

Pandemic Unemployment and Social Disadvantage in Ireland

DATE

Thursday, 13 July 2023

VENUE

ESRI, Whitaker Square,
Sir John Rogerson's Quay,
Dublin 2

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Introduction

- The **COVID-19 pandemic has had a disproportionate impact on disadvantaged communities** which has been well documented internationally over the last two years
 - Areas of high deprivation have been impacted to a greater extent in terms of health and the economy
- **Low-paid workers** are more likely to **live in housing with more inhabitants**, have **jobs that mean social distancing was difficult** and are **more likely to work in frontline or key services** e.g., cleaners, domestic assistants etc.
 - Low paid workers were also more **likely to work in industries that were closed due to restrictions** e.g., hospitality

Research Question

Research focus: Economic impact of COVID-19 on people in disadvantaged areas in Ireland

- To what extent did **COVID-19 unemployment rates vary in more deprived areas** and what are the main area-level factors correlated with this?
 - Examine the relationship between **pandemic unemployment with overall deprivation using the relative HP deprivation index** and the individual components of deprivation
 - Measure variations in **the PUP rate within EDs over time and explore spatial variations in recipient durations, on-flows, and off-flows**
 - Spatial variations in social deprivation at an **ED level (3,409 areas)**
 - Period examined is from **March 2020 to September 2021 (81 weeks)**



LITERATURE

Literature

- Vast majority of research to date has examined **the health impacts of the pandemic and both infection rates and severe illness** in the form of hospitalisations and ICU admissions have been found to be higher amongst those residing in more deprived areas (Meurisse et al., 2022; Mena et al., 2021)
 - None to date examining economic from COVID-19 pandemic using detailed area-level deprivation
- Previous research has shown that **lower-paid workers were disproportionately affected by job losses during the pandemic** (Gray et al., 2021)
 - Significantly impacted by public health measures
 - For example, businesses in the accommodation and food sectors **faced closures during various stages of the pandemic**, leaving **little opportunity for low-paid workers to continue their employment remotely** (Yancy, 2020)
 - However, we must note that there is **heterogeneity within the sectors that lower-paid workers work** in e.g. clothing retailers likely to be affected by closures while grocery retailers were considered essential services (Redmond & McGuinness, 2020)



ESRI APPROACH

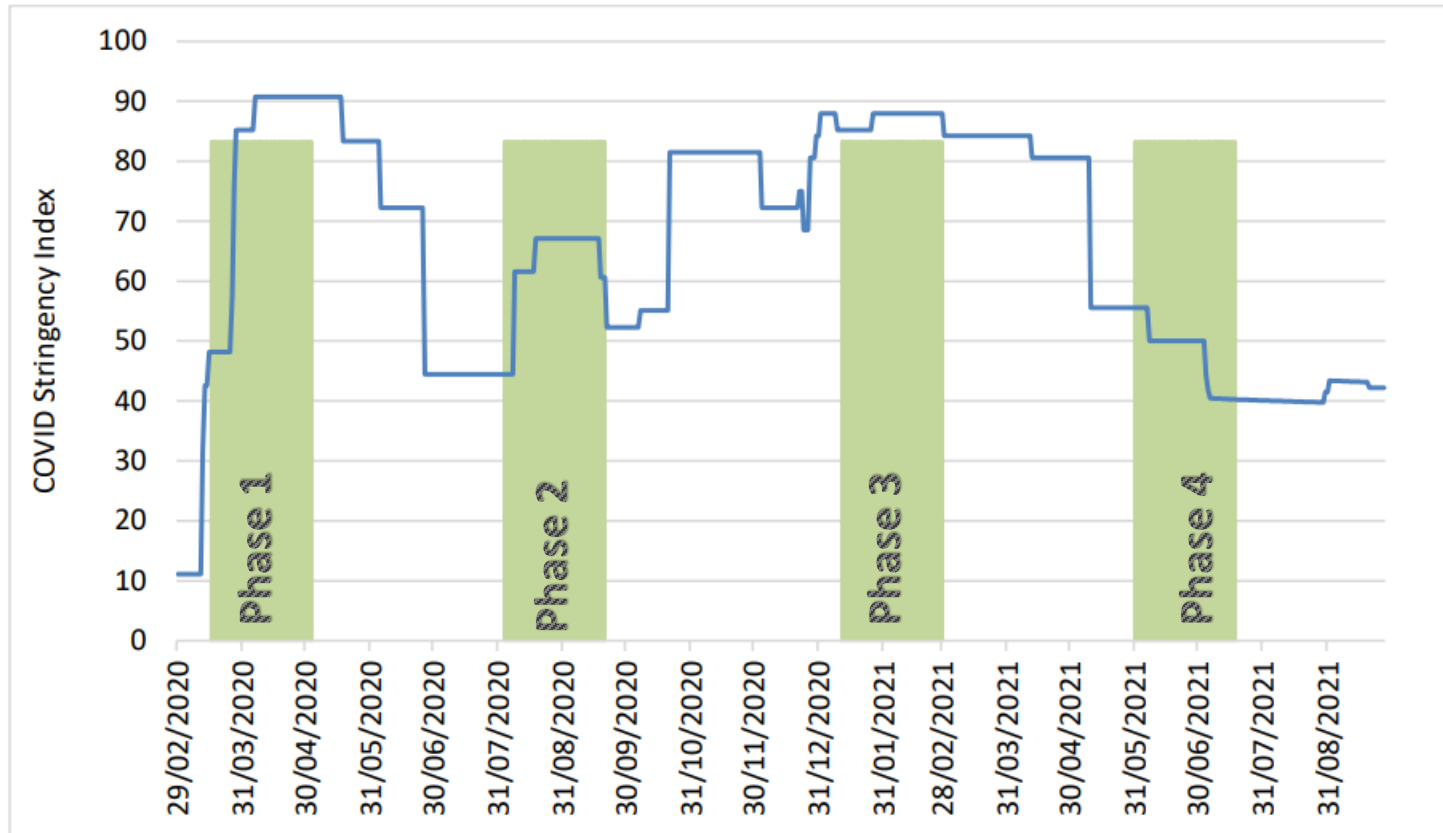
Classification of Four Phases of Pandemic

	Start date ⁸	End date	No. of People Nationally in Receipt of PUP (N)	Restrictions (COVID-19 Stringency Index)
Phase 1	16 March 2020	3 May 2020	High (496,803)	High (80)
Phase 2	3 August 2020	20 September 2020	Low (238,595)	Medium (63)
Phase 3	11 January 2021	28 February 2021	High (473,730)	High (87)
Phase 4	31 May 2021	18 July 2021	Low (253,736)	Low (48)

Source: Authors' Analysis

- Total period examined is from **March 2020 to September 2021** (81 weeks)
 - Additionally, we identify periods of high PUP rates and high restrictions, low PUP rates and low restrictions, and low PUP rates and medium restrictions

COVID-19 Stringency Index and Phases



Source: Authors' analysis using Our World in data (2023) – COVID Stringency Index



DATA

Pandemic Unemployment Payment (PUP)

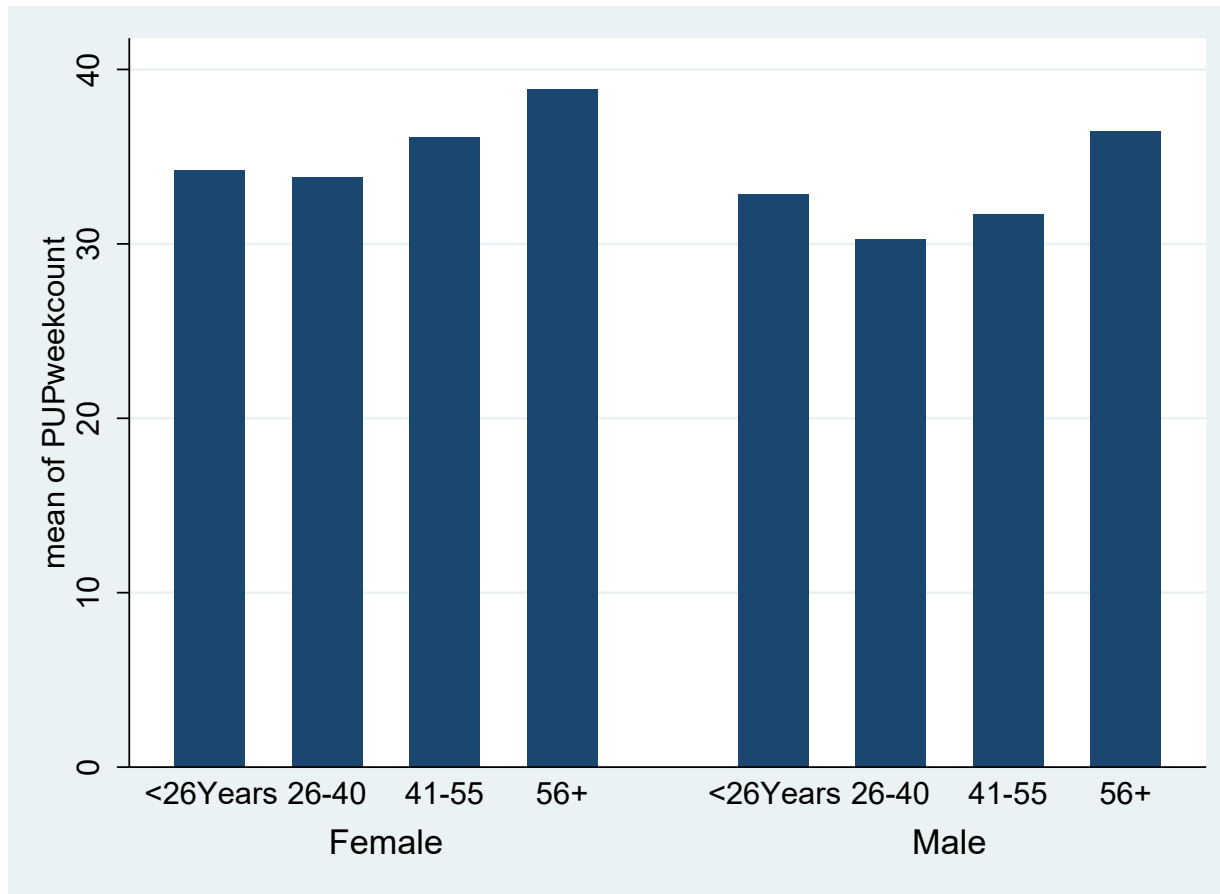
- PUP was a **social welfare payment** for employees and self-employed people who lost all their employment due to the **COVID-19 public health emergency** and the resulting economic impact of lockdowns and restrictions
 - The payment was designed as **income replacement** to mitigate the short-term impact on financial wellbeing that pandemic-related job interruption would cause
 - **Introduced by Department of Social Protection in March 2020** for those aged 18-66 years; **low conditionality**; initially it was introduced at a **flat rate of €350pw** and subsequently altered to reflect an individual's pre-pandemic earnings restrictions eased
 - Study **excludes other forms of unemployment benefits**, Jobseeker's allowance (JA) and jobseeker's benefit (JB) not included

Descriptive Statistics of PUP Data

Variables	Proportion (per cent)
Male	55.2
Female	44.8
Age group	
18-25 years	23.9
26-40 years	36.8
41-55 years	28.9
56-65 years	10.4
Average age	37.5
Average age (Female)	36.7
Average age (Male)	38.1
N	760,862

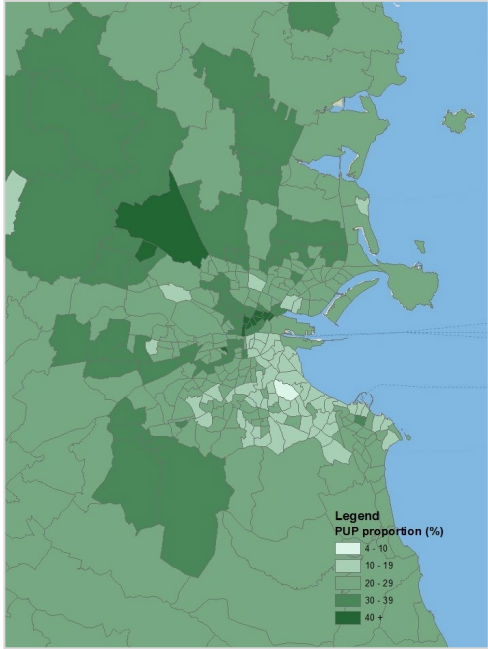
Source: PUP data from Department of Social Protection

Average Length of Durations (in weeks) by Gender and Age

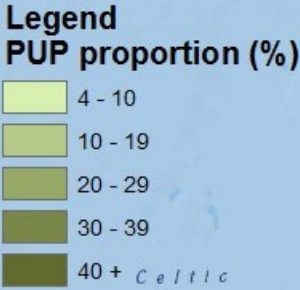


Source: PUP data from Department of Social Protection

Spatial Distribution of PUP Recipients (ED Level)



Source: PUP data from Department of Social Protection



Pobal Haase Pratschke (HP) Deprivation Index

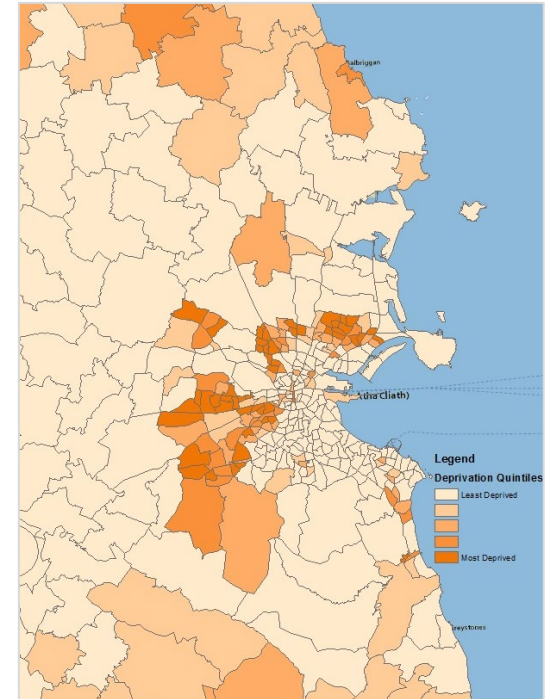
- Ireland's primary **social gradient tool**, used by numerous Government Departments and state agencies for the identification of disadvantage, in order to target resources towards communities most in need
- Index is **funded by Pobal** and was developed by Trutz Haase and Jonathan Pratschke **using data from the national census carried out by the CSO**
- The **dimensions of affluence/disadvantage** are calculated using **ten variables related to Demographic Profile, Social Class Composition and Labour Market Situation**

Classification of HP Relative Index Scores at ED Level in Ireland, 2016

Relative Index Score	Label	Number of EDs in 2016	Percentage of EDs in 2016	Our Classification (1-4)
20 to 30	Very Affluent	1	0.03%	4
10 to 20	Affluent	146	4.28%	4
0 to 10	Marginally Above Average	1,274	37.37%	3
0 to -10	Marginally Below Average	1,733	50.84%	2
-10 to -20	Disadvantaged	239	7.01%	1
-20 to -30	Very Disadvantaged	15	0.44%	1
Below -30	Extremely Disadvantaged	1	0.03%	1
Total		3,409	100%	

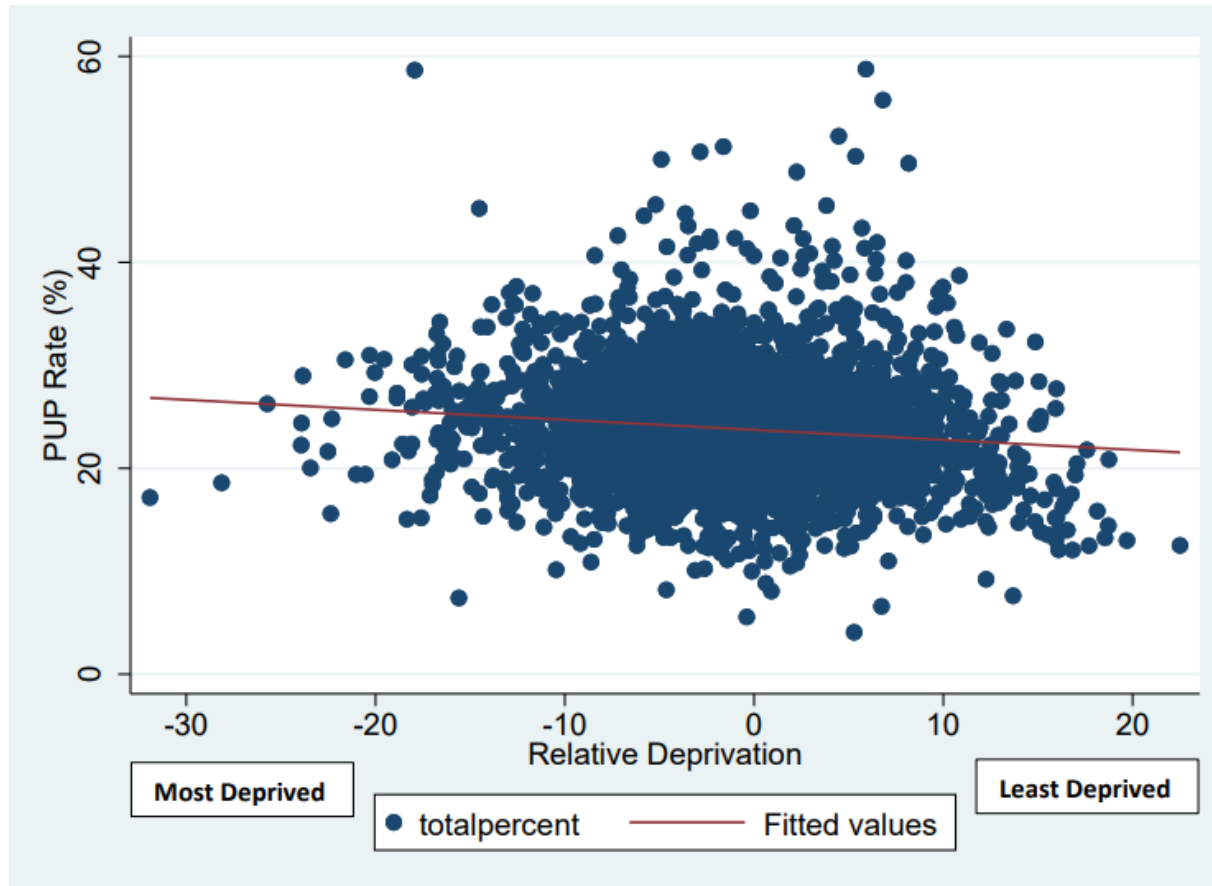
Source: Pobal HP Deprivation Index

Spatial Distribution of HP Index (ED Level)



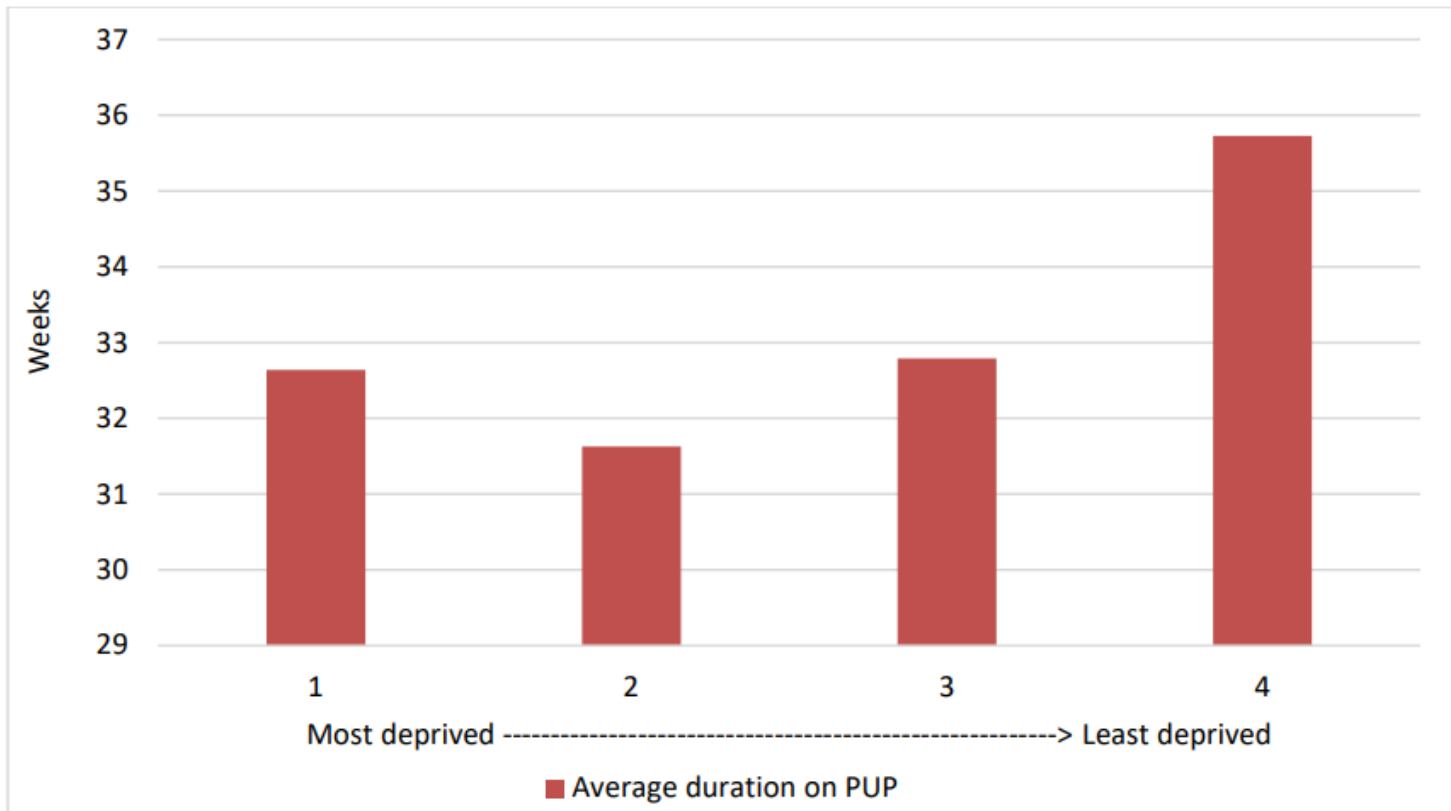
Source: Pobal HP Deprivation Index

PUP Rates and Relative HP Deprivation (ED Level) for March 2020 to September 2021



Source: PUP Rate from DSP and Pobal HP Deprivation Index

Length of Durations (weeks) in Receipt of PUP by Deprivation



Source: PUP Rate from DSP and Pobal HP Deprivation Index



METHODOLOGY

Methodology I

- PUP rates as a proportion of the working-age population at the ED level were calculated
- Dependant variable was then generated indicating whether an ED had a **higher rate of PUP receipt than average**
 - ED PUP rate was divided by the average PUP rate nationally
 - A ratio of greater (less) than 1 means that the PUP rate within the ED was higher (lower) than average.
 - A binary was created identifying those EDs which had disproportionately higher rates of PUP i.e., **10% higher PUP rates than we expected given the national average** (ratio of more than 1.1 ~ 770 (25%) of all EDs)

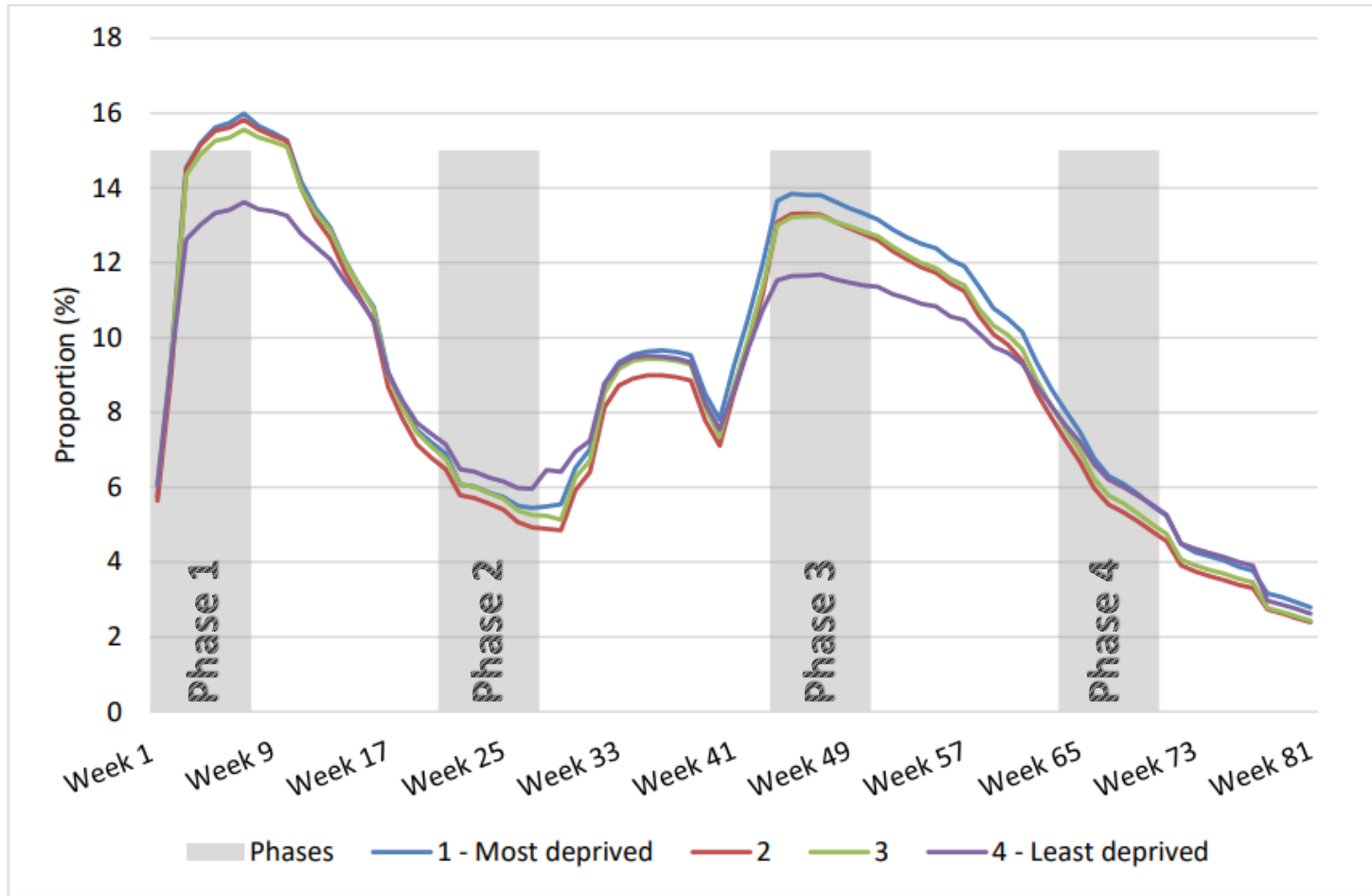
Methodology II

- Measure the **characteristics of areas with disproportionately high PUP rates** (Probit Model)
- Measure the factors associated with the **change of PUP rates within EDs over time** i.e., factors determining on-flows and off-flows in areas (Difference-in-Difference Approach)
- Examine the **average PUP claim durations** across EDs and measure the impact of deprivation (OLS Model)
 - simultaneously controlling for other personal and area-level characteristics that may also influence PUP claim durations

Estimation Results
(Marginal Effects
from Probit Models)
- Examining EDs with
Disproportionately
High PUP Rates
*(10% or more greater
than the state average)*

	1		2	
Deprivation				
1 Most Deprived	0.16	***	0.13	***
2	0.12	***	0.13	***
3	0.08	**	0.09	**
4 Least Deprived	Ref		Ref	
Place of birth (Ref: Ire/UK)				
EU born			0.00	*
Non-EU born			0.01	**
Occupations (Ref: Professional Occupations)				
Managers, directors, and senior officials			0.01	**
Associate professional and technical			0.00	
Administrative and secretarial			0.01	***
Skilled trades			0.01	***
Caring, leisure and other service			0.00	
Sales and customer service			0.01	**
Process, plant and machine operatives			-0.00	
Elementary occupations			0.01	***
Not stated/Other			0.01	***
PUP Characteristics				
Proportion male			-0.00	
Average Age			-0.00	
N	3,409		3,409	
R2	0.01		0.05	
Wald chi2	19.30	***	139.23	***

Weekly Average PUP Rate (%) by Deprivation



Estimation Results (Marginal Effects from Probit Models)* - Examining EDs with Disproportionately High PUP Rates, Risks Across Four Phases

- More deprived EDs have higher exposure to risk (phase 1 and 3)

	Overall		HIGH PUP		LOW PUP		HIGH PUP		LOW PUP	
			1		2		3		4	
Deprivation										
1 Most Deprived	0.13	***	0.15	***	-0.02		0.22	***	0.11	**
2	0.13	***	0.21	***	-0.02		0.17	***	0.04	
3	0.09	***	0.17	***	0.00		0.13	***	0.04	
4 Least Deprived	Ref		Ref		Ref		Ref		Ref	

*All other controls included as in previous 'overall' model

Estimation Results (D-i-D)* – Examining the Percentage Changes in PUP Rates Between Phases at ED Level

	Phase 1 -2 (off-flow)		Phase 2-3 (on-flow)		Phase 3-4 (off-flow)	
	Decrease in PUP Rate		Increase in PUP Rate		Decrease in PUP Rate	
Deprivation						
1 Most Deprived	5.17	***	27.25	***	4.74	***
2	6.81	***	27.57	***	7.30	***
3	5.04	***	18.14	***	5.67	***
4 Least Deprived	Ref		Ref		Ref	

*All other controls included as in previous 'overall' model

Estimation Results (OLS)* – PUP Durations

	1	2
Deprivation	-1.89	***
2	-2.74	***
3	-1.95	***
4 Least Deprived	Ref	
<i>HP Index Components:</i>		
Age dependency Rate		-0.01
<i>Education (Ref: Third-Level)</i>		
Primary education		-0.07 ***
Medium education		-0.19 ***
Lone parent rate		0.05 ***
Above average persons per room		-0.11
Male Unemployment Rate		0.10 ***
Female Unemployment Rate		-0.04 **
Local Authority rented		0.00

*All other controls included as in previous 'overall' model



OVERARCHING CONCLUSIONS

Overarching Conclusions

- Compared to affluent areas, **pandemic unemployment increased more rapidly** among individuals living in deprived areas during lockdown periods
- While Pandemic Unemployment Payment (PUP) **rates were higher in more deprived areas during lockdowns**, they also **declined more rapidly in these areas when restrictions eased**



IMPLICATIONS FOR POLICY

Implications for Policy

- A number of potential inequalities in the economic impact of the COVID-19 pandemic with respect to area-level deprivation
- Implications for **variations in exposure to health risks**
- Important **consideration for policymakers** if future events necessitate lockdown scenarios

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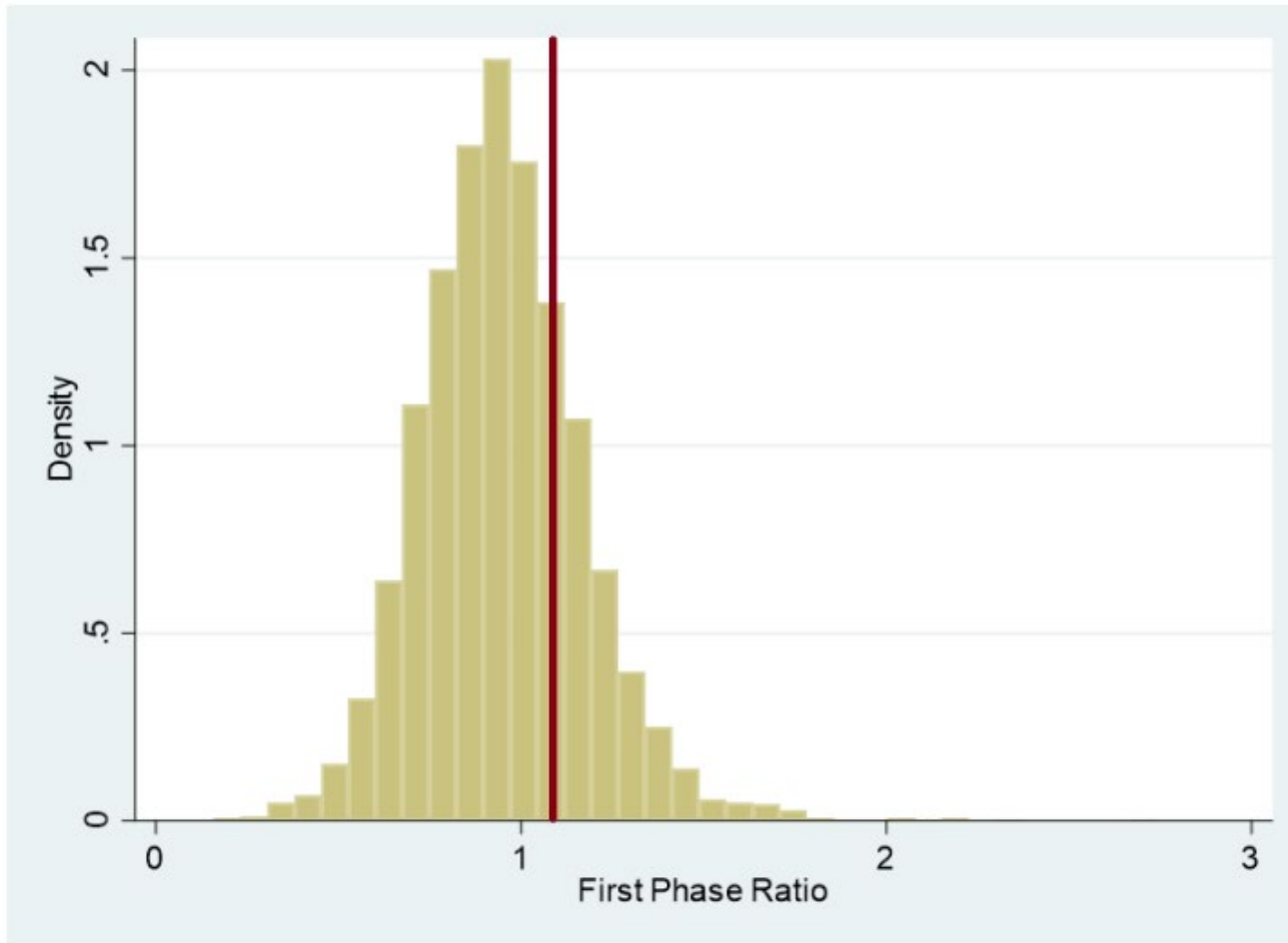
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APPENDIX

Distribution of the Ratio of ED PUP Rate Divided by the National Average, Phase 1



Methodology II

- Probit model to examine the effect of Deprivation on PUP rates at an ED level:

$$HIGHER_PUP_j^* = \beta_1 X_j + \beta_2 DEP_j + \varepsilon_j \quad (1)$$

- HP deprivation index coded on a four-point scale where 1 denotes the most deprived areas and 4 the most affluent areas
- Measure variations in the PUP rate within EDs over time using a difference-in-difference approach:

$$\frac{Y_{it} - Y_{i(t-1)}}{Y_{i(t-1)}} = \alpha_t + \beta_t Deprivation + \gamma_t X_{it} + \varepsilon_{it} \quad (2)$$

Methodology III

- OLS model to examine the average PUP claim durations across EDs and measure the impact of deprivation while simultaneously controlling for other personal and area-level characteristics that may also influence PUP claim durations

$$PUP_DUR_j^* = \beta_1 X_j + \beta_2 DEP_j + \varepsilon_j \quad (3)$$

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