

Segregation, segmentation and disability gaps in the labour market during Covid-19: Mental and physical health compared

Mark Bryan^a, Andrew Bryce^a, Nigel Rice^b, Jennifer Roberts^a, Cristina Sechel^a
^aUniversity of Sheffield; ^bUniversity of York

Labour Force and Annual Population Surveys User Conference
27 January 2022

@brycemeister



The
University
Of
Sheffield.

Summary

Summary

- In Q2 of 2020, UK labour market characterised by many workers being temporarily away from work or working reduced hours (e.g. due to furlough) despite negligible change in employment
- People with mental health (MH) or physical health (PH) disabilities more likely to be away from work or working reduced hours
- This gap can be partly explained by different characteristics (e.g. disabled people being over-represented in part time work and occupations that cannot be done at home)
- But an unexplained component remains, suggesting that disabled people have been treated or are behaving differently



The
University
Of
Sheffield.

Background and motivation

Policy context

- Disabled people of working age have much lower employment rates than non-disabled people in the UK (pre-pandemic, the gap was 52pp for MH disability and 34pp for PH disability)
- Reducing this gap is a government policy (increase disabled employment by 1 million between 2017 and 2027) and was also the subject of a Work and Pensions Committee Inquiry in early 2021
- The gap has been narrowing since 2013 (Powell 2021) but how will this trend be affected by Covid?
- Lots of evidence on the unequal labour market impacts of the pandemic (e.g. by ethnicity, age, gender); less focus on disability – Emerson et al. (2021) and Jones (2022) are exceptions
- Job Retention Scheme (JRS) has cushioned the blow of the pandemic but possible long-term structural changes

Theory

- Discrimination – employers may discriminate against disabled people either directly (e.g. due to prejudice) or indirectly (e.g. due to incorrect assumptions about productivity)
- Segregation – unequal distribution of disabled workers across occupations and/or industries
- Segmentation – unequal distribution of disabled workers across different contractual arrangements (e.g. working hours, self-employment, workplace size, public or private sector)

Hypotheses

1. Widening of the disability gap in *away from work* and *reduced hours* due to COVID-19
2. These gaps should be partly explained by measurable factors relating to segmentation and segregation (including industry, occupation, workplace size, public sector affiliation and part-time status)
3. Part of the gap will be unexplained, due to being caused by unmeasured factors (including employer attitudes and prejudices (discrimination), attitudes to risk and worker preferences)



The
University
Of
Sheffield.

Data and methods

Data

- Quarterly Labour Force Survey
- For decomposition analysis, focus on 2019:Q2 (sample size = 39,516) and 2020:Q2 (sample size = 31,701)
- Three labour market outcomes
 - Whether in employment
 - Whether temporarily away from work
 - Whether working reduced hours due to 'being laid off / short time / work interrupted by economic and other causes'
- Disability status defined based on the Equality Act 2010 – whether has health conditions / illnesses lasting 12 months or more which reduce ability to carry out day-to-day activities
- MH and PH disability derived from specific conditions reported

Methods

- Oaxaca-Blinder decomposition
- We decompose the disability gaps into characteristics and coefficients
- Basic model:

$$Y_i^g = X_i^g \beta^g + \epsilon_i^g$$

- Decomposition of the mean outcome between disabled (G=1) and non-disabled (G=0) expressed as:

$$\begin{aligned} \Delta\mu &= E(Y|G = 0) - E(Y|G = 1) \\ &= \underbrace{[E(X|G = 0) - E(X|G = 1)]\beta^0}_{\text{Characteristics}} + \underbrace{E(X|G = 1)(\beta^0 - \beta^1)}_{\text{Coefficients}} \end{aligned}$$

Classification of variables

- X contains a set of individual/household and job characteristics
- We classify characteristics into groups to link them to theory
 - Education and experience: educational attainment, tenure with current employer;
 - Industry (19 categories);
 - Occupation (9 categories);
 - Segmentation: workplace number of employees, whether self-employed, public/private, part-time/full-time work;
 - Region (12 regions of residence);
 - Demographic controls: age, ethnicity, children in household, marital status, adults in household, other employed individual in household.



The
University
Of
Sheffield.

Results

Disability gap trends over time

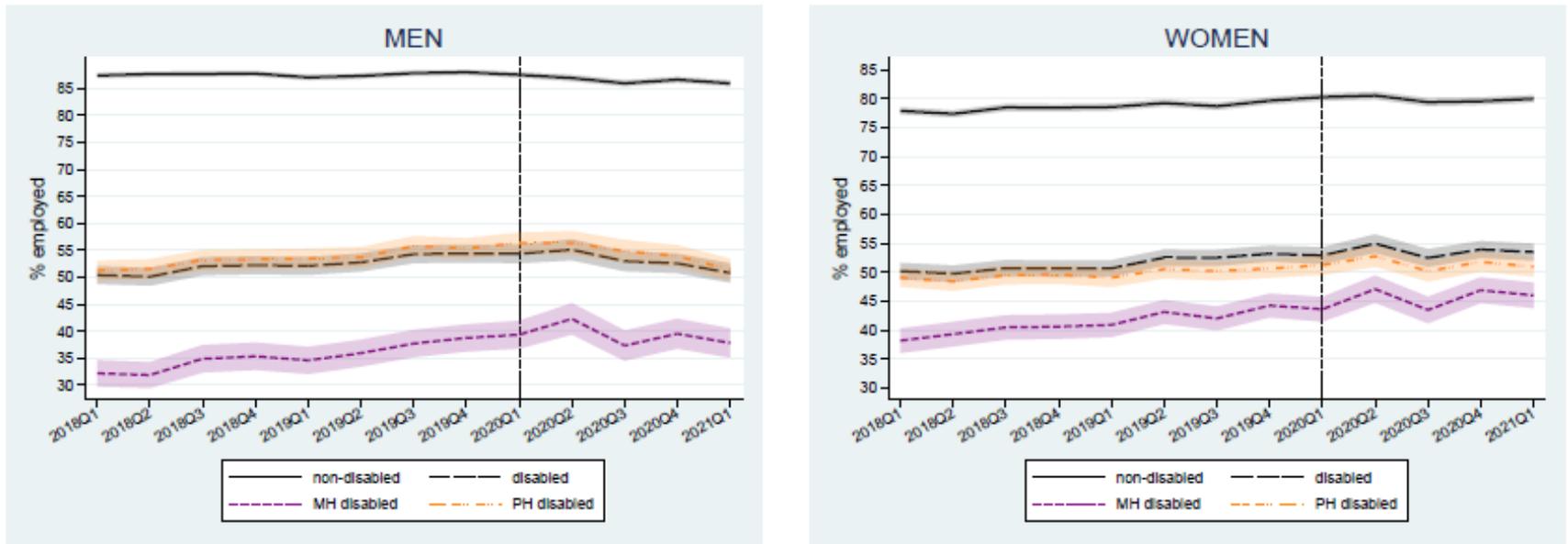


Figure A1: *Employment by disability and gender*

Disability gap trends over time

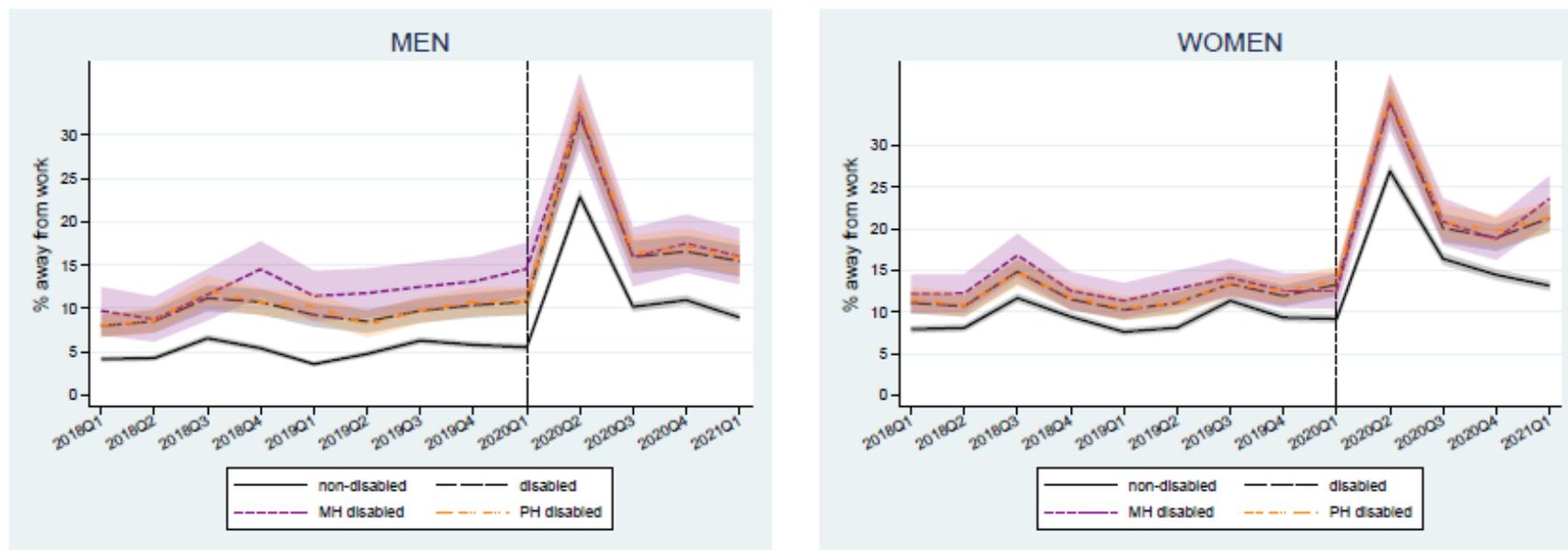


Figure A2: *Away from work* by disability and gender

Disability gap trends over time

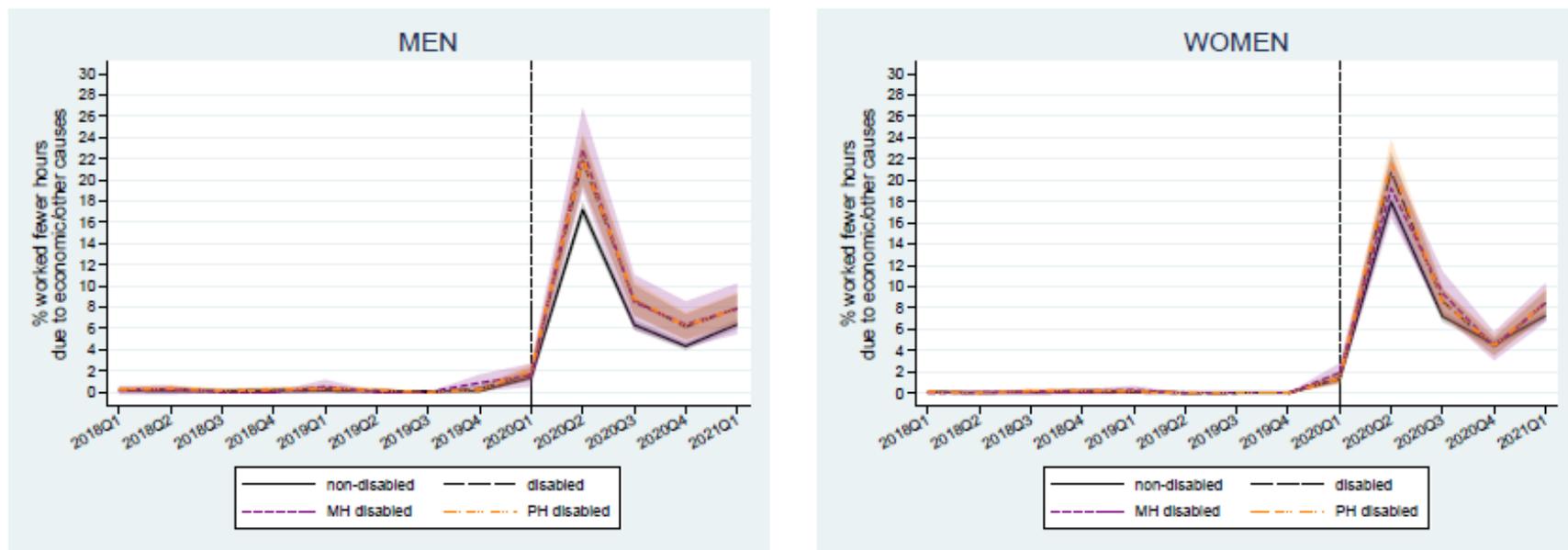


Figure A3: *Reduced hours by disability and gender*

Summary stats 2020:Q2

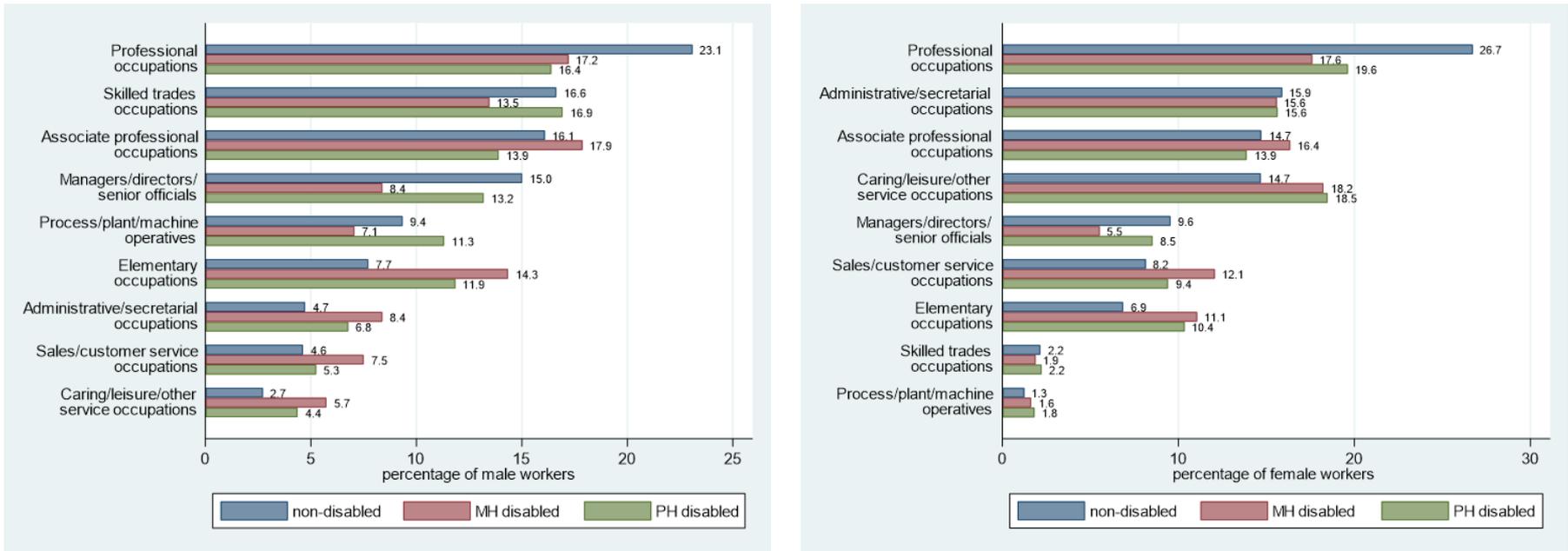


Figure A4: Percentage of workers by occupation: men (lhs); women (rhs)

Summary stats 2020:Q2

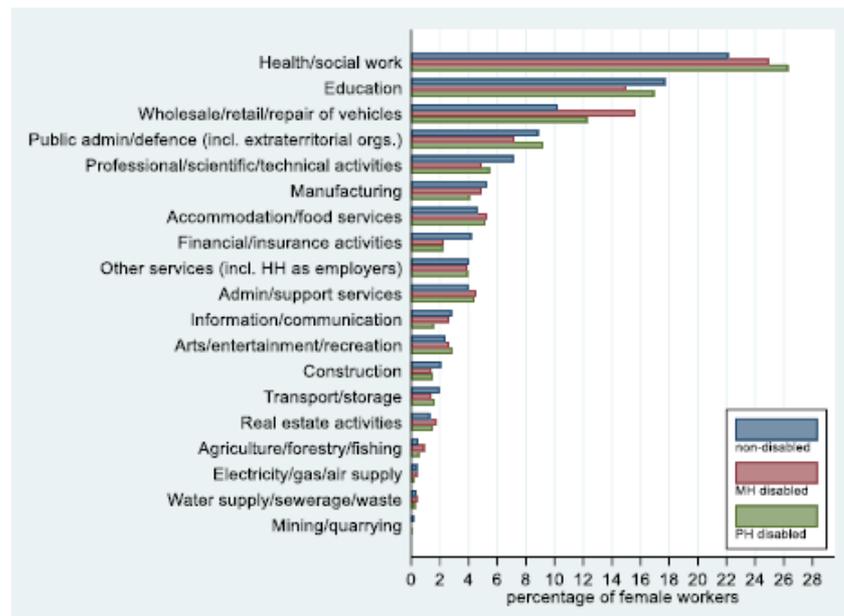
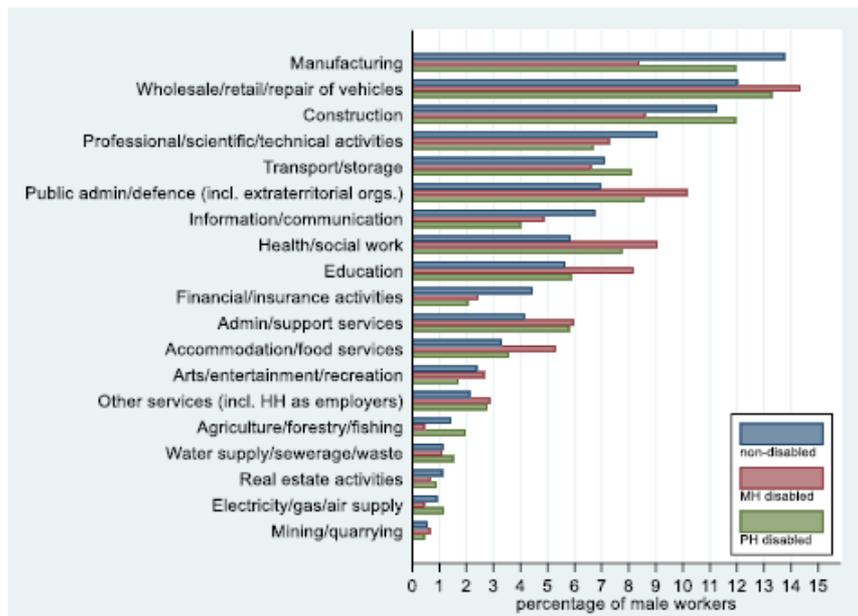
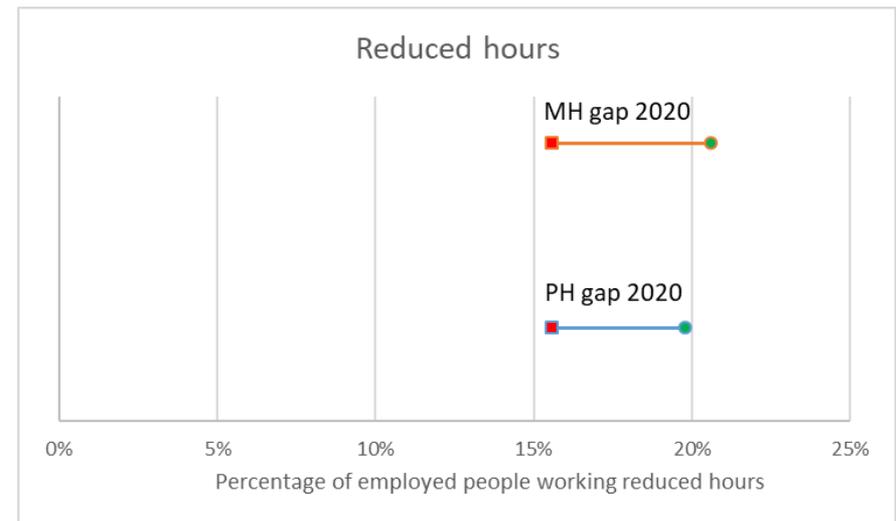
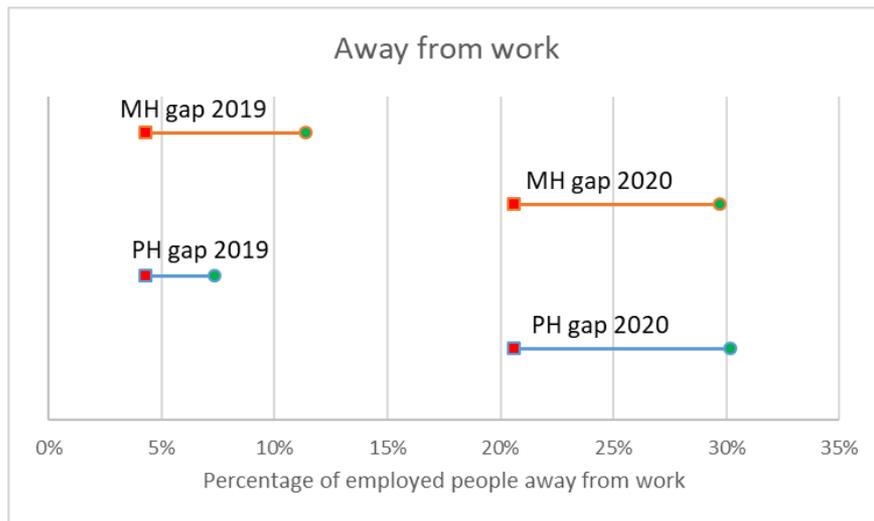
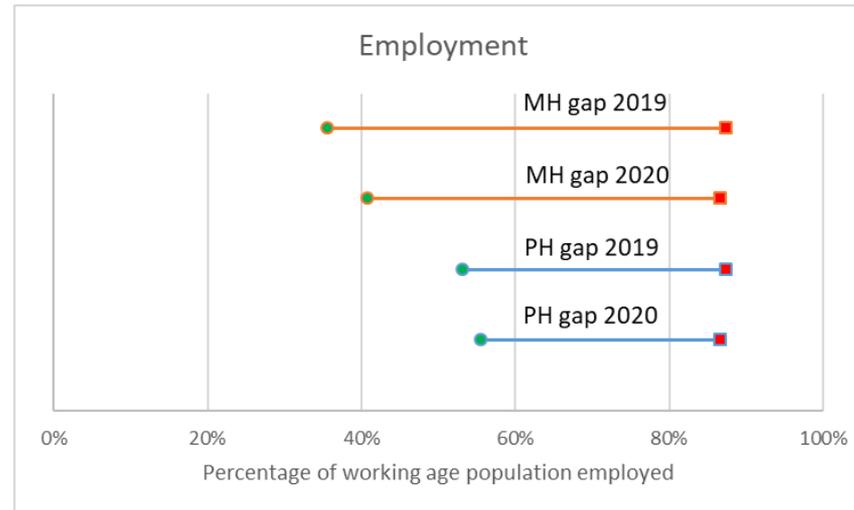
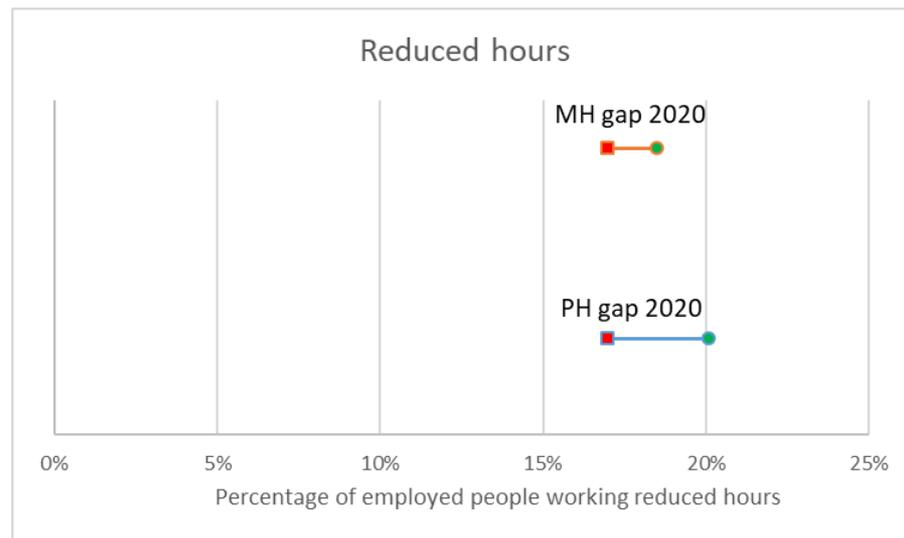
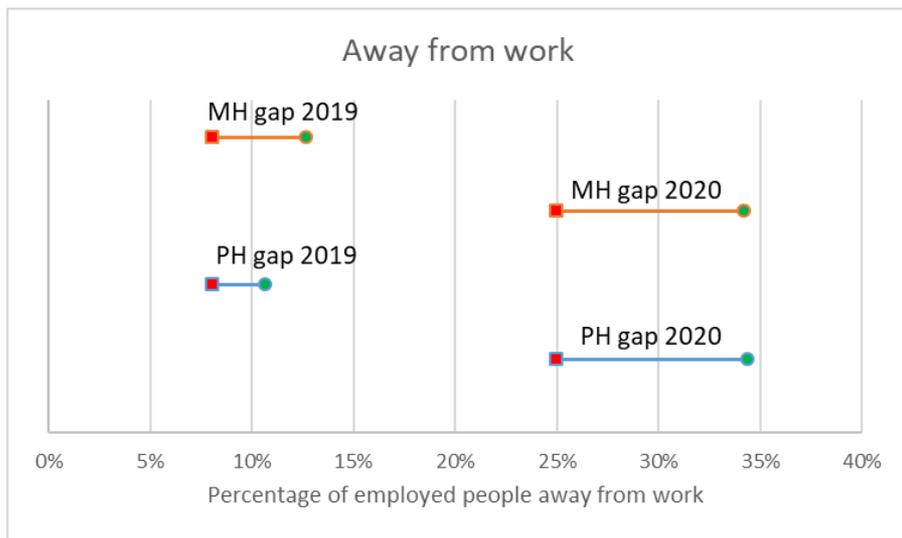
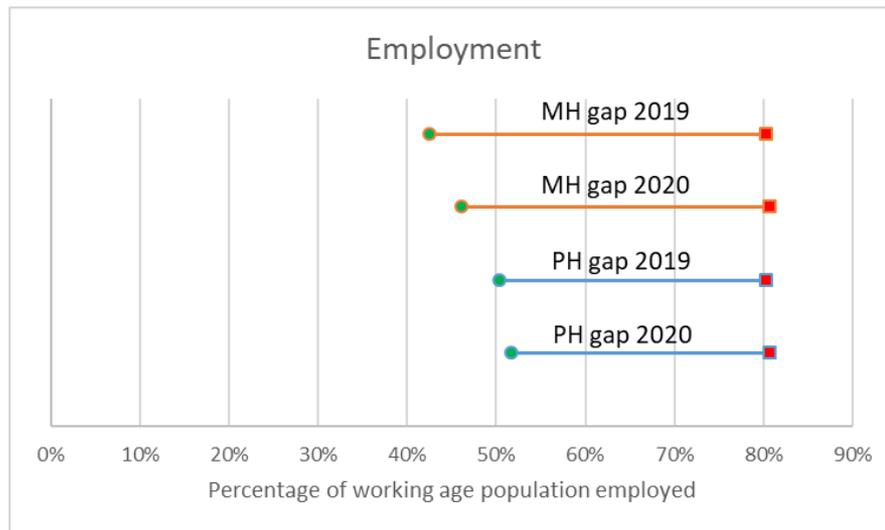


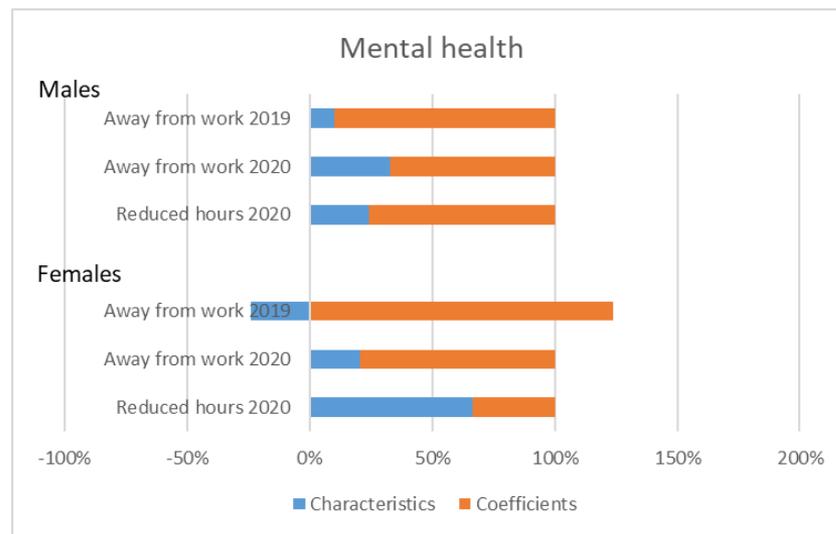
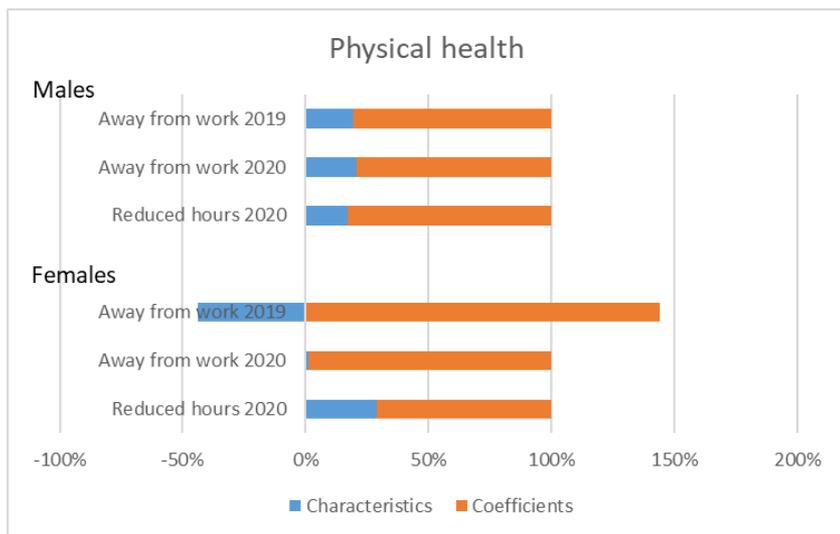
Figure A5: Percentage of workers by Industries: men (lhs); women (rhs)



Disability gaps - female ¹⁹



Decomposition of the gap



Decomposition of the gap

- Characteristics explaining away from work gap in 2019:
 - Segmentation (male MH, male PH)
 - Industry (female MH)
- Characteristics explaining away from work gap in 2020:
 - Segmentation (male MH, male PH, female MH, female PH)
 - Industry (male MH);
 - Occupation (male MH, male PH, female MH, female PH);
 - Education and experience (male MH, male PH, female MH, female PH)
- Characteristics explaining reduced hours gap in 2020:
 - Segmentation (male PH, female PH)
 - Occupation (female MH, female PH)
- “Coefficients” explain most of the gap



The
University
Of
Sheffield.

Conclusions

Conclusion

- While employment has generally been protected, the pandemic has exposed new inequalities in the outcomes of disabled workers, namely the propensity to be away from work or on reduced hours
- A relatively small proportion of these gaps is due to characteristics that can be observed but this component did increase in 2020; hence the pandemic has exacerbated the segmentation and segregation of disabled workers
- Segmentation effects are generally due to the higher propensity for disabled people to be in part time jobs, while segregation is mainly driven by uneven distribution across occupations
- Segregation by industry has been more modest – while disabled people are more concentrated in some shutdown sectors (e.g. accommodation and food services), they are also over-represented in some keyworker sectors (e.g. health and social work)

Conclusion

- Most of the gap is due to coefficients, capturing differences in outcomes between disabled and non-disabled people outside of measured characteristics
- Could be due to employer attitudes (the crisis induced risk-averse or cost-saving behaviour which meant disabled people were more likely to be temporarily laid off) or worker preferences (disabled people wanting to go on furlough to protect their health)
- Post-JRS world could involve structural unemployment as redundant jobs are no longer supported, which may disproportionately affect the employment prospects of disabled people
- Focus on ensuring disabled people have the training and skills needed in the restructured post-Covid post-Brexit economy