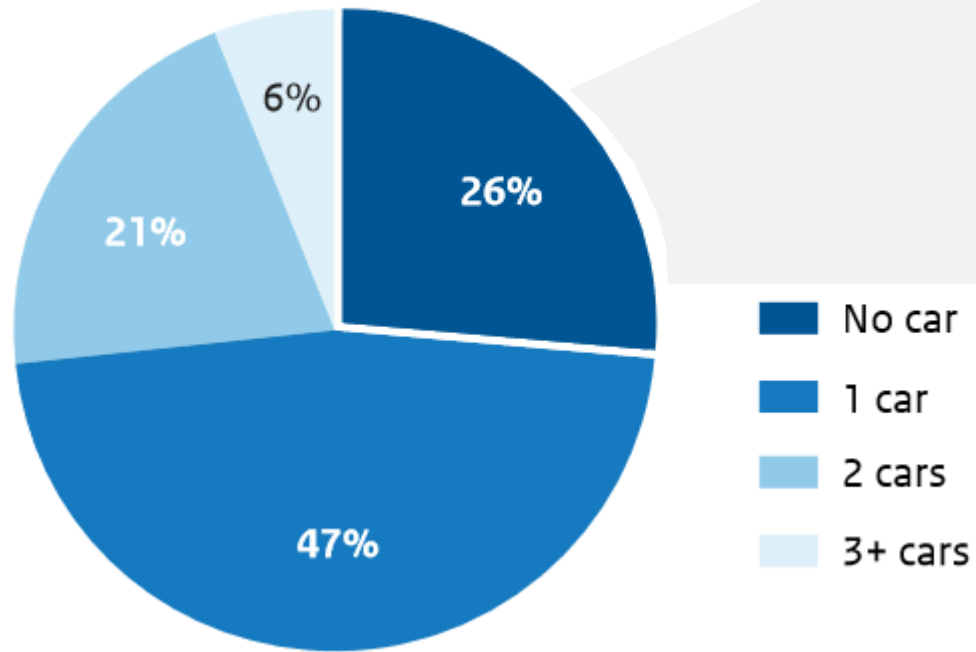




## Households without a car

### Car ownership per household

Situation Netherlands 2020





Witte, J., Zijlstra, T. en Bakker, S. (2022)  
*Verklaringen voor de verschillen in autobezit bij Nederlandse huishoudens.*  
Den Haag: Kennisinstituut voor Mobiliteitsbeleid



Zijlstra, T., Witte, J. en Bakker, S. (2022)  
*De maatschappelijke effecten van het wijdverbreide autobezit in Nederland.*  
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# Determinanten

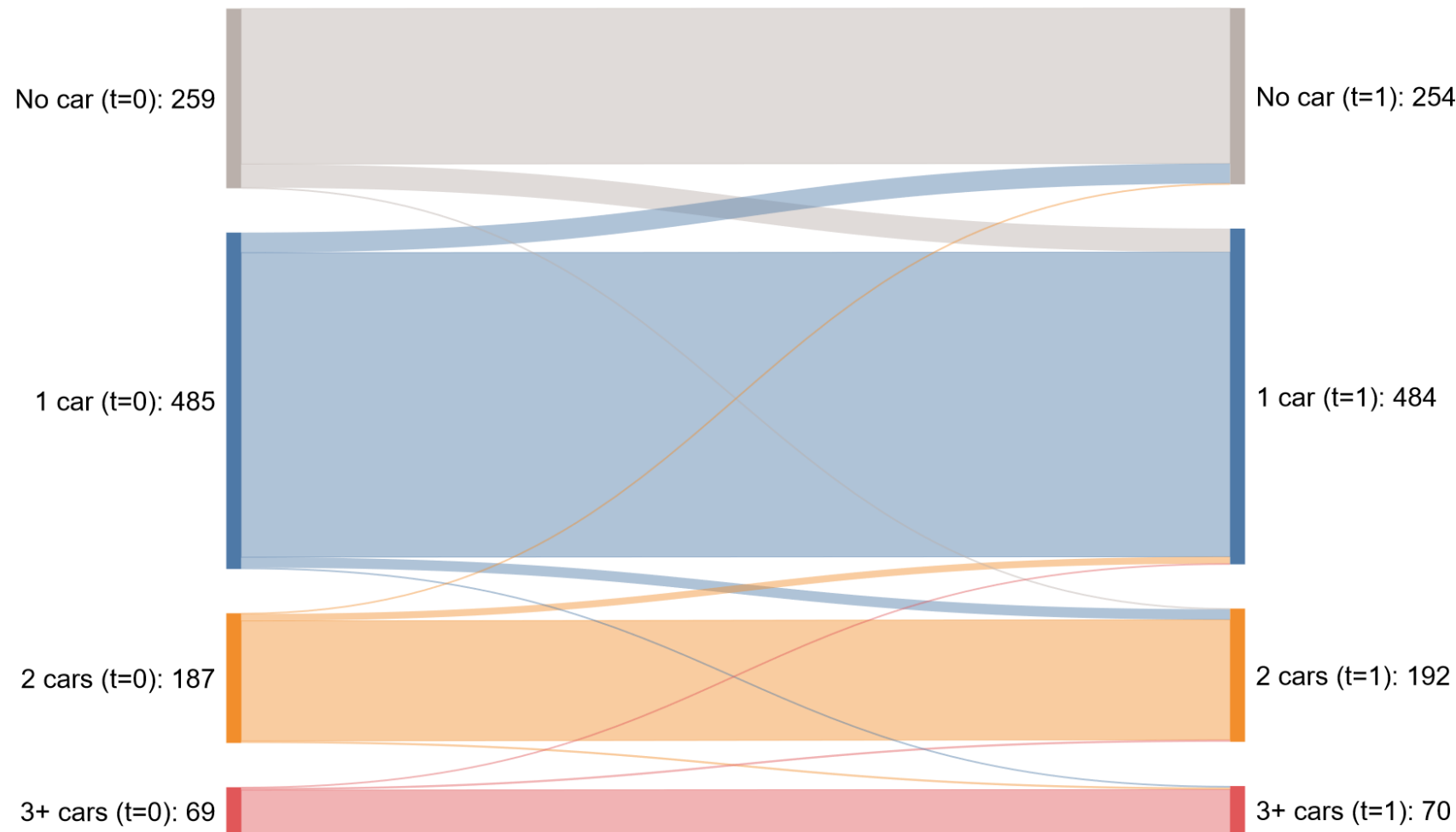
- > **Verklaringen centraal**
- > Financieel
- > Sociaal-demografisch
- > Ruimtelijk
- > Psychologisch



Witte, J., Zijlstra, T. en Bakker, S. (2022)  
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# Year-2-Year transitions



*254/1000  
Doesn't have  
a car in hh*



*5, 5%  
More cars*

*4, 6%  
Less cars*



# Study's methodological highlights

# 1 Household as unit of analysis

# 2 Financial security

# 3 Hurdle model





# Huishouden als onderzoekseenheid

Households as unit of analysis

#2



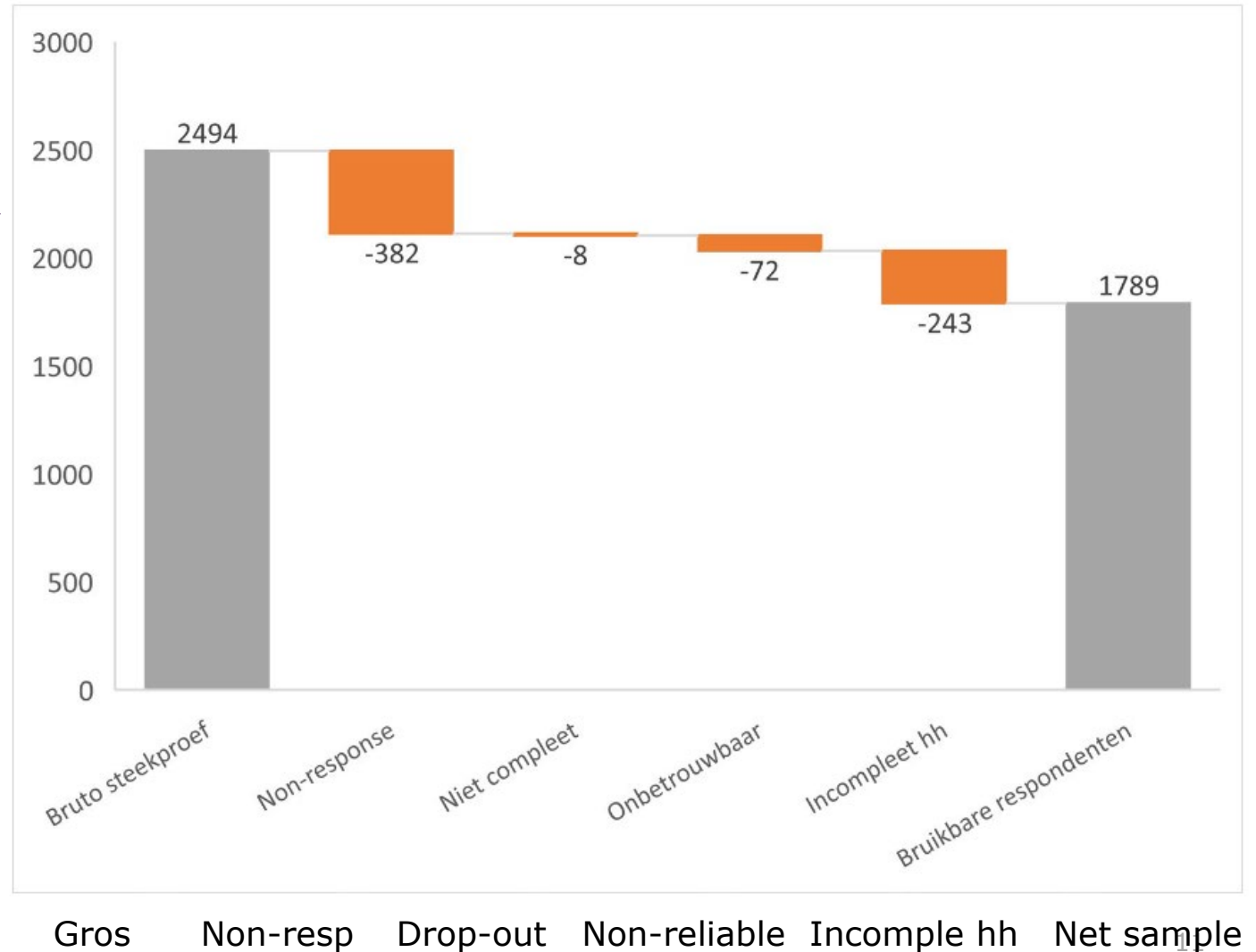


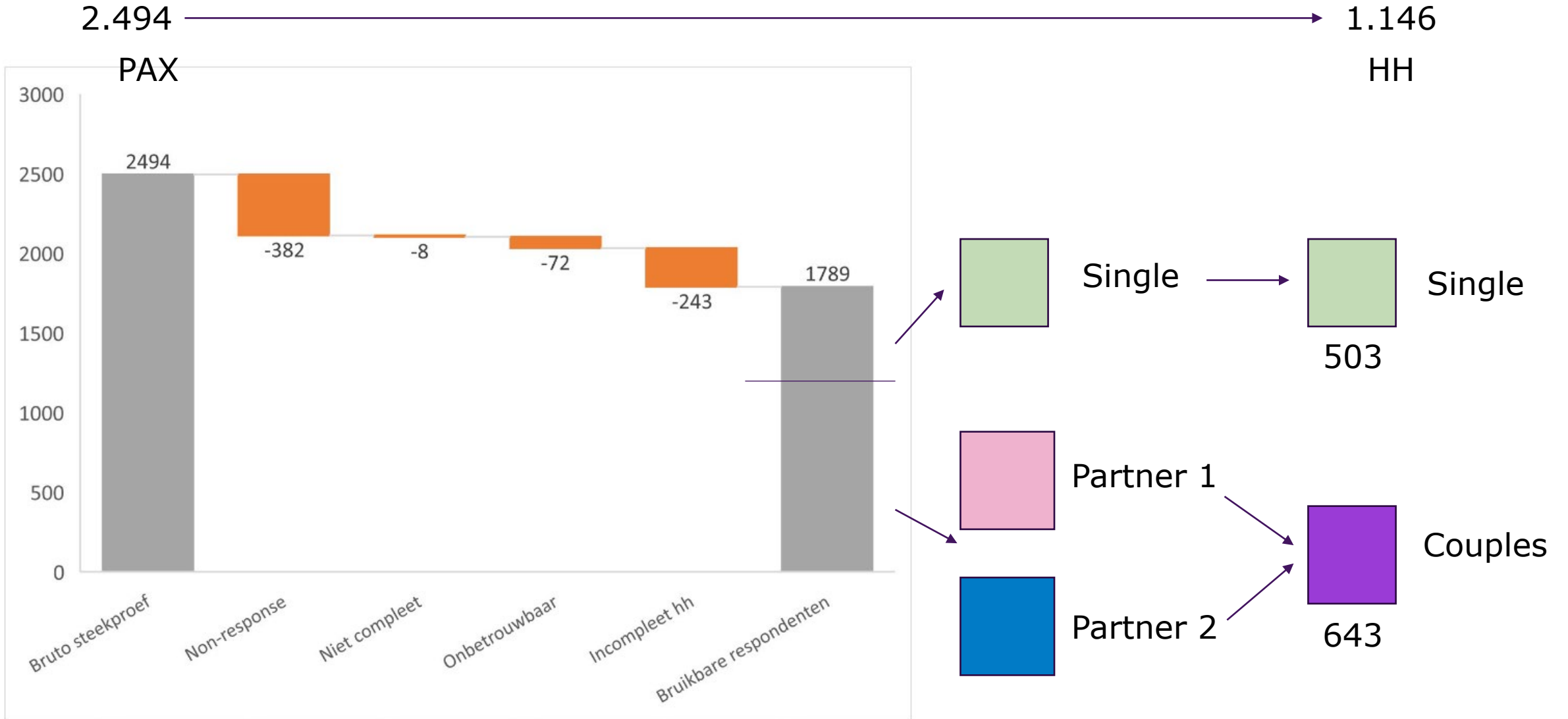
# Criteria & Cleaning

**MPN WAVE 7**



- Urban density
- Region
- HH composition
- HH size
- Age of oldest hh member
- Drivers license





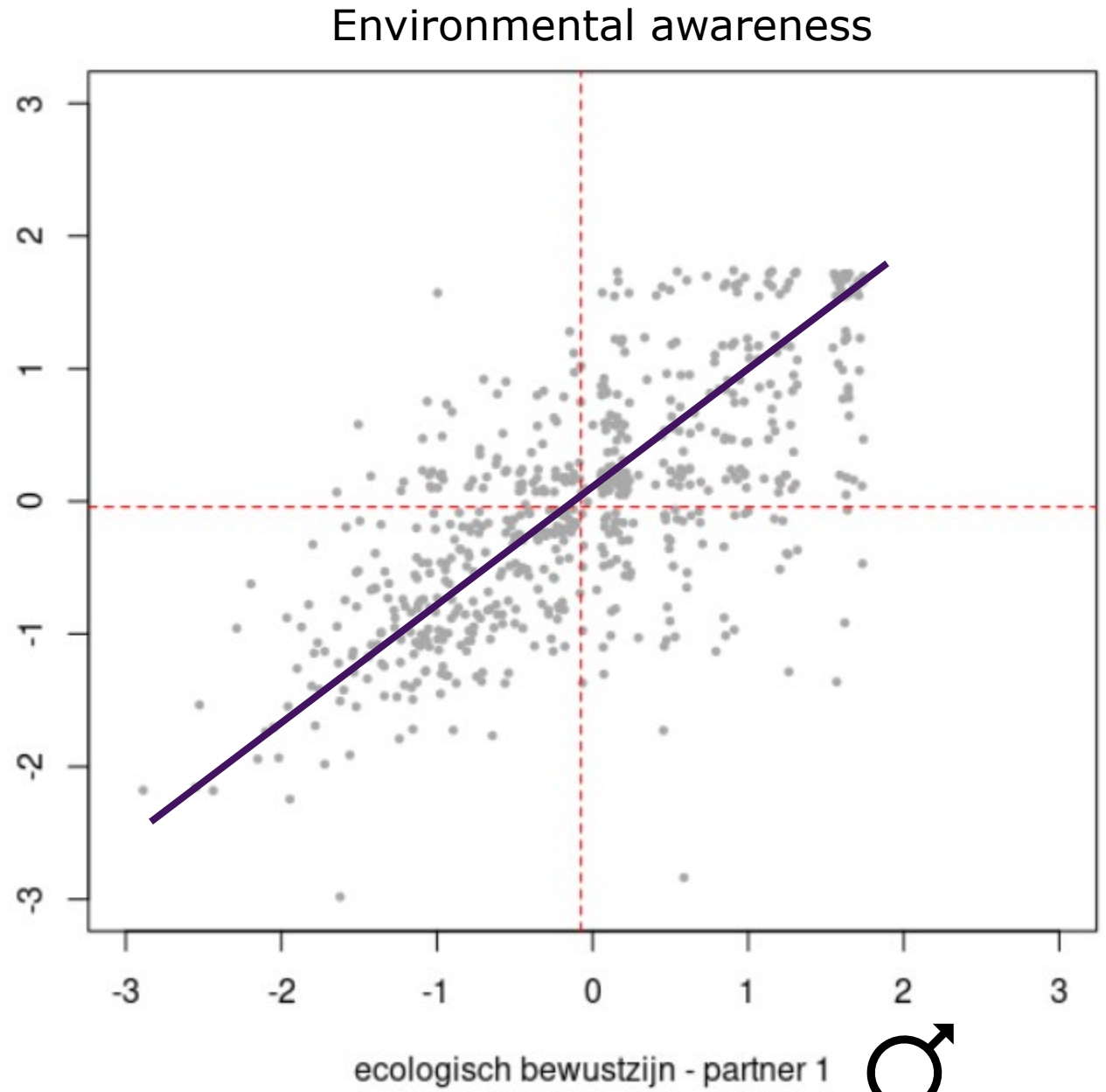


# Dependencies

**Observations in MPN are not independent**



ecologisch bewustzijn - partner 2

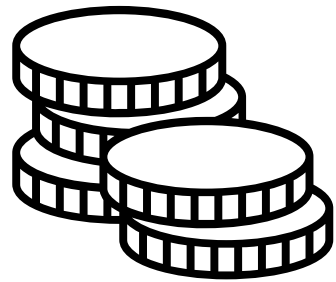




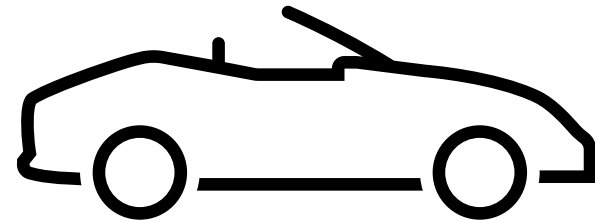
# Van inkomen naar financiële zekerheid

Income or financial security?

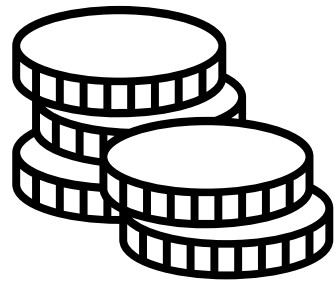
#2



Income



Car ownership

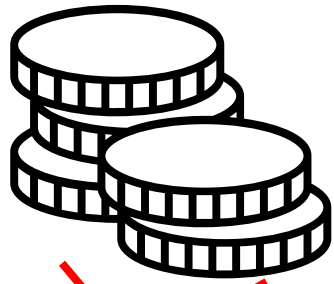


Income



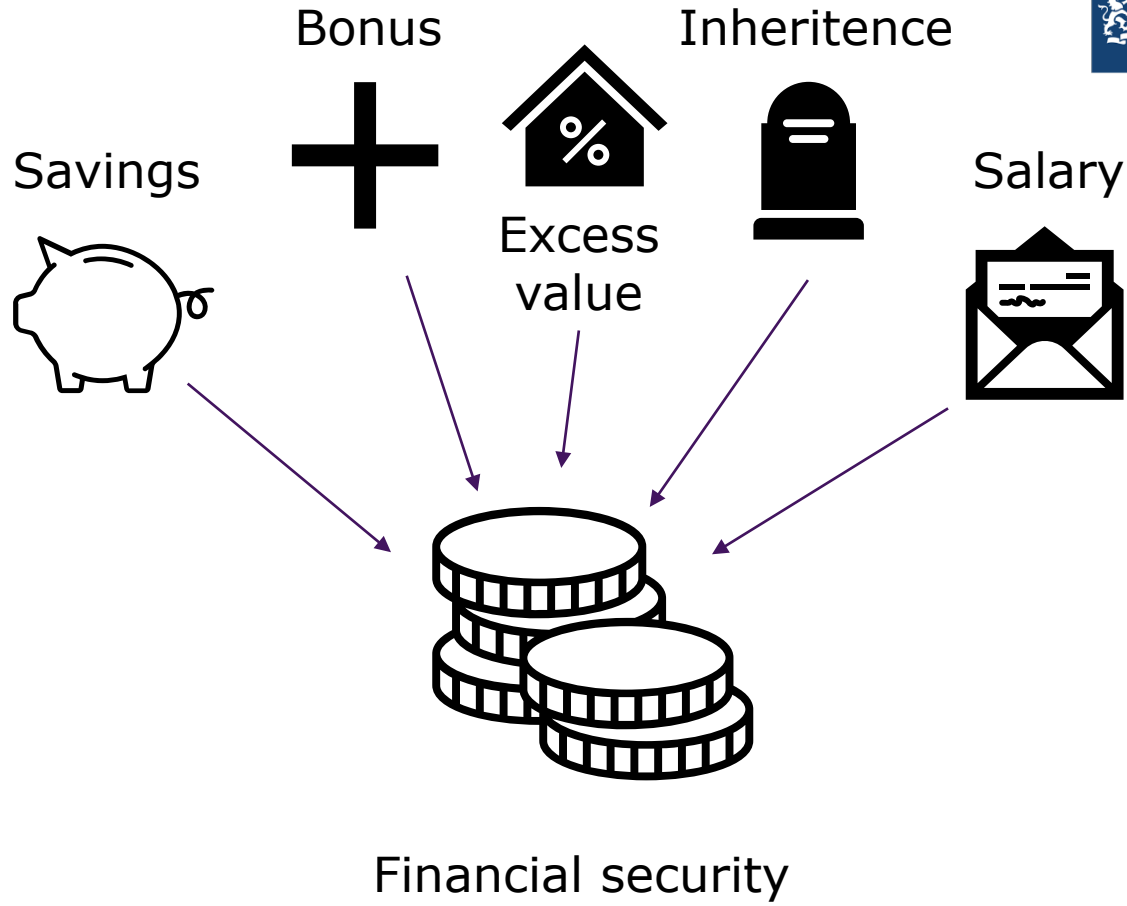
Car ownership

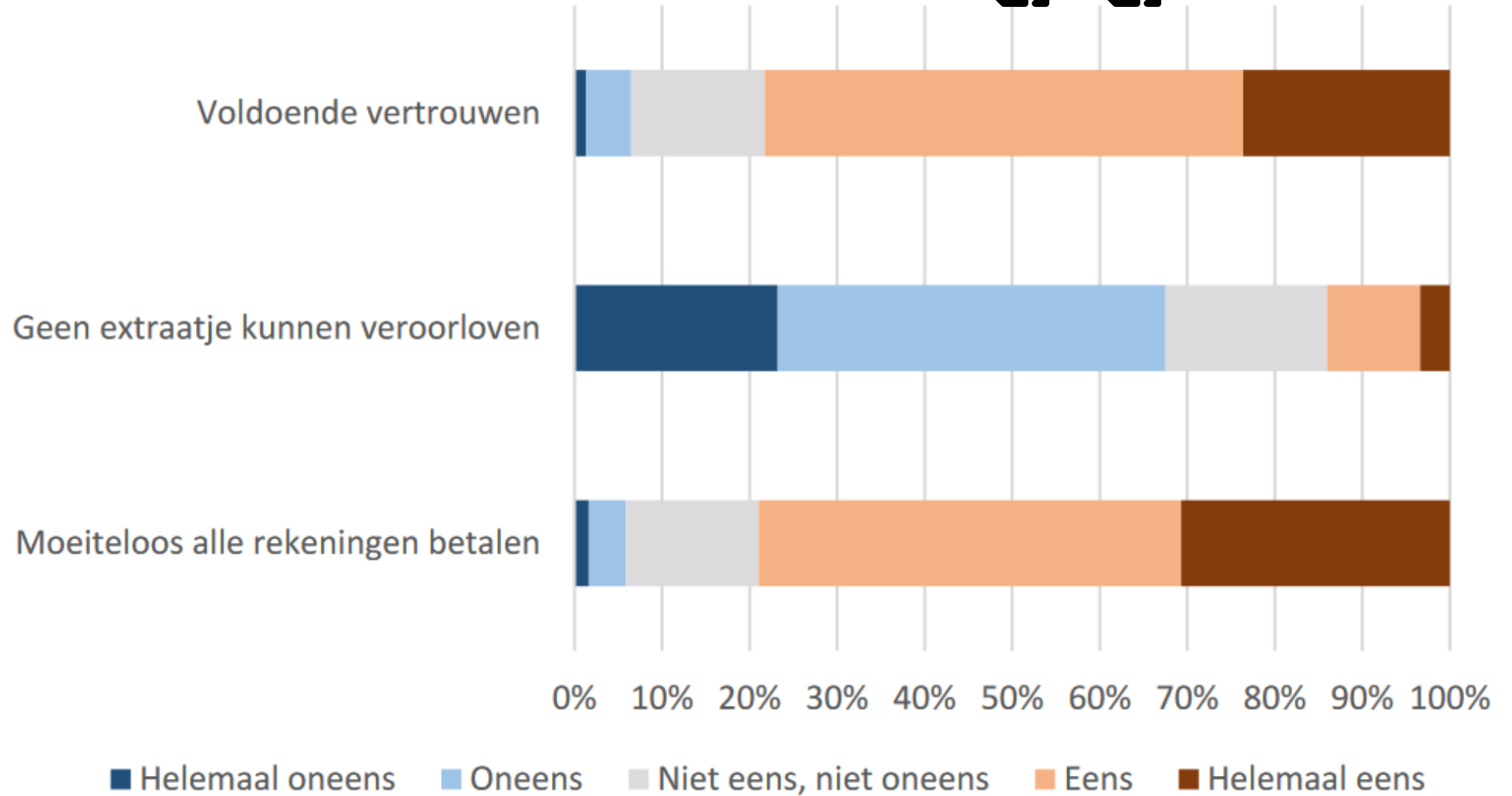
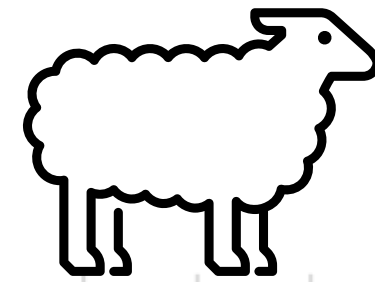


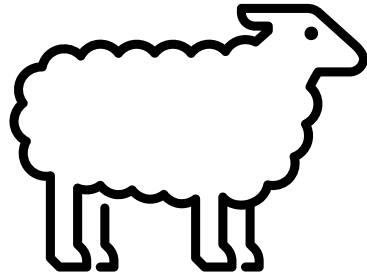


~~Income~~

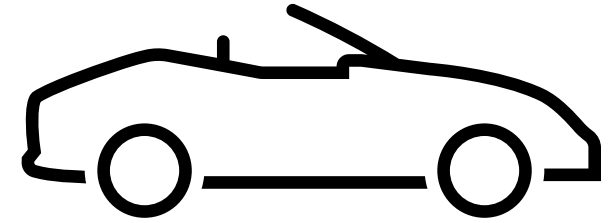
Financial security



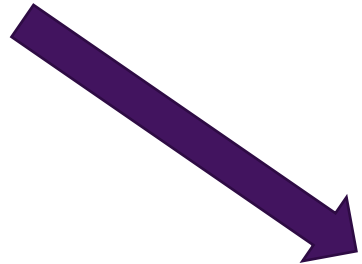




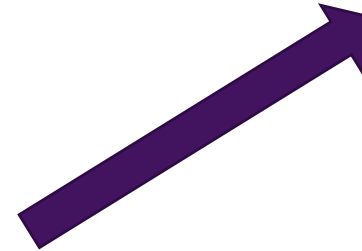
Financial  
security



Autobezit

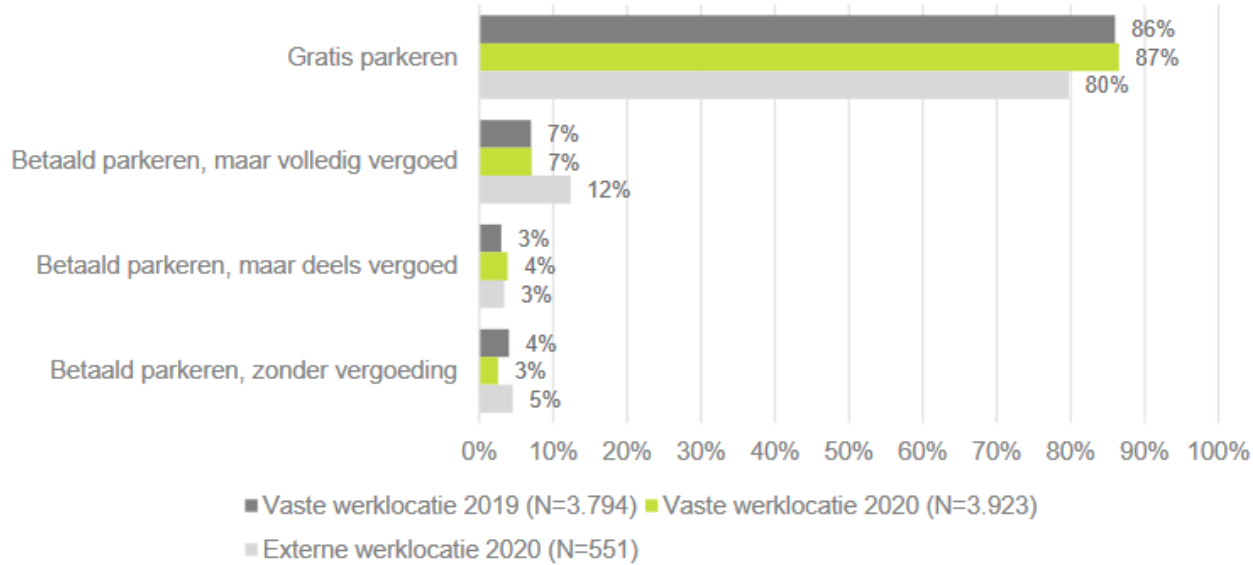


Help from others

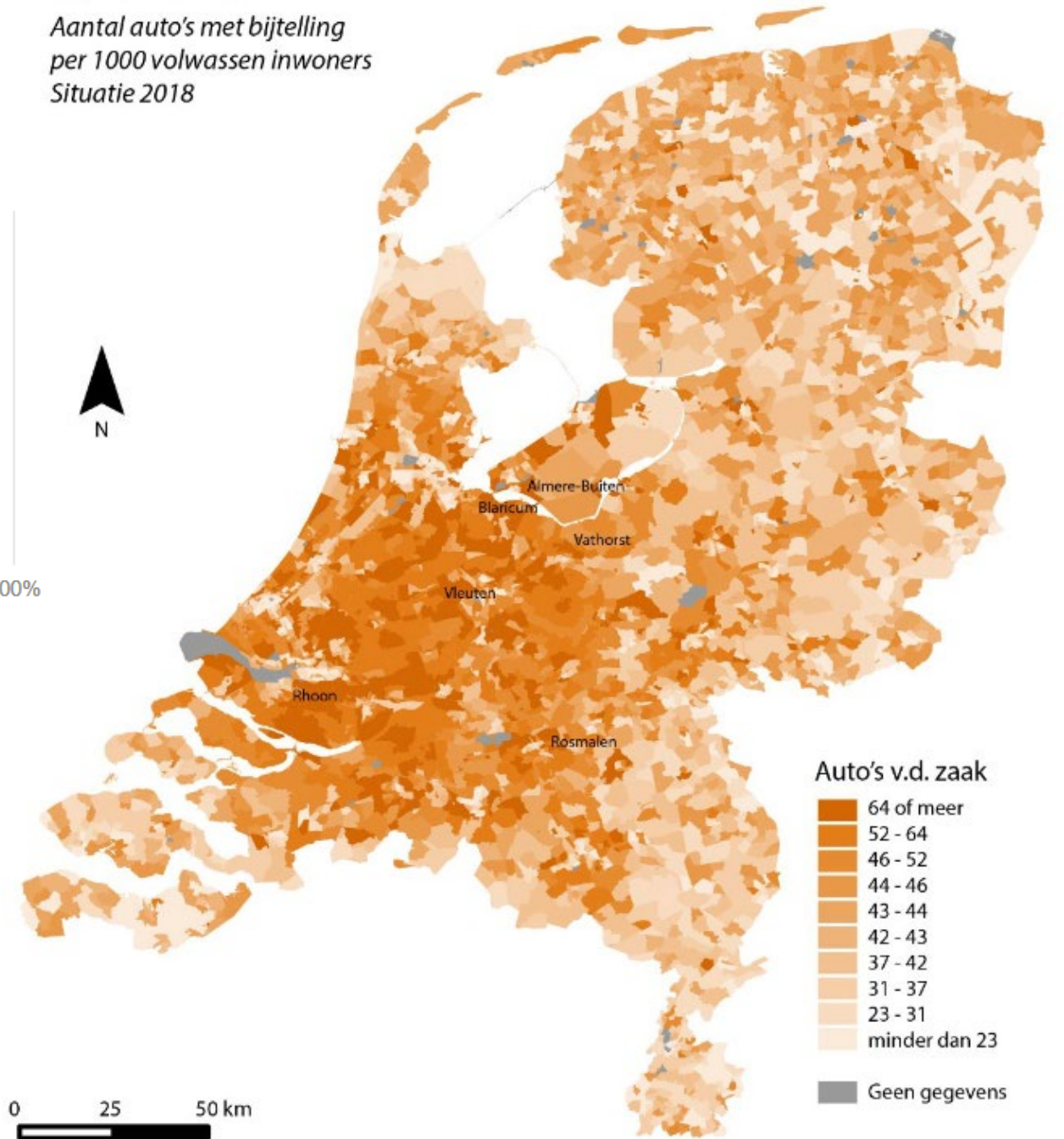


## Auto van de zaak

Aantal auto's met bijtelling  
per 1000 volwassen inwoners  
Situatie 2018



Landelijk Reizigers Onderzoek 2020





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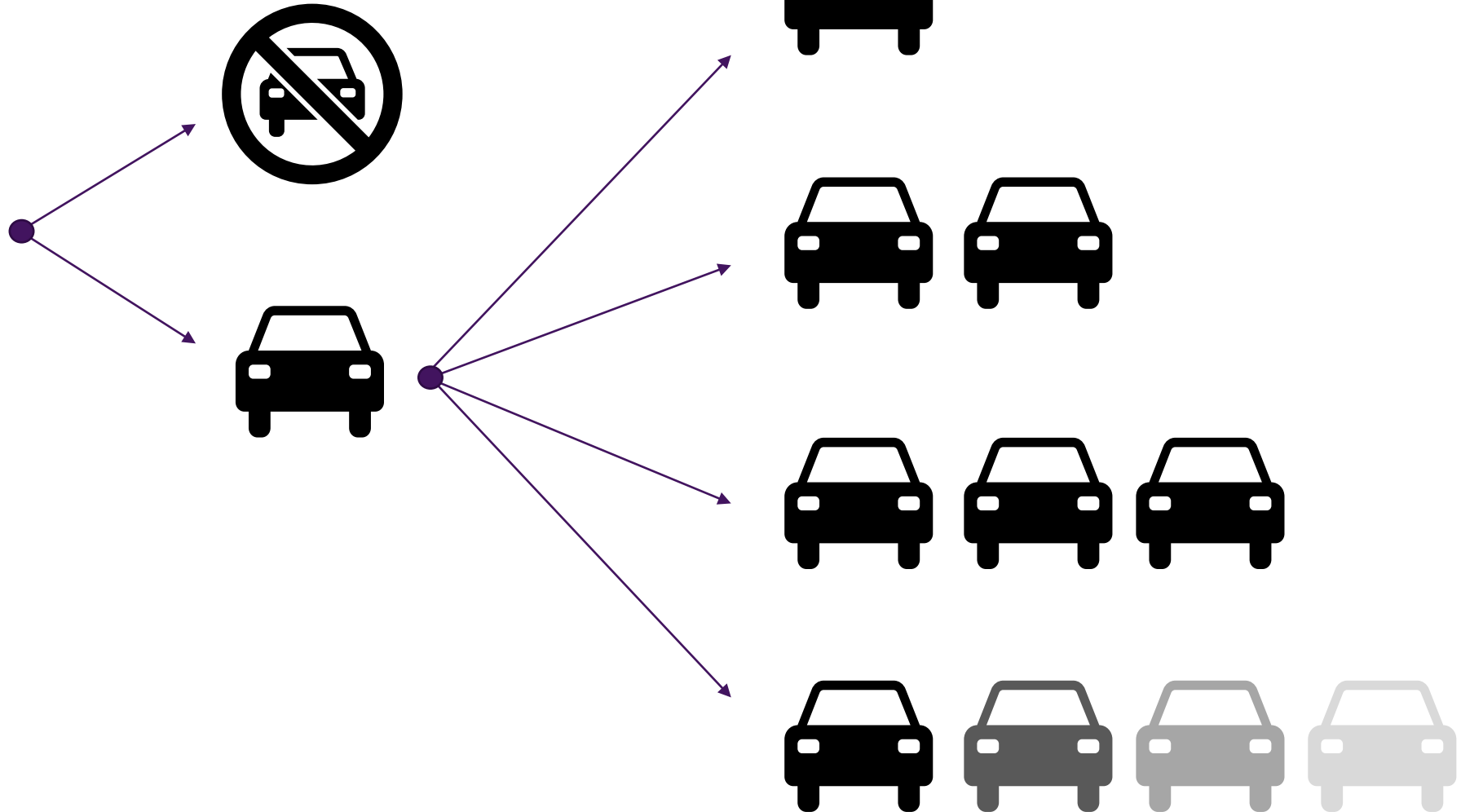
#3

# Hurdle model



To have or not to have?

Number of cars





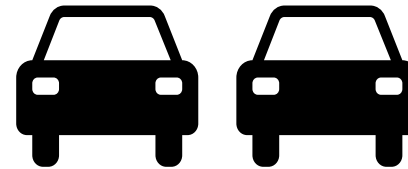
To have or not to have?







Number of cars



**Company car**



# Results



# Variable importance

1. Number of hh members with drivers license



2. Social norm of car ownership



3. Spatial characteristics

4. Financial security



5. Dual earners

6. Children in household



7. Car affection

8. Company car

9. Environmental awareness



# Persona's



		Mr. Rutgers	Family De Jong	Mrs. Van der Plas	Family Jansen	Family De Vries
		Senior, no driver's licence	From Amsterdam	Single mother	From Waalwijk	From Baarn
	Estimated number of cars	0.01	0.56	1.01	1.73	1.87
	Two-income household	N/A	Yes	N/A	No	Yes
	Enough financial security	Yes	Yes	No	Yes	Yes
	Lease car	No	No	No	No	Yes
	Amount driving licenses	0	1	1	3	2
	Children living at home	0	3	2	2	2
	Address density (addr./km <sup>2</sup> )	4,000	4,800	2,000	1,200	1,500
	Distance to IC station (m)	1,200	540	3,500	10,000	4,000
	Social norm	-	--	+	+	++
	Ecological Awareness	+	++	0	-	0
	Car affinity	--	--	0	++	+
	Barriers	0	-	0	--	0



The End

