

# The Labour Market Impact of COVID-19 on People with Disabilities: The Case of Ireland

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# Outline

1. Introduction
2. Research questions
3. Data and methodology
4. Results
5. Conclusions

# Introduction – labour market impacts of Covid-19

- In Ireland, **unemployment rose** from 4.9% in Feb 2020 to 14.7% by Sept 2020 (*McQuinn et al., 2020*)
- Disproportionate impacts, among economic sectors and groups of individuals
- **People with disability:**
  - Faced pre-existing employment barriers
    - 2019 employment rate: 51% in EU27 vs. 33% in Ireland (*Doyle, 2023*)
  - Exposed to ableism and discrimination during the pandemic (*Brown & Ciciurkaite, 2023*).
  - Accelerated adoption of remote work may have benefited some people with disabilities by reducing physical and social barriers (*Ne'eman and Maestas, 2023*)

# Gaps in the literature

- Despite broad research on COVID-19's labour market effects, people with disabilities remain underrepresented in the literature.

# Research Questions

- Was the unemployment impact of COVID-19 on people with and without disabilities equal?
- Did the impact vary by type of disability?
- Was the pace of labour market recovery the same between disabled and non-disabled people?

# Data – I

- **Irish Labour Force Survey (LFS) data (CSO)**
  - Provides quarterly data on labour market indicators (unemployment rate, etc.)
- Q2 2020 LFS data used to capture COVID-19 pandemic period and Q2 2023 the economy at the end of the pandemic
- COVID-19 led to a change in LFS data collection mode
  - CSO undertook steps to address the effects of this on the data (weighting, calibration), but cannot rule out that some observed differences between Q1 2020 and subsequent quarters could be due to changes in data collection mode.

# Data – II

- **LFS disability data:**

- Since 2020, captured in Q2 only
- Disability questions asked prior to 2020 different to those asked in Q2 2020 and Q2 2023:
  - Cannot use earlier data to examine labour market (LM) situation for individuals with disabilities prior to COVID-19 pandemic
  - **BUT** to get some insight, examined the LM status of those identified as having a disability in Q2 2020 in Q1 2020
- Respondents asked if they have a long-lasting condition or difficulty:
  - Yes, to a great extent; yes, to some extent (two categories combined); and no
- Disability type: seven categories (e.g., blind or vision impairment, difficulty learning)

# Data – III

- LFS contains a rich array of other demographic and socio-economic information (age, educational attainment, citizenship, economic sector of employment, etc.) – included as controls in our estimated regression models
- Focus on working age population (aged 15-64)
- Data weighted to ensure sample representative of people in the labour force in Ireland in Q2 2020 and Q2 2023



# Methodology

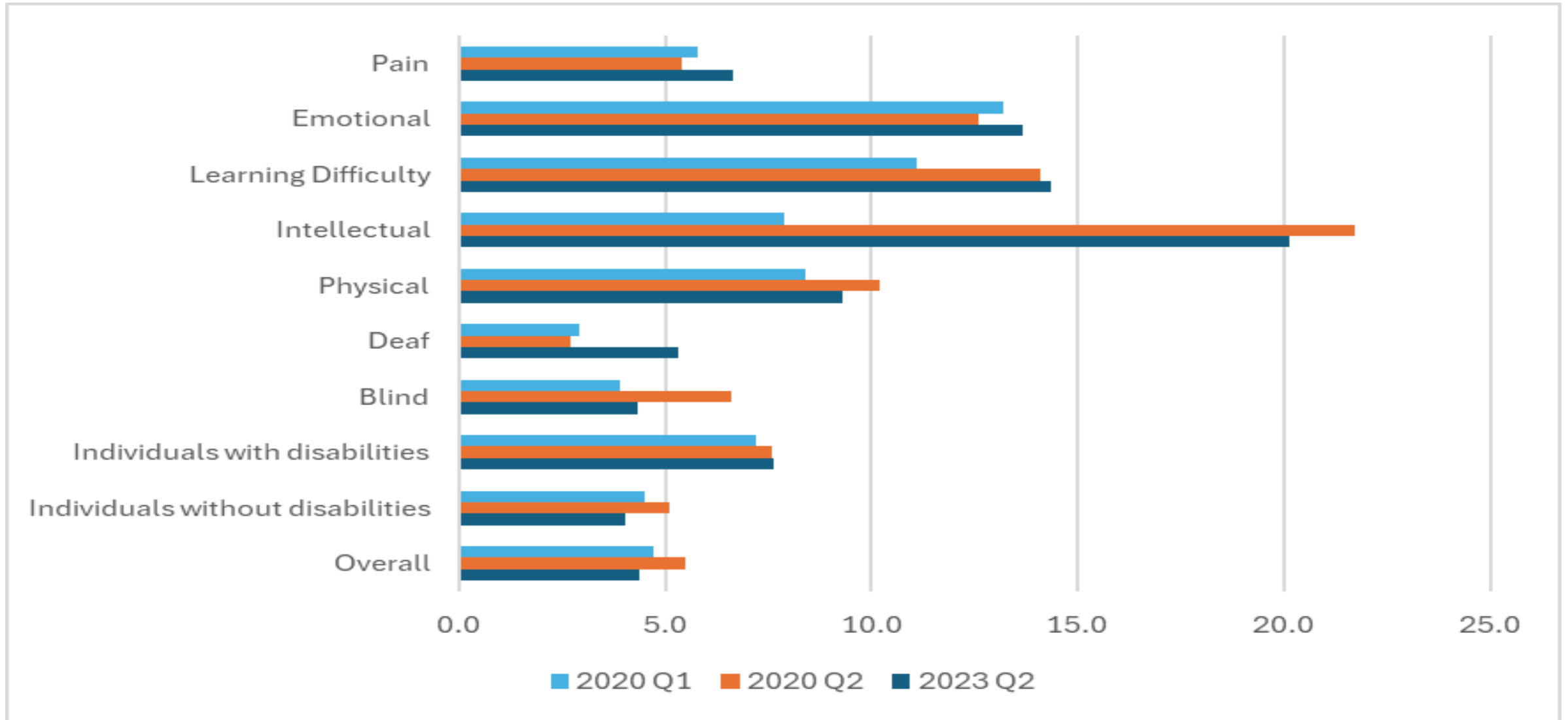
- Examine people with disabilities risk of being unemployed relative to employed
  - ILO measure used to identify those in employment/unemployment
  - Dependent variable – (ILO) unemployed
- Estimate binary probit models to identify the characteristics associated with being unemployed, with a particular focus on disability status
  - For interpretation, also estimated marginal effects after probit models
- Model 1: Disability dummy variable; Model 2: Disability type
- Estimate models with and without economic sector of employment
- Estimated a series of OLS regression models with 2023 year interactions

# Some Descriptives

# Working Age Population with Disabilities (%)

|                                                          | 2020 (Q2) | 2023 (Q2) |
|----------------------------------------------------------|-----------|-----------|
| <b>Disability</b>                                        | 15.4      | 16.8      |
| <b>Disability Type:</b>                                  |           |           |
| Blind or Vision Impairment                               | 2.4       | 2.7       |
| Deaf or Hearing Impairment                               | 2.1       | 2.0       |
| Difficulty with Basic Physical Activities                | 5.4       | 6.2       |
| Intellectual Disability                                  | 1.8       | 2.2       |
| Learning, Remembering, Concentrating                     | 4.1       | 3.9       |
| Psychological, Emotional or Mental Health                | 4.7       | 4.9       |
| Difficulty with Pain, Breathing or Other Chronic Illness | 6.6       | 8.0       |

# Unemployment Rates – Aged 15-64:



# Results

# Probit Model of UE: Disability DV - I

- No real gender effect in either period
- Apart from those aged 15-19 and 45-54, all other age categories more likely to be unemployed compared to those aged 35-44 during Covid-19, but most age effects gone in the post-Covid-19 period
- Marital status results not really impacted by Covid-19

|                                      | 2020                | 2023                |
|--------------------------------------|---------------------|---------------------|
| <b>Gender (Ref Female):</b>          |                     |                     |
| Male                                 | 0.002<br>(0.004)    | 0.006*<br>(0.003)   |
| <b>Age (Ref Age 35-44):</b>          |                     |                     |
| Age 15-19                            | 0.013<br>(0.009)    | -0.006**<br>(0.002) |
| Age 20-24                            | 0.038***<br>(0.010) | 0.006<br>(0.006)    |
| Age 25-34                            | 0.021***<br>(0.004) | 0.002<br>(0.002)    |
| Age 45-54                            | 0.007<br>(0.006)    | -0.005*<br>(0.002)  |
| Age 55-64                            | 0.017***<br>(0.007) | 0.005***<br>(0.002) |
| <b>Marital status (Ref Married):</b> |                     |                     |
| Single                               | 0.027***<br>(0.006) | 0.013***<br>(0.001) |
| Widow                                | -0.008**<br>(0.004) | 0.004<br>(0.005)    |
| Divorced                             | 0.033***<br>(0.008) | 0.024***<br>(0.007) |

# Probit Model of UE: Disability DV - II

- New member state (NMS) individuals more likely to be unemployed compared to Irish, and effect is there in both time points.
- Those from Asia are also more likely to be unemployed in the post-Covid-19 period.

|                                                 | 2020     | 2023     |
|-------------------------------------------------|----------|----------|
| <b>Family Status (Ref Couple, No Children):</b> |          |          |
| <b>Couple, with children</b>                    | 0.009**  | 0.009*** |
|                                                 | (0.005)  | (0.002)  |
| <b>Lone parent</b>                              | 0.017*** | 0.018*** |
|                                                 | (0.005)  | (0.003)  |
| <b>Not in family unit</b>                       | 0.004    | 0.004    |
|                                                 | (0.008)  | (0.003)  |
| <b>Citizenship (Ref Irish):</b>                 |          |          |
| <b>UK</b>                                       | 0.026    | -0.002   |
|                                                 | (0.023)  | (0.004)  |
| <b>EU-13</b>                                    | 0.009    | 0.002    |
|                                                 | (0.012)  | (0.011)  |
| <b>New Member States (NMS)</b>                  | 0.025*** | 0.006**  |
|                                                 | (0.003)  | (0.003)  |
| <b>Africa</b>                                   | 0.040    | 0.022    |
|                                                 | (0.033)  | (0.019)  |
| <b>Asia</b>                                     | -0.007   | 0.022**  |
|                                                 | (0.016)  | (0.012)  |
| <b>North America, Australia, Oceania</b>        | 0.151    | 0.027*   |
|                                                 | (0.157)  | (0.019)  |
| <b>Rest of Europe/World</b>                     | 0.007    | -0.005   |
|                                                 | (0.022)  | (0.004)  |

# Probit Model of UE: Disability DV - III

- All educational attainment categories are more likely to be unemployed compared to those with a primary or less qualification during Covid-19, but this is no longer the case in the post-Covid-19 period.
- No regional effects during the pandemic, with those from the West and Mid-East being less likely to be unemployed compared to those from Dublin in the post-pandemic period.

|                                                      | 2020     | 2023      |
|------------------------------------------------------|----------|-----------|
| <b>Educational Attainment (Ref Primary or Less):</b> |          |           |
| <b>Lower secondary</b>                               | 0.043*   | -0.004    |
|                                                      | (0.027)  | (0.005)   |
| <b>Upper secondary</b>                               | 0.024**  | 0.002     |
|                                                      | (0.011)  | (0.006)   |
| <b>Post secondary</b>                                | 0.036*** | -0.000    |
|                                                      | (0.011)  | (0.007)   |
| <b>Ordinary degree</b>                               | 0.032*** | -0.012    |
|                                                      | (0.011)  | (0.005)   |
| <b>Higher/post-graduate degree</b>                   | 0.017*   | -0.005    |
|                                                      | (0.008)  | (0.006)   |
| <b>Location (Ref Dublin):</b>                        |          |           |
| <b>Border</b>                                        | 0.010    | 0.005     |
|                                                      | (0.010)  | (0.007)   |
| <b>Midlands</b>                                      | 0.005*   | -0.009    |
|                                                      | (0.003)  | (0.008)   |
| <b>West</b>                                          | 0.001    | -0.005*** |
|                                                      | (0.010)  | (0.002)   |
| <b>Mid-East</b>                                      | -0.001   | -0.008**  |
|                                                      | (0.004)  | (0.003)   |
| <b>Mid-West</b>                                      | 0.001    | 0.001     |
|                                                      | (0.011)  | (0.004)   |
| <b>South-East</b>                                    | 0.006    | 0.005     |
|                                                      | (0.007)  | (0.011)   |
| <b>South-West</b>                                    | -0.002   | -0.002    |
|                                                      | (0.003)  | (0.002)   |



# Probit Model of UE: Disability DV - IV

- Those working in construction, accommodation and food, and the creative, arts and entertainment sectors more likely to be unemployed during Covid-19 compared to those working in Industry, whereas those employed in public admin and defense, and health and social work were less likely to be unemployed.
- Those working in accommodation continue to be more likely to be unemployed in the post pandemic period.
- Also, those working in communication and information and other services more likely to be unemployed in the post Covid-19 period.

|                                               | 2020                 | 2023                |
|-----------------------------------------------|----------------------|---------------------|
| <b>Sector (Ref Industry):</b>                 |                      |                     |
| <b>Agriculture, forestry and fishing</b>      | -0.016**<br>(0.006)  | -0.016*<br>(0.004)  |
| <b>Construction</b>                           | 0.011**<br>(0.006)   | 0.000<br>(0.010)    |
| <b>Wholesale and retail</b>                   | 0.003<br>(0.005)     | 0.003<br>(0.005)    |
| <b>Transportation and storage</b>             | 0.017<br>(0.013)     | 0.002<br>(0.009)    |
| <b>Accommodation and food</b>                 | 0.023***<br>(0.007)  | 0.022**<br>(0.012)  |
| <b>Information and communication</b>          | -0.001<br>(0.011)    | 0.018***<br>(0.005) |
| <b>Finance, insurance and real estate</b>     | -0.007<br>(0.004)    | -0.003<br>(0.002)   |
| <b>Professional, scientific and technical</b> | -0.008<br>(0.008)    | 0.007<br>(0.016)    |
| <b>Administrative and support services</b>    | 0.022<br>(0.023)     | 0.033*<br>(0.025)   |
| <b>Public administration and defence</b>      | -0.019***<br>(0.003) | -0.011**<br>(0.004) |
| <b>Education</b>                              | -0.016*<br>(0.007)   | -0.006<br>(0.006)   |
| <b>Health and social work</b>                 | -0.020***<br>(0.004) | -0.011*<br>(0.005)  |
| <b>Creative, arts and entertainment</b>       | 0.043***<br>(0.021)  | 0.011<br>(0.011)    |
| <b>Other services</b>                         | 0.017<br>(0.021)     | 0.033**<br>(0.024)  |

# Probit Model of UE: Disability DV - V

|                            | 2020                | 2023                |
|----------------------------|---------------------|---------------------|
| <b>No Sector Controls:</b> |                     |                     |
| Disability                 | 0.026***<br>(0.009) | 0.024***<br>(0.004) |
| <b>Sector Controls:</b>    |                     |                     |
|                            | 0.027***<br>(0.009) | 0.020***<br>(0.003) |
| <b>Observations</b>        | <b>8,333</b>        | <b>9,612</b>        |

# Probit Model of UE: Disability Type

|                                                           | 2020                 | 2023                |
|-----------------------------------------------------------|----------------------|---------------------|
| <b>Disability Type (Ref Not the specific disability):</b> |                      |                     |
| Blind or Vision Impairment                                | 0.011<br>(0.009)     | -0.009<br>(0.007)   |
| Deaf or Hearing Impairment                                | -0.020***<br>(0.003) | 0.027***<br>(0.014) |
| Difficulty with Basic Physical Activities                 | 0.051***<br>(0.005)  | 0.034***<br>(0.003) |
| Intellectual Disability                                   | 0.015<br>(0.015)     | 0.013**<br>(0.008)  |
| Learning, Remembering, Concentrating Difficulty           | 0.022***<br>(0.011)  | 0.012<br>(0.019)    |
| Psychological, Emotional or Mental Health Issue           | 0.030***<br>(0.013)  | 0.026***<br>(0.009) |
| Pain, Breathing or Chronic Illness Difficulty             | -0.004<br>(0.013)    | -0.002<br>(0.005)   |
|                                                           | 8,333                | 9,612               |

# OLS Interactions Models

Are the changes observed between the COVID-19 pandemic (2020) and after (2023) statistically significant?

**Note:** All controls, including sector, included.

| Interaction Model Results                                |     |
|----------------------------------------------------------|-----|
| Disability                                               | No  |
| <b>Disability Type (Ref Not the specific disability)</b> |     |
| Blind or Vision Impairment                               | No  |
| Deaf or Hearing Impairment                               | Yes |
| Difficulty with Basic Physical Activities                | No  |
| Intellectual Disability                                  | No  |
| Learning, Remembering, Concentrating Difficulty          | No  |
| Psychological, Emotional or Mental Health Issue          | No  |
| Pain, Breathing or Chronic Illness Difficulty            | No  |

# Conclusions – I

- People with disabilities in Ireland faced compounded labour market vulnerabilities during COVID-19, shaped by pre-existing barriers and limited policy focus.
- Historical patterns and international evidence highlight persistent risks of exclusion, with remote work offering a potential—but uneven—mitigating factor.
- Descriptively, the unemployment rate for those individuals with a disability increased during the COVID-19 pandemic and did not return to its pre-pandemic level.
- When we examine this by disability type, we found that the unemployment rates for all disability types were higher after the pandemic than what they were before COVID-19 .

# Conclusions – II

- Based on our econometric results, when we control for a number of factors that can influence someone's likelihood of being unemployed, those with a disability were more likely to be unemployed during the COVID-19 pandemic and also after it ended.
- The size of this effect was smaller after the pandemic, but our year interaction's model indicated that this decline over time was not statistically significant.

# Conclusions – III

- Those with ‘difficulty with basic physical activities’, ‘learning, remembering, concentrating difficulties’ and with ‘psychological, emotional or mental health issues’ were more likely to be unemployed compared to those without a disability during the COVID-19 pandemic.
- Apart from those with ‘learning, remembering, concentrating difficulties’, the other two disability types, and also those with an ‘intellectual disability’, were still more likely to be unemployed compared to those without a disability after the pandemic. While the size of some of these effects look to be smaller post pandemic, our year interaction’s model indicated that this decline was not statistically significant.

# Thank you

## Any questions / comments?



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