

Policy Briefing: Understanding the UK's Rise in Economic Inactivity Since 2020 Across Local Labour Markets

Houston, Donald; Kollydas, Kostas; Ramcharan, Maryna; Sissons, Paul

License:

Creative Commons: Attribution-NonCommercial (CC BY-NC)

Document Version

Publisher's PDF, also known as Version of record

Citation for published version (Harvard):

Houston, D, Kollydas, K, Ramcharan, M & Sissons, P 2025, Policy Briefing: Understanding the UK's Rise in Economic Inactivity Since 2020 Across Local Labour Markets. City-REDI, University of Birmingham.

<<https://www.birmingham.ac.uk/research/centres-institutes/city-region-economic-development-institute/publications/2025/understanding-the-uks-rise-in-economic-inactivity-since-2020>>

[Link to publication on Research at Birmingham portal](#)

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

- Users may freely distribute the URL that is used to identify this publication.
- Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.
- User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?)
- Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.

When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.



Policy Briefing: Understanding the UK's Rise in Economic Inactivity Since 2020 Across Local Labour Markets

October 2025

**Authors: Donald Houston¹, Kostas Kollydas²,
Maryna Ramcharan² and Paul Sissons³**

*¹Birmingham Business School,
University of Birmingham;*

²City-REDI, University of Birmingham;

³Keele Business School, Keele University

We advance
We activate

birmingham.ac.uk



Summary of key findings

- The UK's economic inactivity rate among people aged 16-64 rose from 20.3% to 22.2% during the COVID-19 pandemic. This is a rise of 1.9 percentage points, or 1.9 out of every 100 people aged 16-64 becoming economically inactive in just over two years.
- The UK is an international outlier among large developed economies in that its inactivity rate has remained elevated since the COVID-19 pandemic. In the summer of 2025, although it had come down from its earlier peak, economic inactivity remained 0.7% points above its pre-pandemic level (21.0%, up from 20.3%).
- The rise in the UK's economic inactivity rate has been geographically highly uneven. Rural areas and peripheral towns have recorded the largest increases, particularly in northern, western and coastal areas. Economic inactivity has fallen in much of London and the southeast.
- Modelling changes to economic inactivity across 168 local areas of Great Britain shows that the main drivers of rising economic inactivity at the local level are:
 - i. poor population health going into the pandemic;
 - ii. lower economic inactivity going into the pandemic giving more potential for increase;
 - iii. the scale of increase in work-limiting health problems during the pandemic;
 - iv. the scale of increase in the proportion of the population aged 60-64.
- Changes to EU and non-EU populations do not show statistically significant relationships with changes to economic inactivity at local level. However, reductions in low-skilled EU migration to some rural areas have affected levels of economic activity, but these place-specific effects do not get detected in overall patterns.
- Changes to labour demand (jobs or vacancies) do not show statistically significant relationships with changes to economic inactivity at local level. This is in contrast to recent history since deindustrialisation and the experience following previous recessionary shocks.

Policy implications

- National 'one-size-fits-all' policies to tackle economic inactivity will not work in many places.
- The recent sharp increase in economic inactivity has been driven by supply-side factors (health, demography) rather than driven by demand changes (job availability). However, moving forward, the level of economic inactivity in a given locality is likely to continue to be shaped by the quantity and quality of job opportunities, as has been the case in recent history. Therefore, creating high-quality jobs is important to ensure a level of economic activity required to support economic growth and prosperity.



- Local resilience to supply-side labour market shocks can be built through fostering demographically balanced and healthy populations. The local policy response needs to be tailored to the local drivers of economic inactivity: in some areas, ageing may be the main driver, while in others it may be the rise in poor health or fall in migration. For many rural areas, this may mean adequate housing supply, training and job opportunities to retain young people. For many urban areas, this is likely to require national immigration policy maintaining a balanced portfolio of skilled and unskilled migrants.
- There is a need for greater devolution of powers and resources to design and fund relevant local policy interventions. Some places are short of workers while others are short of jobs. National ‘one-size-fits-all’ policies will not do. Health and employment interventions suggested in the UK Government’s ‘Get Britain Working’ 2024 white paper follow the national narrative and are of less relevance to areas short of jobs rather than workers (although do recognise the geographical unevenness in the scale of the inactivity problem by concentrating extra resources in the worst-affected areas).
- Further research and evaluations of health and work interrelationships and interventions are required to better understand the drivers of and solutions to health-related economic inactivity in place.

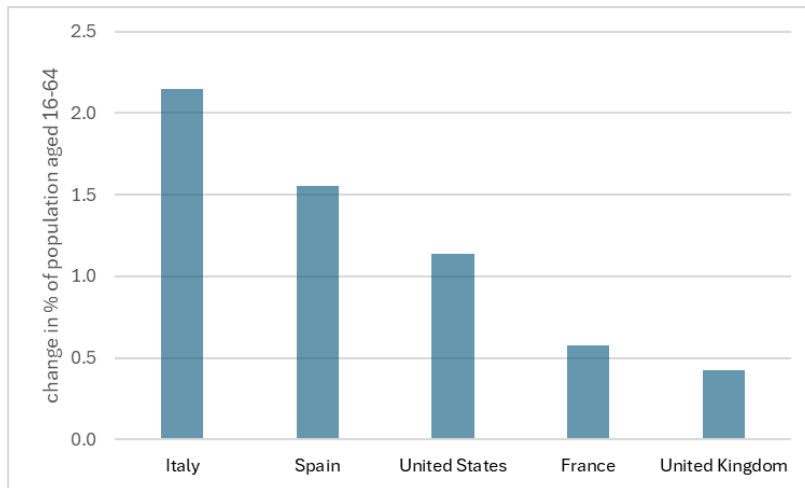
The UK’s economic inactivity problem

The UK’s economic inactivity rate (people not participating in the labour market) among people aged 16-64 rose from 20.3% in the quarter immediately prior to the pandemic lockdown starting (Dec’19-Feb’20) to peak at 22.2% in May-July’22 (a level that was reached for a second time in Feb-April’24 after a partial recovery during 2023)¹. This is a rise of 1.9 percentage points, or 1.9 out of every 100 people aged 16-64 becoming economically inactive in just over two years. Economic inactivity currently remains 0.7% points above its pre-pandemic level (21.0% in Jun-Aug’25, up from 20.3% in Dec’19-Feb’20)¹.

Internationally, economic inactivity rates rose sharply following the COVID-19 pandemic due to restrictions to control the pandemic, job loss and the impact of Long COVID (*Causa et al.*, 2022). The UK labour market weathered the early part of the pandemic quite well, not least due to a widespread ‘furlough’ scheme to protect jobs (Figure 1). Coming out of the pandemic, the economic inactivity rate in most countries fell back to below pre-pandemic levels, but in the UK it continued to rise. The UK is an international outlier among large developed economies in that its inactivity rate has remained elevated since (Figure 2). One theory is that this can be explained by Brexit reducing immigration from EU countries, a migrant group with very high rates of participation in the labour market (Portes and Springford, 2023). Another is that the UK’s health system had little spare capacity to deal with the pandemic and ill-health, including Long COVID, rose more in the UK than in other countries (Commission for Healthier Working Lives, 2025).

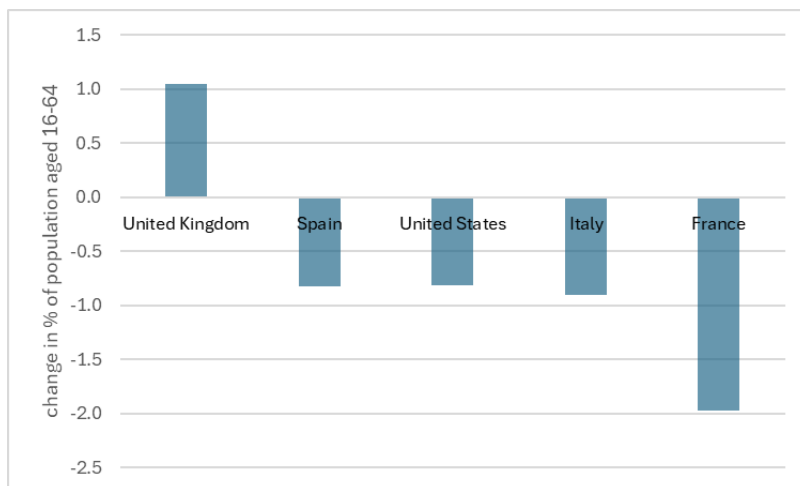
¹ [LFS: Economic inactivity rate: UK: All: Aged 16-64: %: SA - Office for National Statistics](#)

Figure 1 Change in economic inactivity rate (% points), 2019-20, selected countries



Source: OECD labour force participation rate (own calculations of inactivity and change)

Figure 2 Change in economic inactivity rate (% points), 2019-24, selected countries



Source: OECD labour force participation rate (own calculations of inactivity and change)

People coming out of the labour market contributed to labour shortages, hindering economic recovery (Bodnár and O’Brien, 2021). The cost of disability-related benefit receipt has soared (Office for Budgetary Responsibility, 2024) and some of those affected face economic and personal hardship (Reuschke *et al.*, 2024). It is important to properly diagnose the cause of the UK’s lingering economic inactivity problem and so be able to design effective solutions to it.

In the past (but with enduring impacts), loss of industrial jobs and a legacy of weak jobs growth in Britain’s former industrial districts played a key role in driving up geographic concentrations of economic inactivity (Beatty and Fothergill, 2005, 2020, 2023), so it is possible that a shrinkage in the demand for labour in some places following the pandemic and Brexit has played a role. On the supply side of the labour market, it is important to differentiate between the coterminous effects of Brexit and the pandemic. Strong geographical unevenness in economic inactivity, poor health and migrant populations mean that a geographical analysis across the UK’s local



labour markets allows us to disentangle the effects of Brexit from the pandemic, as well as other potential drivers of the inactivity crisis, such as an ageing workforce as the tail of the late babyboomers moved into their 60s (Houston *et al.*, 2023). But understanding the geography of the UK's economic inactivity problem is important in its own right – not only to tackle inactivity but to reduce regional inequality.

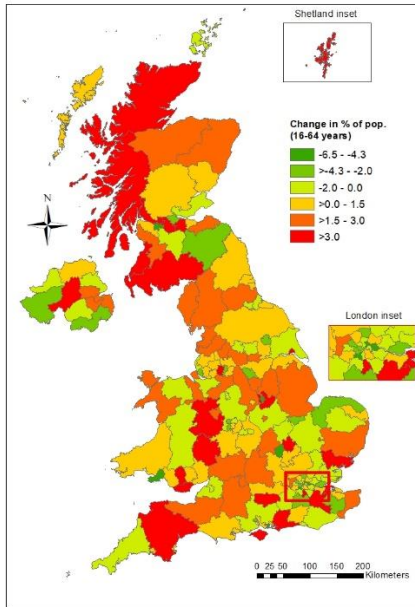
Geographical unevenness across the UK in changes to economic inactivity since 2020

The rise in the UK's economic inactivity rate has been geographically highly uneven. Rural areas and more peripheral towns have recorded the largest increases, particularly in northern, western and coastal areas, while inactivity has fallen in much of London and the southeast (Figure 3).

Understanding the geography of the UK's sharp rise in economic inactivity since 2020 is important. Some places are short of workers, while others remain short of jobs. Some places have experienced sharp rises in health problems following the pandemic (Figure 4) or declines in EU workers following Brexit (Figure 5), while in others the problem is down to an ageing population.

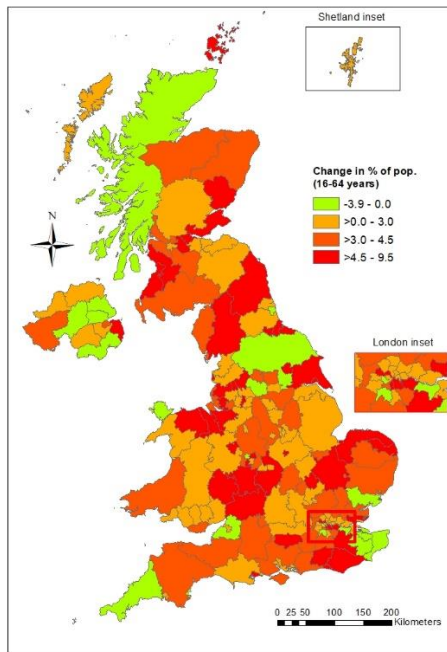


Figure 3. Change in economic inactivity among the working-age population, 2018-21



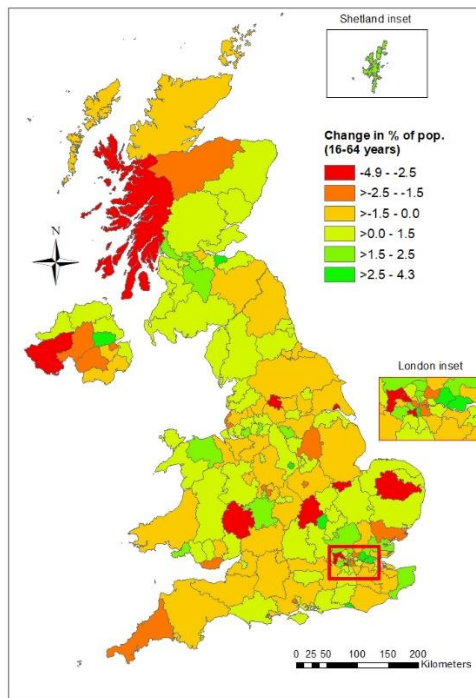
Source: Own calculations using 3-year pooled Annual Population Survey (2017-19 and 2020-22)

Figure 4. Change in the prevalence of health conditions in the working-age population, 2018-21



Source: Own calculations using 3-year pooled Annual Population Survey (2017-19 and 2020-22)

Figure 5. Change in EU-born population of working age, 2018-21



Source: Own calculations using 3-year pooled Annual Population Survey (2017-19 and 2020-22)

A statistical analysis of the drivers of change in economic inactivity at local level

This section presents the main findings from statistical modelling of the influences on change in local economic inactivity during the unfolding of Brexit and the COVID-19 pandemic. The analysis is of change in the economic inactivity rate among the population aged 16-64 across 168 GB NUTS3 areas between 2018 and 2021. These years are the midpoints of three-year pooled Annual Population Survey datasets for 2017-19 and 2020-22, respectively. Pooling data collected over three-year periods is required to generate sufficiently large samples of inactive, sick/disabled and migrant populations for local labour markets across Great Britain. Three-year pooled Annual Population Survey datasets are released some time after the release of Quarterly Labour Force Survey or single-year Annual Population Survey datasets. The periods used were the latest available at the time of analysis.

Drawing on existing understandings of the geography of the labour market impacts of recessionary shocks (Fingleton *et al.*, 2012; Martin, 2012; Boschma, 2015; Doussard and Schrock, 2015; Han & Goetz, 2015; Ibl *et al.*, 2018; Kitsos & Bishop, 2018; Lee, 2014; Webber *et al.*, 2018; Houston, 2020), the risk factors expected to influence change in economic inactivity at local level and what variable(s) are used to capture them are listed in Table 1. These risk factors are modelled simultaneously in a multivariate model to discern the effects of each after controlling for confounding with others (e.g. areas of weak labour demand tend to also have poor health). Further details of methods and data used can be found in Appendix 1.



The main drivers of change in economic inactivity at local level are reported in Figure 6. The size of the bars in Figure 6 represent the change in economic inactivity associated with a one-unit change in each influencing factor, after controlling for all other factors. For example, if the incidence of work-limiting health problems as a percentage of the population aged 16-64 rose by one percentage point, economic inactivity would rise on average by just over 0.3 percentage points, other things being equal (Figure 6).

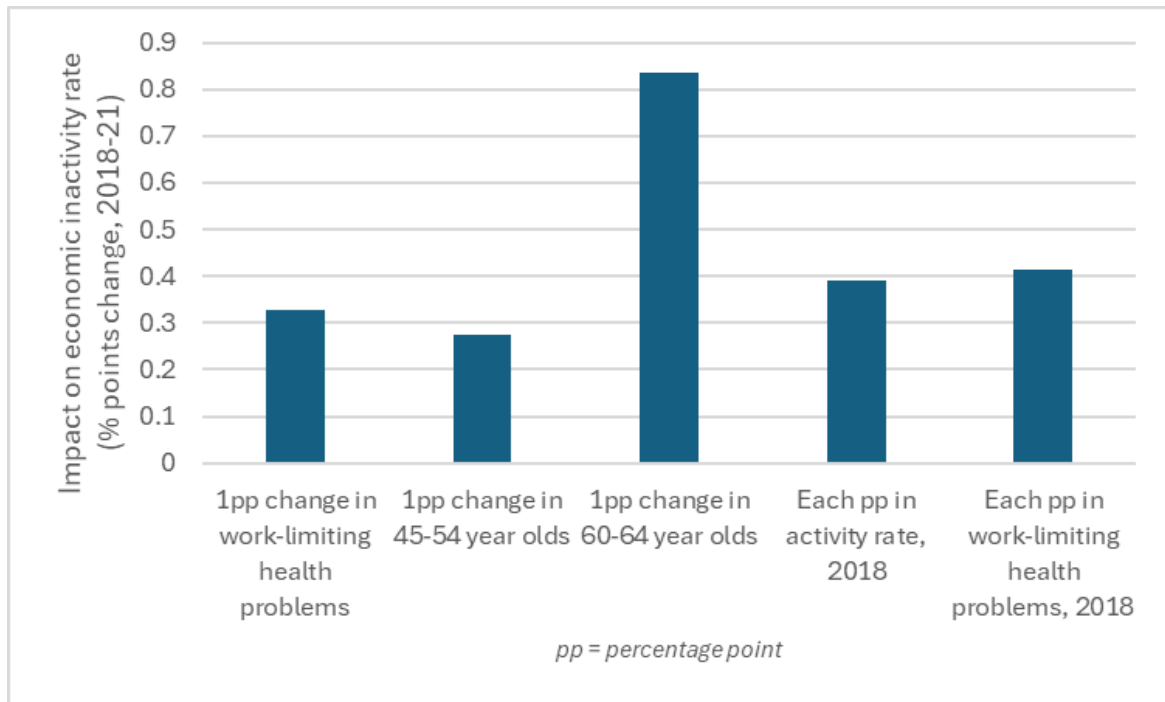
The main drivers of change in economic inactivity at the local level (Figure 6) are:

- the scale of the rise in work-limiting health problems during the pandemic;
- the prevalence of work-limiting health problems before the pandemic; and
- the rate of population and workforce ageing.

Another important factor is higher rates of economic activity among the population going into the pandemic (Figure 6). A plausible explanation of this finding is that areas with higher economic activity rates going into the pandemic had larger pools of people at risk of inactivity who had not yet become inactive.

Potentially important variables, such as labour demand, COVID infection rates and changes in the size of EU (and non-EU) born populations, turn out not to have a discernable effect on change in economic inactivity between 2018 and 2021 – although noise in the data may conceal small effects. The large increase in inactivity in rural and mixed rural/urban areas is accounted for by lower rates of inactivity and higher rates of poor health prior to the pandemic producing larger pools of people at risk of inactivity. Rural/urban categorical variables were statistically significant in (unreported) simpler models that were run before the resilience and path dependency variables were added (see Table 2).

Figure 6. The drivers of change in economic inactivity at local (NUTS3) level, 2018-21



Source: Own calculations using 3-year pooled Annual Population Survey (2017-19 and 2020-22); non-statistically significant variables in model not included in chart; productivity also has a significant effect but is not included in Figure 4 due to being in non-comparable units; see Table 2 for full model results.

A complete list of variables included in the final multi-variate model specification (including non-statistically significant and non-comparable variables omitted from Figure 4) is provided in Table 2. Whether each variable has a statistically significant relationship with change in economic inactivity and what the magnitude of its effect is are both indicated (Table 2).

The magnitude of the effect of a risk factor on change in local economic inactivity listed in the final column in Table 2 is expressed as the change in economic inactivity associated with a one-unit change in an influencing factor, after controlling for all other factors in Table 2. For example, if the incidence of work-limiting health problems as a percentage of the population aged 16-64 rose by one percentage point, economic inactivity would rise on average by 0.327 percentage points, other things being equal (Table 2).



Table 1 Risk factors expected to influence **change in local economic inactivity** during the UK's poly-crisis 2018-21

Risk factor	Variable(s)
<i>Covid- and Brexit-related exogenous shock factors</i>	
Impacts of the pandemic on health and health service, affecting people's health-related capacity to work	Change in share of working-age population (16-64 years) with health that limits amount/kind of work 2021-2018 (pp)
Disruption to lives and livelihoods due to individual and family illness, social distancing requirements and local lockdowns	Cumulative Covid cases 2021 as a % of total population
Risk of job loss or disengagement from employment due to furlough	Share (%) of workers in locked-down occupations 2018
Removal of freedom of movement of EU workers, a group with high economic activity	Change in EU-Born share 2021-2018 (pp)
Eased work visa restrictions on non-EU workers in UK's post-Brexit immigration system	Change in non-EU-Born share 2021-2018 (pp)
<i>Demographic and geographic risk factors</i>	
Changing age structure of the population increasing the number of older people at greater risk of economic inactivity due to poor health and/or early retirement	Change (2021-2018) in share of working-age population (16-64 years) in age groups 30-44, 45-54, 55-59 and 60-64 (pp)
Smaller, rural labour markets more sensitive to small changes in population and population traits	Categorical variables for: London; Rest of Predominantly Urban; Intermediate; and Predominantly Rural
<i>Resilience/path dependency factors</i>	
Underlying local place-based vulnerability to economic inactivity	Inactivity rate 2018 (%)
Pre-crisis local processes affecting economic inactivity display inertia/path dependence	Average annual change (%) in inactivity rates 2012-2018
Underlying local place-based vulnerability to work-limiting health problems	Share (%) 2018: health limits amount/kind of work
Economically resilient businesses less prone to contraction/failure and more likely to offer high-quality and sustainable jobs	Productivity (GVA per hour £) 2018
Lower-skilled workers more at risk of economic inactivity, and smaller pools of high-skilled workers make businesses less adaptable	Share (%) of people with tertiary-level education 2018
<i>Labour demand factors</i>	
Shrinking local jobs base puts more people at risk of becoming economically inactive	Change (%) in total employment (BRES) 2021/18
Fewer local job openings reduce the likelihood of people returning to employment	Change (%) in number of vacancies 2021/18

Table 2. Influences on **change in local economic inactivity** during the UK's poly-crisis 2018-21

Influencing factor	Magnitude of effect
<i>Covid- and Brexit-related exogenous shock factors</i>	
Change in share of working-age population (16-64 years) with health that limits amount/kind of work 2021-2018 (pp)	0.327
Cumulative Covid cases 2021 as a % of total population	-0.006
Share (%) of workers in locked-down occupations 2018	-0.092
Change in EU-Born share 2021-2018 (pp)	-0.010
Change in non-EU-Born share 2021-2018 (pp)	0.116
<i>Demographic and geographic risk factors</i>	
Change (2021-2018) in share (pp) of working-age population (16-64 years) age:	
30-44 yrs	0.024
45-54 yrs	0.275
55-59 yrs	0.034
60-64 yrs	0.835
Urban/rural classification (magnitude of effect is relative to London):	
Predominantly Urban (excl. London)	0.343
Intermediate	0.729
Predominantly Rural	1.498
<i>Resilience/path dependency factors</i>	
Inactivity rate 2018 (%)	-0.392
Average annual change (%) in inactivity rates 2012-2018	-0.161
Share (%) 2018: health limits amount/kind of work	0.414
Productivity (GVA per hour £) 2018	0.074
Share (%) of people with tertiary-level education 2018	-0.012
<i>Labour demand factors</i>	
Change (%) in total employment (BRES) 2021/18	0.001
Change (%) in number of vacancies 2021/18	-0.001

Notes: Statistically significant factors are in **bold** (95% confidence threshold); factors not in bold do not have an observable effect distinguishable from noise in the data; pp = percentage points; 'Magnitude of effect' is the change in economic inactivity 2018-21 (% points) associated with a one-unit change in the influencing factor, after controlling for all other factors, e.g. if the incidence of work-limiting health problems rose by one percentage point, economic inactivity would rise on average by 0.327 percentage points; Model Adjusted $R^2 = 0.515$.



Conclusions

Early in the COVID-19 pandemic, the UK's furlough scheme was effective in keeping people in employment. Initially, the UK had a relatively small increase in economic inactivity compared to other developed nations that were badly affected by the pandemic. However, the UK's economic inactivity rate has remained elevated since the COVID-19 pandemic. In contrast, economic inactivity in all other major economies has returned to below pre-pandemic levels.

The rise in the UK's economic inactivity rate has been geographically highly uneven. Rural areas and peripheral towns have recorded the largest increases, particularly in northern, western and coastal areas. Economic inactivity has fallen in much of London and the southeast. The larger rises in inactivity in rural and mixed rural/urban areas is accounted for by lower rates of inactivity and higher rates of poor health prior to the pandemic producing larger pools of people at risk of inactivity in these areas.

Statistical modelling of changes to economic inactivity across 168 local areas of Great Britain shows that the main drivers of rising economic inactivity at local level are: i) poor population health going into the pandemic; ii) low economic inactivity going into the pandemic giving more headroom for increase; iii) the scale of increase in work-limiting health problems during the pandemic; and iv) the scale of increase in the proportion of the population aged 60-64.

Changes to EU and non-EU populations do not show statistically significant relationships with changes to economic inactivity at local level. However, reductions in low-skilled EU migration to some rural areas, most notably the Scottish Highlands and parts of Lincolnshire, have affected levels of economic activity, but these place-specific effects do not get detected in overall patterns in statistical models.

Changes to labour demand (jobs or vacancies) do not show statistically significant relationships with changes to economic inactivity at local level. This is in contrast to recent history since deindustrialisation and the experience following previous recessionary shocks.

Changes to economic inactivity have been geographically highly uneven, with some areas actually recording falls in inactivity and other areas substantial increases. A national 'one-size-fits-all' policy to tackle economic inactivity will not work in many places.

The recent sharp increase in economic inactivity has been driven by supply-side factors (health, ageing) rather than driven by demand changes (job availability). Maintaining good public health in all parts of the country has to be central plank of the policy response to maintain labour supply, particularly in the context of an ageing workforce and high levels of regional inequality in health and labour market outcomes.

Nevertheless, moving forward, the level of economic inactivity in a given locality in the long run is likely to continue to be shaped by the quantity and quality of job opportunities, as has been the case in recent history since the 1970s. Therefore, creating high-quality jobs is important to ensure a level of economic activity required to support economic growth and prosperity.

Local resilience to supply-side labour market shocks can be built through fostering demographically balanced and healthy populations. The local policy response needs to be tailored to the local drivers of economic inactivity: in some areas, ageing may be the main driver, while in others it may be the rise in poor health or fall in migration. For many rural areas, this may mean adequate housing supply, training and job opportunities to retain young people. For



many urban areas, this is likely to require national immigration policy maintaining a balanced portfolio of skilled and unskilled migrants.

There is a need for greater devolution of powers and resources to design and fund relevant local policy interventions. Some places are short of workers while others are short of jobs. National 'one-size-fits-all' policies will not do. Health and employment interventions suggested in the UK Government's 'Get Britain Working' 2024 white paper (HM Government, 2024) follow the national narrative and are of less relevance to areas short of jobs rather than workers (although do recognise the geographical unevenness in the scale of the inactivity problem by concentrating extra resources in the worst-affected areas).

Further research and evaluations of health and work interrelationships and interventions are required to better understand the drivers of and solutions to health-related economic inactivity in place.



APPENDIX 1. Methods and data for assessing the drivers of changes to economic inactivity at local level

The analysis of changes to economic inactivity at local level is based on a unique detailed dataset that has been constructed for 168 NUTS/ITL3 local regions across Great Britain. The dataset consists of relevant economic, labour market, demographic, migration, pandemic and health variables. The dataset integrates data from the UK's Annual Population Survey/Labour Force Survey, georeferenced job vacancies from Adzuna, COVID-19 infection monitoring, labour productivity, and jobs growth from the Business Register & Employment Survey. To generate a sufficiently large sample size for NUTS/ITL3 local regions, the three-year pooled Annual Population Survey (3YAPS) was used for pre-pandemic/Brexit (2017-19) and pandemic/post-Brexit (2020-22) periods. The analysis is based on the change between these two time periods. Other datasets that have been linked to 3YAPS output are annual, therefore for non-3YAPS datasets the mid-years of the 3YAPS periods were used (i.e. 2018 for 2017-19 and 2021 for 2020-22).

Analysis uses ordinary least squares multiple linear regression. The final model specification reported here includes a number of variables to explain geographic variation in the change in economic inactivity between the 2017-19 and 2020-22 three-year periods. Key variables of interest in terms of labour supply include change in the prevalence of work-limiting health conditions (a pandemic effect) and change in the number of EU and non-EU migrants (a Brexit effect). The model includes the effects of changes to labour demand (jobs and vacancies) in encouraging/discouraging people to participate in the labour market, which has been shown in the past to be an important factor in influencing economic inactivity (Beatty and Fothergill, 2005, 2020, 2023). Drawing on the regional resilience literature that emphasises the importance of pre-shock conditions and trends in explaining regional unevenness in economic impacts (Boschma, 2015; Doussard and Schrock, 2015; Martin, 2012), the pre-crisis levels and trends in key indicators of economic and labour market vulnerability/resilience are included in the model, most importantly economic inactivity, health and productivity.

In modelling the change in economic inactivity since the pandemic, control variables are also included for skills, job quality, changing age structure of the working-age population, and degree of urbanisation/rurality. These controls are based on existing literature on the risk factors associated with rising economic inactivity or unemployment and/or falling employment during previous recessions (Fingleton et al., 2012; Han & Goetz, 2015; Ibl et al., 2018; Kitsos & Bishop, 2018; Lee, 2014; Webber et al., 2018; Houston, 2020).

References

- Beatty C., Fothergill S. (2023) The persistence of hidden unemployment among incapacity claimants in large parts of Britain, *Local Economy*, 38 (1), p.42-60, DOI: <https://doi.org/10.1177/02690942231184815>
- Beatty, C. and Fothergill, S. (2020) The Long Shadow of Job Loss: Britain's Older Industrial Towns in the 21st Century. *Frontiers in Sociology*, Vol. 5, Article 54. doi: 10.3389/fsoc.2020.00054
- Beatty, C., Fothergill, S. (2005). The diversion from “unemployment” to “sickness” across British regions and districts. *Regional Studies*, 39(7), p.837–854. <https://doi.org/10.1080/00343400500289804>
- Bodnár, K. and O’Brien, D. (2021) *Labour supply developments in the euro area during the COVID-19 pandemic*, European Central Bank Economic Bulletin, Issue 7, 2021.
- Boschma, R. (2015). Towards an evolutionary perspective on regional resilience. *Regional Studies*, 49(5), 733–751. <https://doi.org/10.1080/00343404.2014.959481>
- Causa, O.; Abendschein, M.; Luu, N.; Soldani, E. and Soricolo, C. (2022) *The post-COVID-19 rise in labour shortages*, OECD Economics Department Working Papers, No. 1721, OECD Publishing, Paris, <https://doi.org/10.1787/e60c2d1c-en>.
- Commission for Healthier Working Lives (2025) *Action for healthier working lives*, The Health Foundation, 10th March 2025.
- Doussard, M., & Schrock, G. (2015). Uneven decline: Linking historical patterns and processes of industrial restructuring to future growth trajectories. *Cambridge Journal of Regions, Economy and Society*, 8(2), 149–165. <https://doi.org/10.1093/cjres/rsv003>
- Fingleton, B., Garretsen, H., & Martin, R. (2012). Recessionary shocks and regional employment: Evidence on the resilience of UK regions. *Journal of Regional Science*, 52(1), 109–133. <https://doi.org/10.1111/j.1467-9787.2011.00755.x>
- Han, Y., & Goetz, S. J. (2015). The economic resilience of U.S. counties during the great recession. *The Review of Regional Studies*, 45(2), 131–149.
- HM Government (2024) *Get Britain Working White Paper*, HM Government Policy Paper, 26 November 2024.
- Houston, D. (2020) Local resistance to rising unemployment in the context of the COVID-19 mitigation policies across Great Britain, *Regional Science, Policy & Practice*, 12, pp.1189-1209, <https://doi.org/10.1111/rsp3.12364>
- Houston, D., Evans, J. and Nafilyan, V. (2023) *Health, demographic and labour market influences on economic inactivity, UK: 2019 to 2022*, Office for National Statistics (ONS) article, released 19 May 2023, ONS website.
- Ibl, M., Svoboda, O., & Siegert, M. (2018). Resilience analysis of the 2008 economic crisis using entropic measures. *Journal of Economic Studies and Research*, 2018, 1–14. <https://doi.org/10.5171/2018.422299>



Kitsos, A., & Bishop, P. (2018). Economic resilience in Great Britain: The crisis impact and its determining factors for local authority districts. *Annals of Regional Science*, 60(2), 329–347. <https://doi.org/10.1007/s00168-016-0797-y>

Lee, N. (2014). Grim down south? The determinants of unemployment increases in British cities in the 2008–2009 recession. *Regional Studies*, 48(11), 1761–1778. <https://doi.org/10.1080/00343404.2012.709609>

Martin, R. (2012). Regional economic resilience, hysteresis and recessionary shocks. *Journal of Economic Geography*, 12(1), 1–32. <https://doi.org/10.1093/jeg/lbr019>

Office for Budgetary Responsibility (2024) *Welfare trends report – October 2024*, Office for Budgetary Responsibility (OBR) report CP1161, October 2024, OBR website.

Portes, J. and Springford, J. (2023) [The impact of the post-Brexit migration system on the UK labour market](https://doi.org/10.1080/21582041.2023.2192516), *Contemporary Social Science*, 18(2), 132–149. <https://doi.org/10.1080/21582041.2023.2192516>

Reuschke, D., Houston, D., Sissons, P. (2024) Impacts of Long COVID on workers: A longitudinal study of employment exit, work hours and mental health in the UK. *PLoS ONE* 19(6): e0306122. <https://doi.org/10.1371/journal.pone.0306122>

Webber, D. J., Healy, A., & Bristow, G. (2018). Regional growth paths and resilience: A European analysis. *Economic Geography*, 94(4), 355–375. <https://doi.org/10.1080/00130095.2017.1419057>