

# The minimum dose of work required to benefit psychologically from paid work

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# Rationale

- For most people in most jobs, paid employment generates higher levels of physical, mental health and wellbeing than unemployment or economic inactivity (e.g. reviews by McKee-Ryan 2005; Paul and Moser 2009).
- Because employment serves important psychological functions (e.g. Fryer, 1986; Warr ,1987; Jahoda, 1981, 1982; and Strandh, 1997) → better well-being and mental health
- **A gap in the debate:** how much paid employment is needed to get some or all of the physical and mental wellbeing benefits?
- Underemployment literature: mostly subjectively defined 'underemployment'

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# The Employment Dosage: How Much Work is Needed for Health and Wellbeing?

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## Background

Numerous psychological studies have demonstrated that, for most people in most jobs, paid employment generates higher levels of physical health, mental health and wellbeing than unemployment or economic inactivity. With the advent of machine learning and robotics taking over many of the jobs currently done by humans, and hastening the long-running slow trend in the shortening of the working week, the possibility of a future where there is a radical reduction in the hours of employment is now being taken more seriously. This scenario has fostered much debate among political economists and policy thinkers about the implications for earnings and earnings inequality, re-stimulating discussions of Universal Basic Income.

## Principal investigators

[Dr Brendan Burchell](#)

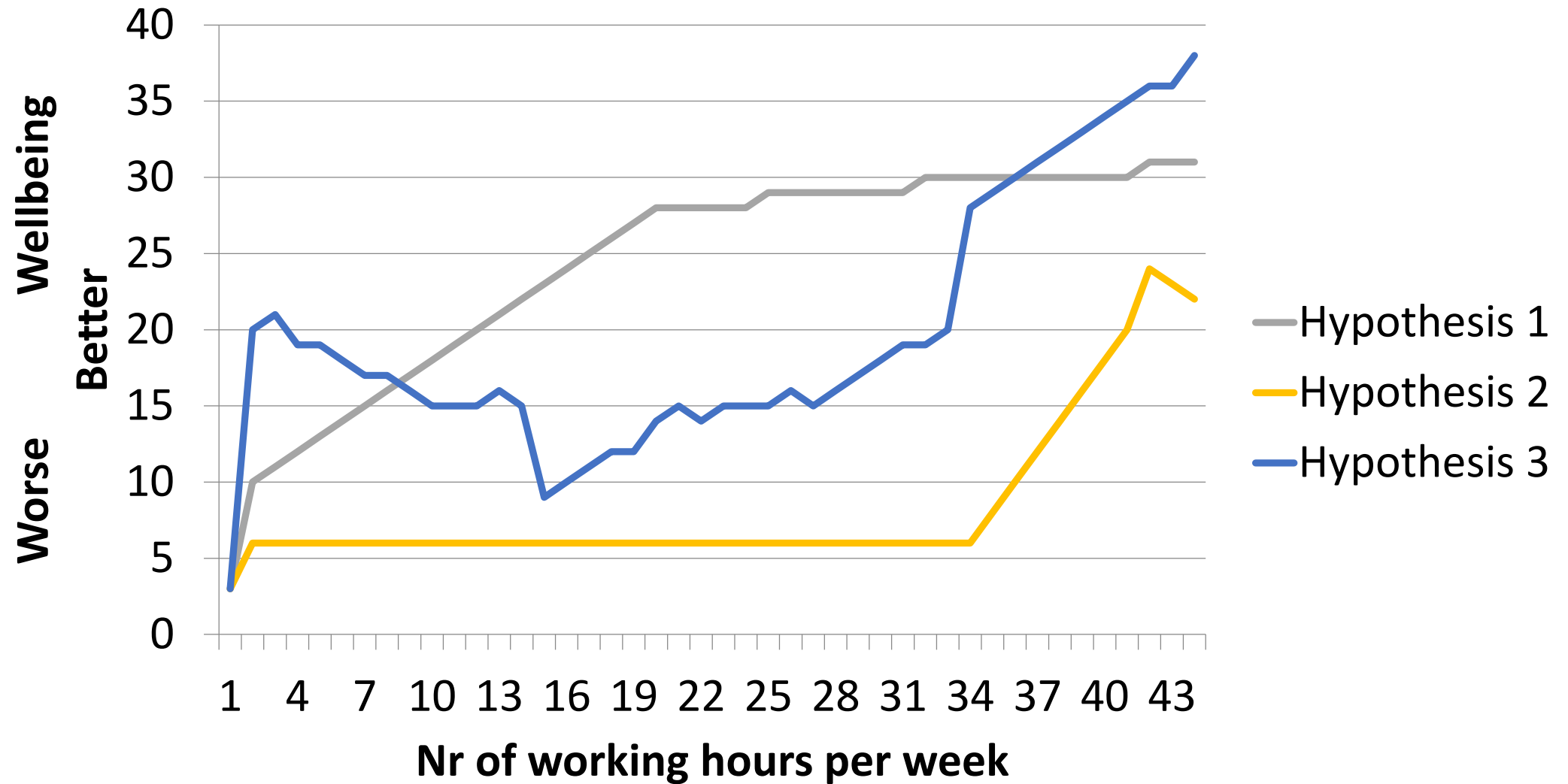
## Co-investigators

[Dr Adam Coutts](#)[Dr Daiga Kamerāde](#)

# Research questions

- What is the minimum number of working hours needed in order to gain mental wellbeing benefits from paid work?
- What are the relationships between working hours and mental wellbeing?

# Hypotheses



# Methods

- **Data**

Understanding Society/The UK Household Longitudinal Study (UKHLS) first seven waves (2009-2017).

- **Sample**

- Unemployed and employed individuals aged 16+ (174, 776 person-wave observations)

- **Variables**

- Dependent: Mental health – General Health Questionnaire - 12 items, reversed
- Independent: Number of working hours actually normally worked per week (including overtime and second job)
- Control: age, marital status, nr of children, age of children, household income, individual income as % of the HH income , caring responsibilities and physical health.

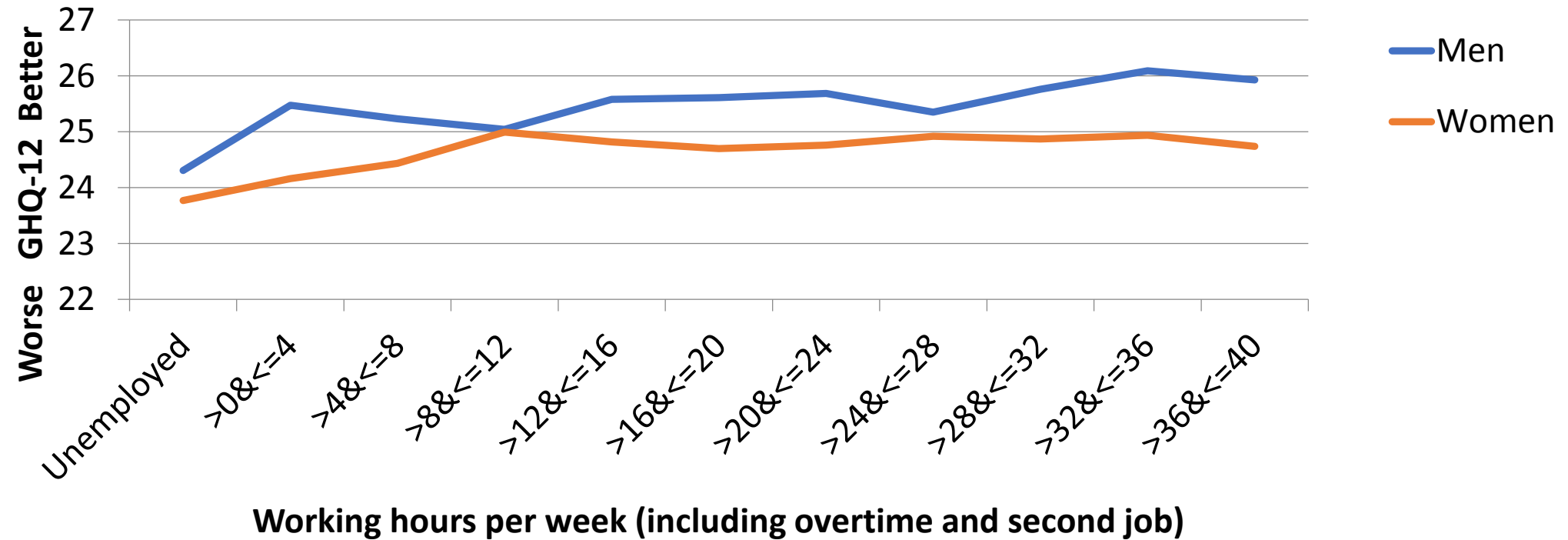
- **Data analysis methods** – fixed effects regression

**Table 1: Unemployment, employment and mental health**

	Men		Women	
	Coef.	SE	Coef.	SE
Work hours (ref = 0)				
>0 & <=4	1.17	(0.73)	0.39	(0.40)
>4 & <=8	0.93	(0.47)	0.66*	(0.31)
>8 & <=12	0.74	(0.48)	1.22***	(0.31)
>12 & <=16	1.28**	(0.39)	1.05***	(0.26)
>16 & <=20	1.30**	(0.44)	0.93***	(0.22)
>20 & <=24	1.38*	(0.55)	0.99***	(0.23)
>24 & <=28	1.05*	(0.44)	1.15***	(0.24)
>28 & <=32	1.46***	(0.37)	1.10***	(0.23)
>32 & <=36	1.79***	(0.37)	1.17***	(0.23)
>36 & <=40	1.62***	(0.32)	0.97***	(0.24)
Age	-0.03	(0.03)	-0.00	(0.02)
Age <sup>2</sup>	0.01***	(0.00)	0.00**	(0.00)
Marital status (ref = Single)				
Married/Cohabited	0.80*	(0.40)	0.13	(0.25)
Separated/Divorced/Windowed	-0.79	(0.55)	-0.89**	(0.32)
Presence of children (ref = No child)				
Preschool child 0-4	0.36	(0.44)	0.28	(0.31)
Primary school child 5-11	0.52	(0.41)	0.49	(0.28)
Middle school child 12-15	0.43	(0.37)	0.35	(0.23)
Number of children in household	-0.25	(0.23)	-0.01	(0.15)
Logged equivalized household income	0.36*	(0.16)	0.12	(0.12)
Personal income/household income	0.32	(0.38)	0.06*	(0.02)
Caring other people in household (ref = Yes)	0.64	(0.36)	0.49	(0.27)
Longstanding illness (ref = Yes)	0.48**	(0.16)	0.72***	(0.12)
Constant	18.00***	(1.38)	20.13***	(1.03)
Unweighted N (person-year observations)	37,950		61,973	
Overall R <sup>2</sup>	0.05		0.06	

Robust standard errors in parentheses, \*\*\* p<0.001, \*\* p<0.01, \* p<0.05.

## Unemployment, working hours and mental health by gender



Data:UKHLS 2009-2017  
N= 99,923



# Conclusions

- Even a small job is better than no job
- Mental health benefits of employment over unemployment increase with the working hours
- Underemployment:
  - working hours that do not provide the peak mental health benefits that work could provide (e.g. approx. 32 hours a week)?
  - on a scale – more or less underemployed

# Limitations and challenges

- Job quality not controlled
- Reverse causality
- Contextual variables (e.g. Local and occupational unemployment rates) not controlled
- Choice does matter

# Implications

Growing underemployment and a possibility of machine learning and robotics taking over many human activities –a society of re-distributed working hours? A four- day working week?

# Further research

- Analyses of interactions between job characteristics/ job quality and working hours and wellbeing
- Analyses looking at different household types (e.g. single, living with parents, a couple with children etc)
- Qualitative interviews – looking at working short hours in community context



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