Office for National Statistics

Article

Population changes and economic inactivity trends, UK: 2019 to 2026

Experimental statistics estimating how the changing age-composition of the population is affecting economic inactivity.

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1 . Main points

- The changing age profile of the population can explain over half of the increase in economic inactivity in people aged 16 to 64 years between 2019 and 2022.
- The increase in economic inactivity volumes between 2019 and 2022 among those aged 16 to 17 years and 60 to 64 years is almost completely explained by the increase in population in these age bands.
- For those aged 18 to 24 years and 45 to 59 years, economic inactivity volumes increased considerably more than was expected, considering population changes, between 2019 and 2022.
- After accounting for the population changes between 2019 and 2022, there was an increase in the number of people economically inactive because they were long-term sick or disabled or because they were students.
- Projecting solely on the changing age and sex composition of the population, we estimate that there would be an additional 317,000 people economically inactive in the UK by 2026.

These are Experimental Statistics. The analysis has been produced by the Office for National Statistics (ONS) for the first time and has been carried out to understand past and future potential trends in economic inactivity. We advise caution when using the data (see Section 7, Data sources and quality).

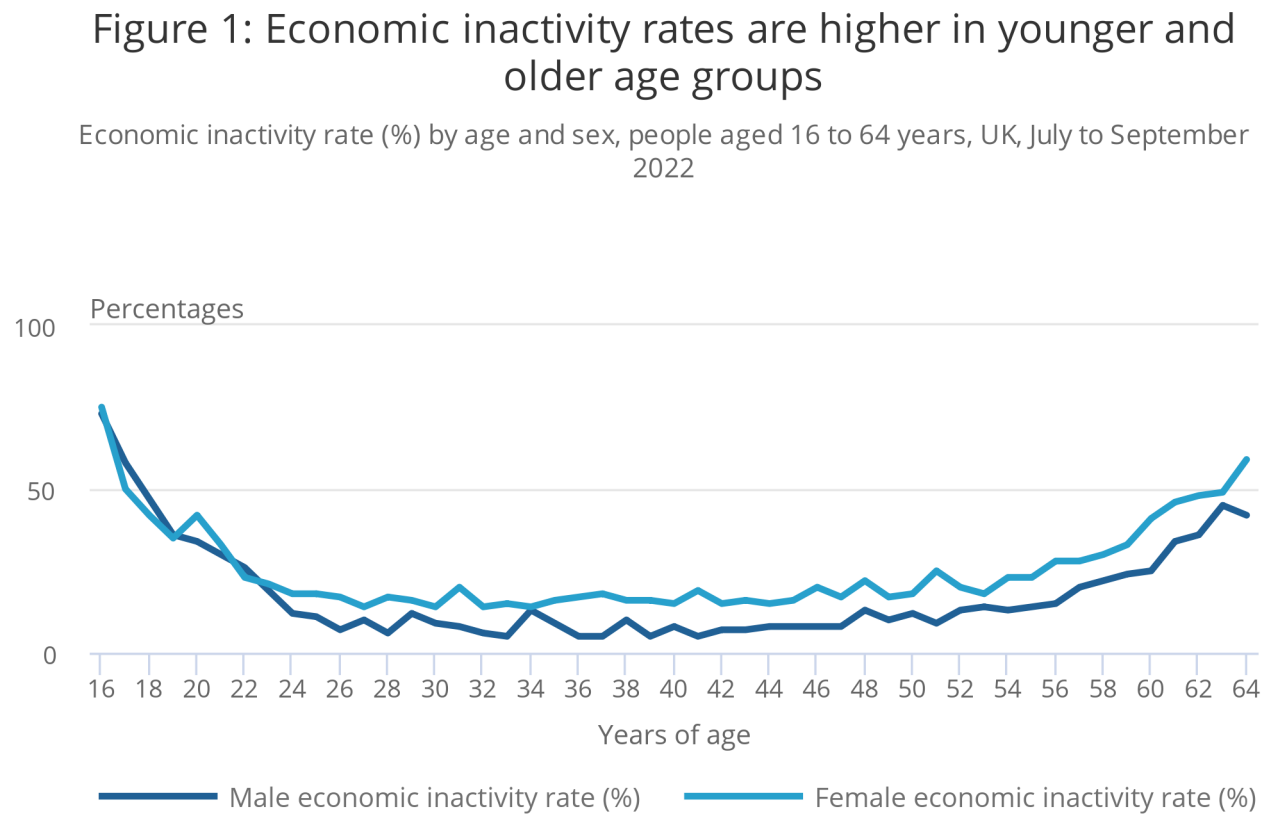
2 . Recent changes in economic inactivity and population

Published data shows that between 2019 and 2022 (in Quarter 3, July to September), the number of economically inactive people (aged 16 to 64 years) in the UK increased by almost half a million, from 8.6 to 9.0 million (seasonally adjusted). Most of this increase comes from those who are among the youngest and oldest working-age people.

Economic inactivity rates in the working-age population vary considerably depending on age. Younger people are often economically inactive because they are in full-time education. In July to September 2022, 37% of people aged 16 to 24 years were economically inactive. This compares with only 12% of those aged between 25 and 49 years. Those aged over 50 years are more likely to be economically inactive because of their increased likelihood of retiring early or being unable to work because of long-term sickness or disability. Of people aged 50 to 64 years, 27% were economically inactive in July to September 2022.

Figure 1: Economic inactivity rates are higher in younger and older age groups

Economic inactivity rate (%) by age and sex, people aged 16 to 64 years, UK, July to September 2022



Source: Population changes and economic inactivity trends, UK: 2019 to 2026 from the Office for National Statistics

Notes:

1. Economic inactivity rates have been calculated by dividing economic inactivity volumes (derived from the Labour Force Survey) by population estimates (from ONS mid-year population estimates and projections). These may differ from the official labour market statistics which are National Statistics, and should be used as the primary data for labour market measurement. See Section 7 (Data sources and quality) for further detail.

2. Some estimates used are based on small sample sizes and therefore should be used with caution. Please see the data tables for more information.

Since inactivity rates vary by age, inactivity volumes are particularly sensitive to population changes for the youngest and oldest working-age people. Population estimates show that in 2019 there was a relatively low number of people in the youngest and oldest age groups, compared with the rest of the working-age population. However, the number of people in these age groups has increased. Population estimates and projections suggest an increase of almost 110,000 people aged 16 to 20 years between 2019 and 2022, and an increase of 329,000 people aged 60 to 64 years. Over the same period, the number of people aged 21 to 59 years has remained fairly stable, with an increase of only 42,000 between 2019 and 2022.

As a result, changes in the age profile of the working-age population may explain part of the increase in inactivity seen since 2019.

Figure 2: A large cohort of individuals are nearing retirement age

Population estimates and projections by age, UK, 2019 to 2022

Download the data

.xlsx

3 . Modelling the impact of population changes on economic inactivity

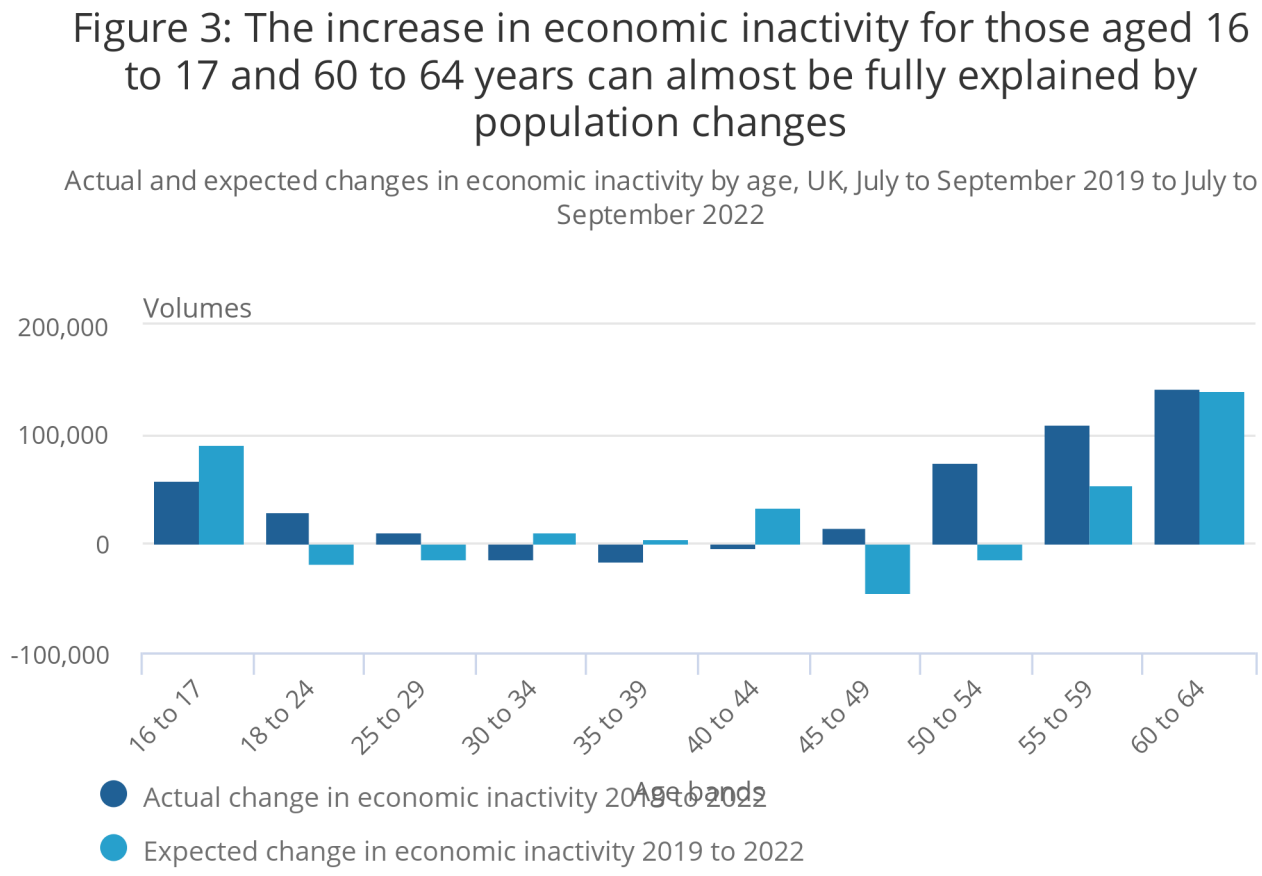
We created a model to understand the change in economic inactivity volumes that would be expected based on the changing age structures for men and women. We assumed that there was no change in the likelihood of a person becoming economically inactive based on their age and sex since 2019 and so applied those rates to the population in following years. By doing this, we estimate that changes in the age and sex distributions of the population between 2019 and 2022 can explain over half (59%) of the increase in the number of people economically inactive in this time. In particular, the increasing number of people aged 16 to 17 and 60 to 64 years can almost completely explain the increase in economic inactivity volumes for these age groups.

However, around 40% of the increase in economic inactivity volumes between 2019 and 2022 cannot be explained by changes in the age composition of the population. This increase is therefore explained by an increase in economic inactivity rates during this period.

For example, there has been considerably larger increases in economic inactivity for people aged 45 to 59 years than we would have expected from population changes alone. There was an increase in economic inactivity across this age range of around 200,000 people, compared with an expected decrease of 5,000. The increase in economic inactivity here is because of an increase in the proportion of individuals being economically inactive, mainly because of the increase in people who are inactive because of long-term sickness. For people aged 18 to 24 years, there was an increase in economic inactivity of around 29,000, compared with an expected decrease of 18,000 people (because of a decrease in a population for this age band). This differential was largely because of an increase in the number of male students and the number of people who were inactive because of long-term sickness.

Figure 3: The increase in economic inactivity for those aged 16 to 17 and 60 to 64 years can almost be fully explained by population changes

Actual and expected changes in economic inactivity by age, UK, July to September 2019 to July to September 2022



Source: Population changes and economic inactivity trends, UK: 2019 to 2026 from the Office for National Statistics

This analysis also explored the main reasons why people are economically inactive and how we would expect inactivity volumes for different reasons to change considering the population changes. Over the period from 2019 to 2022, economic inactivity because of long-term sickness or disability increased by 462,000 people, which is considerably more than the 41,000 increase that was expected because of the changing age-composition of the population. The increase in economic inactivity where the main reason reported on the LFS is long-term sickness or disability makes up a substantial proportion of the overall increase in economic inactivity. When examining the main health conditions of those reporting long-term sickness as their main reason for inactivity, we can see that the increase is largely caused by an increase in "mental illness and nervous disorders" in younger age groups and an increase in "other health problems or disabilities" and "problems connected with back or neck" for older age groups. For more information, please see our article on the cohort of people who were inactive because of long-term sickness.

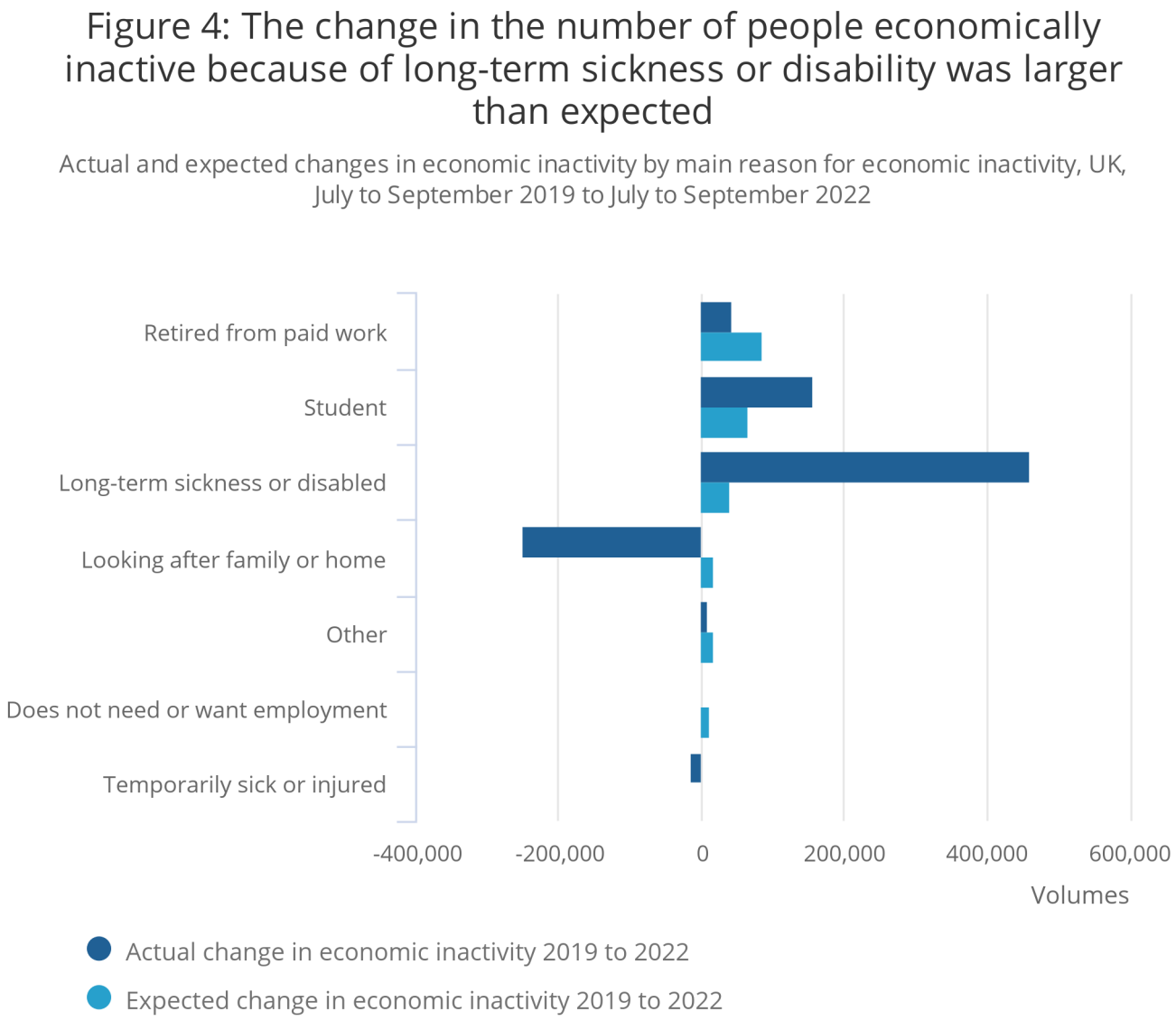
There has been a larger than expected increase in the number of people economically inactive because they are students (158,000), considering population changes alone (an expected increase of 66,000). This explains some of the increase in economic inactivity for those aged 18 to 24 years. Despite the increase in the number of people economically inactive because they retired early (44,000), this was not as high as might have been expected from the population changes (an expected increase of 87,000).

Despite an expected small increase from population changes (18,000), there was a large decrease (251,000) in the number of people who were looking after their family or home between 2019 and 2022. The reasons for this decrease are not fully understood, but potential contributing factors may include behavioural changes and a decreasing number of births over the last decade.

The increase in the number of people retiring early may be smaller than expected because of the recent policy changes to the state pension age. People aged 64 years now have to self-fund for more time to be able to take early retirement than would have been the case before 2019. However, many older working-age people who report that they left the labour market because of health reasons also referred to themselves as "retired" in our Over 50s Lifestyle Survey.

Figure 4: The change in the number of people economically inactive because of long-term sickness or disability was larger than expected

Actual and expected changes in economic inactivity by main reason for economic inactivity, UK, July to September 2019 to July to September 2022



Source: Population changes and economic inactivity trends, UK: 2019 to 2026 from the Office for National Statistics

Notes:

1. There may be more than one reason why people are economically inactive. This analysis focuses on an individual's main reason.

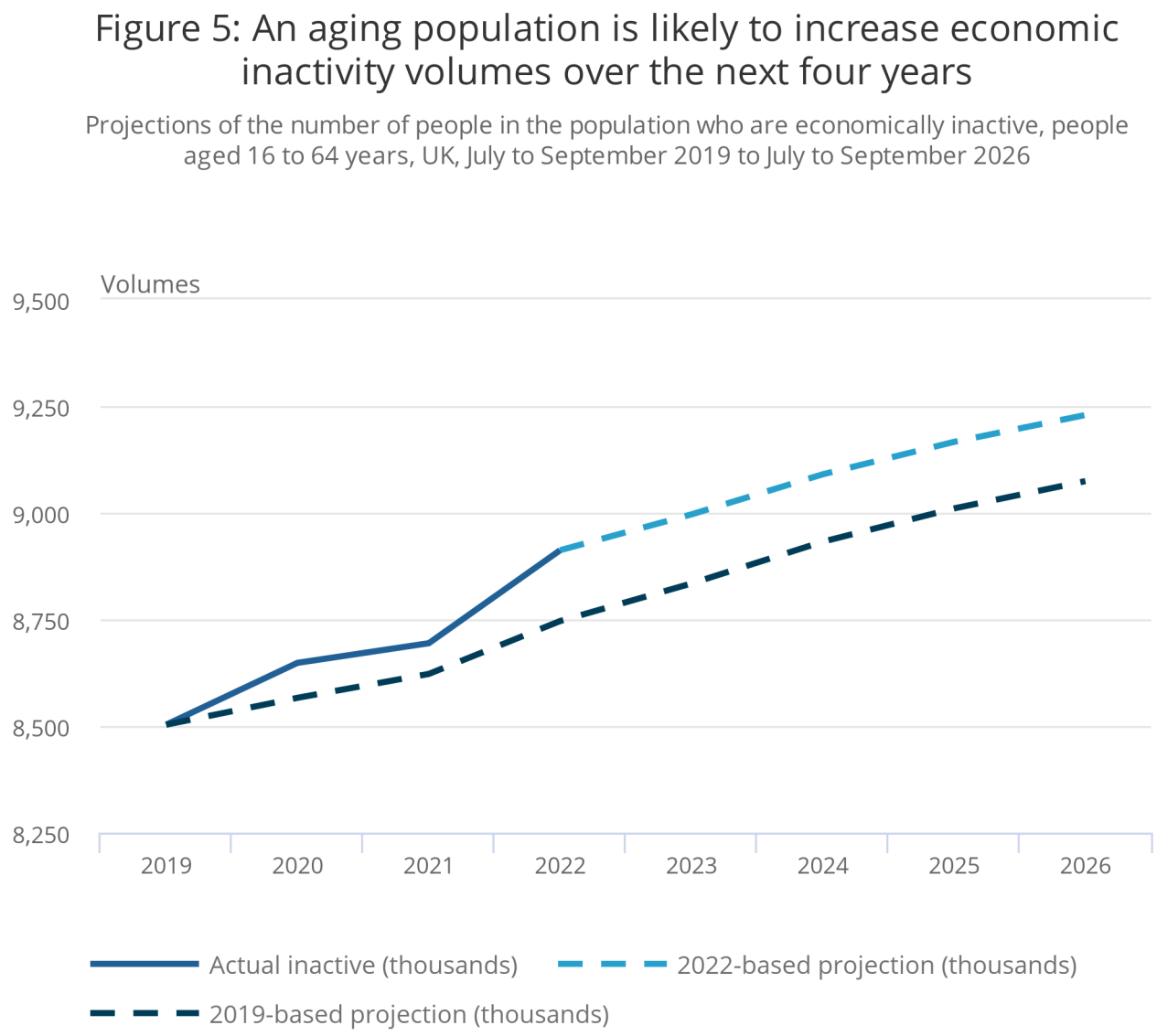
4 . Projecting economic inactivity volumes to 2026

Our population projections estimate that the number of people in the population among the youngest and oldest working-age groups will continue to increase beyond 2022. Continuing the trend seen between 2019 and 2022, it is estimated that the number of people aged 60 to 64 years will increase by 391,000 and the number aged 16 to 20 years will increase by around 410,000 between 2022 and 2026.

As these age groups tend to have higher economic inactivity rates, the increasing population in these groups is likely to affect overall economic inactivity volumes over the coming years. Applying 2022 economic inactivity rates to population projections, we expect that around 317,000 more people aged 16 to 64 years would be outside the labour market by 2026 (Quarter 3, July to September) based on population changes alone. If economic inactivity rates were to fall back down to 2019 levels, economic inactivity in 2026 would still be expected to be higher than in 2022; an expected increase of 162,000 people.

Figure 5: An aging population is likely to increase economic inactivity volumes over the next four years

Projections of the number of people in the population who are economically inactive, people aged 16 to 64 years, UK, July to September 2019 to July to September 2026



Source: Population changes and economic inactivity trends, UK: 2019 to 2026 from the Office for National Statistics

Notes:

1. This projection only takes into account the changing age and sex composition that is estimated in population projection estimates.

2. The projection does not capture the latest labour market data from October to December 2022 that show economic inactivity decreased by 113,000 people over the quarter.

Changes in the age profile of the population will not be the only contributor to changing economic inactivity volumes over the next few years. Individuals' behaviour around being active in the labour market is likely to be affected by economic conditions and inflationary pressures, or the prevalence of health issues in the population. Our most recent economic inactivity data estimated that 113,000 fewer people are economically inactive in the most recent quarter (Quarter 4, October to December 2022) compared with the previous quarter. One potential contributing factor to this might be more people deciding to work because of increases in the cost of living. Additionally, the impact of the coronavirus (COVID-19) pandemic on the labour market may be lessening and economic inactivity may be resuming its pre-pandemic downward trend.

5 . Population changes and economic inactivity trends data

Data on population changes and economic inactivity trends, UK
Dataset | Released 3 March 2023
Experimental statistics estimating how the changing age-composition of the population is affecting the increase in economic inactivity. Data cover estimates for 2019 to 2026, including by age, sex and reason.

6 . Glossary

Economic inactivity

People not in employment who have not been seeking work within the last four weeks and/or are unable to start work within the next two weeks.

Working-age population

Those aged 16 to 64 years.

Long-term sickness

Self-reported main reason for being economically inactive on the Labour Force Survey.

7 . Data sources and quality

We produced a model to estimate how the increase in economic inactivity volumes can be explained by changes in the age and sex profile of the population. In this model, we assumed that economic inactivity rates by age and sex remained unchanged from 2019 and applied those rates to the expected population changes. To do this, 2019 economic inactivity rates were calculated by dividing economic inactivity volumes (from the Labour Force Survey) by population volumes, by age and sex (from the ONS mid-year population estimates).

The data used in this analysis come from:

- our Labour Force Survey (LFS) July to September 2019 to July to September 2022, which provides a breakdown of economic inactivity volumes by age, sex and reason

- our mid-year 2020 population estimates (XLS, 2.01MB), by age and sex

- our 2020-based interim national population projections, migration variant, by age and sex

The methodology in this release has a number of limitations. The results should be used to understand the indicative impacts of the changing age-composition on economic inactivity and should not be interpreted with exact precision.

Our findings may differ slightly to official labour market statistics on economic inactivity rates because we have not used data from the LFS to estimate the size of the population. Instead, this release uses mid-year population estimates and projections for two reasons.

Firstly, because population estimates are likely to be more accurate at a granular age level. To account for the large differences in economic inactivity rates for the younger and older ages, calculations within the model use data on individual age and sex. Nevertheless, this level of granularity means that some groupings have sample counts below 26. Therefore, caution should be taken when referring to specific numbers.

The second reason is that mid-year population estimates align with the population projections, which allow us to calculate economic inactivity projections. Therefore, the results in this release are indicative and should be quoted and used with caution.

The population estimates and projections do not take into account the 2021 Census results. New population projections and estimates incorporating Census 2021 data will be published this year. However, we do not anticipate that the main messages of this article will change because of the rigorous methodology used to calculate official population estimates and projections.

The population totals used for the latest Labour Force Survey (LFS) use projected growth rates from Real Time Information (RTI) data for UK, EU and non-EU populations based on 2021 patterns. The total population used for the LFS, therefore, does not take into account any changes in migration, birth rates, death rates, and so on, since June 2021. As such, the estimates of inactivity volumes may be under or over-estimating the true values and should be used with caution.

The analysis only considered the changing age and sex profile of the population between 2019 and 2026 and did not include any other potential contributing demographic factors, such as ethnicity. We have also assumed that labour market participation rates stay constant by age and sex, and we do not account for the trends in economic inactivity prior to 2019.

This analysis does not use the most recent quarterly dataset for the LFS (October to December 2022), which was released in February 2023, because of time constraints. In this quarter, economic inactivity reduced by 113,000 people.

The population of interest in this release includes those in the working-age range of 16 to 64 years. The pension age in the UK is currently 66 years. However, we decided to include ages up to 64 years only to be consistent with official labour market statistics and to ensure that the same cohort of working-age people would be included throughout the span of years covered (2019 to 2026).

8 . Related links

Half a million more people are out of the labour force because of long-term sickness
Digital content article | Released 10 November 2022
Trends in the number of people economically inactive because of long-term sickness between 2019 and 2022 by health problem, age, previous economic status, previous industry and previous occupation.

Births in England and Wales: summary tables
Dataset | 19 January 2023
Live births and stillbirths annual summary statistics, by sex, age of mother, whether inside marriage or civil partnership, percentage of non-UK-born mothers, birth rates and births by mothers' area of usual residence.

9 . Cite this article

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