Is initial economic damage from COVID-19 in Great Britain less widespread than in the United States?

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Policy responses have the capacity to change the stratified trajectories of the pandemic. Polyakova et al. (2020) (1) juxtapose excess mortality and excess economic loss by age and region in the U.S in April 2020 to demonstrate how policies entail 'trade-offs' for different demographic groups. While the variance of the case fatality rate (CFR) across age may generalise internationally (2), economic losses vary substantially depending on policy choices. The U.S. responded to the pandemic-induced economic shock by implementing various initiatives, such as the Paycheck Protection Program (a small business loan) and the Employee Retention Tax Credit (for employers experiencing a decline in sales of over 50%), which work in conjunction with the US Federal Pandemic Unemployment Compensation program. Yet these policies are noticeably different from other countries – such as the UK's Job Retention Scheme – which explicitly subsidise wages for 'furloughed' workers. We extend (3) the work of Polyakova et al. to elucidate how this policy response differentially affected economic loss across demographic groups in Great Britain. We note that comparable excess mortality calculations are available elsewhere (4).

Taking the latest quarterly rolling regional labour market estimates by age (ONS series X01-X03, based on the Labour Force Survey), we construct seasonally adjusted employment-population ratios by age, gender, and geography. As per (1), we calculate employment-population ratios by dividing employment by the total population per age group per sex per region, where total population is the sum of the employed (X01), unemployed (X02), and economically inactive (X03). We then calculate forecasts for these ratios based on 'in-sample' data ending at January-March 2020 using an automatic ARIMA selection procedure for each series (max p=12, d=1, q=12, with optional constant and trends) (5). Economic loss conceptualised in this way is shown in Fig. 1 for July-September 2020. Here we report results from a later stage of the pandemic than (1), but our accompanying repository provides figures dating back to earlier periods.

We find a far smaller differential between the forecasted and the observed employment-population ratio during this period (∼1% compared to around ∼10% in the US). This is not explained by different initial conditions (both countries had similar employment-population ratios pre- pandemic), differences in CFRs, nor the level of economic restrictions (indeed, if anything, the UK implemented stricter, more universal measures). Instead, we attribute this difference to the efficacy of the Job Retention Scheme. This analysis does not allow us to conclude whether one approach was better than another. Rather, our results empirically illustrate how different policies lead to diverse trade-offs, as also noted elsewhere (consider also Kurzarbeit, Germany and chômage partiel, France). Our work clarifies the need for internationally comparative research which conceptualises excess economic loss in various ways based on granular population level data (6), representative samples (7), and real-time surveys (8)(9).

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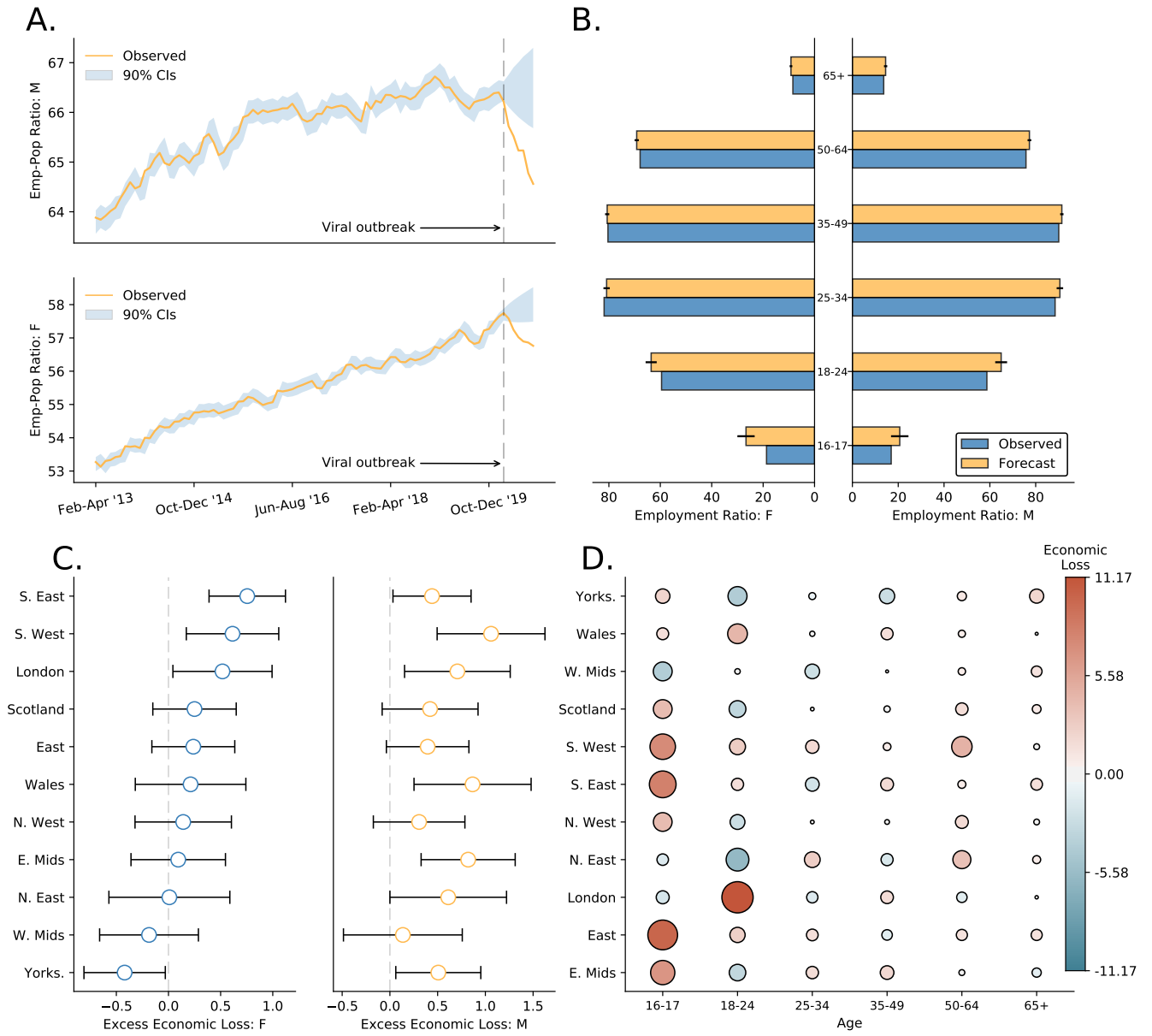

Fig. 1. Excess Economic Loss in Great Britain, July-September 2020. Panel A. shows the employment-population ratio by sex from Feb-April 2013 until Jul-Sept 2020. Panel B. shows the observed and forecasted employment ratio by age and sex. Panel C. charts the excess economic loss across regions in Great Britain by sex. Panel D. illustrates the region by age range, where the size and color of the circle refer to the economic loss (red) or gain (blue). There are small instances of statistically insignificant positive gain. Panel D. contains pooled data for both males and females. Notes: M=Males, F=Females; CIs=Confidence Intervals, S.=South, N.=North, E.=East, W.=West, Yorks.=Yorkshire and the Humber. Data comes from the Office for National Statistics. All confidence intervals are at the 90% level.