Who on Earth Can Work From Home?

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COVID-19 has triggered a global lockdown

Share of world’s employed in countries with workplace closures
1 January–15 June 2020 (percentage)
(Source: ILO)
Telecommutable jobs are safer

Job loss probability depending on tasks that can be done from home
(Source: Adams-Prassl, 2020)
This Paper

• How many jobs can be done from home?
  • 1 in 5 across the globe
  • 1 in 26 in low income countries; 1 in 3 in high-income countries
  • Failing to account for internet access leads to a 25% upward bias
  • Bias is largest in low income countries (189% bias)

• Who is most at risk?
  • Those who are already vulnerable
  • Low-paid, young, unskilled workers on temporary contracts

• How will COVID-19 impact labor market inequality?
  • Inequality will increase
  • Especially in rich countries
Roadmap & Contributions

• **Starting point: occupational measure of home based work** (Dingel and Neiman, 2020)
  • Based on task content of jobs from O*NET

• **Our contributions:**
  • Account for internet access – across and within countries
  • Assess impact on inequality
  • Identify covariates of vulnerability
Who needs internet access?

• O*NET surveys questions
  
  • How Important is Working With Computers to the performance of your current job?
  • How frequently does your current job require electronic mail?

• Job requires internet access if combined score>8 (out of 10)

• 55% of all SOC 8-digit occupations require internet access

• We do various robustness checks and results are similar
Who has internet access?

• Combine

  • Internet usage by country and income level (Gallup World Poll 2019)
    • Info on top 60% and bottom 40% of income distribution by country

  • Wages by occupation (ILOSTAT)
    • Rank occupations by average wages
    • Assign them to top 60% or bottom 40%

→ country-specific measures of internet penetration by occupation
Poorer countries are “doubly” disadvantaged

**Poorer countries**

1. have fewer jobs that are potentially telecommutable

2. face larger ICT constraints
ICT constraints are more severe in low income countries

- 1 out of every 11 jobs in high-income countries
- 2 out of every 3 job in low-income countries cannot be performed from home because of internet access

![Chart showing types of home-based work by level of income]
Lagging regions have fewer home-based jobs

Brazil, Mexico, Turkey, India

European Union Regions
Home based work and income distribution

Prevalence of home-based work increases with income level in every country.

And the rise is faster in wealthier countries.
COVID-19 is likely to exacerbate income inequality especially in rich countries.
Education is the strongest determinant of ability to work from home

Determinants of the Ability to Work From Home
(Regression estimates)
Conclusion

• Globally, 1 in 5 jobs can be done from home
  • The ratio is 1 in 3 in high-income and 1 in 26 in low-income countries

• Failing to account for internet access biases estimates upwards by 25% on average
  • Bias is the largest in low-income countries

• Covid will increase income inequality
  • Rich countries faces the largest increases

• Those who are already vulnerable are also the least likely to work from home
  • Low-paid, young, unskilled workers on temporary contracts are at most risk
Thank you.

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