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Analysis

# Labour Market Update for Wales

WALES FISCAL ANALYSIS

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# Preface

## Declaration of funding

Wales Fiscal Analysis is hosted by the Wales Governance Centre and the School of Law and Politics at Cardiff University, and funded through a partnership between Cardiff University, the Welsh Government, the Welsh Local Government Association, Solace Wales, and the Wales Council for Voluntary Action. The programme continues the work of Wales Public Services 2025 hosted by Cardiff Business School, up to August 2018.

## About us

Wales Fiscal Analysis (WFA) is a research body within Cardiff University's Wales Governance Centre that undertakes authoritative and independent research into the public finances, taxation, and public expenditures of Wales.

The WFA programme adds public value by commenting on the implications of fiscal events such as UK and Welsh budgets, monitoring and reporting on government expenditure and tax revenues in Wales and publishing academic research and policy papers that investigate matters of importance to Welsh public finance, including the impact of Brexit on the Welsh budget and local services, options for tax policy, and the economics and future sustainability of health and social care services in Wales.

Working with partners in Scotland, Northern Ireland, the UK, and other European countries, we also contribute to the wider UK and international debate on the fiscal dimension of devolution and decentralisation of government.

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# Labour Market Update for Wales 2023

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## Executive Summary

The current economic climate remains difficult for Wales as economic headwinds buffet the United Kingdom and the global economy. Welsh policymaking operates within the wider UK context and is particularly influenced by policies on childcare provision, international student recruitment, and economic migration. But economic policy options tailored for Wales can only be based on evidence that catalogues and responds to the distinct profile of the Welsh labour market.

This report brings together various analyses that are often carried out in isolation: labour market headline figures, gender differences, ethnic and country of origin differences, and higher education data. They show the connections between these factors, and how systemic differences mean that economic shocks impact individuals in varied ways, according to their gender, age, and a host of other factors.

### Earnings and Incomes

Incomes in Wales are skewed towards the lower end of the income tax base compared with England and Scotland, such that of the 52% of the Welsh population paying income tax,<sup>1</sup> the vast majority – 93% – pay income tax only between the basic rate tax thresholds of £12,570 and £50,270 per year. Among the top-earning ten percent of taxpayers in 2022, men earned an average income of £54,363 and women, £49,985.

In contrast to the 2008 recession, which caused deep unemployment and large reductions in incomes earned at the higher and additional rates, concerted government responses such as the furlough scheme and business support grants meant that personal earning instabilities during the Covid-19 pandemic were not as severe or discernible as they were in the aftermath of the previous global financial crisis.

### Economic inactivity

Post-pandemic, there has been a heavy focus in public debate on economic inactivity and its implications for productivity. Long-term illness has become the top reason given for economic inactivity overall, but this changes once we consider different groups, with caring responsibilities being more prevalent among ethnic minorities and women and being a full-time student more frequent among men. Long-term illness and retirement are more likely to be stated as reasons for economic inactivity for men than for women and those of white ethnicities rather than minority ethnicities.

### Differences by Gender and Age

The report reaches important conclusions regarding gender and age in the labour market.

Perhaps unsurprisingly, individual incomes are at their highest in middle-age. However, the gender breakdown shows that this difference across an individual's working life is very small for women and very high for men. Women's incomes vary comparatively little over their

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<sup>1</sup> Both economically active and inactive populations.

lifetime, while men's incomes increase considerably as they age. Men's and women's incomes are at their closest when they are under 34, arguably at the start of their careers. The gap increases between men and women during middle age and decreases for those aged 65+, but never becomes as close as it is earlier in their lives.

In contrast, and perhaps because median income varies far less among women than it does for men, women tend to be less susceptible to major short-term disruptions in the economy. Men's median earnings were particularly affected by the 2008 economic recession. Following a sharp decline after this recession, men's income levels stabilised, but when accounting for inflation have not returned to their pre-recession peak.

Because of these two factors, women appear to plan their career and employment decisions on a longer-term basis and are less likely to deviate from these plans as a result of sudden economic shocks. This is illustrated by women's more stable participation in part-time education, economic inactivity due to care responsibilities, their larger presence in part-time work, and that women constitute the majority of the public sector workforce.

Men, on the other hand, seem more likely to make their decisions based on the economic context at the time. Men increase their presence in full-time education, part-time work, and caring for the household during previous economic downturns, but tend to shift more decisively back into full-time work once the economic context permits.

For age, the requirements of the labour market are fast-changing and data indicate that individuals are having to retrain in their 30s and 40s. Retraining has been associated with economic downturns, particularly for men, but also occurs during periods of economic growth.

## Ethnic differences

Despite significant data limitations, some evidence can be drawn on the different experience of economic trends among the ethnic groups living in Wales and across the UK. In Wales, economic inactivity seems to be lower for Asian or Asian British ethnicities and those of mixed ethnicities. Over the past two decades, levels of inactivity for white ethnic groups have increased relative to other ethnic groups. Those in white ethnic groups are more likely to be retired, those of Chinese origin or descent more likely to be students, and those who are Asian or Asian-British are more likely to be carers.

The vast majority of those economically inactive are those who cannot work or are retired, with levels generally above 75% of all economically inactive individuals for all ethnicities.

The post-2008 recession period had a very significant impact on decisions regarding education and skills for most groups, either disrupting upward trends or reinforcing downward ones; this did not occur to anything like the same extent in the aftermath of the Covid-19 pandemic.

Finally, ethnic pay gaps currently give no cause for optimism. Although data availabilities do not allow definitive conclusions to be drawn, these gaps may be associated with greater vulnerability in employment among ethnic minority groups.

## Data issues

The final conclusion of this report relates to the weakness of available data when studying the Welsh labour market. Wales is dependent on UK-wide data collection that often samples the nation as a region of England and Wales, rather than a separate statistical entity as it does with Scotland and Northern Ireland. This often results in under-sampling, which makes studying labour market trends at local authority level in Wales difficult (and in some cases impossible). Irregularity in collection and publication of data, and disruptions to time series data, also decreases reliability. Finally, there is currently no official data available for LGBTQI+ groups' participation and presence in the labour market.

## Methodological note

This report aims to demonstrate and discuss labour market trends in Wales, focussing on how world events have impacted the lives of Welsh citizens. Therefore, while general trends are discussed, an important statistical tool used here is the *year-on-year percentage difference*, which calculates the relative change from one year to the next.<sup>2</sup>

Although this calculation can make certain plots seem more volatile than expected given usual overall trends, it enables us to understand the impact of yearly changes on labour market statistics. For example, if there is a declining trend over time, it is important to understand that it means that from each year the relative difference from previous year is negative.

In addition, for improved visualisation, the loess (locally weighted smoothing) regression technique was used. Loess is a nonparametric technique used to fit points on a curve rather than a line, enabling the visualisation of a trend among many data points. This means that small relative positive changes between years among several relative negative changes will not impact a trend. For some plots the confidence intervals were visually maintained as a grey shade; however, for others they hindered the demonstration of the data. The confidence interval means how much variation exists within the chart – the wider the shade, the less stable is the comparison. Broader widths are often caused by small sample sizes. The algorithm used was standard from RStudio in the ggplot2 package.

The Consumer Price Index including owner occupiers' housing costs (CPIH) has been used to remove the effect of inflation on incomes and show values in real terms. This index is formulated by the Office for National Statistics and was chosen due to its more realistic impact on the lives of everyday citizens (in comparison to the Gross Domestic Product deflator). The CPIH uses 2015 as reference, so it is indexed by prices from that year. That is referenced with “2015=100”.

Lastly, because we are reporting on group statistics, several charts have different y-axes for each group. This is noted in the chart, along with any other important information. This enables comparability of charts as they can be in the same scale, but using their specific range of values.

The first chapter of this report deals with headline statistics regarding incomes, labour market trends, and vacancies in Wales. The second chapter offers an overview of the different experiences by gender and age. The third chapter gives an analysis on ethnicity and country of origin. Finally, we conclude.

Several data sources were used to compile this report – they are cited throughout and at the end, with a summary of the type of data offered, the providing institution, and the sample size for Wales.

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<sup>2</sup> Specifically:  $\text{value from subsequent year} - \text{value from reference year} / \text{value from subsequent year} * 100$ .

# 1 Incomes and Labour Market Trends in Wales

## 1.1 Incomes in Wales

The first section of this chapter reviews the latest data on individuals' earnings and the current state of the Welsh tax base, an important indicator of the Welsh economy following the partial devolution of income tax in 2019. The second and third sections then provide key trends in the Welsh labour market.

Of the 52% of the Welsh population paying income tax,<sup>3</sup> the vast majority – 93% – pay income tax only between the basic rate tax thresholds of £12,570 and £50,270 per year (Annual Survey of Hours and Earnings – ASHE and HMRC, **Figure 1.1**). This skew towards lower incomes in the Wales's income tax profile is significantly more pronounced than in England.

Among the top-earning ten percent of 2022, men earned an average income of £54,363 and women, £49,985 (ASHE, Table 3.7a). In 2019-20 just 6,000 individuals in Wales earned more than £150,000 a year and therefore paid the 45p Additional Rate of Income tax (HMRC, Table 3.13). While there has been an increase in individuals paying the higher rate of income tax – not least because of the decision by successive chancellors to freeze the higher rate threshold – the Welsh tax base is still largely composed of incomes earned at the basic tax rate of income tax.

Because of this skew in the profile of Welsh taxes, a Welsh or UK government decision to change rates of income tax would have the greatest impact on basic rate receipts. A 1p increase in all three Welsh Rates of Income Tax (i.e. at the basic, higher and additional rates) would increase receipts by £237 million in 2023-24 and £248 million in 2024-25 – but this change would be largely a result of the increase to the basic rate.<sup>4</sup> Compared with Council Tax, income tax is progressive with respect to income, such that the largest impact of a 1p tax rise is felt by taxpayers paying larger amounts of income tax.<sup>5</sup>

Because of inflation and 'fiscal drag' resulting from successive chancellors' decisions to freeze the higher rate threshold, basic rate populations are slowly decreasing as a percentage of the total in every UK nation, and numbers of higher and additional rate taxpayers are increasing. Such changes are occurring at different speeds, however, with the higher rate population of Scotland set to be relatively higher than other nations in 2023. The percentage of 45p additional rate taxpayers in England is at least double that of other nations, at 2.04% of its taxpayer population.

<sup>3</sup> Considering both economically active and inactive individuals.

<sup>4</sup> Welsh Government. *The Welsh rates of income tax ready reckoner*. 2022.

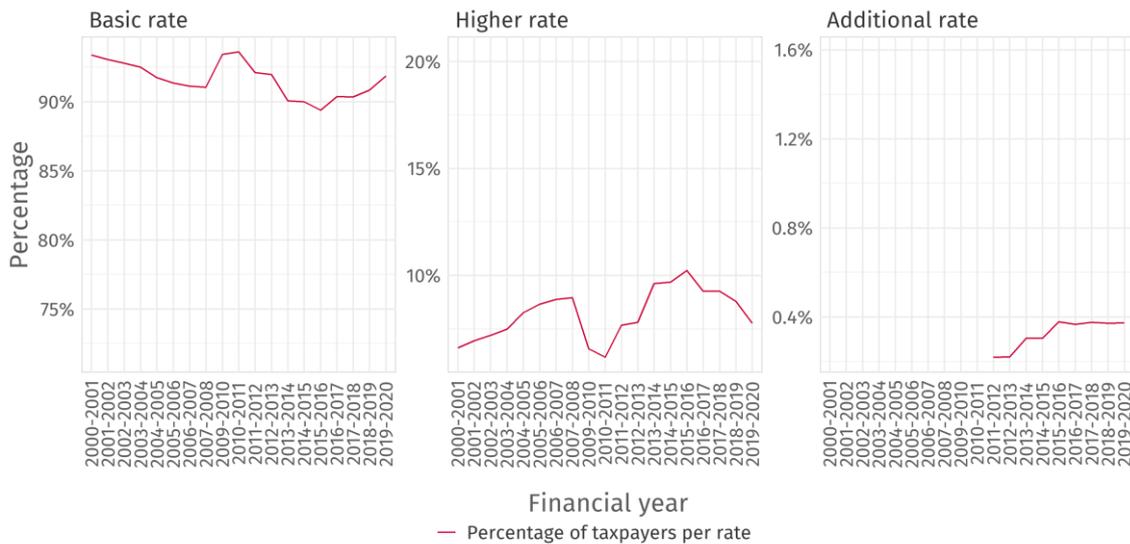
<https://www.gov.wales/sites/default/files/publications/2022-12/welsh-rates-of-income-tax-ready-reckoner-2023-to-2024.pdf>.

<sup>5</sup> Ifan, et al. *Welsh Budget Outlook 2022*. Wales Fiscal Analysis. 2022.

The 2008 recession caused shifts in the makeup of the tax base: increased unemployment resulted in a corresponding increase in the percentage of accepting employment at the basic rate and under policy thresholds. Although stabilisation has occurred since 2008, with more taxpayers moving into the higher rate, the Covid-19 pandemic<sup>6</sup> again brought instability to Welsh tax base. Thanks to concerted UK and Welsh governments responses such as the furlough scheme and business support grants, personal earning instabilities were not quite as severe or discernible as those which occurred after the 2008 recession (Figure 1.1).

**Figure 1.1**

Percentage of taxpayers paying each rate of income tax in Wales – 2001-2019



Source: HMRC, Survey of Personal Incomes with estimation projections, June 2022 release. ● Notes: No information is available for 2008 or after 2020. For the visualisation of the chart, the former was removed. Data in this figure was amended on 15 November 2023.

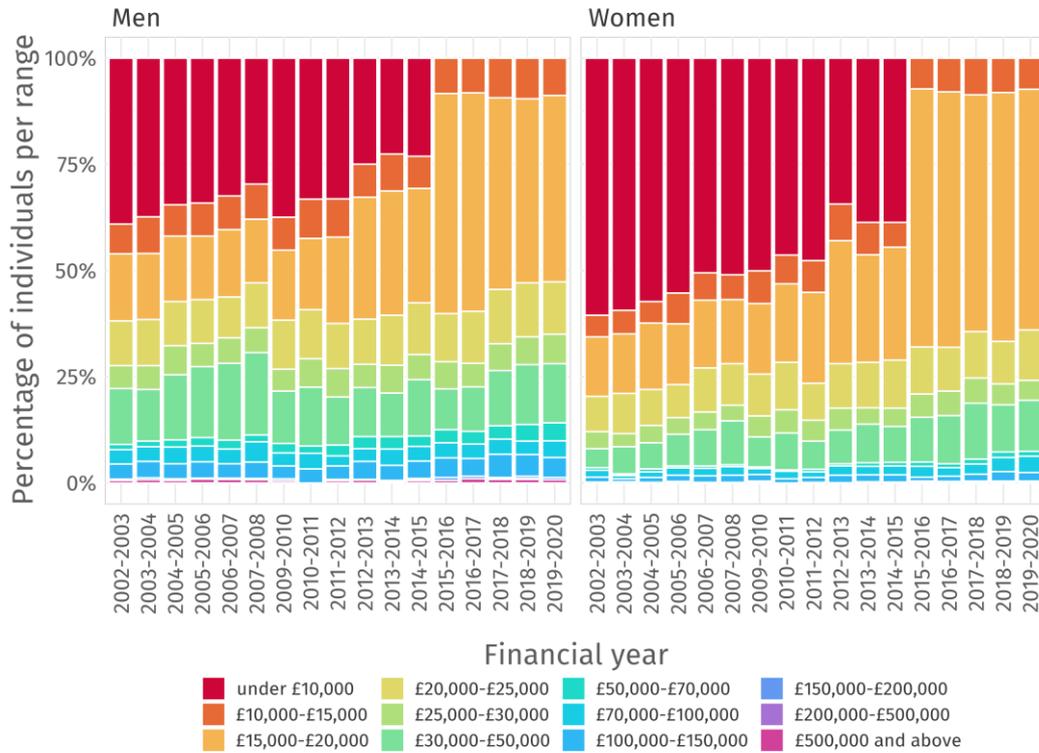
As shown in Figure 1.2, women tend to earn comparatively lower incomes than men, such that women’s incomes tend to cluster around the lower end of the income range, just below and immediately above the £12,570 personal allowance. The number of women earning higher incomes decreases dramatically at higher levels of income, indeed only eight women recorded in the (completely anonymous) HMRC Survey of Personal Incomes earned above £200,000 in 2019-2020.

Personal incomes survey data does not permit analyses beyond that of gender, but it is likely that the trend identified above would be compounded with the addition of intersecting variables that tend to be associated with lower incomes, such as ethnicity/race, country of origin, disabilities, and local authority of origin.

<sup>6</sup> Although the Covid-19 is still a public health concern, we will focus here on the beginning of the pandemic and height of economic concerns due to lockdowns and furlough.

**Figure 1.2**

Percentage of individuals per range of taxable income and gender in Wales – 2002-2020<sup>7</sup>



Source: HMRC, Survey of Personal Incomes with projected estimated, June 2022 release. ● Notes: No information is available for the financial year of 2008-2009. For the visualisation of the chart, that year was removed.

Unlike the rest of the UK nations, the Scottish Government has more extensive devolved income tax powers that allow it to set different thresholds for income tax above the personal allowance of £12,570, using five bands rather than three. This difference allows more flexibility when Scottish rates of income tax are increased or decreased.<sup>8</sup> While Wales does have devolved powers to increase or decrease income tax rates for each of the three bands, it does not have powers to create its own. Welsh tax policy is therefore not able to influence ‘fiscal drag’<sup>9</sup> where individuals on incomes move into a higher tax bracket and thereby retain a smaller percentage of their gross earnings.

## 1.2. Labour market trends

‘Economic activity’ is defined by either being employed or looking for employment, and includes those who are self-employed. The economically inactive population are those who

<sup>7</sup> Use of the Public Use Tape does not imply the endorsement of HMRC in relation to the interpretation or analysis of the information. Opinions, findings, conclusions or recommendations expressed in the paper are those of the authors and do not reflect the view of their respective organisations.

<sup>8</sup> <https://www.gov.uk/scottish-income-tax>

<sup>9</sup> <https://www.gov.uk/government/speeches/spring-budget-2023-speech>

are not employed and are not seeking employment for whatever reason, including being a full-time student or retired.

The Office for National Statistics (ONS) defines employment as ‘people aged 16 years and over who did one hour or more of paid work per week and those who had a job that they were temporarily away from’.<sup>10</sup> The ONS also adopts the same definition of unemployment as the International Labour Organisation:

- an individual who is without a job but who has been actively looking for four weeks and is available to start work in two weeks;
- an individual who has found a job but is waiting to start in the new two weeks.

Unemployment rates are calculated against the economically active population, which is the sum of employed and unemployed individuals.

According to HMRC tax data, 10% of the Welsh population is self-employed, a figure which is 2.7% below the Annual Population Survey estimate. This discrepancy possibly results from those individuals who do not declare themselves as self-employed for tax purposes but have some additional source of income. The percentage is the same in England and so is the gender ratio, with 7 in 10 of self-employed taxpayers being men in both nations. In Scotland and Northern Ireland, respectively, 8% and 12% are self-employed (of which, respectively, 5% and 9% are men).

Since 2000, levels of individual economic activity of people aged 16 and over in Wales have remained relatively stable, reaching a peak of 61% in 2018 and 2019 (**Figure 1.3**). While the Covid-19 pandemic did impact levels of economic inactivity, this was not as drastic as expected, nor did it lead to a prolonged downturn. Nevertheless, Wales remains the nation with highest rates of economic inactivity in the UK.

The pandemic’s most significant (and potentially long term) effect has been on the rise in the number of economically inactive individuals, that is, individuals who are no longer looking for work. Inactivity rates recorded had a significant year-on-year increase (that is, an increase from the previous year) at the beginning of the pandemic, with 4% more inactive individuals in 2020. Despite a 1% drop in 2021, another 4% increase occurred in 2022.<sup>11</sup> The increase in economic inactivity is therefore not unlike previous economic declines, but the reasons given have shifted, which will be shown later.

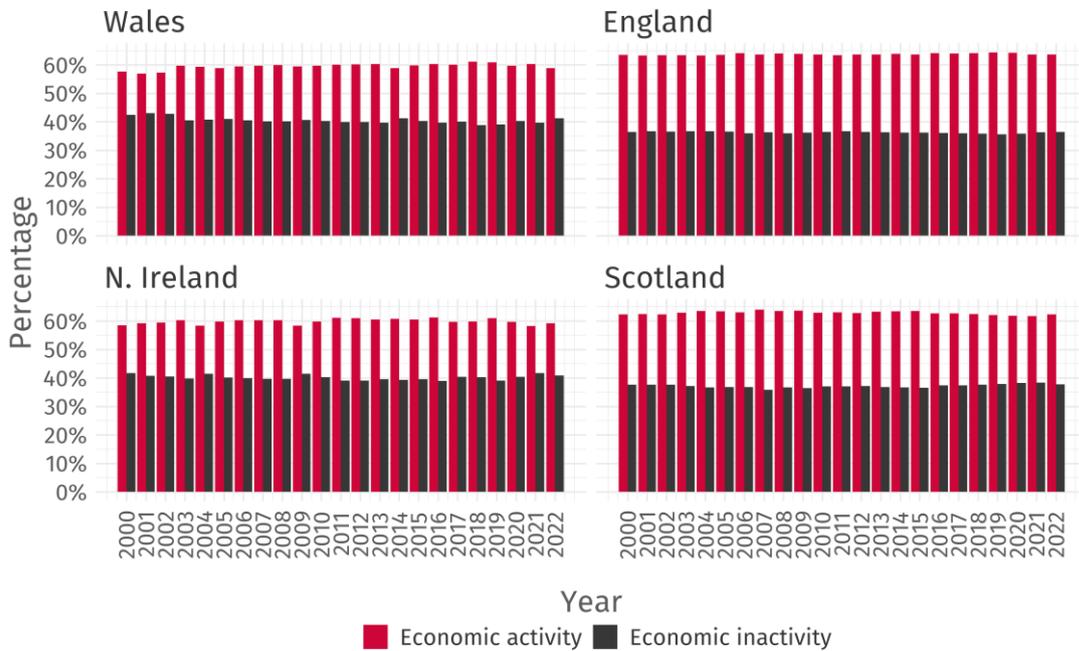
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<sup>10</sup> Office for National Statistics, ‘A guide to labour market statistics’, 2020.  
<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/aguidetolabourmarketstatistics>

<sup>11</sup> For more detail, Figure G, in the Appendix.

**Figure 1.3**

Economic activity and inactivity rates in UK nations – 2000-2022



Source: Labour Force Survey, April 2023 release.

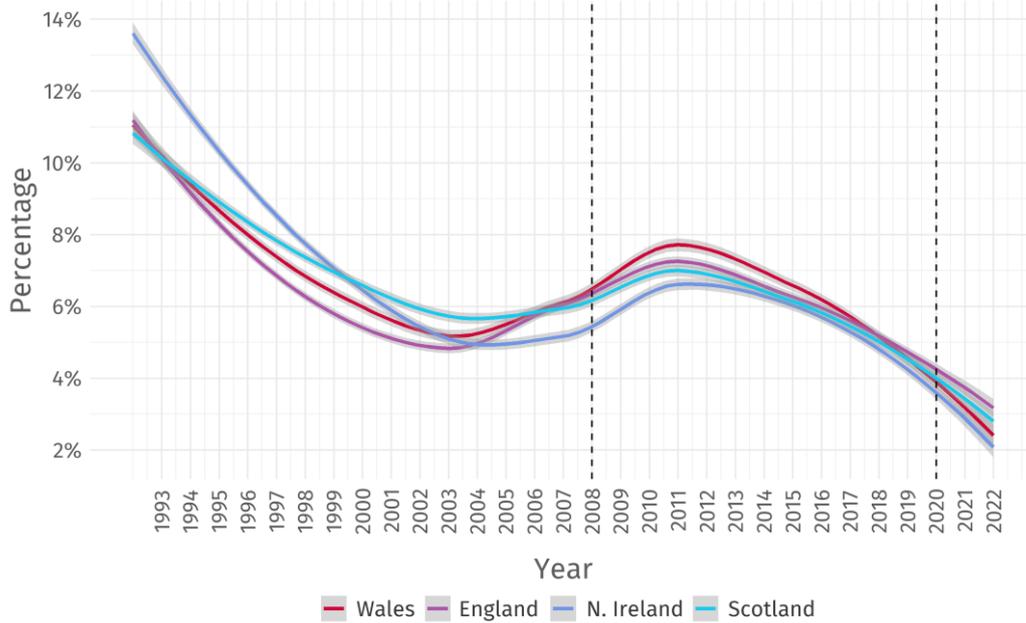
After the 2008 recession, unemployment in Wales remained high for many years and only started to decrease in 2014. Since then, unemployment rates have stabilised at an average level of 4.3%, dipping to their lowest level – 3.5% – between June 2021 and July 2022. Although the pandemic meant an increase in unemployment levels, the longer-term trend Wales had been experiencing prior to Covid-19 continued (**Figure 1.4**).<sup>12</sup>

As illustrated by **Figures 1.4** and **1.5**, the decreasing unemployment trend seen in the UK and Wales was accompanied by an increase in available job posts, which have dramatically increased for all nations after 2020. Despite a decline after 2021, Wales leads in the highest number of vacancies per nation. The data is experimental, but it is the only dataset that is available by UK nation and which shows job adverts both prior to and after the pandemic. It is, however, consistent with the Vacancy Survey, which does not disaggregate by nation.

<sup>12</sup> Unless otherwise noted, all statistics refer to population aged 16 and over.

**Figure 1.4**

Unemployment rate in UK nations over time – 1993-2022



Source: Labour Force Survey, April 2023 release. ● Note: Shaded area indicates confidence interval.

As shown in **Figure 1.6**, most vacancies in Wales in 2022 were in the healthcare sector, with 15% of all posts vacant; no other sector reached double digits.<sup>13</sup> This evidence corroborates claims made in recent industrial action and news commentary about recruitment challenges in healthcare.<sup>14</sup>

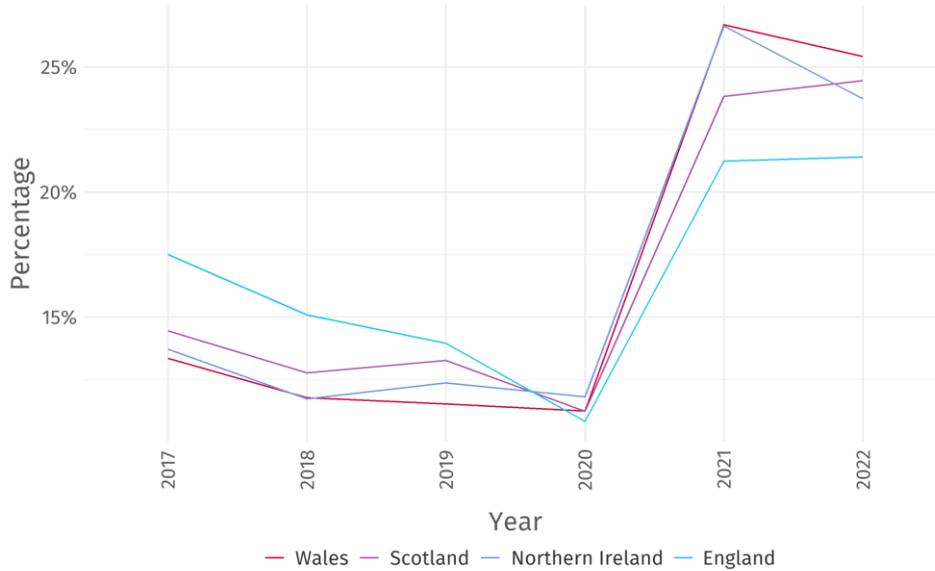
**Figure 1.7** shows enrolment data for higher education students (undergraduate and postgraduate) in Wales in academic year 2021-22. The most common fields of study are ‘subjects allied to medicine’ (which includes all types of nursing), social sciences, and business and management. Specifically for healthcare-related studies, in 2021-22 there were 8,425 students at all levels in some area of nursing, plus 2,440 in some area of medicine or medical sciences.

<sup>13</sup> Unfortunately, the data does not provide detail on the types of vacancies available, such as grades or professions.

<sup>14</sup> <https://www.nuffieldtrust.org.uk/resource/the-nhs-workforce-in-numbers#8-how-do-we-compare-to-other-countries>  
<https://www.bmj.com/content/380/bmj.p573>  
<https://lordslibrary.parliament.uk/staff-shortages-in-the-nhs-and-social-care-sectors/>

**Figure 1.5**

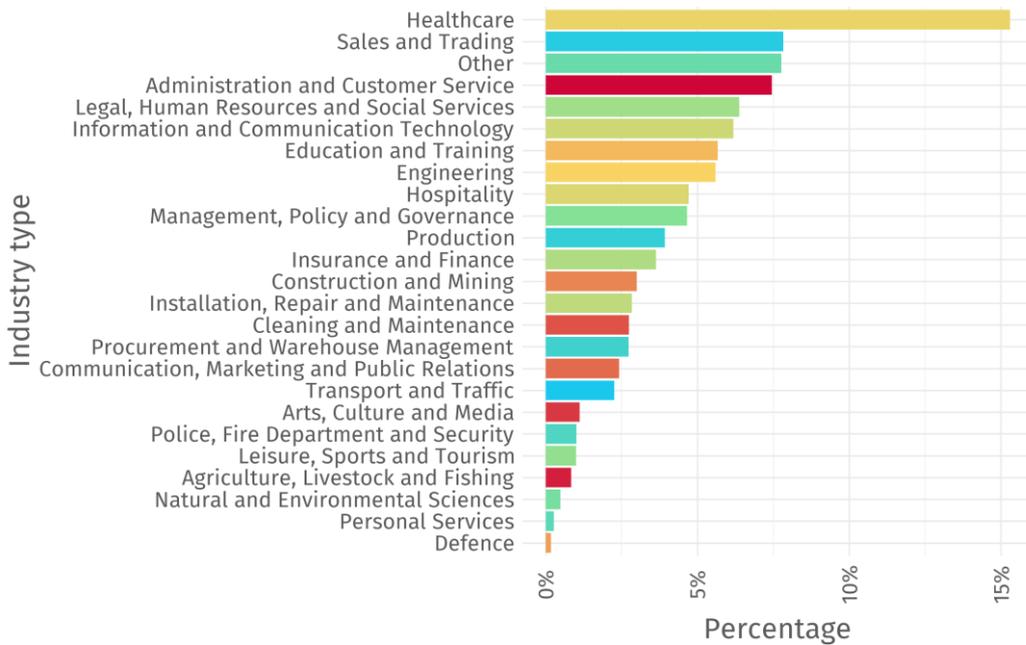
Percentage of vacancies available by nation and year – 2017-2022



Source: ONS, Textkernel online job adverts data, July 2023 release. ● Experimental statistics.

**Figure 1.6**

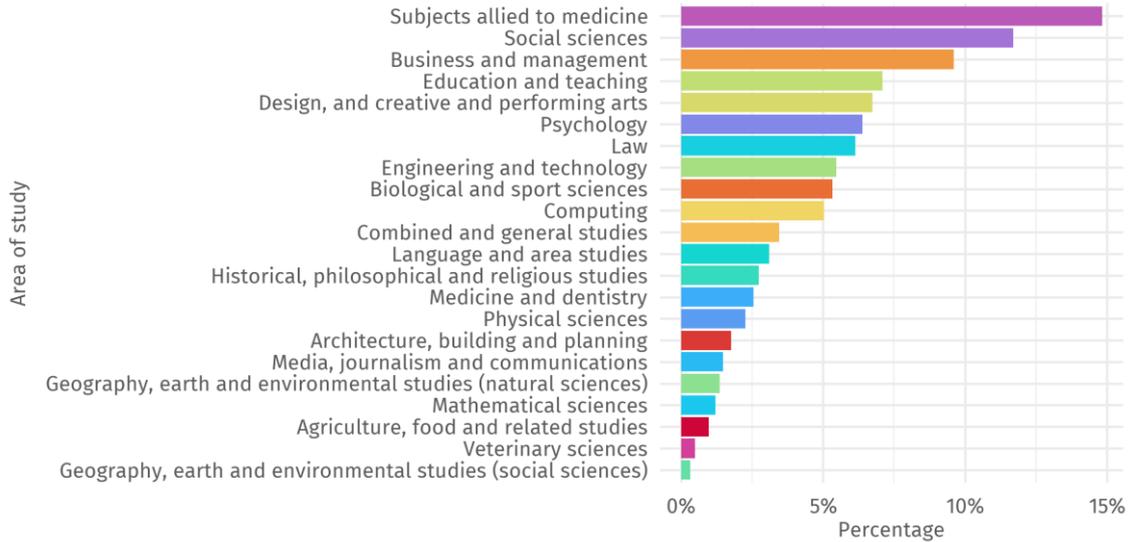
Percentage of vacancies in Wales in 2022 by industry



Source: ONS, Textkernel online job adverts data, July 2023 release. ● Experimental statistics.

**Figure 1.7**

Percentage of students enrolled in Wales in 2021/2022 by area of study

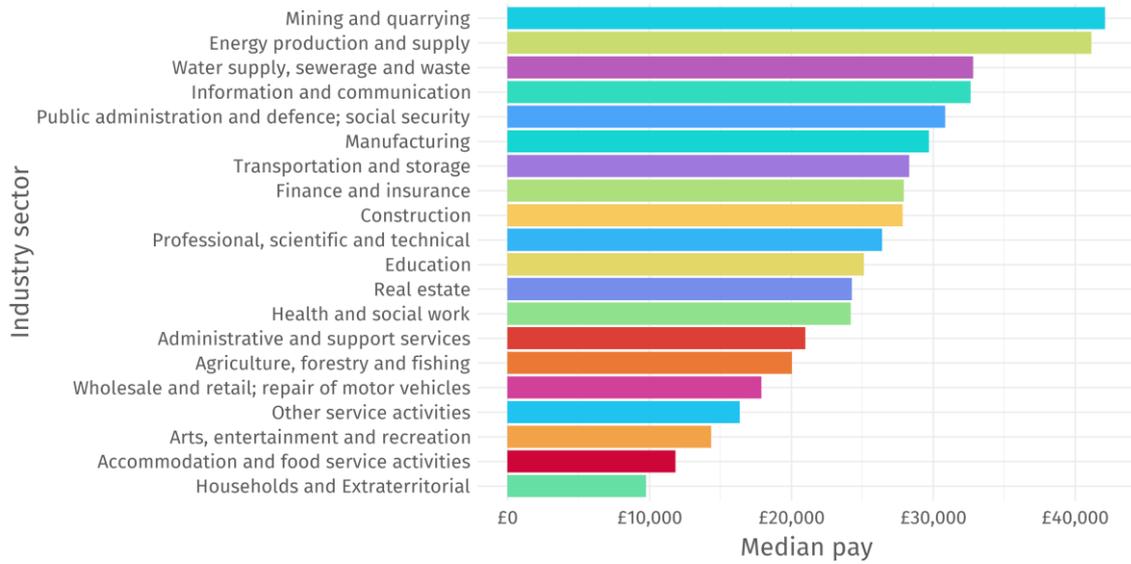


Source: Higher Education Statistics Agency

Finally, Pay As You Earn (PAYE) data can be analysed by region and sector (**Figure 1.8**), indicating that the highest paid sectors in Wales in 2022 were ‘mining and quarrying’, ‘energy production and supply’, and ‘water supply, sewage and waste’. These data are not disaggregated by profession within the industry, meaning it includes all grades and specialisation levels. Note, therefore, that the health sector, which is combined with social work, has a median annual wage of just under £25,000 – but this category includes medical doctors, administrators, nurses, social workers, and others, at all grades.

**Figure 1.8**

Median pay per sector in Wales for 2022



Source: Pay as You Earn, Real Time Information, HMRC.

# 2 Gender and age

## 2.1. Economic activity

Men and women experienced the 2008 recession and the Covid-19 pandemic differently. Women and men have historically tended to be irregularly distributed between different professions and employment sectors and, in turn, have been unevenly affected by the two most recent economic crises.<sup>15</sup> Women tend to have a larger presence in health and social care professions and were already more likely to work from home, meaning the economic effects of the pandemic on employment initially impacted women's employment levels less acutely. Notably, however, men's employment levels recovered more quickly after the pandemic than did levels for women.

The year-on-year percentage change (**Figure 2.1**) shows how each year's employment levels by gender differed from the next, helping us to pinpoint the impact of specific economic events. Note the significant difference in the axes (scales) used in **Figure 2.1**, which demonstrates the extent to which the economic activity of the youngest and oldest individuals in society are more susceptible to changes in the economic environment. Activity levels for those making up the larger part of the workforce, i.e. individuals aged 18-64, are subject to smaller changes, although there is slightly more volatility in this measure for individuals between the ages of 18 and 24. Volatility here means greater change from year to year and thus, individuals moving from activity to inactivity. Therefore, when we discuss groups, we see changes between -2% and 3%, which is expected given that they are the majority of the economically active population, being post-school age and pre-retirement age.

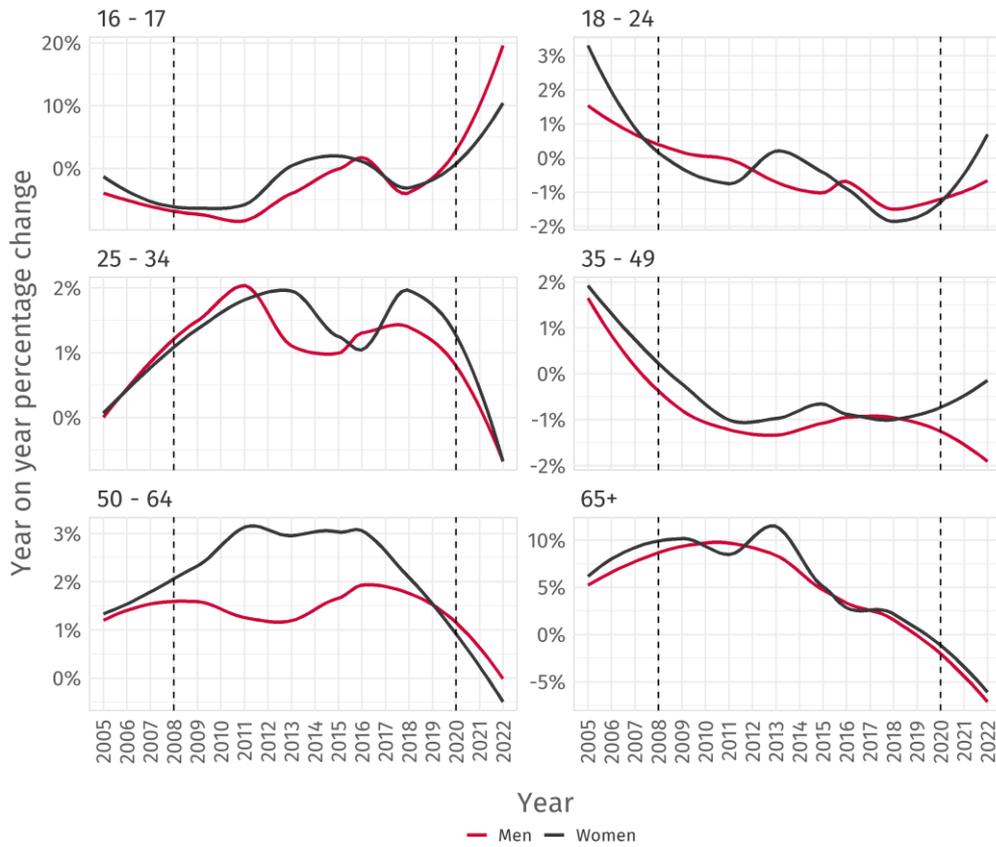
Activity rates for men aged 35-49 are the most stable, with a downward trend after the 2008 recession and a sharp drop during the pandemic. Women in the same age bracket also faced a downward turn in 2008, but not during the pandemic. The decrease in economic activity by men in that age cohort after the 2008 recession did not see a recovery to previous levels until after the pandemic.

Activity rates of women aged 35-49 were already on a decreasing trend prior to the 2008 recession, a crisis which only reinforced that trend. Although women aged 35-49 experienced relatively higher economic activity during the pandemic, this group had more 'ground to gain', given its previous decline in economic activity. Activity rates for women aged 25-34 experienced a peak in yearly change at the height of the Covid pandemic, but a sharp decline in the subsequent period. Women between 50 and 64 had their pension aged changed in the time analysed and their economic activity is quite volatile when compared with men of the same age.

<sup>15</sup> Irvine, et al. *Women and the UK economy*. Research Briefing, House of Commons Library. 4 March 2022. <https://researchbriefings.files.parliament.uk/documents/SN06838/SN06838.pdf>

**Figure 2.1**

Year-on-year percentage difference in economic activity by gender and age in Wales – 2005-2022



Source: Labour Force Survey, April 2023 release. ● Note: Scales on y-axis are different for each plot. Lines smoothed with locally weighted line smoother (loess).

In contrast to the levels of economic activity shown in **Figure 2.1**, levels of economic inactivity (**Figure 2.2**) are more volatile for individuals aged 25-49 as these individuals will shift between being active and inactive. There are many possible reasons for this volatility, including instability in the labour market. Delaying parenthood<sup>16</sup> is one possible factor which might account for the overall increase in economic inactivity for women 35-49 in comparison with younger women. Note that men’s inactivity rates increase more sharply during economic crises, while women have more stable activity. This may indicate that personal life events and longer-term planning might be more relevant for women’s decisions regarding

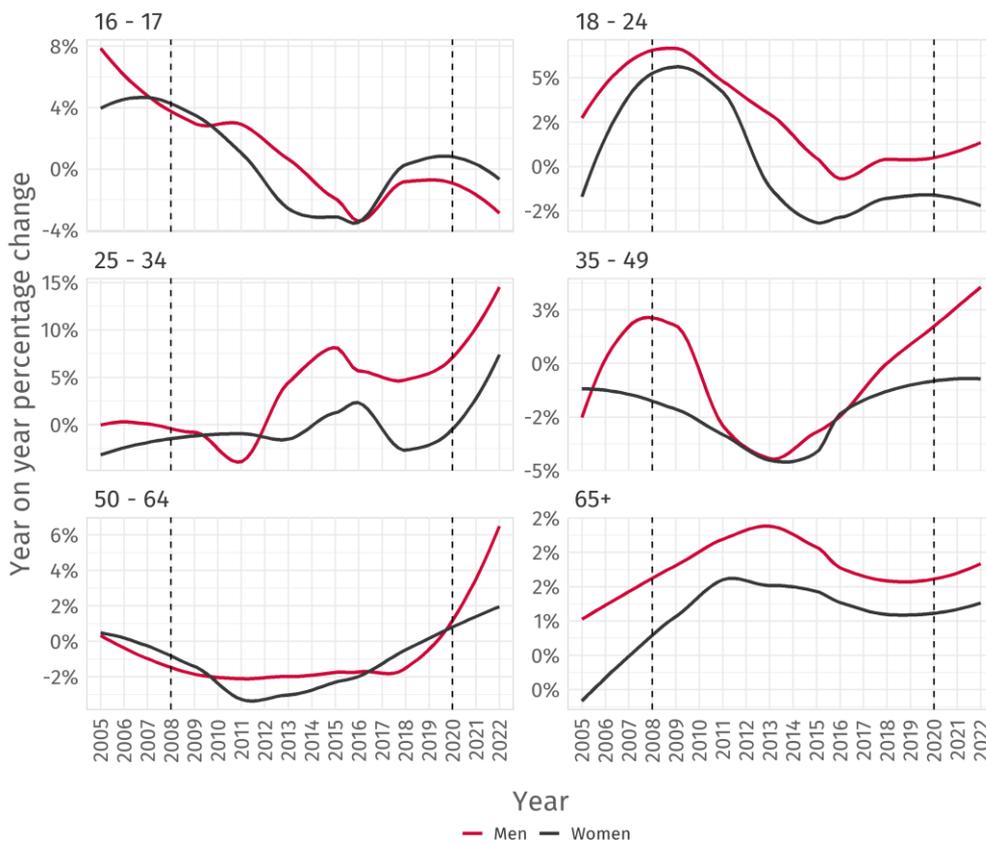
<sup>16</sup> Office for National Statistics, *Childbearing for women born in different years, England and Wales: 2020*, 27 January 2022. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/conceptionandfertilityrates/bulletins/childbearingforwomenbornindifferentyearsenglandandwales/2020>

their employment and economic activity rather than contextual, relatively shorter-term (but large-scale) economic events.

Delayed retirement, perhaps due to economic pressures and changes in retirement age, is likely changing the overall landscape of job vacancies available. **Figure 2.3** indicates that continuing education and training are particularly relevant for men in their stated reasons for economic inactivity. It is possible that those in their late 30s and early 40s have been looking to retrain to adapt to changing job market expectations.

**Figure 2.2**

Year-on-year percentage change in economic inactive population by gender and age bracket in Wales – 2005-2022



Source: Labour Force Survey, April 2023 release. ● Note: Scales on y-axis are different for each plot. Lines smoothed with locally weighted line smoother (loess).

The main reasons given for economic inactivity by individuals in Wales are being a student, caring for a family or an individual, temporary or long-term illness, and retirement. A small section of the economically inactive population (1.5%) reports being discouraged by the search for employment, with more men than women reporting this.

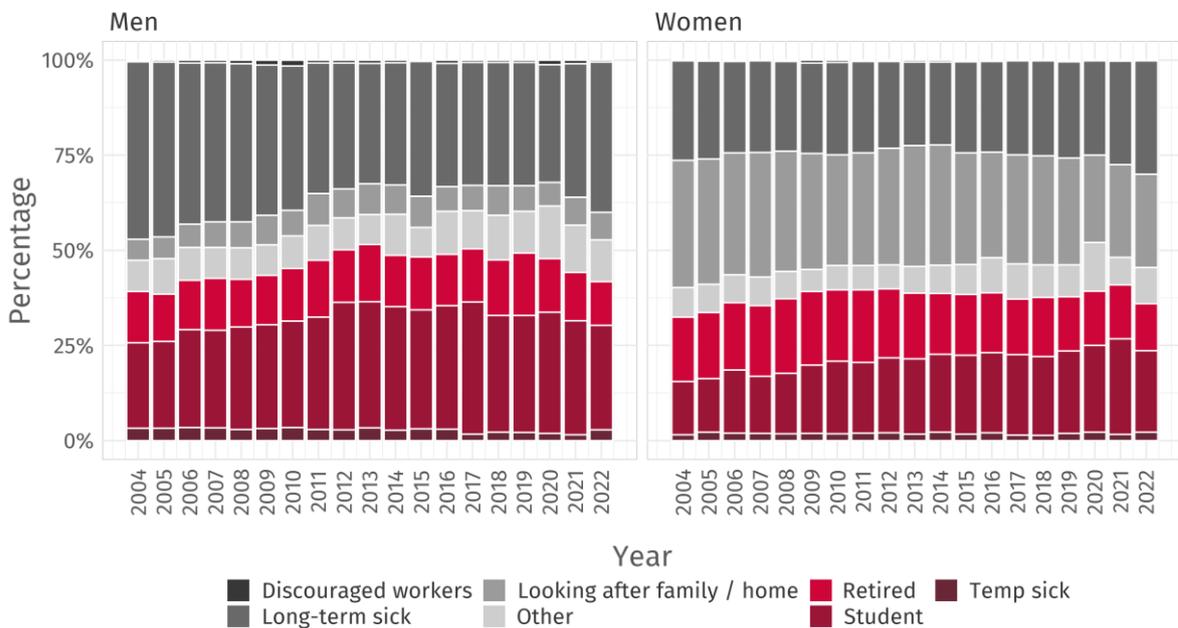
Inactivity over time shows different patterns in behaviour in the population. During economic shocks, inactivity often rises as a result of people deciding to retire or feeling the

need to temporarily exit the labour market by re-training full-time. Young people also tend to increase their inactivity rates during such periods by remaining dependent on parents for longer or by becoming full-time students. Policy decisions also affect these trends, with increased pension age in particular having the effect of decreasing economic inactivity for those aged 50-64 and increasing activity for those aged 65+.<sup>17</sup>

Looking more closely at the differentiation between genders, long-term illness is a more prevalent reason for economic inactivity for men, and looking after family/home a more frequent answer for women. Being a student is also a more common response for men, although more recently this reason has increased among women respondents.

**Figure 2.3**

Reasons given for economic inactivity by gender in Wales – 2004-2022



Source: Labour Force Survey, April 2023 release.

Reviewing the year-on-year percentage change for reasons for inactivity by gender in **Figure 2.4** reinforces the understanding that short-term economic turmoil has less bearing on women’s choices with regards to economic activity or inactivity; in other words, that women are more likely to make such choices regardless of the economic context. Note that the lines for women in **Figure 2.4** are more stable than men’s, particularly for carers, students, and those experiencing temporary sickness, meaning that the relative year-on-year changes do

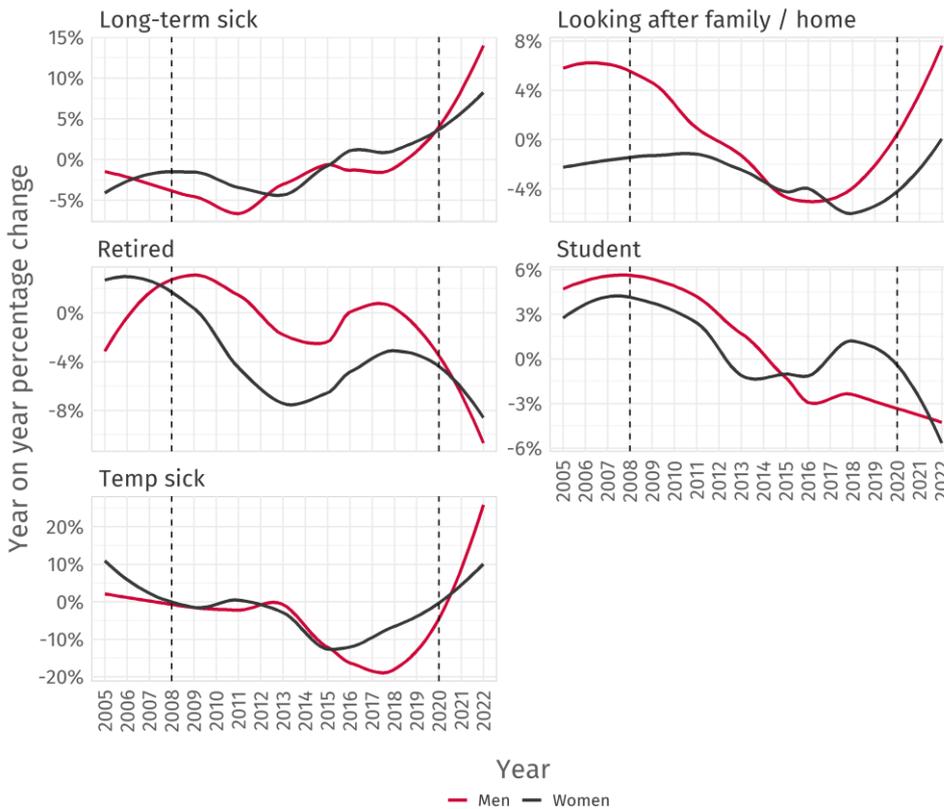
<sup>17</sup> Office for National Statistics and HM Revenue and Customs. *Earnings and employment from Pay As You Earn Real Time Information: Statistical bulletin*. 15 November 2022. <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/earningsandemploymentfrompayasyouearnrealtimeinformationuk/latest#regional-data>

not vary as much. Men, on the other hand, seem to choose pathways other than employment once that becomes a less likely scenario, particularly retirement (post-2008 recession) and schooling (Covid-19). Looking after home or family also becomes a more likely activity for men after economic downturns. Notably, women make-up approximately 90% of individuals who are economically inactive due to caring responsibilities at any given year. In 2020, there was a drop of 5.8% in women reporting their economic inactivity was due to caring responsibilities – while this can be attributed to any number of reasons, it is possible that more flexibility in working arrangements along with need for increased income has had a non-negligible impact in economic activity for women.

Long-term sickness as a reason for inactivity has increased for both genders, however this is a reason that varies widely for men and cannot necessarily be attributed to effects of the pandemic. Nevertheless, since 2020, there has been a spike in both men and women giving long-term sickness as reason for inactivity. Temporary sickness, however, has been increasing since 2019, that is, prior to the Covid-19 pandemic, especially for men.

**Figure 2.4**

Year-on-year change in reasons for economic inactivity by gender in Wales – 2004-2022

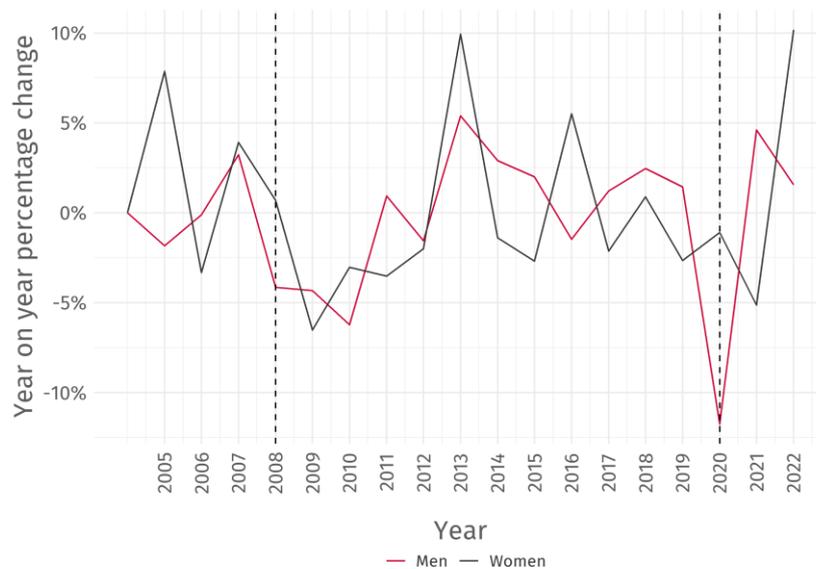


Source: Labour Force Survey, April 2023 release. ● Note: Scales on y-axis are different for each plot. Lines smoothed with locally weighted line smoother (loess).

A rising concern has been young men have not been able to recover post-pandemic and are on a trend towards ‘worklessness’.<sup>18</sup> While for the UK there has been a rising trend for young women in employment, the Resolution Foundation does not report a trend in worklessness for young men, and also highlights an important ethnicity gap that needs to be addressed.<sup>19</sup> Year-on-year percentage changes in employment rates for that age group confirm the trend in **Figure 2.5**, namely, that young men have higher employment rates overall and therefore appear to suffer bigger losses. But employment levels for young men also recover more quickly than those for young women after periods of economic turmoil.

**Figure 2.5**

Year-on-year percentage difference in employment by gender for the 18-24 bracket in Wales – 2005-2022



Source: Labour Force Survey, April 2023 release.

### 2.3. Pay differences and employment patterns

As widely documented by scientific evidence, pay differences are present in labour markets across the globe as a result of structural inequalities. Overall, women earn less while working the same positions as men or are engaged in patterns of employment that are alternatives to full-time work such as part-time, flexitime, and zero-hour contracts, all of which tend towards lower rates of pay. Access to childcare and equal pay policies also significantly

<sup>18</sup> Sara O'Connor “Young men are slipping quietly through the economy’s cracks,” *Financial Times*, 28 June 2022, accessed 23 November 2022. <https://www.ft.com/content/388440d8-2dc7-4e3f-8107-b4b55edb8c6c>

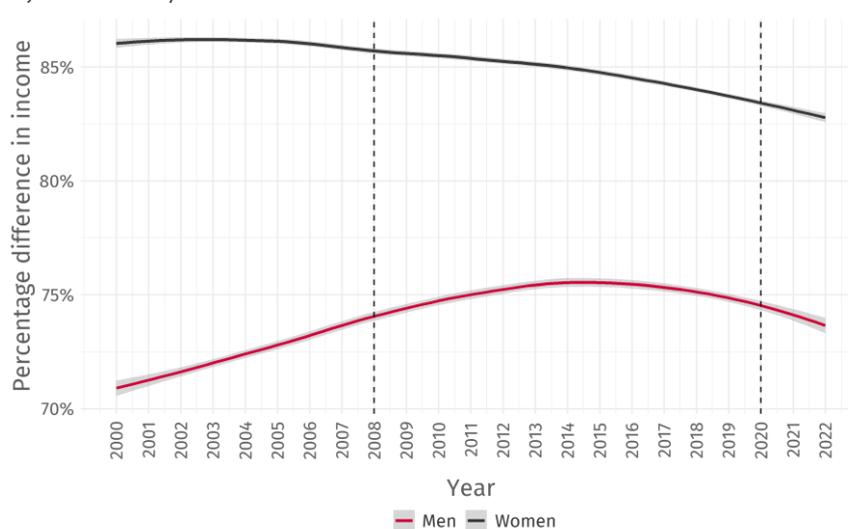
<sup>19</sup> Murphy, L. *Not working: Exploring changing trends in youth worklessness in the UK, from the 1990s to the Covid-19 pandemic*, Resolution Foundation, June 2022.

influence employment and income levels for women. Additionally, sector segregation means women tend to be employed in fields that earn lower wages.<sup>20</sup>

As shown in **Figure 2.6**, the relative difference in earnings between higher and lower earners is more pronounced among women than it is for men; this is likely a consequence of a wider variation in patterns of employment given among women. **Figure 2.9** also provides evidence of this greater variation by showing the prevalence of part-time work and/or flexible working arrangements for women.

### Figure 2.6

Relative difference in the median income of highest and lowest earners in Wales by gender, (real terms, 2015 = 100)



Source: Annual Survey of Hours and Earnings, October 2022 release. Deflated with the CPIH Index by the ONS (2015 = 100). Lines smoothed with locally weighted line smoother (loess). ● Shaded area indicates confidence interval.

<sup>20</sup> [https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/gender-equality/equal-pay/gender-pay-gap-situation-eu\\_en](https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/gender-equality/equal-pay/gender-pay-gap-situation-eu_en)  
[https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Gender\\_pay\\_gap\\_statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Gender_pay_gap_statistics)  
<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/genderpaygapintheuk/2022>

Barone, Carlo, and Giulia Assirelli. 2020. 'Gender Segregation in Higher Education: An Empirical Test of Seven Explanations'. *Higher Education* 79 (1): 55–78. <https://doi.org/10.1007/s10734-019-00396-2>.

Evans, David K., Maryam Akmal, and Pamela Jakiela. 2021. 'Gender Gaps in Education: The Long View'. *IZA Journal of Development and Migration* 12 (1): 20210001. <https://doi.org/10.2478/izajodm-2021-0001>.

Francis-Devine, Brigid. 2023. 'The Gender Pay Gap', March. <https://commonslibrary.parliament.uk/research-briefings/sn07068/>.

Lindley, Joanne Kathryn. 2016. 'Lousy Pay with Lousy Conditions: The Role of Occupational Desegregation in Explaining the UK Gender Pay and Work Intensity Gaps'. *Oxford Economic Papers* 68 (1): 152–73. <https://doi.org/10.1093/oep/gpv056>.

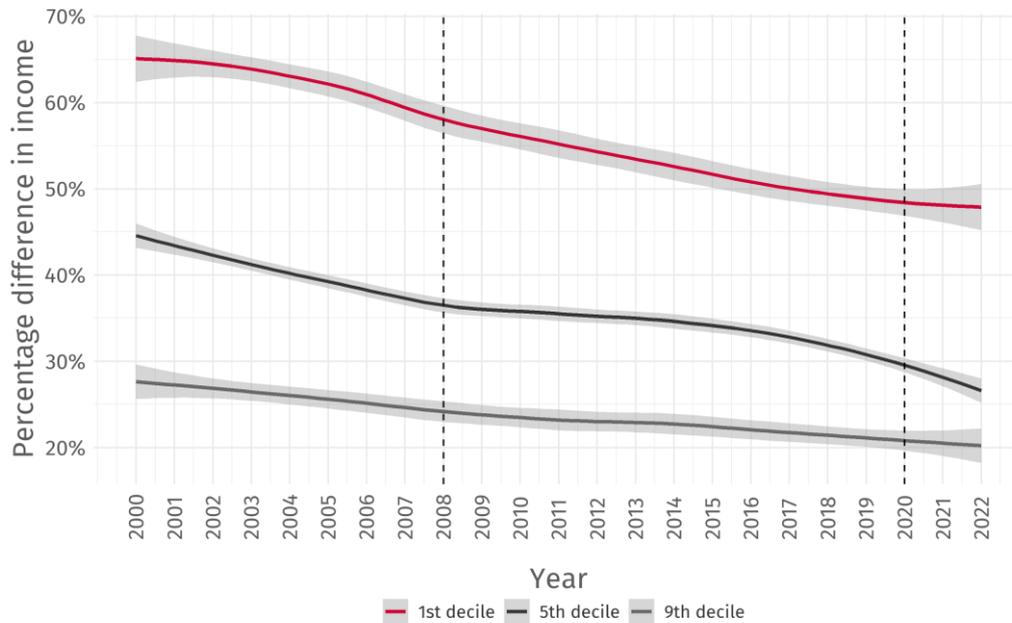
Nascimento, Daniele Vieira do, Takudzwa Mutize, and Jaime Felix Roser Chinchilla. 2021. 'Women in Higher Education: Has the Female Advantage Put an End to Gender Inequalities? - UNESCO Digital Library'. UNESCO IESALC. <https://unesdoc.unesco.org/ark:/48223/pf0000377182>.

The gender pay gap – the difference in earnings between men and women – is also higher for lower income earners and decreases with increased pay scales (Figure 2.7). Note that over the past twenty years, the gender pay gap among the 1<sup>st</sup> (lowest paid) and 5<sup>th</sup> (median) deciles of earners has decreased (although with a recent increase for the lowest-paid decile), but stagnates for the 9<sup>th</sup> decile, the highest income category. Although stagnant over time, the overall gender pay gap for median earners is closer to that of the highest earners than it is to the gender gap among the lowest paid earners.

When accounting for full-time and part-time work (due to women’s increased presence in the latter), the gender pay gap oscillates between negative and positive (Figure 2.8). Overall there is a declining trend, one which is also reflected for employees in full-time work. Part-time employees, however, have a different experience. Women in part-time work generally earn more than men in part-time work, except between 2004 and 2008 and some small peaks above zero in 2015 and 2019.

**Figure 2.7**

Gender gap by income decile in Wales, (real terms, 2015 = 100)



Source: Annual Survey of Hours and Earnings, October 2022 release. Deflated with the CPIH Index by the ONS (2015 = 100). ● Note: Shaded area indicates confidence interval.

There is little evidence on the impact of equal pay policies across pay scales,<sup>21</sup> but given known research on women's use of time and ability to organise,<sup>22</sup> it remains a concern that the gender wage gap is concentrated among workers earning the lowest incomes. Such gender imbalance in the incomes of Welsh workers may indicate that women are less able to participate in activities such as union meetings, become delegates to vote in national plenary sessions, or participate in other political activities, circumstances that could impact decisions that affect their pay. This lack of participation has been identified in other areas of political activity and has frequently been attributed to women's work and care schedules, and to their lack of power in political institutions.<sup>23</sup>

As illustrated in **Figure 2.9**, although the number of men in part-time work increased slightly between 2004 and 2022, its level remains at less than 25% of all men's employment. For women, on the other hand, part-time work represents nearly 50% of employment. Overall, women make up approximately three-quarters of all part-time employees.

When observing the figures for second jobs, this difference is even more dramatic (**Figure 2.10**). Although there has been an increase in men in part-time work, with roughly 25% of men in second jobs employed part-time, for women in second jobs, nearly 75% work part-time. Again, for all individuals with second jobs, women make up between 69% and 78% of part-time employees.

Zero-hour contracts are the employment mode for between 2 to 3% of employees in all UK nations, and women are roughly 60% of those in this type of precarious employment. This difference is smaller in Wales, where the use of zero-hour contracts has decreased slightly overall.

<sup>21</sup> Coelho, Maria Delgado, Aieshwarya Davis, Alexander Klemm, and Carolina Osorio Buitron. 2022. *Gendered Taxes: The Interaction of Tax Policy with Gender Equality*. Accessed 12 April 2023. <https://www.elibrary.imf.org/view/journals/001/2022/026/001.2022.issue-026-en.xml>.

Gamage, Danula Daksith Kankanam, Georgios Kavetsos, Sushanta Mallick, and Almudena Sevilla. 2020. *Pay Transparency Initiative and Gender Pay Gap: Evidence from Research-Intensive Universities in the UK*. SSRN Scholarly Paper. Rochester, NY. <https://doi.org/10.2139/ssrn.3682949>.

<sup>22</sup> [https://eige.europa.eu/gender-statistics/dgs/browse/ta/ta\\_timeuse](https://eige.europa.eu/gender-statistics/dgs/browse/ta/ta_timeuse)  
<https://www.durham.ac.uk/business/news-and-events/news/2023/02/trade-union-increase-in-female-membership/>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1077904/Trade\\_Union\\_Membership\\_UK\\_1995-2021\\_statistical\\_bulletin.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1077904/Trade_Union_Membership_UK_1995-2021_statistical_bulletin.pdf)

<sup>23</sup> Araújo, Clara. 2010. *Rotas de Ingresso, Trajetórias e Acesso Das Mulheres Ao Legislativo: Um Estudo Comparado Entre Brasil e Argentina*. *Revista Estudos Feministas* 18 (2): 567–84. <https://doi.org/10.1590/S0104-026X2010000200016>.

Bjarnegård, Elin. 2013. *Gender and Politics: Explaining Male Dominance in Parliamentary Representation*. Gender and Politics Series. Houndmills, Basingstoke, Hampshire: Palgrave Macmillan.

Bjarnegård, Elin, and Meryl Kenny. 2015. *Revealing the "Secret Garden": The Informal Dimensions of Political Recruitment*. *Politics & Gender* 11 (04): 748–53. <https://doi.org/10.1017/S1743923X15000471>.

Lawless, Jennifer L., and Richard Fox. 2010. *It Still Takes a Candidate - Why Women Don't Run for Office*. New York: Cambridge University Press.

Peixoto Gomes, Larissa, James Downe, and Manon Roberts. 2022. *Reform of Electoral Law and Practice* Wales Centre for Public Policy - Cardiff University. <https://doi.org/10.54454/20220325>.

**Figure 2.8**

Gender gap by pattern of work in Wales, (real terms, 2015 = 100)



Source: Annual Survey of Hours and Earnings, October 2022 release. Real terms calculated by the authors with the CPIH deflator by the ONS (2015 = 100).

**Figure 2.9**

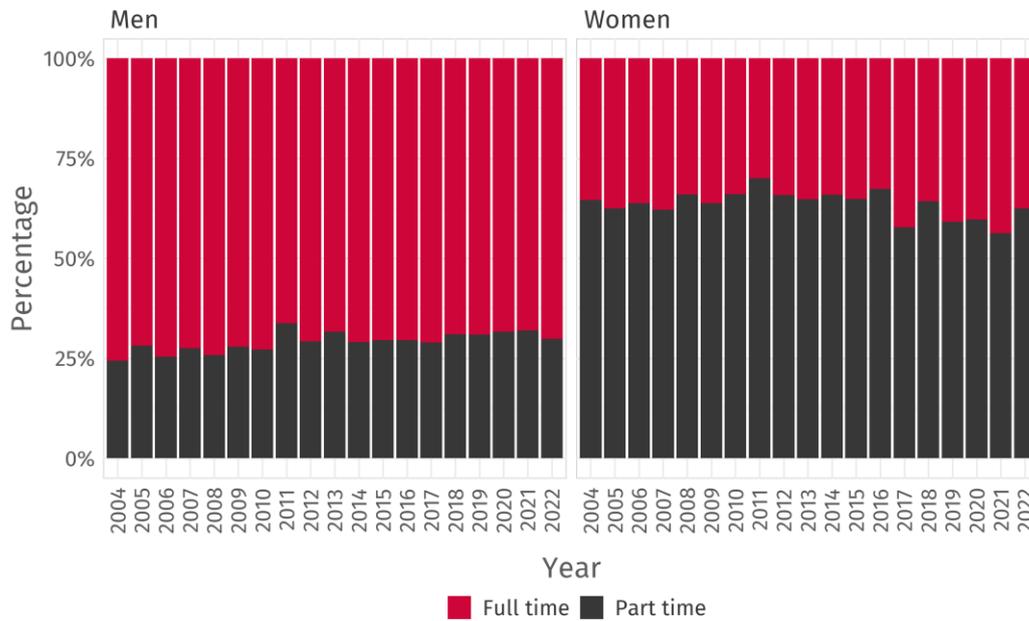
Employment pattern in Wales by gender in main job – 2004-2022



Source: Annual Population Survey.

**Figure 2.10**

Second jobs' employment pattern in Wales by gender – 2004-2022



Source: Annual Population Survey.

As shown in **Figure 2.11**, women's median income varies less than men's, meaning they are less susceptible to major changes in economic contexts, although overall levels of income are more stagnant for women. Men's median earnings were at their highest in the early 2000s, with a severe downturn around the time of the 'dotcom crash'. Following a rising trend prior to 2008, that recession once again meant a severe decline in men's incomes, which, in real terms, have not returned to their pre-recession peak.

Over their lifetime (**Figure 2.12**), women's incomes vary little, while men's incomes increase considerably as they age. Men's and women's incomes are at their closest when under 34, arguably at the start of their careers. The distance increases between men and women during middle age and decreases for those aged 65+, but never becomes as close as it is earlier in their lives.

It is important to note that this lifetime income gap also leads to a pension gap, having an impact on the quality of life for older women in comparison to men. For tax year 2020-2021, the median annual pension for women was £25,200, while men's was £30,615; the majority of men within the survey, 84,000, received an annual pension of £23,714, while the majority of women, a number of 54,000, received £17,178.<sup>24</sup>

<sup>24</sup> Data from HMRC, Table 3.11, released March 2023.

**Figure 2.11**

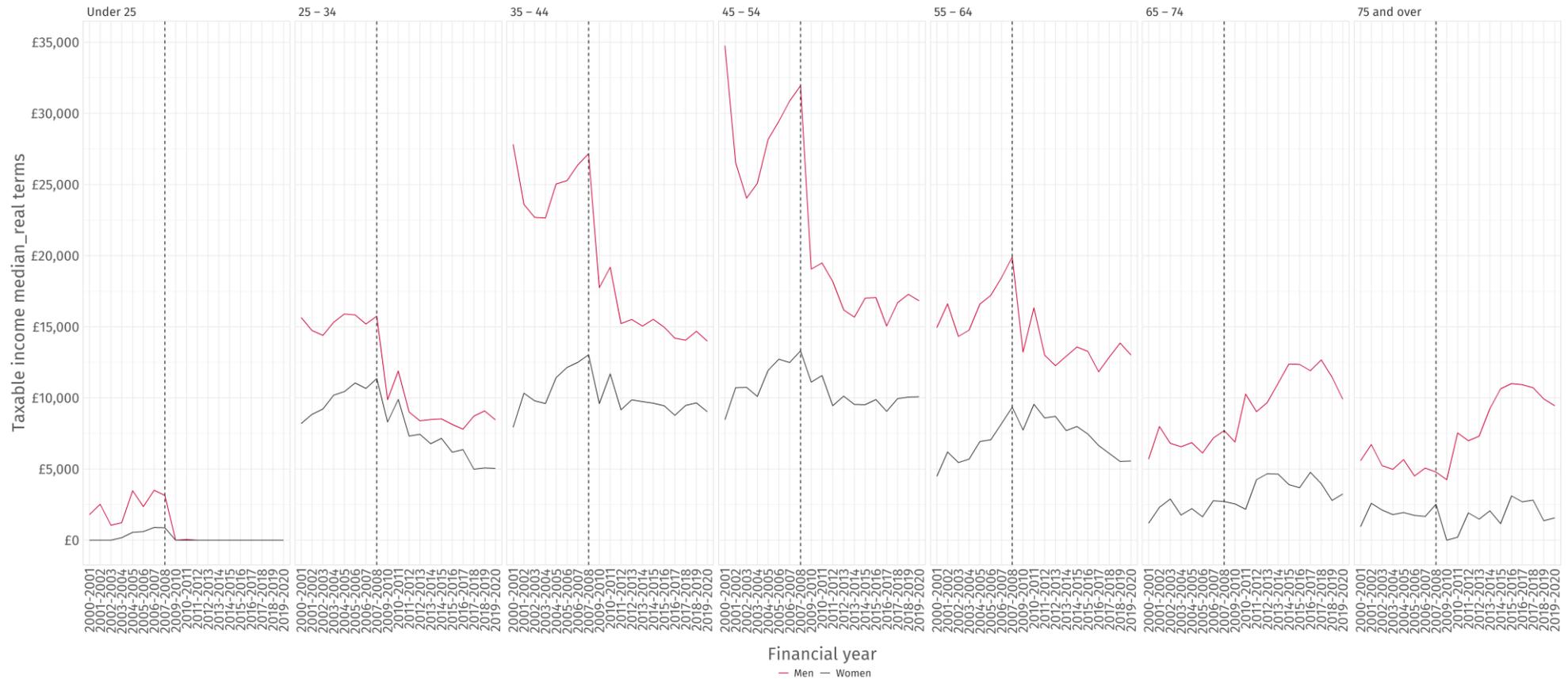
Taxable income by gender in Wales – 2002-2020



Source: HMRC, Survey of Personal Incomes, June 2022 release. ● Notes: No information is available for the financial year of 2008-2009. For the visualisation of the chart, that year was removed. Real terms calculated by the authors with the CPIH deflator by the ONS (2015 = 100).

**Figure 2.12**

Taxable median income by gender and age in Wales, (real terms in 2015 prices) – 2002-2020

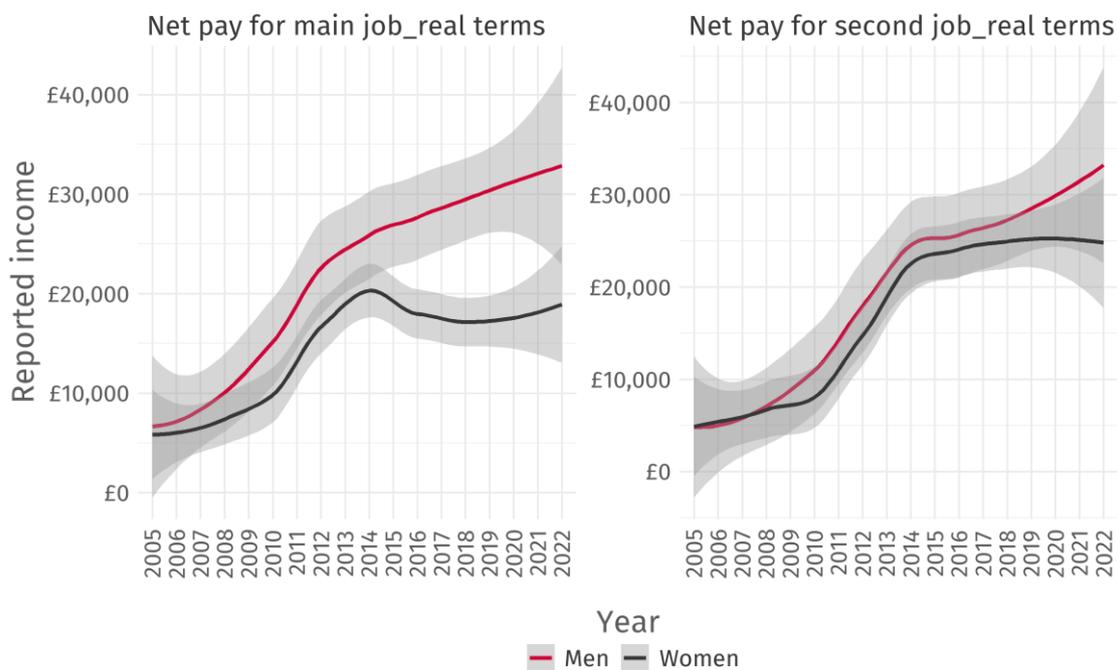


Source: HMRC, Survey of Personal Incomes, June 2022 release. ● Notes: No information is available for the financial year of 2008-2009. For the visualisation of the chart, that year was removed. Real terms calculated by the authors with the CPIH deflator by the ONS (2015 = 100).

Income from second jobs can significantly impact an individual's quality of life. Between men and women there is a smaller gap in income from second jobs, although that has widened recently (**Figure 2.13**). At the last year of data, women's income from their second jobs is roughly £10,000 higher than incomes from main jobs. Main jobs likely offer benefits, pensions and greater stability, while second jobs might be part-time, informal, or even self-employment in small, unregulated businesses (such as arts and crafts, child-minding, or gig economy jobs). Therefore, there is a reason for maintaining both despite the difference in pay. Men, on the other hand, receive their majority pay from their main job, although second jobs for them have also increased in income.

**Figure 2.13**

Net pay for main and second jobs by gender in Wales, (real terms in 2022 prices)



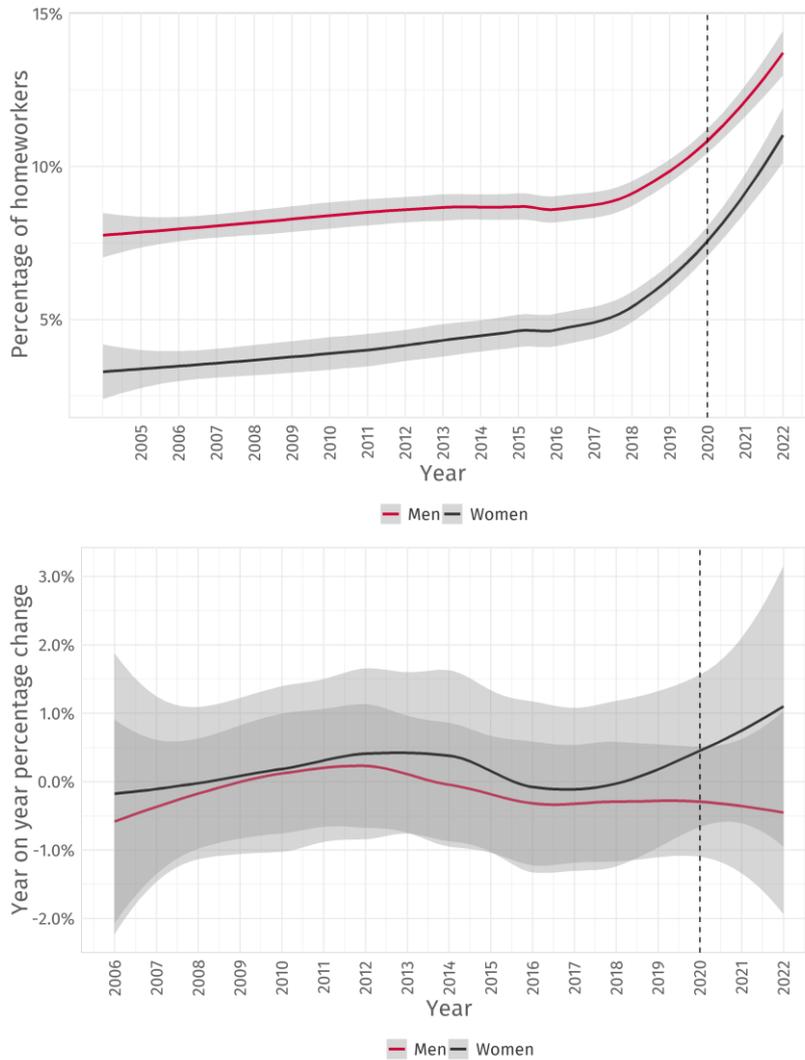
Source: Annual Population Survey. Real terms calculated by the authors with the CPIH deflator by the ONS (2015 = 100). ● Note: Shaded area indicates confidence interval.

Data from the Annual Population Survey (APS) corroborates that women are likely to have increased their economic activity due to changes in work patterns since the Covid-19 pandemic. A shift to normalising working from home means that more women can now enter the workforce without having to pay for childcare. The year-on-year percentage change shows that since 2019, there has been a nearly 3% increase in women working from home, whereas in previous years that number was under 1% (**Figure 2.14**). There has also been an increase in men working from home, but not as significant. A similar peak for both genders was seen in 2004-2005, likely due to an increase in costs in childcare, but no data is

available for Wales.<sup>25</sup> Relative to people working outside the home, these increases are quite clearly evidenced and linked to the pandemic. Despite the increase of women working from home their numbers as homeworkers are still lower than men's.

**Figure 2.14**

Percentage of homeworkers relative to non-homeworkers and year-on-year percentage change in work from home by gender in Wales – 2004-2022



Source: Annual Population Survey. ● The nominal values begin in 2004, but that year is excluded from the plots (as is 2005 from the year-on-year) due to lack of values and interference in the visualisation. Shaded areas indicate confidence interval.

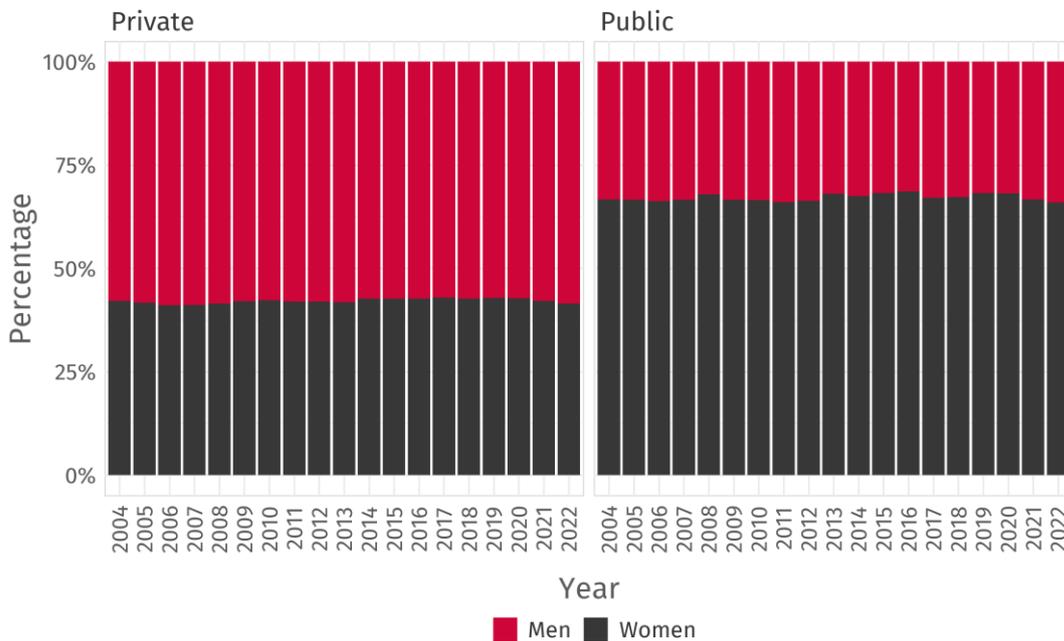
One important aspect that affects both women's wages and their working patterns is their higher presence in the Welsh public sector. Overall, women make up just shy of 70% of the

<sup>25</sup> <https://www.theguardian.com/money/2004/feb/07/childcare.childrenewservices>  
[https://www.familyandchildcaretrust.org/sites/default/files/Resource%20Library/Cost\\_survey2008.pdf](https://www.familyandchildcaretrust.org/sites/default/files/Resource%20Library/Cost_survey2008.pdf)  
<https://www.walesonline.co.uk/news/wales-news/grans-step-save-childcare-fees-2425948>

public sector workforce in Wales in the period analysed, compared with between 41 and 43% of the private sector workforce. Almost 50% of economically active women work in the public sector, which in the APS includes public administration, education, and health (Figure 2.15). Although the public sector is thought to pay less than the private sector, this does not occur in Wales as demonstrated in the APS data. It also means more stability and likely work with set hours. The public sector tends to have a smaller pay gap for full time employment and more comprehensive parental leave stipulations.<sup>26</sup> On the other hand, parental leave in Wales is defined by each public body, rather than by a single Welsh statute.

**Figure 2.15**

Percentage of men and women in the public sector in Wales – 2004-2022



Source: Annual Population Survey.

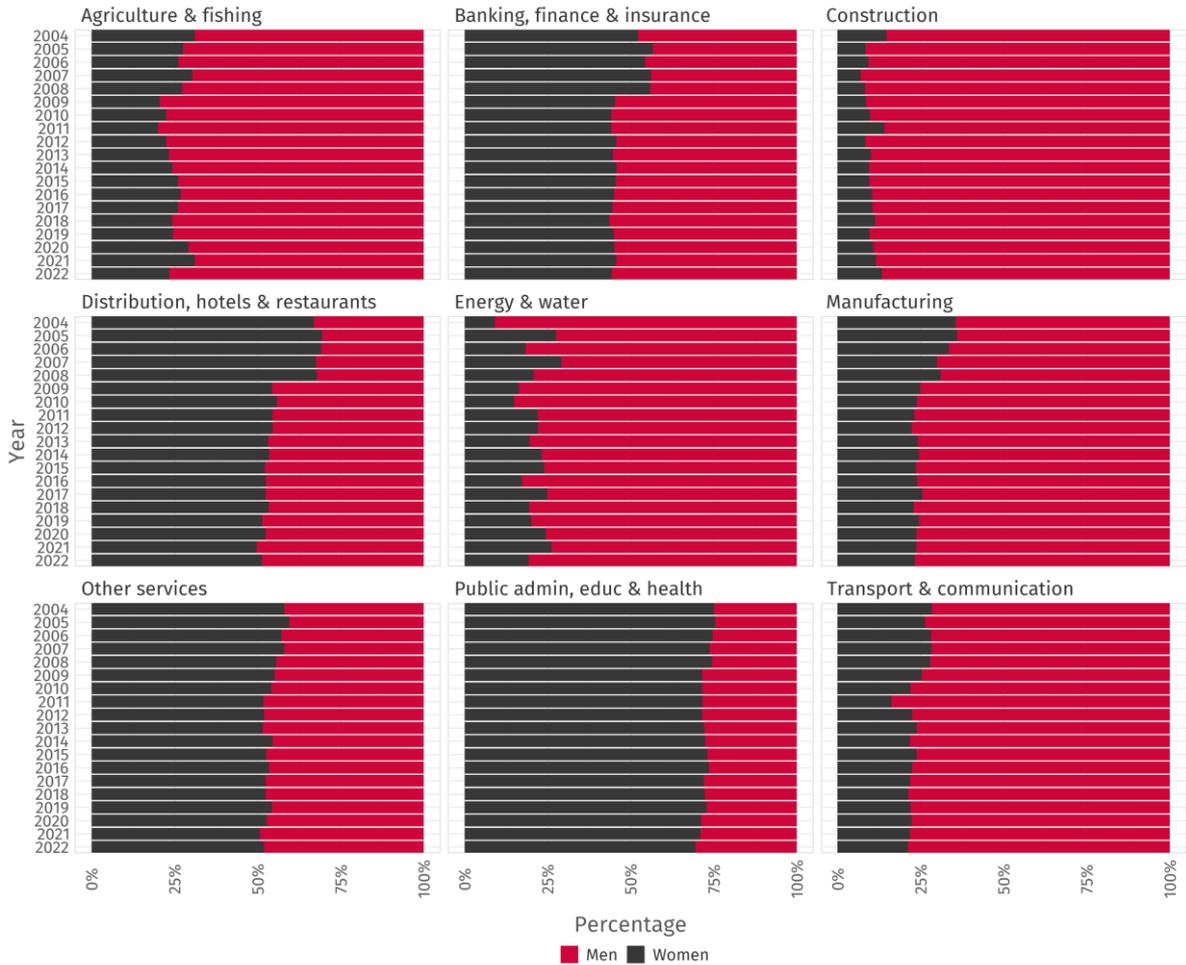
In addition to the public sector, women constitute a majority of the workforce in the service industry, although this percentage has decreased since the 2008 recession (Figure 2.16). Relative numbers also declined in the banking, finance, and insurance industry immediately after the recession, and have since stabilised at this lower rate. These sector categories are simplified to permit disaggregation by gender and analysis, but they do not differentiate in profession and grade level. This means there is possibly great variation among levels of specialisation within the categories.

<sup>26</sup> Francis-Devine, Brigid. 2023. *The Gender Pay Gap*, March. <https://commonslibrary.parliament.uk/research-briefings/sn07068/>.

<https://www.equalityhumanrights.com/en/managing-pregnancy-and-maternity-workplace/pregnancy-and-maternity-discrimination-research-findings>

**Figure 2.16**

Percentage of men and women in industry sectors in Wales – 2004-2022



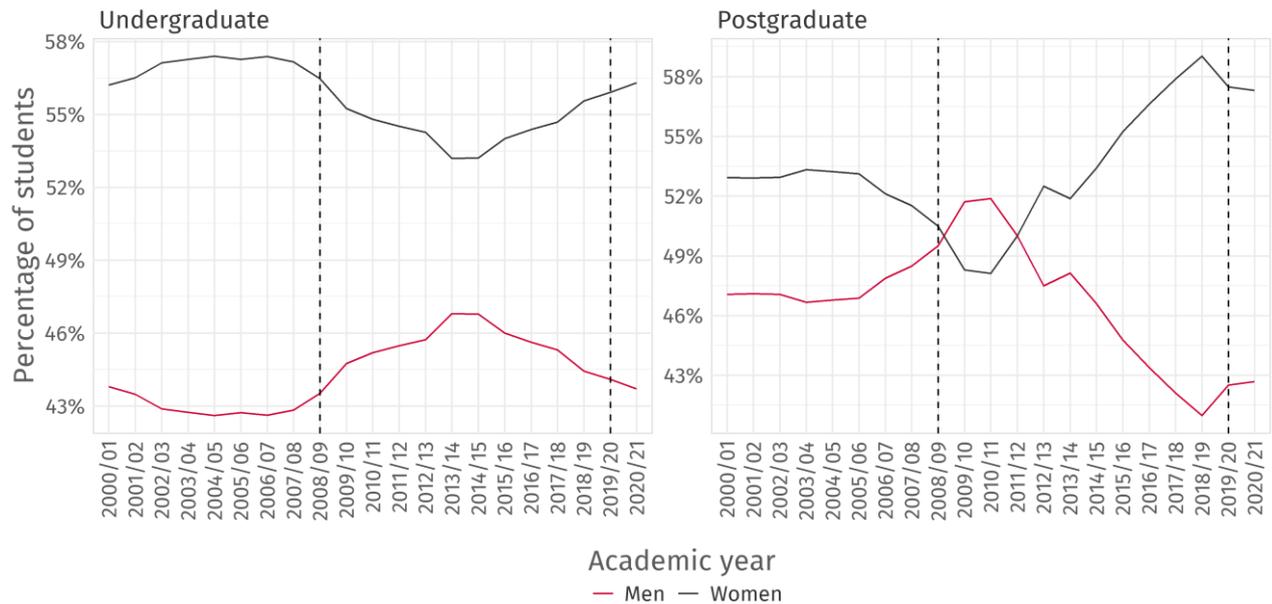
Source: Annual Population Survey.

In line with global trends<sup>27</sup>, Welsh women constitute the majority in both undergraduate and postgraduate degrees, despite a decreasing trend that was reinforced immediately after the 2008 recession. Men switching into higher education during and after the recession and the pandemic meant an increase in men’s participation rates, which meant a brief majority of men postgraduate students after the last global financial crisis. After this initial reset, the rate of women as undergraduate and postgraduate students once again increased, reinforcing the trend prior to the pandemic. Both genders have increased their presence in postgraduate education by approximately 10% over the period analysed.

<sup>27</sup> [https://www3.weforum.org/docs/WEF\\_GGGR\\_2022.pdf](https://www3.weforum.org/docs/WEF_GGGR_2022.pdf)

**Figure 2.17**

Percentage of undergraduate and postgraduate students in Wales by gender and level



Source: Higher Education Statistics Agency, StatsWales.

Men are more likely to be in full-time education, and their participation in that mode of education increased in the years immediately following the 2008 recession. In terms of participation in *either* full-time *or* part-time education, however, men's participation rates have been decreasing. Women are more likely to be in part-time education, with those numbers increasing considerably after academic year 2013-14. For both modes of education, trends are similar, with men increasing their participation after 2008 and women decreasing their participation over the same period. There seems to be a distinct increase of women in part-time education after the pandemic, a trend that should be closely monitored going forward.

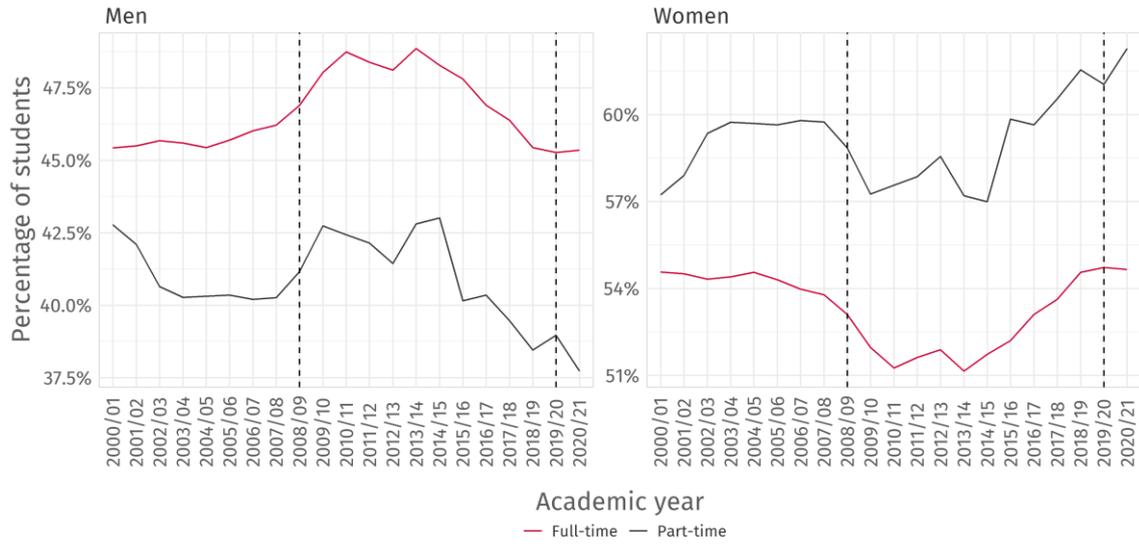
Men's decreasing participation in education has been a topic of debate for many years and in many countries. Often, the conclusion is of women attaining education that might be required of them, but not of men in similar fields as women are not only the majority in classrooms, but also tend to have more years of formal education. As with industry sectors, there is still a gender segregation in education, which means these trends are not equal throughout disciplines.<sup>28</sup>

<sup>28</sup> Nascimento, Daniele Vieira do, Takudzwa Mutize, and Jaime Felix Roser Chinchilla. 2021. *Women in Higher Education: Has the Female Advantage Put an End to Gender Inequalities?* UNESCO IESALC. <https://unesdoc.unesco.org/ark:/48223/pf0000377182>.

Evans, David K., Maryam Akmal, and Pamela Jakiela. 2021. *Gender Gaps in Education: The Long View*. IZA Journal of Development and Migration 12 (1): 20210001. <https://doi.org/10.2478/izajodm-2021-0001>.

**Figure 2.9**

Percentage of full-time and part-time students in higher education by gender in Wales



Source: Higher Education Statistics Agency, StatsWales.

# 3 Ethnicity and Country of Origin

## 3.1. Economic activity

In a chapter dedicated to the analysis of the relationships between ethnicity, country of origin, and the labour market, the overwhelming conclusion is that insufficient data exists at the level of each of the four UK nations to generally draw strong associations. Much more needs to be done by agencies such as the ONS to allow researchers to drill down and understand employment patterns in the Welsh labour market given individuals' ethnic background.

Census 2021 reported that 93.8% of the Welsh population identified as communities belonging to one of the white ethnic groups<sup>29</sup> (ONS, 2021),<sup>30</sup> and ethnic minority communities are unevenly distributed across Wales, being primarily concentrated in the south. Nationwide analyses such as this report can be influenced by very small samples in surveys such as the Annual Population Survey, samples which are susceptible to even small levels of variation in minority ethnic populations. As a result, this section is necessarily only indicative of how various economic contexts have impacted ethnic groups differently in Wales. Importantly, data limitations mean analyses such as these cannot be conclusive and would benefit significantly from improved sample sizes at the territorial level.

As illustrated in **Figure 3.1**, which shows economic activity by ethnic group in Wales, economic inactivity seems to be lower for Asian or Asian British ethnicities and those of mixed ethnicities. Over the period analysed here, levels of inactivity have consistently increased for white ethnic groups; in contrast, other groups have not experienced the same recent increase in levels of economic inactivity.

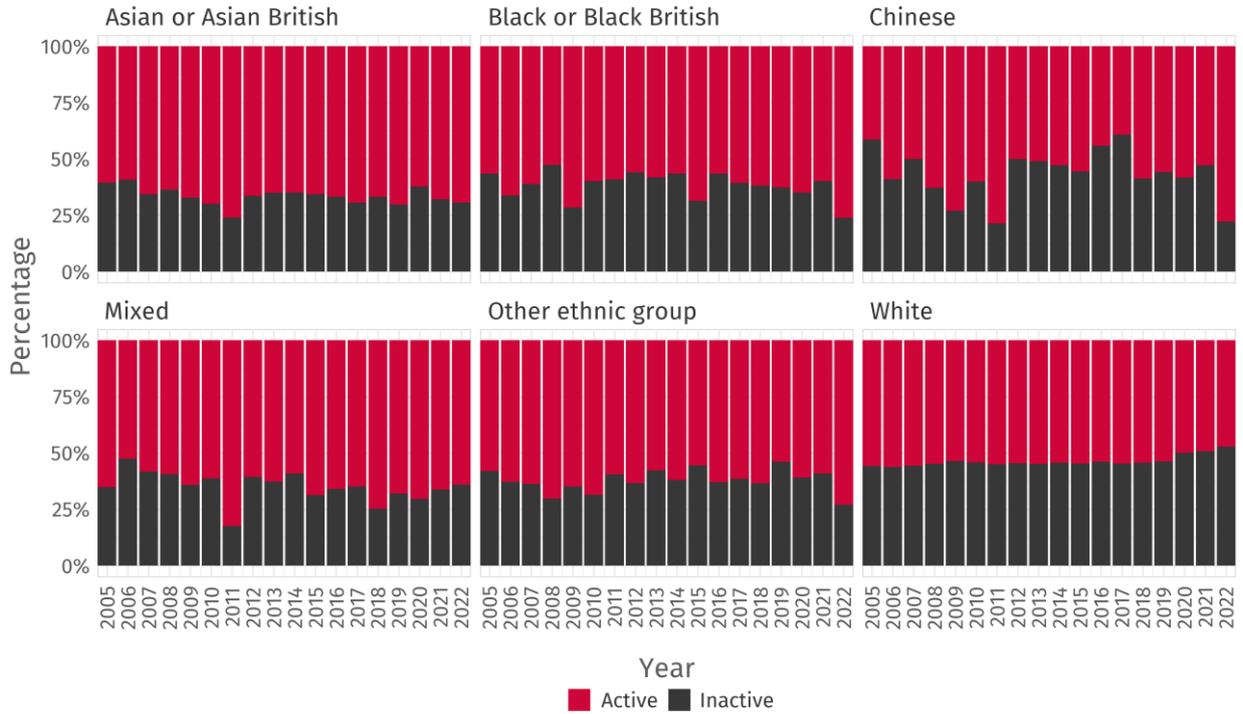
In the economically active population, more than 75% of all ethnic groups are employees (versus self-employed and unemployed), and this percentage has recently increased for Asian or Asian British, Chinese, and mixed ethnicity respondents (**Figure 3.2**). The vast majority of those economically inactive are those who cannot work or are retired, with levels generally above 75% of all economically inactive individuals for all groups (**Figure 3.3**). The Black or Black British group experiences two sharp dips in economic inactivity, after the 2008 recession and in 2015-2016.

<sup>29</sup> Ethnicities have aggregated into large groups to allow for analysis. These options are available in the surveys themselves. Due to differences within minority ethnicities, it was important to maintain some level of disaggregation, however, the relative number of respondents makes using the full disaggregated ethnicities analytically invariable. For this report, white ethnic groups include Irish, White British, Travellers of different origins, etc.

<sup>30</sup> <https://www.gov.wales/ethnic-group-national-identity-language-and-religion-wales-census-2021-html>

**Figure 3.1**

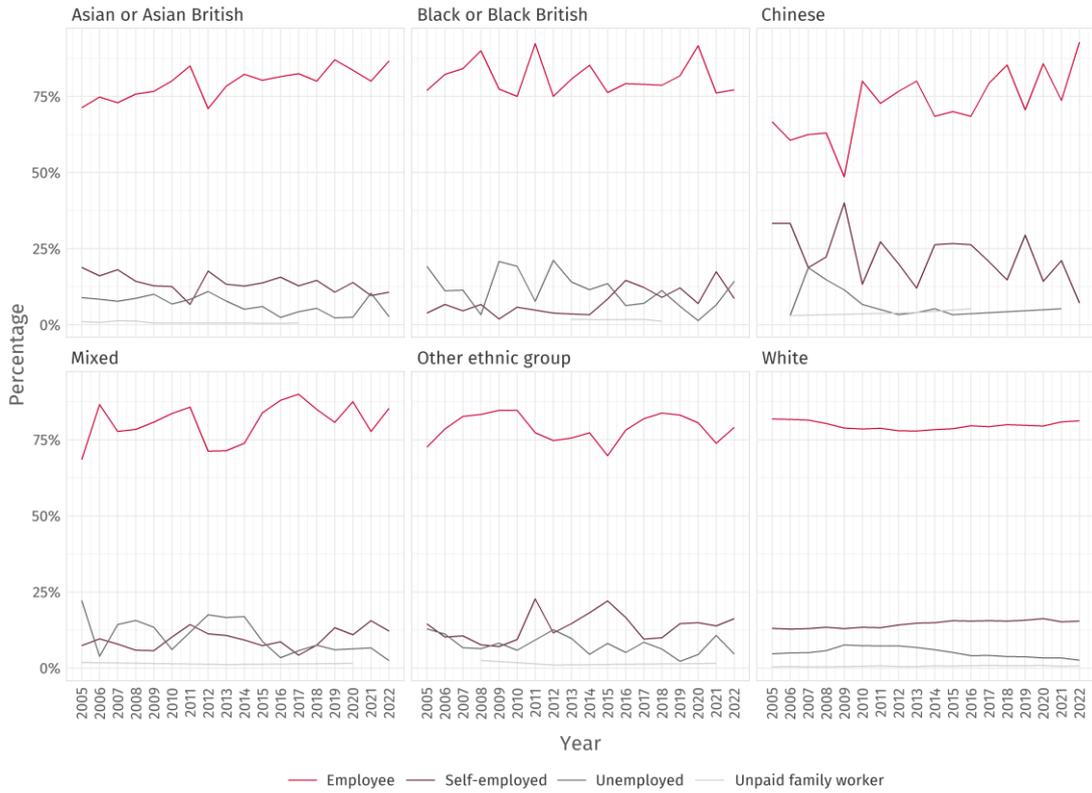
Economic activity by ethnicity in Wales – 2004-2022



Source: Annual Population Survey.

**Figure 3.2**

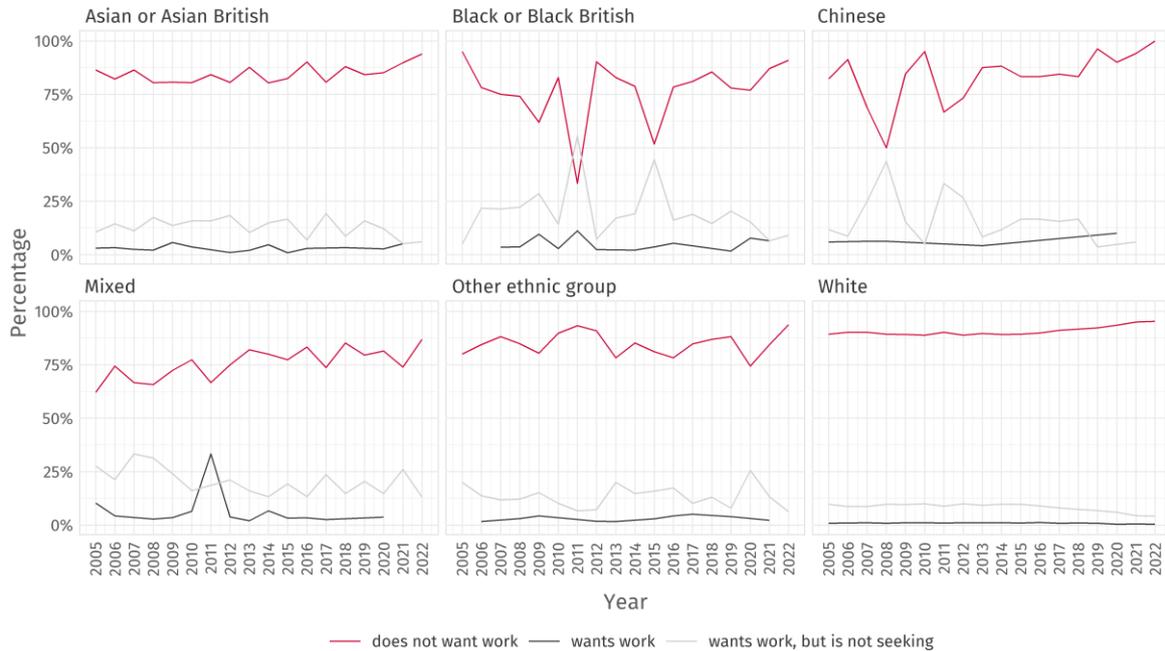
Types of economic activity by ethnicity in Wales – 2004-2022



Source: Annual Population Survey.

**Figure 3.3**

Types of economic inactivity by ethnicity in Wales – 2004-2022

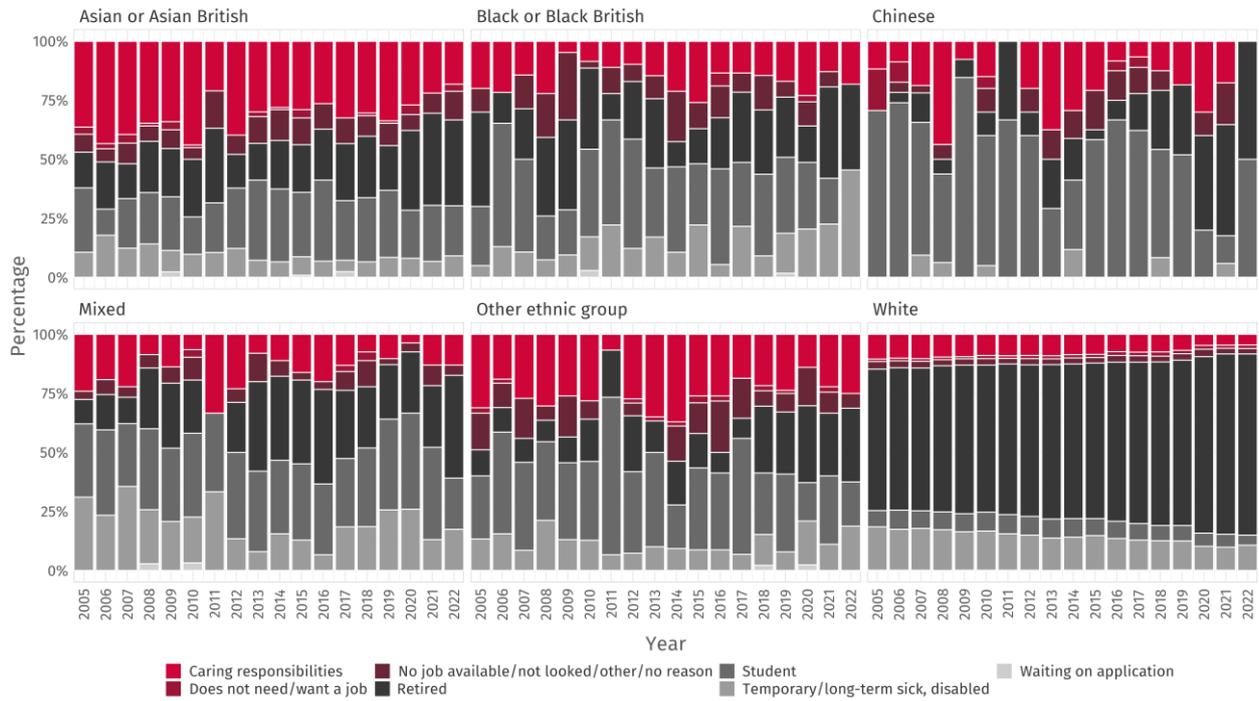


Source: Annual Population Survey.

**Figure 3.4** reports the reasons given for economic inactivity. Due to the small number of respondents who do not belong to white ethnic groups, it is more difficult to detect trends in those groups. However, it is noticeable how caring responsibilities are an overwhelming reason for ethnic minorities, yet decrease as a reason for white respondents, with the inverse occurring for retirement. Additionally, being a student also decreased for white respondents, but it is the second most important reason for ethnic minorities. Temporary or long-term illness has, overall, decreased as a reason given by all groups, apart from those belonging to Black or Black British groups.

**Figure 3.4**

Reasons given for economic inactivity by ethnicity in Wales – 2005-2022



Source: Annual Population Survey.

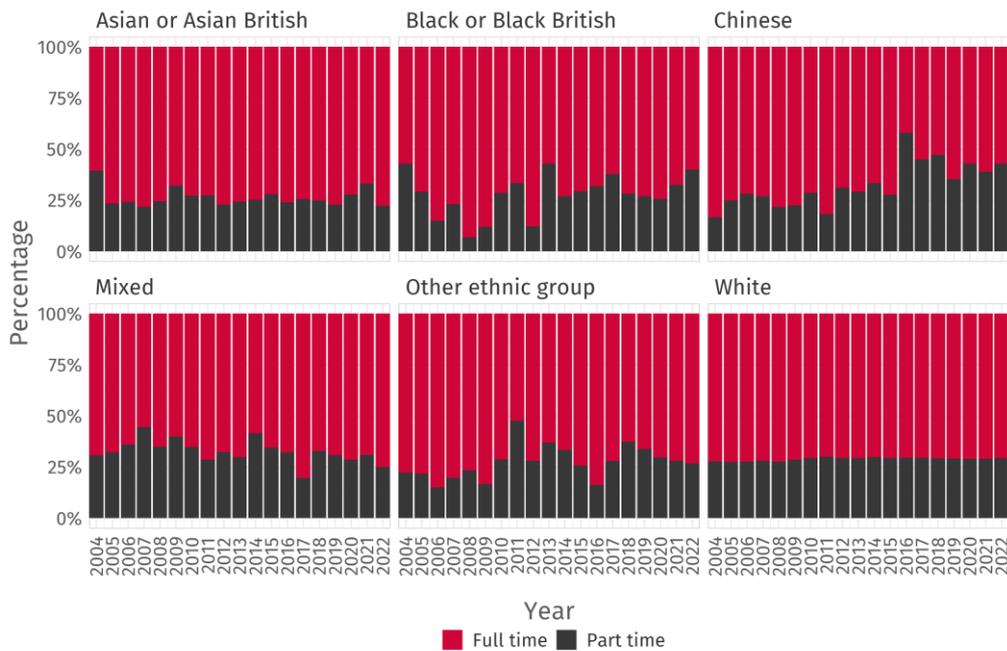
### 3.2. Pay differences and employment patterns

Small sample sizes in official labour market data mean it is not possible to report gender patterns along with ethnicity; instead, employment patterns are reported for the full population of each ethnicity group. Given what we know about the employment patterns of men and women (as reported in Section 2), it is likely that such trends are replicated within ethnicity groups, albeit with some variations due to cultural reasons and immigration status. We check this assumption for the largest group – white ethnic groups – and find that, for example, the pattern identified in Section 2 that approximately 25% of men are in part-time work is replicated here – something which would be expected due to the group’s size. Nevertheless, we are unable to confirm these relationships in the numerically smaller groups with current data.

According to the data available, people of Chinese ethnicity are more likely to work part time. Other groups vary from year to year, but remain within the 25-35% range, although with some outliers. For white ethnic groups, part-time work has consistently remained around 25%, albeit with slight increases in recent years.

**Figure 3.5**

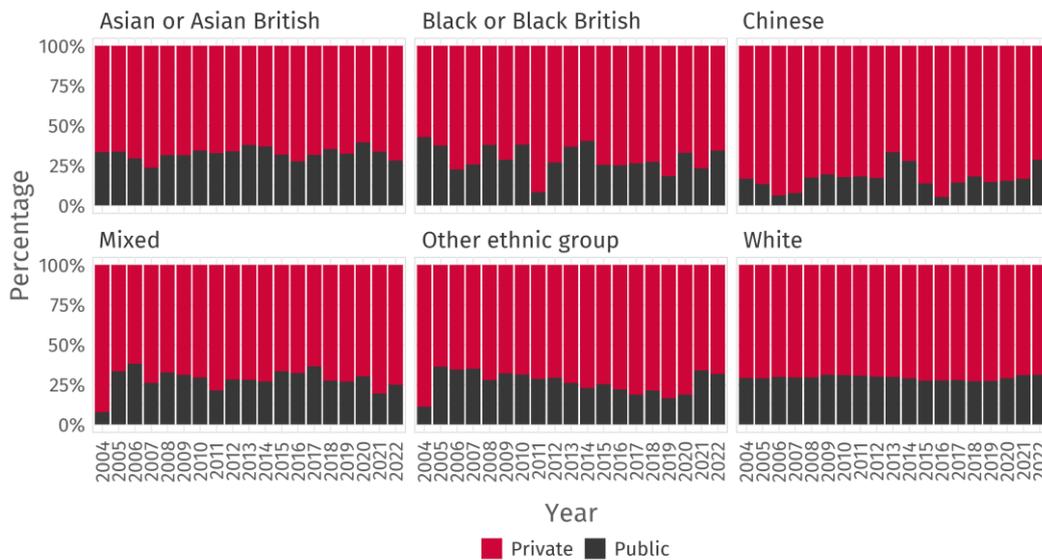
Employment pattern per ethnicity in Wales – 2004-2022



Source: Annual Population Survey.

**Figure 3.6**

Presence in the public and private sectors per ethnicity in Wales – 2004-2022



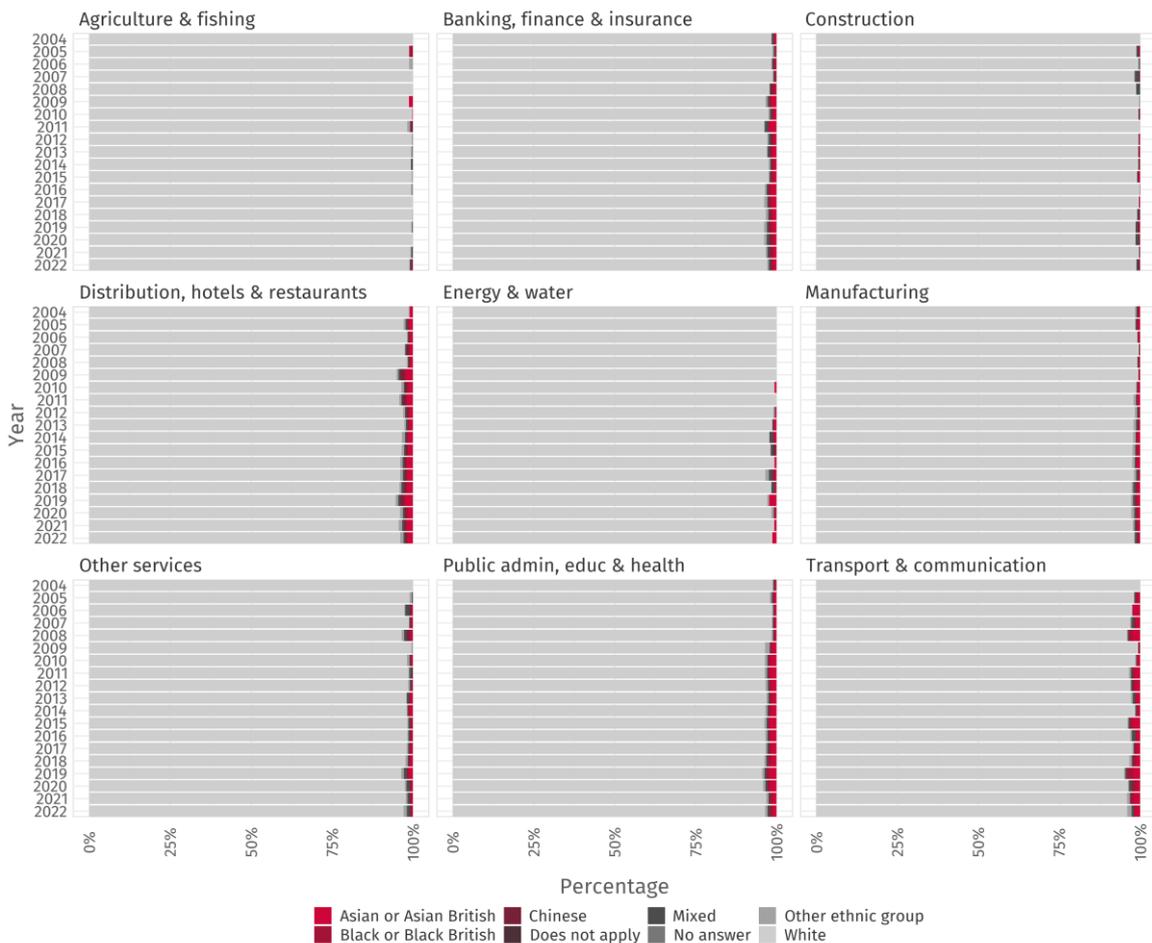
Source: Annual Population Survey.

Public sector employment is slightly higher for Asian or Asian British ethnicities, followed by those of mixed ethnicity (Figure 3.6). For the last two years, there has been a sharp increase in those who have responded the survey as belonging to an ‘other ethnic group’. For those in white ethnic groups, the proportion of individuals in public sector employment is stable at approximately 25%. Again, we hypothesise that gendered patterns exist in workforce participation within ethnic groups within the public and private sector, but we unfortunately cannot make determinations with the current data regarding the interaction between ethnicity and gender.

As shown in Figure 3.7, the presence of minority ethnicities in the various sectors of the Welsh labour market is relatively small given their proportional presence in the population. Participation by minority ethnic groups is higher in the service industry, the banking, finance, and insurance industry, and the public sector; and lowest in manufacturing, construction, and the rural industry. The highest presence among immigrant groups is in the manufacturing sector (approximately 10%) and the service industries (8%).

Figure 3.7

Employees by sector, by ethnic group in Wales – 2004-2022



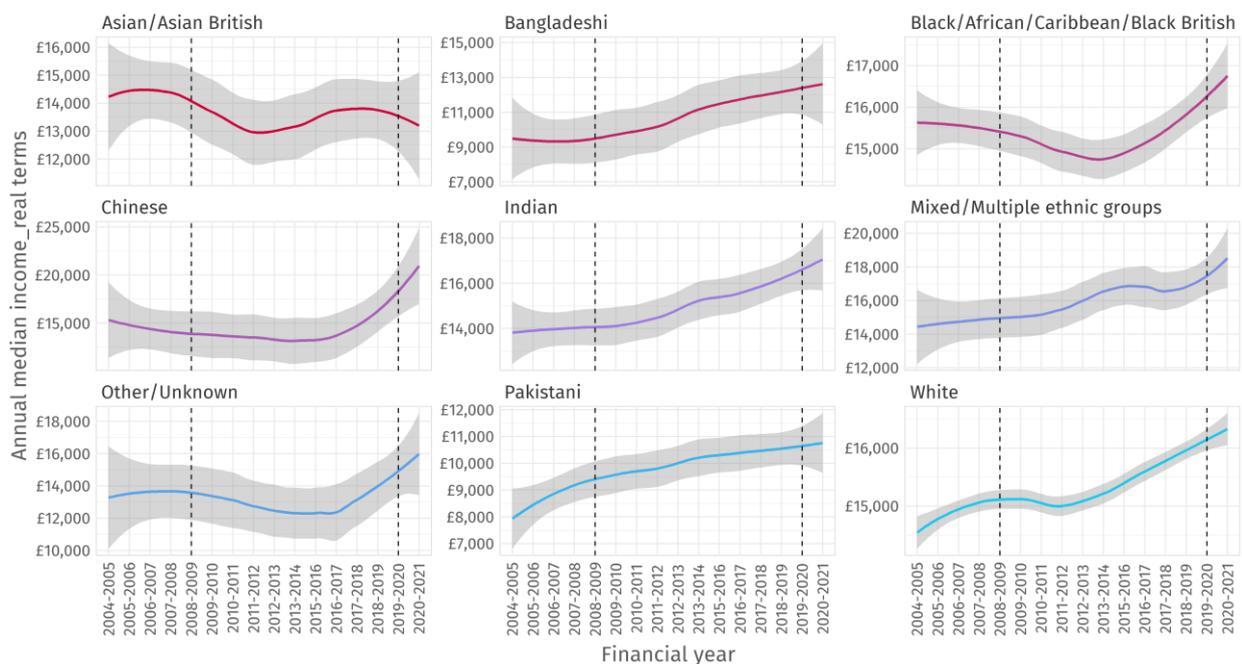
Source: Annual Population Survey.

Data availability again makes it impossible to calculate the ethnicity pay gap in Wales. However, it is reasonable to assume that it is similar to that of the UK. Knowing more about the industries in which participation by minority ethnic groups is most prevalent is important in understanding how policies that have a disproportionate impact on certain sectors (such as furlough, lockdowns, and the living wage) might impact different ethnic groups differently.

As shown in **Figure 3.8**, the median income of the various ethnic groups in the UK has varied widely over time. Immediately after 2008, groups that saw the steepest decline in income were Asian or Asian British<sup>31</sup> and Black/African/Caribbean/Black British; with a smaller decline for those who were of Chinese origin or descent, in white ethnic groups, and among those who responded ‘other’ or ‘unknown’ in the survey. Median income has been on an upward trend since 2008 among those of Bangladeshi, Indian, and Pakistani origin or descent, and among those who responded as ‘mixed or multiple ethnic background’. The declining trend has persisted for those of Asian or Asian British backgrounds, with a further post-pandemic dip. Notably, despite an overall increase in median income, minority ethnic groups suffer from particularly steep levels of income inequality.

**Figure 3.8**

Median income per ethnicity in the UK – 2004-2021 (real terms, 2022)



Source: Family Resources Survey, Adult dataset. Real terms calculated by the authors with the CPIH deflator by the ONS (2015 = 100). ● Note: Shaded area indicates confidence interval.

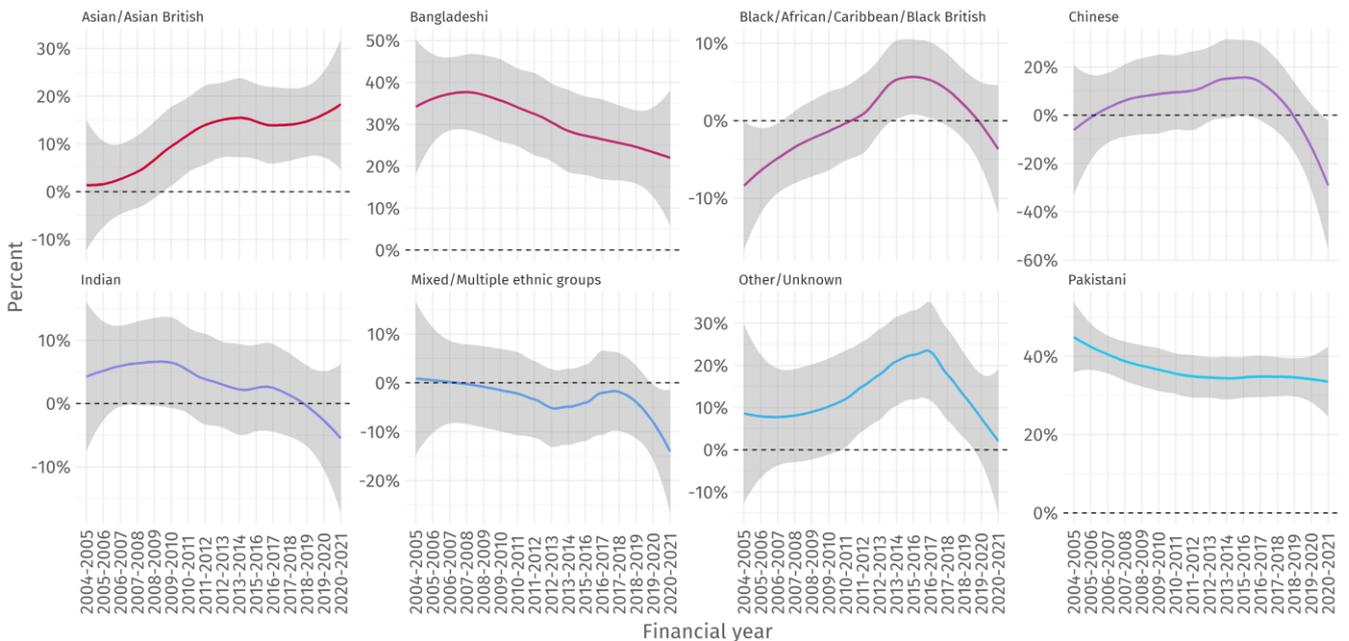
<sup>31</sup> ‘Asian or Asian British’ refer to individuals who identify with this ethnicity or origin who do not belong to the other groups identified in the charts.

Figure 3.9 illustrates the ethnicity pay gap at the UK level, with a dashed line marking zero, which means ‘no difference’. Negative values mean that the group’s median income is higher than that of white ethnic groups; positive values means that the group’s median income is lower than those of white ethnic groups. Therefore, when we say that the income inequality between white British and Asian or Asian British groups is approximately 20%, this means that those of white ethnic descent or origin have a median income that is 20% higher.

The ethnicity pay gap has reduced for those in Black/African/Caribbean/Black British groups, but progress has been accompanied by a steep decline in income equality. There have also been improvements of varying degrees for those of Chinese, Indian, and mixed/multiple ethnic groups. Those who have replied ‘other’ in the survey have seen an improvement but are still subject to high levels of income inequality. While there has been an improvement in income inequality for those of Bangladeshi origin or descent in comparison with those in white ethnic groups, it is still extremely high, reducing only from approximately 35% to 25% (meaning those in this group make approximately 25% less than those of white descent or origin). There has been a slight improvement over the period for those of Pakistani origin or descent, but levels of income inequality remain high at approximately 40%. Individuals from Asian or Asian British ethnic groups have also seen an increase in their income inequality in comparison to those in white ethnic groups.

Figure 3.9

Ethnicity pay gap in the UK – 2004-2021



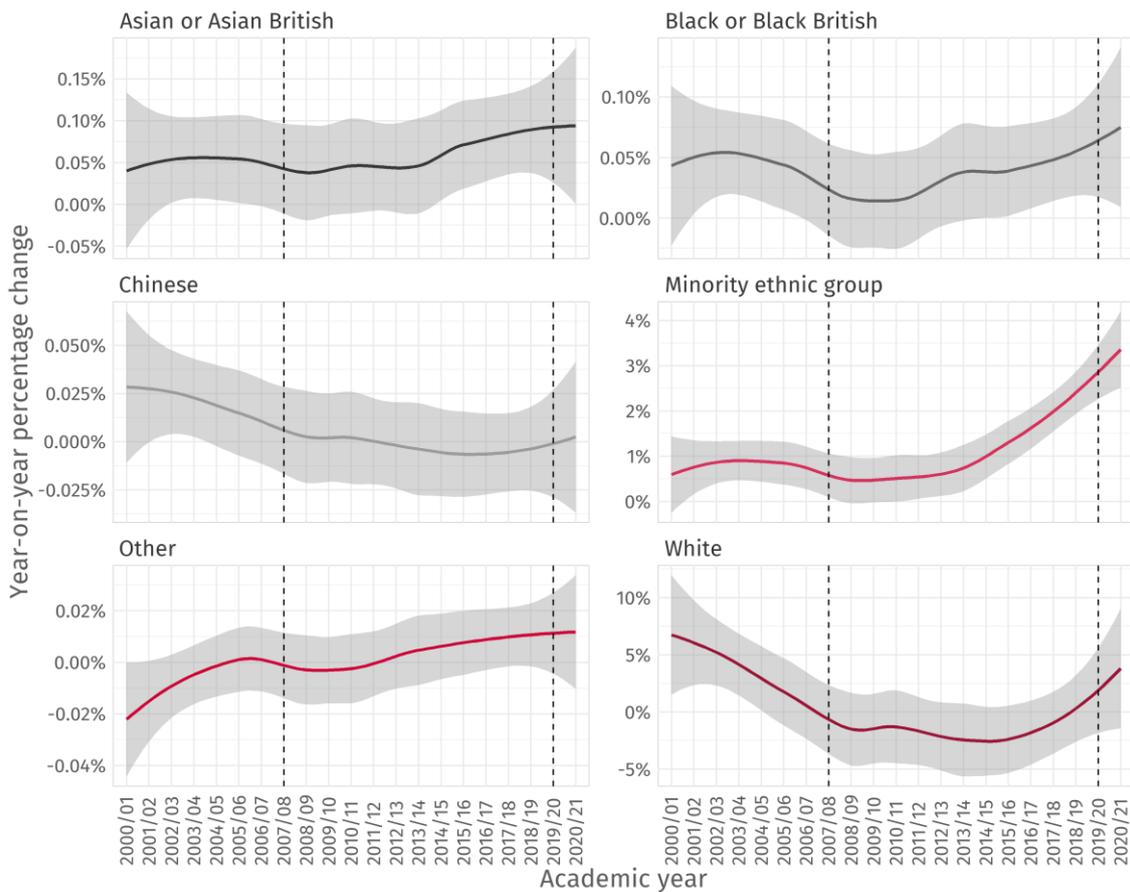
Source: Family Resources Survey, Adult dataset. Median pay. ● Note: Shaded area confidence interval.

Finally, **Figure 3.10** indicates that the percentage of students from minority ethnic groups has increased in higher education in Wales. Of the minority ethnic groups in the Higher Education Statistics Agency administrative data, only students of Chinese origin or descent have decreased their participation in higher education. Participation by white ethnic groups has decreased, in line with the increased participation of ethnic minorities. Within each group the proportion of postgraduates to undergraduate is the same, approximately level at 20%-80%, respectively.

**Figure 3.10** shows each the year-on-year percentage change within group. These show that the 2008 recession had a small impact on the overall numbers of students, but prior trends were re-established shortly thereafter (either ascending or descending). The pandemic appears to have altered the trend towards increased numbers of students from those of Asian or Asian British origin or descent, those who declared being in an ethnic minority, and those in white ethnic groups – although it is difficult to draw conclusions as to how long these trends will continue.

**Figure 3.10**

Year-on-year percentage change of undergraduate and postgraduate students by ethnic group in Wales – 2000/01-2020/21



Source: Higher Education Statistics Agency, StatsWales. Shaded areas indicate confidence intervals.

## 4 Conclusion: Different economic contexts, different effects

This **Labour Market Update for Wales** has presented detailed information on the state of the Welsh labour market. Headline earnings and labour market data showed a deterioration of Welsh incomes and an increase in income inequality despite a longer-term pattern of decreasing unemployment and more stable economic activity patterns. Staffing shortages in key sectors indicate a long-term issue.

Due to systemic differences, economic downturns such as the 2008 recession and the Covid-19 pandemic have affected individuals in varied ways. Despite earlier fears that it would, the pandemic has not had as severe an impact on unemployment as the 2008 recession. This is largely due to government intervention that enabled furlough, business support grants and new technologies and practices facilitating working from home. An important longer term consequence of the change in working patterns caused by the pandemic is that it has created opportunities for working from home among those who would otherwise not be in employment.

Women tend to be in lower paid work and work in more precarious positions, circumstances which likely affect how they make decisions in their every interaction with the labour market. This is likely to create a generalised distinction between women being longer-term planners and men being more reactive to short-term economic circumstances. As women are more likely to be in part-time employment and education (as well much more likely to be the main carers for the family and home), it is likely that women exercise forethought into how these activities will fit into their lives. The gender pay gap, although having lessened over time, is still present, and increases as men and women age and progress in work and evidence shows the gap is wider for those in lower paid employment. Women's income over their lifetime does not vary as much as men's – a circumstance which also affects retirement income. It is likely that additional factors associated with precarious employment and lower incomes might compound effects for gender, although official data at the Wales level is currently insufficient to conclusively make such a determination.<sup>32</sup>

For men and those of white ethnicity, long-term illness and retirement are more likely to be stated as reasons for economic inactivity than for women and those of minority ethnicity.

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<sup>32</sup> Note that Census 2021 included a question on gender identity, which gives some preliminary information on the economic activity of those who do not identify with the gender assigned at birth. However, this is the first time this question has been asked; due to the personal nature of the question and the possible risks one might face in exposing their gender identity, its validity is up for debate. Future inclusion of gender identity and sexual orientation in other public data would assist in creating a reliable time series on the economic activity of LGBTQI+ individuals.

Economic uncertainties also affect individuals' decisions on whether or not to enrol in higher education and training, incentivising those in their 30s and 40s to seek further training. Given the convergence of labour market shortages, fast-changing job market expectations, and increased life expectancies that are leading people to stay in work longer, opportunities for life-long learning that are compatible with full-time or part-time employment should be considered.

Overall, the data analysed in this report reinforce the importance of improved data collection to allow comprehensive analyses that would in turn provide underpinning evidence for targeted policies. Understanding the issues at the intersection of gender, age, and ethnicity in the labour market empower institutions to make evidence-based decisions, not only for the health of the economy, but for the citizens who make up the Welsh labour force.

## Data Glossary

### Annual Population Survey (APS) & Labour Force Survey (LFS)

The Labour Force Survey is a representative sample of households in the United Kingdom. It is collected by the Office for National Statistics. There are roughly 36,000 respondents each quarter and the survey is used to create whole population estimates for headline figures.

The Annual Population Survey uses a boosted sample of the LFS and has an approximate sample of 320,000 respondents yearly.<sup>33</sup>

Regions are designated as the regions of England, Wales, Scotland, and Northern Ireland.

### Annual Survey of Hours and Earnings (ASHE)

ASHE data is collected yearly per financial year. It is collected by the Office for National Statistics. It is a random sample is 1% of employee jobs, with population selected from employee jobs registered with HMRC's PAYE. This means roughly 180,000 respondents. ASHE data is available per local authority, and population totals are weighted from the LFS.<sup>34</sup>

### Family Resources Survey (FRS)

The FRS is a representative sample of British households, developed to understand the populations' needs regarding social security and benefits. It is collected by the Department of Work and Pensions. There are different sampling strategies for Scotland and Northern Ireland, with the former having twice the number of postcodes included and the latter using a stratified random sample design that divides the nation into three regions. Wales, however, is sampled as part of England. The sample for the FRS is roughly 20,000 households, with each adult present responding to the adult questionnaire.<sup>35</sup>

### Higher Education Statistics Agency (HESA)

The Higher Education Statistics Agency collects administrative data on higher education for the United Kingdom. These data are available on their website for download, but StatsWales makes it available through their website and API, making it easier to access. StatsWales, does not update it regularly and certain areas of study are re-categorised.

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<sup>33</sup> <https://www-ons.gov-uk.abc.cardiff.ac.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/annualpopulationsurveyapsqmi>

<https://www.hse.gov.uk/statistics/lfs/about.htm>

<sup>34</sup> <https://www-ons.gov-uk.abc.cardiff.ac.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/annualsurveyofhoursandearnings/2022>

<sup>35</sup> [http://doc.ukdataservice.ac.uk/doc/6523/mrdoc/pdf/frs\\_2008\\_09\\_introduction\\_to\\_the\\_frs\\_april2010.pdf](http://doc.ukdataservice.ac.uk/doc/6523/mrdoc/pdf/frs_2008_09_introduction_to_the_frs_april2010.pdf)  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/321820/initial-review-family-resources-survey-weighting-scheme.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/321820/initial-review-family-resources-survey-weighting-scheme.pdf)  
<https://www.gov.uk/government/statistics/family-resources-survey-financial-year-2020-to-2021/family-resources-survey-background-information-and-methodology#reliability-of-estimates>

## Survey of Personal Incomes (HMRC)

The SPI samples individuals from Pay As You Earn (PAYE) and Computerised Environment for Self Assessment (CESA) records. The sample is not stratified by region, but selects based on gender and rate of tax. The sample is roughly of 400,000 individuals. The Public Use Tape is an open version of the raw data, available through the UK Data Service, but has only been updated until the financial year of 2019-2020. The last available data for the SPI is aggregate data for 2020-2021.<sup>36</sup>

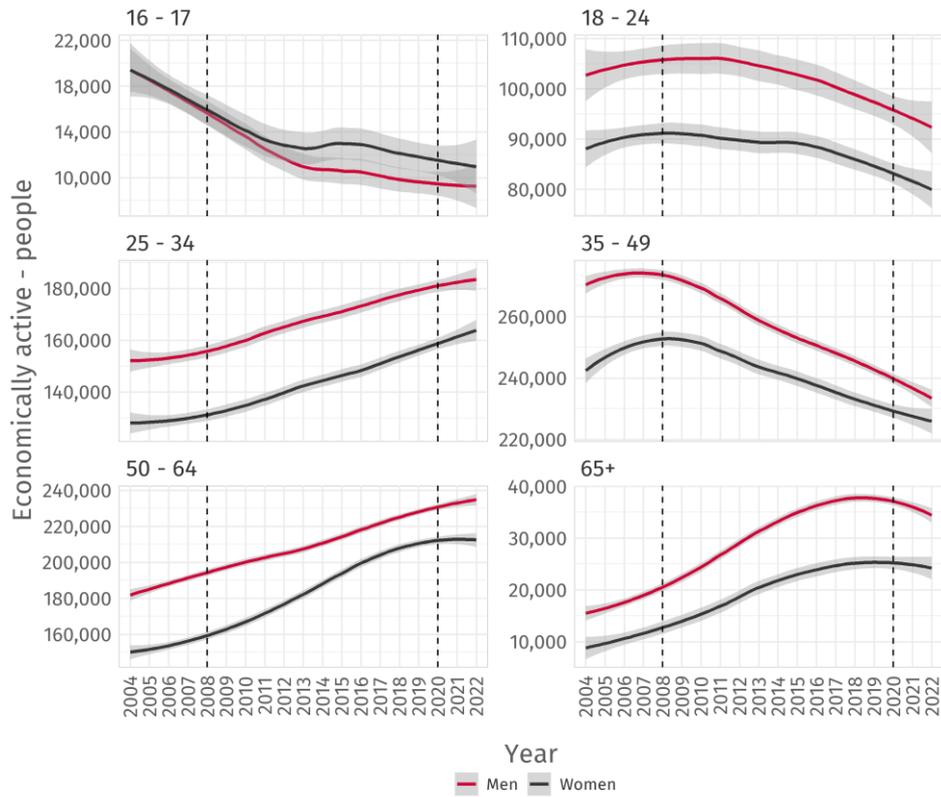
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<sup>36</sup> <https://www.gov.uk/government/statistics/personal-incomes-tables-31-to-311-316-and-317-for-the-tax-year-2019-to-2020/personal-incomes-statistics-2019-to-2020-supporting-documentation#devolved-income-tax-tables>

# Appendix

**Figure A**

Economically active individuals in Wales by gender – 2004-2022

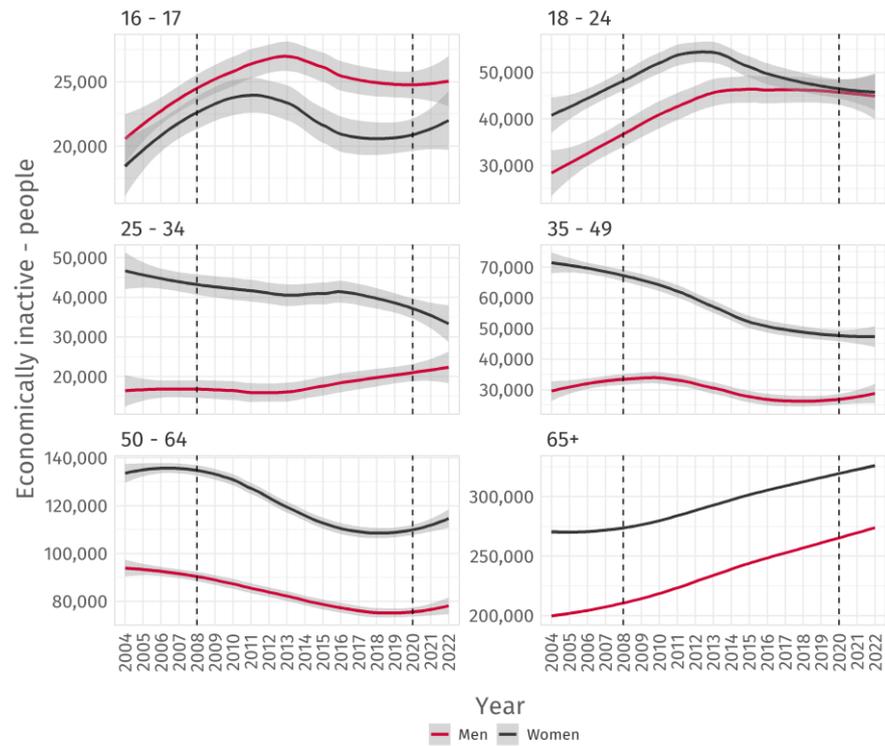


Source: Labour Force Survey, April 2023 release. ● Lines smoothed with locally weighted line smoother (loess).

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## Figure B

Economically inactive individuals in Wales by gender – 2004-2022



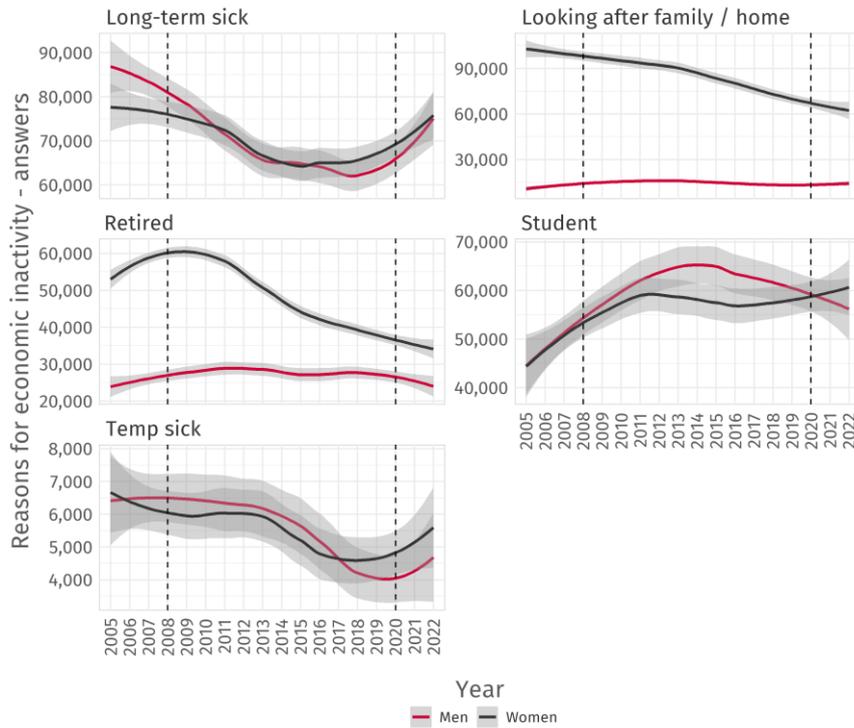
Source: Labour Force Survey, April 2023 release. ● Lines smoothed with locally weighted line smoother (loess).

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### Figure C

Reasons for economic inactivity in Wales by gender – 2005-2022

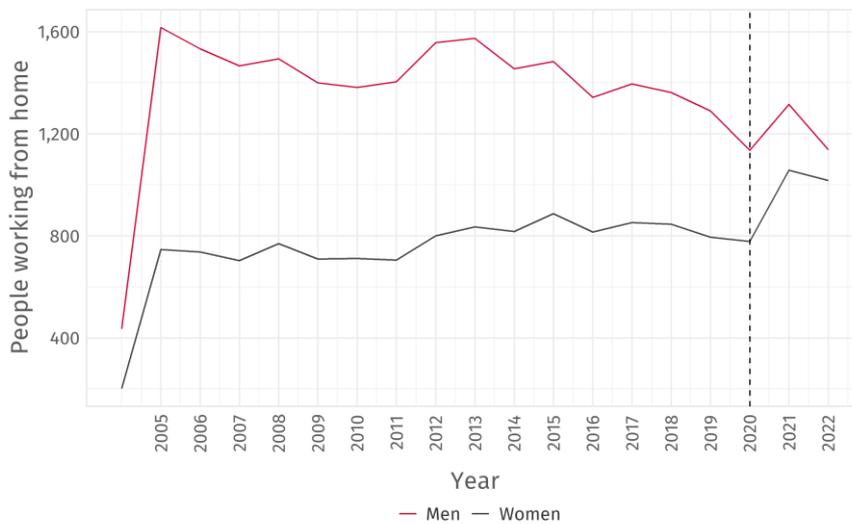


Source: Labour Force Survey, April 2023 release. ● Lines smoothed with locally weighted line smoother (loess).

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### Figure D

Survey respondents working from home in Wales by gender – 2005-2022

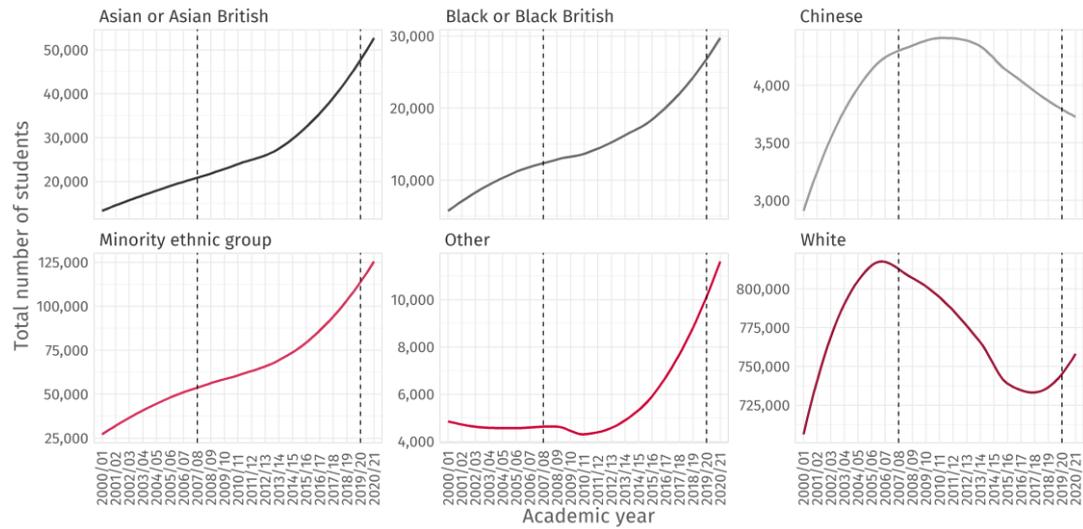


Source: Annual Population Survey.

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**Figure E**

Number of higher education students in Wales by ethnicity – 2000/01-2020/21



Source: Higher Education Statistics Agency, StatsWales. ● Lines smoothed with locally weighted line smoother (loess).

## Figure F

Economic inactivity figures for Wales – 2000-2022

Year	Nominal	Nominal difference	Year-on-year percentage difference	Percentage difference from 2022
2000	968,957	-	-	8%
2001	986,309	17,352	2%	7%
2002	985,786	-523	0%	7%
2003	946,029	-39,756	-4%	10%
2004	958,042	12,013	1%	9%
2005	972,414	14,372	2%	8%
2006	967,720	-4,694	0%	8%
2007	968,980	1,260	0%	8%
2008	980,553	11,572	1%	7%
2009	992,896	12,343	1%	6%
2010	990,938	-1,958	0%	6%
2011	989,700	-1,238	0%	6%
2012	986,826	-2,873	0%	7%
2013	987,287	461	0%	7%
2014	1,025,565	38,277	4%	3%
2015	1,011,947	-13,617	-1%	4%
2016	1,003,389	-8,558	-1%	5%
2017	1,015,607	12,218	1%	4%
2018	988,045	-27,562	-3%	6%
2019	994,670	6,625	1%	6%
2020	1,032,393	37,723	4%	2%
2021	1,019,046	-13,347	-1%	4%
2022	1,059,887	40,841	4%	-

Source: Labour Force Survey, April 2023 release.

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