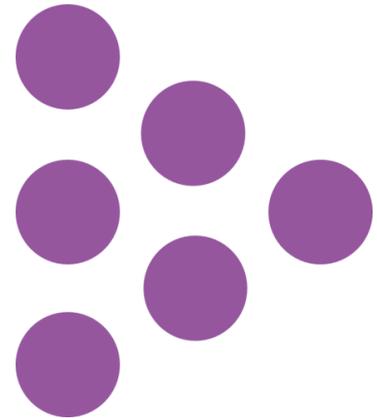


Report

Comparative analysis of teacher attrition rates in England and Wales

National Foundation for Educational Research (NFER)

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Comparative analysis of teacher attrition rates in England and Wales

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Executive Summary

Retaining teachers to meet the growing demand for teachers due to increasing pupil numbers is a key challenge that the school systems of both England and Wales currently face. Teacher attrition rates are part of the wider set of factors that influence the state of teacher supply, including teacher training and recruitment. NFER, supported by the Nuffield Foundation, has explored these wider issues through annual reports on the respective teacher labour markets in England and Wales during the period 2020-2022 (Worth and Faulkner-Ellis, 2022; Ghosh and Worth, 2022).

In this report, we investigate the extent to which teacher attrition rates differ between England and Wales and attempt to unpick and understand some of the reasons why they might differ. We use newly available teacher census data in Wales to make robust comparisons of teacher retention rates in England and Wales in 2019/20 to 2020/21.

We compare attrition rates using local authorities in England, weighted by their characteristics to be similar to local authorities in Wales. This enables us to assess the role of economic and contextual factors in explaining overall differences in attrition rates between Wales and England, while also attempting to isolate the differences that may be attributable to other factors such as differences in policy approach.

Education policy can have an important influence on teacher attrition, through the impact of policy initiatives on workload and how much teachers are paid. Since education policy was devolved to Wales in

1999, there has been a divergence in policy approaches in England and Wales. Wales has been characterised as having followed a more ‘producerist’ approach that ‘emphasised collaboration between educational partners’, in contrast to a more ‘consumerist’ approach in England (Reynolds, 2006).

For example, in recent decades England and Wales have taken different approaches to school accountability and inspection, testing and examinations, curriculum development and implementation, school autonomy, and teacher pay (Sibieta and Jerrim, 2021). We explore the extent to which differences in attrition rates may be attributable to overall differences in policy approaches, but do so cautiously given the limitations of the data available to us.

We hypothesise that one possible result of a more ‘producerist’ policy mix in Wales compared to the more ‘consumerist’ model in England is that attrition rates could be lower in Wales and that workload may play a role as a mechanism for differences in teacher attrition rates between the countries. This is the key hypothesis we seek to test in the data.

There are significant differences in teacher attrition rates between England and Wales after accounting for differences in economic and contextual factors, but not all in the same direction

Our analysis shows that while teacher attrition rates are lower in Wales than in England overall, a substantial portion of this difference is due to differences in economic and contextual factors between the two countries. Therefore, it is important to bear this in mind when any comparison of teacher retention rates in England and Wales is made.

We find that there are significant differences in attrition rates between teachers in the two countries after accounting for differences in economic and contextual factors. However, these are not all in the same direction, which appears to challenge the hypothesis that the contrasting approach to policymaking in Wales compared to England is associated with universally lower rates of teacher attrition.

The attrition rate among secondary classroom teachers is 0.6 percentage points higher in England compared to in Wales, a difference that is statistically significant. However, among primary classroom teachers, there is a statistically significant difference of 0.6 percentage points in attrition rates between the England comparison group and Wales, with *lower* attrition in England.

Our findings on teacher working hours and perceptions of working hours in England and Wales, which use directly comparable data from the Labour Force Survey, show that teachers in Wales work fewer working hours per week on average and have slightly better perceptions of their working hours compared to England. However, it is important to note that teachers in both countries report high working hours and many teachers in both countries report preferring to work shorter hours.

Overall, the findings suggest that there is a more complex relationship between policy approaches, teacher workload and attrition than implied by our hypothesis. While there may be underlying policy reasons contributing to differences in attrition rates, it might indicate that there are policy differences affecting primary and secondary schools differently, rather than a universal difference in overall policy approach.

A key limitation of this study is that the attrition rate data is based on the 2020/21 academic year, which was significantly affected by the Covid-19 pandemic in both countries. Research exploring differences in attrition rates between the two countries in future years that have more typically functioning teacher labour markets would help to test the robustness of the tentative conclusions drawn from the findings here.

There are key groups of teachers and schools for whom there are more substantial differences in attrition rates between teachers in England and Wales, after accounting for differences in economic and contextual factors

There are some key groups of teachers in Wales that appear to have significantly lower attrition rates compared to in England. These include primary and secondary teachers with more than 20 years of experience.

Secondary schools in Wales with the highest levels of pupil disadvantage (measured by the proportion of pupils eligible for free school meals) tend to have lower teacher attrition rates than comparator schools in England. However, among teachers in primary schools, schools in Wales with the middle-highest and highest levels of pupil disadvantage tend to have higher attrition rates than comparator schools in England.

Part-time teachers have significantly higher retention rates in Wales compared to comparator schools in England, and the fact that substantially more of the teaching workforce in Wales works part time suggests that greater attention is paid in Wales to making part-time working opportunities available for teachers. Recent policy work in

England aimed at encouraging part-time and flexible working in schools may benefit from exploring and understanding further why part-time working appears to be better supported in schools in Wales.

Devolution of policymaking provides some valuable opportunities to evaluate impact where individual policies and approaches to policymaking differ, but research in this area also has significant challenges

The evaluation of policies is particularly challenging where the change introduced is at a national level, since there is typically no suitable comparison group available to understand what the counterfactual (i.e. what might have happened otherwise) path of outcomes might have been.

The devolution of education policymaking, particularly to Wales since 2000 given the similarities between the two systems before then and the substantial differences in policy approach that have been taken since, therefore potentially provides good opportunities to evaluate the impact of policies. For example, Burgess *et al.* (2013) used the decision by the Welsh Government early in the devolution process to abolish school league tables as a ‘natural experiment’.

However, significant challenges for research in this area remain. A key challenge is the isolation of the impact of individual policy changes when multiple policy changes are made at similar times. This is the reason why this research paper focuses on attempting to understand the impact of overarching policy approaches rather than individual policy changes.

Despite these challenges, the availability of comparable teacher census data provides opportunities for research to explore the differences in teacher attrition between the two countries, and perhaps to unpick the influence of policy approaches.

Further, the devolution of pay-setting to the Welsh Government in 2019, and the ensuing divergence in salaries at different teacher pay scale points, could provide research opportunities to influence of teacher pay on attrition rates. However, such research would also need to be carefully designed to isolate the impact of pay from other concurrent changes that potentially also affect country-specific teacher attrition rates.

1. Introduction

Retaining teachers to meet the growing demand for teachers due to increasing pupil numbers is a key challenge that the school systems of both England and Wales currently face. Teacher attrition rates are part of the wider set of factors that influence the state of teacher supply, including teacher training and recruitment. NFER, supported by the Nuffield Foundation, has explored these wider issues through annual reports on the respective teacher labour markets in England and Wales during the period 2020-2022 (Worth and Faulkner-Ellis, 2022; Ghosh and Worth, 2022).

In this report, we investigate the extent to which teacher attrition rates differ between England and Wales and attempt to unpick and understand some of the reasons why they might differ. We also compare attrition rates across teacher and school characteristics to further investigate the extent to which differences between the countries may be associated with higher or lower attrition rates for different groups of teachers or schools. We explore differences in teacher working hours and perceptions of working hours, as a potential mechanism for explaining any differences in attrition rates.

There are numerous factors that influence a teacher's decision about whether or not to leave the profession, including workload, pay, opportunities for flexible working and feeling supported and valued (Burge et al., 2021; Lynch et al., 2016). Education policy can have an important influence on teacher attrition, through the impact of policy initiatives on workload and how much teachers are paid. Since

education policy was devolved to Wales in 1999, there has been a divergence in policy approaches in England and Wales. Wales has been characterised as having followed a more 'producerist' approach that 'emphasised collaboration between educational partners', in contrast to a more 'consumerist' approach in England (Reynolds, 2006).

For example, in recent decades England and Wales have taken different approaches to school accountability and inspection, testing and examinations, curriculum development and implementation, school autonomy, and teacher pay. We explore the extent to which differences in attrition rates may be attributable to overall differences in policy approaches, but do so cautiously given the limitations of the data available to us. This high-level comparative analysis is also unable to isolate the potential impact of specific policy differences as distinct from others.

While there are significant policy differences between Wales and England that may influence teacher attrition, there are also substantial economic and contextual differences between the two countries. Given that the economic environment and contextual factors play an important role in teacher attrition (Hutchings, 2011), we attempt to disentangle their influence from the influence of other factors, such as differences in policy approaches.

The rest of this section introduces some of the key education policy differences between England and Wales that have emerged since devolution and outlines the similarities between the two education systems and outlines our key hypothesis to test. Section 2 explains our

data sources and analysis methodology. Section 3 describes the findings, while section 4 draws some conclusions and suggests some potentially fruitful areas for future research on this topic.

1.1. The devolution context for education policy

In 1999, education policy was one of the duties and powers devolved to the National Assembly for Wales, which had previously been held by the United Kingdom government. Before the devolution of power to the new Welsh Assembly Government, the education systems in England and Wales were very similar. What followed in the ensuing decades was a significant divergence in education policy between the two countries.

In the context of this research, the different policy decisions that are likely to have the greatest impact on teachers in England and Wales are the most important to highlight. Throughout the late 1990s and 2000s, the New Labour Government in England followed an approach to education policymaking that has been described as ‘consumerist’ (Reynolds, 2006). Education policy was implemented with a focus on parents as consumers of education, with school performance information continuing to be made publically available in league tables and an emphasis placed on ensuring a wide variety of school types were available. Conversely, in Wales, there was a noticeable effort made by the Government to create distance from English policy, establishing – in the words of then First Minister Rhodri Morgan – ‘clear red water’ between the two countries. In contrast to the English ‘consumerist’ model that has been described as ‘mistrust’ and ‘more hostile portrayals of the teaching profession’ (Power, 2016), the Welsh

approach has been described as ‘producerism’, consisting of policies that ‘emphasised collaboration between educational partners’ (Reynolds, 2006).

A key example of these differences in policy approaches between the countries was the abolition of school performance tables by the Welsh Government in 2001. The Welsh government believed league tables were divisive and placed an unnecessary burden on schools. The policy aimed to reduce the burden on teachers and schools, taking precedence over the potential benefits to parents. Research suggested that abolishing league tables led to markedly reduced school effectiveness in Wales (Burgess *et al.*, 2013).

In 2011, a form of school performance information was reintroduced in Wales, designed to identify and hold to account poorly performing schools rather than to increase competition amongst schools. The opinion of the Welsh Government on the environment league tables created was summed up by the then Education minister Huw Lewis in 2013, who stated that he wanted to ‘not have the phenomenon that is starting to play out across the border in England where schools compete for the “best” students’ and to not have Welsh schools ‘play the qualifications game between exam boards’ in order to ‘improve their public standing’ (Power, 2016).

The Welsh government abolished primary school tests for seven-year-olds in 2002 (TES, 2001), and for 11 and 14-year-olds in 2005 (BBC News, 2004). This was done after a government review recommended the removal of these tests as they placed unnecessary pressure on teachers and pupils (Daugherty *et al.*, 2004). Throughout this period

the English government maintained all tests for pupils aged seven to 14. Wales reintroduced low-stakes reading and numeracy assessments for pupils aged seven to 14 in 2013, after PISA tests revealed Welsh pupils were falling behind internationally (Welsh Government, 2011). These tests aim to help teachers identify pupils' abilities and needs rather than being used for school accountability (Sibieta and Jerrim, 2021).

The English government introduced a new curriculum in the 2014/15 academic year, while the Welsh government is introducing a new curriculum from September 2022. The two countries have taken very different approaches to curriculum structure. In Wales, general areas of learning and experience have been set out, and schools and teachers have been given significant freedom in how and what they teach. In contrast, the curriculum in England emphasises the teaching of traditional subjects with specific minimum content set out, giving teachers less freedom (Sibieta and Jerrim, 2021).

Another significant difference is how the respective curricula were developed and implemented. The government announced the new curriculum for England in September 2013, giving teachers and schools only one year to prepare for its introduction. The development of the Welsh curriculum has involved much greater engagement with schools before implementation, such as with 'pioneer' schools. The Welsh approach to curriculum development and implementation is another example of its more 'producerist' approach.

There are differences between England and Wales in the level of autonomy schools have, particularly over teacher pay. A significant

difference between the overall education systems in England and Wales is the prominence of academies in England. Academies have significantly more autonomy over setting the pay of teachers, and many freedoms for maintained schools were extended in 2014 (Sharp et al, 2017). In Wales, schools follow the national pay scales set by the UK government to a greater extent than in England. PISA headteacher survey data shows that headteachers in England report being significantly more likely to have 'considerable responsibility for teachers' salaries' than in Wales. Governing boards are also significantly less likely to have a considerable responsibility compared to Wales (OECD, 2015).

Teacher pay scales have been the same for both countries until the recent devolution of pay-setting to Wales in 2019. The Welsh Government announced a significant increase in the teacher starting salary, compared to England, in the first year it had this power (Welsh Government, 2019). The Welsh Government also took a different approach to starting salary compared to England in 2020, raising the minimum salary to £27,018, compared to £25,714 in England.

While we have identified a number of differences between the two countries' education systems, structures and policies, there are many similarities between the two countries. The structures of the overall school systems are similar: pupils start schooling in the year they turn five years of age and typically enter secondary school at the age of 11. The English school funding system has undergone some changes over the past two decades, but overall levels of per-pupil funding are similar for England and Wales (Britton et al. 2020). And although there have

been differences in historical trends, currently teacher to pupil ratios in England and Wales are at the same level (Sibieta and Jerrim, 2021).

Likewise, there are also other differences between education in England and Wales that are independent of policy, and which are not economic or contextual factors that can be accounted for in a quantitative comparative analysis. For example, education through the medium of Welsh and the importance of the Welsh language is a unique feature of the Welsh education system with important implications for teachers. Such factors may have an influence over teacher attrition rates, and therefore should prompt caution in the interpretation of any differences between the two countries as being due to differences in policy approaches.

1.2. Hypothesis

Over the past two decades, education policy decisions made the governments in Wales and England have differed, with the Welsh ‘producerist’ approach aiming to prioritise teachers more in overall decision-making.

We hypothesise that one possible result of a more ‘producerist’ policy mix in Wales compared to the more ‘consumerist’ model in England could be to lead to reduced workload for teachers. Workload is the most cited reason ex-teachers give when asked why they left the profession (DfE, 2017).

Therefore, we hypothesise that attrition rates could be lower in Wales and that workload may play a role as a mechanism for differences in

teacher attrition rates between the countries. This is the key set of hypotheses we seek to test in the data.

2. Data and methodology

2.1. Data sources and key variables

Our analysis aims to compare rates of teacher attrition in England and Wales between 2019/20 and 2020/21. This was a year when the Covid-19 pandemic affected the teacher labour market, including teacher attrition (see section 2.3 ‘Limitations’ for the possible implications for this study).

We use data from two different sources to calculate attrition rates for the two countries respectively. We use the School Workforce Census (SWC) to measure teacher attrition rates in England. First collected in 2010, the SWC is an annual snapshot of the workforce employed in state-funded schools in England. We use the School Workforce Annual Census (SWAC) to measure teacher attrition rates in Wales. Newly available after being collected for the first time in 2019, the SWAC has a similar structure to the SWC, meaning we can make comparisons of teacher retention rates using consistent definitions. Both data sources only consider teachers and not supply teachers or other members of the school workforce.

The key variable of interest in our analysis is the teacher attrition rate. We define this as the percentage of teachers leaving the state-funded sector between the 2019/20 academic year and the 2020/21 academic year. We consider a teacher as having left teaching if they appear in the 2019/20 wave of the SWAC or SWC, but do not appear in the 2020/21 wave. This usually happens because a teacher leaves the

teaching profession to retire, look after family, or pursue a different career. However, the datasets we use only collect information on teachers that are working in state-sector schools. Therefore, teachers also leave the SWAC or SWC if, despite continuing to work as a teacher, they move to an independent school, a further education college, or teach in a different country. They may also take up a supply or non-teaching role in a school, which cannot be identified from the data we have analysed. Hence, our reference to teacher attrition rates is specific to teachers leaving teaching in that country’s state-funded sector.

Teacher and school characteristics are similar in their definitions across the SWAC and SWC, and so we comparably breakdown attrition rates by different characteristics across the two datasets. We measure schools’ level of pupil deprivation using a quintile measure for the proportion of pupils eligible for free school meals (FSM). Eligibility is commonly defined in England and Wales, and FSM eligibility is commonly used by researchers as a proxy for pupils’ socio-economic status. To be able to accurately compare teacher attrition rates in schools with different deprivation levels across the countries, we create an FSM quintile measure for Welsh schools using the SWAC data. We then apply the same levels that the Welsh FSM quintile measure was defined on to English schools to create a comparable English FSM quintile.

We measure teacher ‘workload’ using the proxy variables working hours and perceptions of working hours. Workload is a wider concept that includes assigned tasks, work intensity, work autonomy and management expectations. However, working hours are often used as

a starting point for understanding workload as in, for example, the Department for Education (DfE) teacher workload survey and Education Workforce Council (EWC) national education workforce survey (DfE, 2019; EWC, 2021).

We compare the number of hours worked and teachers' perceptions of their working hours between the two countries using data from the Office for National Statistics Labour Force Survey (LFS). We use two variables to make these comparisons. We measure the working hours of teachers working full-time using the average (mean) response to the question 'Thinking now about the seven days ending Sunday the [last week], how many hours did you actually work in your (main) job/business – please exclude meal breaks?'. We only include respondents who reported being scheduled to work on every day from Monday to Friday in the reference week and did not have any days off in the reference week due to being sick/injured.

We measure teachers' perceptions of their working hours by measuring the proportion of full-time teachers who report preferring to work fewer hours. This measure is derived from a combination of responses and routed questions – the key question being 'Would you rather work shorter hours than in your present job?'. For further details see the LFS user guide (ONS, 2022). This measure may also reflect unmet demand for part-time working.

Because the sample size of Welsh teachers in the LFS is small, we combine data from all teachers between the 2010 and 2020 waves.

2.2. Methodology

A straight comparison of teacher attrition rates in England and Wales would not provide insights into differences that are potentially attributable to differences in approaches to education policy in Wales and England, as there are many economic and contextual differences between the two countries. To attempt to disentangle differences that may be due to the policy mix between the two countries, we hold economic and other educational contextual factors constant in our comparisons between teacher retention rates in England and Wales.

We use a statistical weighting process known as entropy balancing to create a weighted comparison group of English local authorities that closely matches the economic and contextual characteristics of Welsh local authorities. The local area characteristics we use in the weighting process are:

- The percentage of pupils achieving at least five GCSEs A*-C in 2014.
- Income deprivation affecting children index (IDACI) score in 2015, this measures the proportion of all children aged 0 to 15 living in income deprived families.
- Employment deprivation index in 2015, this measures the proportion of the working-age population in an area involuntarily excluded from the labour market.
- Unemployment rate in 2019.
- Average weekly earnings in 2019.
- Population density in 2011.

The characteristics we use to weight English local authorities have to be comparable to characteristics that exist for Welsh local authorities. For our economic characteristics, these exist for both countries, and we use the latest data available for these measures.

However, our variable to measure pupil performance is not ideal for this process. After separate qualification reviews were conducted in England and Wales, Key Stage 4 (KS4) performance measures underwent significant changes that meant they were no longer comparable after the 2014/15 academic year (Welsh Government, 2016). Because of this, we use the percentage of pupils achieving at least five GCSEs at grades A*-C in the 2014/15 academic year in our weighting. This is the latest comparable performance measure at KS4 we can use, although we would have preferred to have used more recent data.

In the Appendix we report the results of the weighting process with and without this measure of KS4 performance, which shows that its inclusion does not significantly alter our results. In our main findings, we use the set of weights that include this measure.

In the Appendix we also report how we constructed the England comparison group using the weights. The England comparison group gives high weighting to English local authorities that had most similarities to local authorities Wales. Local authorities in London received virtually no weight at all, while local authorities in the north of England, such as Cumbria, County Durham and Redcar and Cleveland received most weight (see Appendix).

This weighted group of English local authorities provides us with a comparison group that has similar average characteristics to Welsh local authorities. A significant remaining difference between these two groups is differences in national education policy approach. However, other differences are also likely to remain, meaning we exercise caution in interpreting the differences in attrition rates after accounting for economic and contextual factors as being attributable to differences in policy approaches (see following section, 'Limitations').

We attempt to attribute the differences in rates of teachers leaving the profession between the countries to a) the differences in economic and contextual factors, and b) the differences in education policy approach (and other remaining factors).

First, we compare the overall attrition rate in England to the attrition rate in the comparison group of weighted English local authorities. This comparison measures the contribution that differences in economic and contextual factors between England and Wales makes to the overall difference in attrition rates.

Second, we compare the attrition rates in the England comparison group and Wales. Since there are few economic and contextual differences between these groups, the difference in attrition rates may be attributable to policy differences.

We compare overall attrition rates for primary and secondary teachers in England and Wales, but we also compare attrition rates between the two countries across different types of teachers and schools. We make these comparisons to identify groups of teachers or schools that may be influenced by country-level factors, which may be attributable to

differences in policy approaches. We look at differences by role (classroom teacher or senior leader), working pattern (full-time and part-time), experience level, secondary subject taught, and the deprivation level of the school.

We compare the workload of Welsh and English teachers by identifying the individuals in the Labour Force Survey that are state-sector teachers in the two countries. We calculate and compare across the two countries: the average working hours of full-time teachers; the proportion of full-time teachers working more than 50 hours; and the proportion of full-time teachers that want to work fewer hours.

2.3. Limitations

There are some important limitations to our weighting methodology that are important for the interpretation. We weight English local authorities by a number of economic characteristics and by pupil performance, but there are other factors by which English and Welsh local authorities could differ, and which could independently affect teacher retention. We are not able to control for everything in our statistical weighting and there could be other factors by which the groups of schools differ. As a result of this, there is uncertainty to our findings. We describe the relationship between attrition rates and the effect of Welsh policy as an association and not a true causal policy effect, since we cannot be certain that all other factors have been accounted for.

The Covid-19 pandemic had a significant impact on teacher attrition in 2019/20. In England and Wales, teacher attrition decreased as a result

of the pandemic (Worth and Faulkner-Ellis, 2022; Ghosh and Worth, 2022). While the pandemic led to lower attrition rates than a normal unaffected academic year, as both England and Wales are very likely to have been affected similarly, comparing between the two countries should not be an issue. However, there remains the possibility that the pandemic had a particular influence on teacher attrition in one country compared to the other.

3. Findings

3.1. Attrition rate comparisons

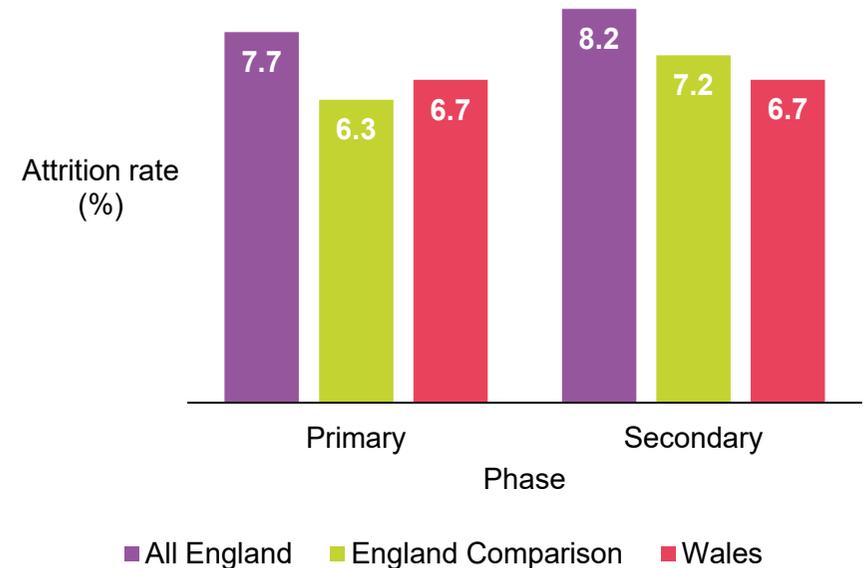
3.1.1. Overall attrition rates

Figure 1 shows teacher attrition rates in 2019/20 for our three groups: all England, the England comparison group and Wales, separately for primary and secondary schools. The data shows that attrition rates in England are significantly higher than in Wales for both primary and secondary teachers: by one percentage point among primary teachers and 1.5 percentage points among secondary teachers.

The difference between the overall attrition rate in England and the England comparison group is 1.4 percentage points for primary teachers and one percentage point for secondary teachers. This suggests that differences in economic and contextual factors between schools in England and Wales make a significant contribution to differences in attrition rates between the two countries.

Among primary teachers, attrition rates in the England comparison group are slightly lower than attrition rates in Wales, but the difference is not statistically significant. Among secondary school teachers, teacher attrition rates are 0.5 percentage points lower in Wales compared to the England comparison group, which is a statistically significant difference.

Figure 1 Teacher attrition is lower in Wales compared to England, but differences in economic and contextual factors make a significant contribution to explaining the differences



Source: NFER analysis of 2019-20 SWAC and SWC data.

Note: the leaving rate figures for England differ slightly from those published in the DfE School Workforce in England statistical release, primarily because unqualified teachers are included in our figures, consistently in both countries.

3.1.2. Attrition rates by role

We compare attrition rates between our England comparison group and Wales across different groups of teachers and schools. This analysis aims to reveal particular groups associated with larger or smaller differences in attrition rates between England and Wales, after accounting for economic and contextual factors.

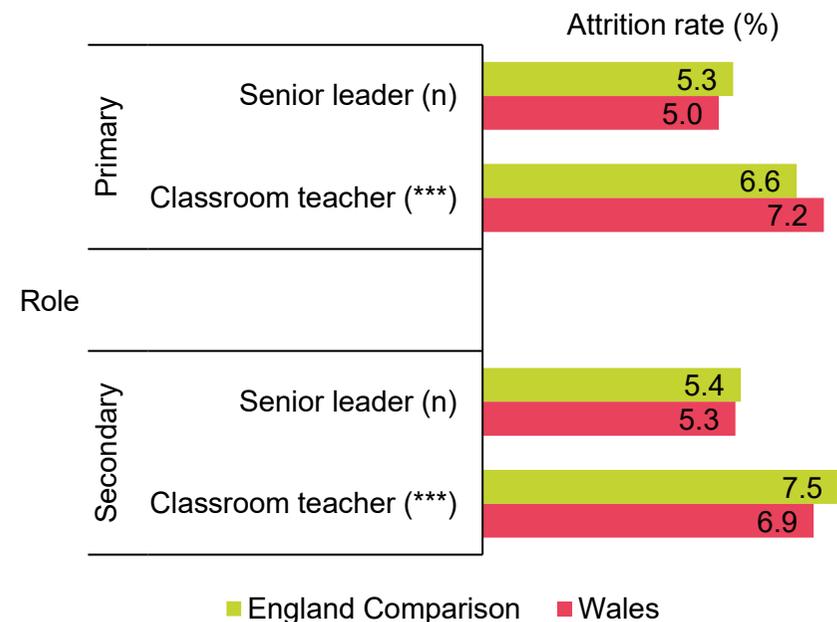
Figure 2 compares the attrition rates of two different teacher roles: senior leaders and classroom teachers. Classroom teachers includes middle leaders, while the senior leaders group combines assistant headteachers, deputy headteachers and headteachers.

For primary classroom teachers, there is a statistically significant difference of 0.6 percentage points in attrition rates between the England comparison group and Wales, with lower attrition in England.

For secondary classroom teachers, there is a statistically significant difference of 0.6 percentage points in attrition rates between the England comparison group and Wales, with lower attrition in Wales.

However, there are no significant differences in attrition rates for senior leaders between Wales and the England comparison group, in primary or secondary schools. The significant difference in overall secondary teacher attrition rates shown in Figure 1 is therefore being driven by a difference in the leaving rates of classroom teachers.

Figure 2 There is a significantly lower attrition rate among secondary classroom teachers in Wales, but a significantly higher rate among primary classroom teachers in Wales



Source: NFER analysis of 2019-20 SWAC and SWC data.

Note: (***) shows a statistically significant difference at the 5 % level between Wales and the England comparison group, (n) shows no significant difference.

3.1.3. Attrition rates by years of experience

Figure 3 and 4 break down the differences in teacher attrition rates for primary and secondary teachers, respectively, by years of experience. Both figures show some significant differences in attrition rates between the England comparison group and Wales.

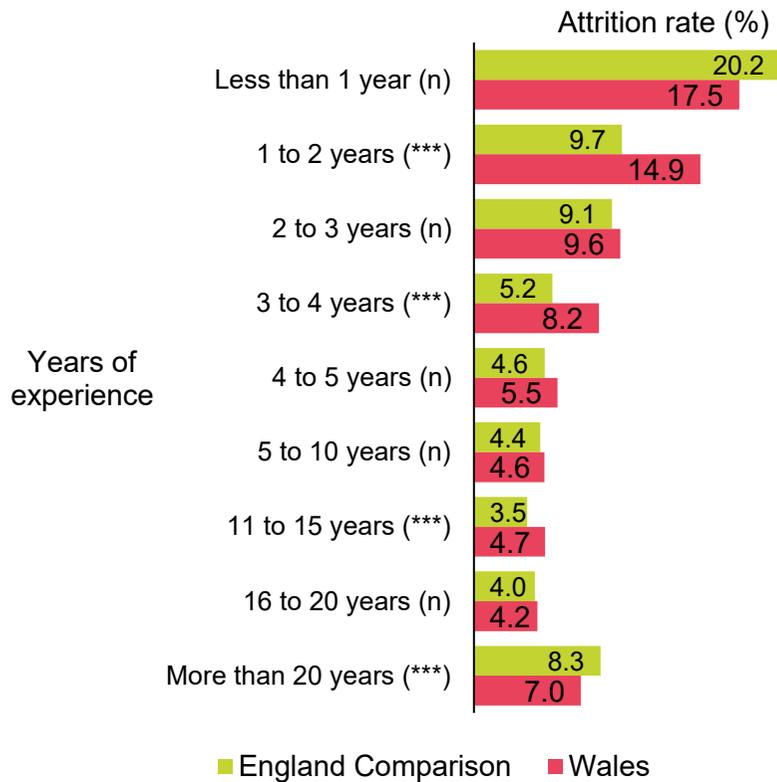
For teachers with less than one year of experience, there is no significant difference between the England comparison group and Wales for primary teachers, but there is a significant difference for secondary teachers. There is a lower attrition rate for secondary newly-qualified teachers (NQTs) in Wales compared to the England comparison group. A significant policy difference that may drive this result is that Welsh teachers had a higher starting salary than English teachers in the 2019/20 academic year. Previous research has highlighted that the competitiveness of teacher pay is a significant factor in teachers' decisions to leave the profession (DfE, 2017; Burge et al., 2021), and may be a factor in the attrition rate difference. However, there may be other factors influencing this difference.

Attrition rates are significantly greater for Welsh primary teachers with one to two years of experience, compared to the English comparison group. Attrition rates are also significantly higher for Welsh secondary teachers with one to two years of experience, compared to the England comparison group, although the difference is not statistically significant. This finding may be explained by differences in the ways that NQTs are employed in England and Wales. Data from the Education Workforce Council shows that in the 2019/20 academic year, 85 per cent of all Welsh NQTs were in fixed-term or supply

positions (EWC, 2020) and short-term contracts are commonly used for teachers in their second year as well. Due to these short-term contracts, teachers in their first two years in Wales may experience lower levels of job security and be more likely to leave the profession.

Across both primary and secondary teachers, attrition rates are significantly lower for Welsh teachers with more than 20 years of experience compared to the England comparison group. These experienced teachers trained before the devolution of education policymaking to the Welsh Government.

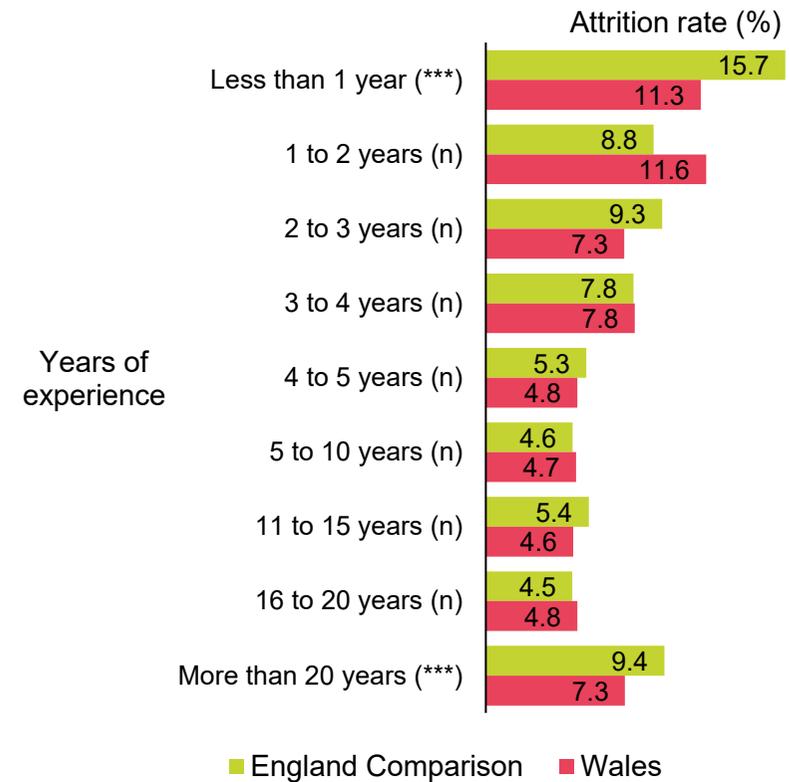
Figure 3 Attrition rates for primary teachers significantly differ by different years of experience



Source: NFER analysis of 2019-20 SWAC and SWC data.

Note: (***) shows a statistically significant difference at the 5 % level between Wales and the England comparison group, (n) shows no significant difference.

Figure 4 Newly-qualified and very experienced secondary teachers are significantly more likely to leave in England



Source: NFER analysis of 2019-20 SWAC and SWC data.

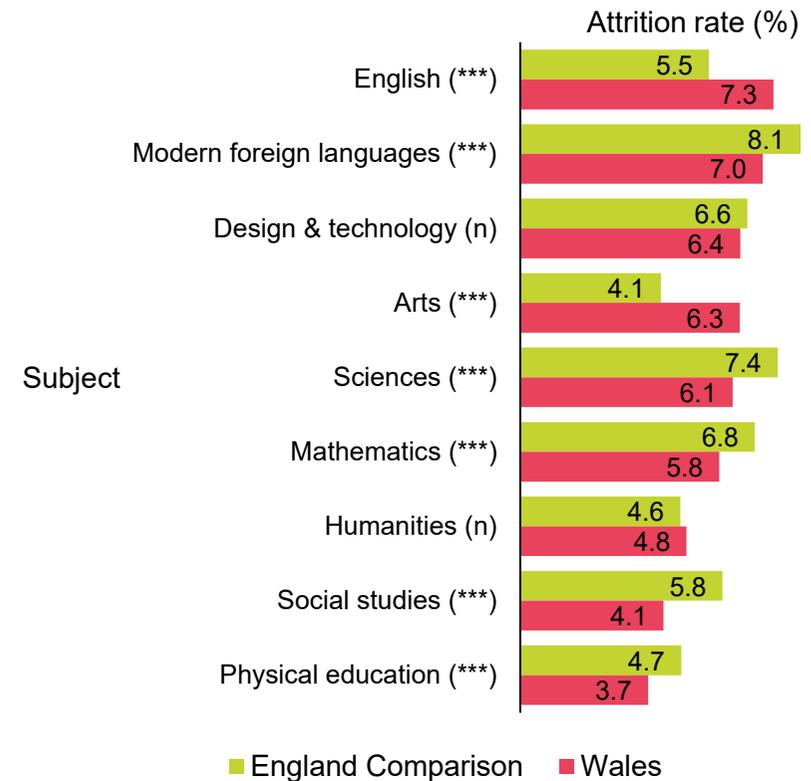
Note: (***) shows a statistically significant difference at the 5 % level between Wales and the England comparison group, (n) shows no significant difference.

3.1.4. Attrition rates by subject

Figure 5 presents attrition rate differences at the subject level for secondary teachers. For teachers of modern foreign languages, sciences, mathematics, social studies and physical education, attrition rates are significantly lower in Wales compared to the England comparison group.

However, for teachers of arts and English, the attrition rate is significantly higher in Wales than in the England comparison group. There are no significant differences between the two groups among teachers of design & technology and the humanities. There is therefore no evidence of a uniform pattern of attrition rate differences between teachers in Wales and the England comparison group.

Figure 5 Attrition rates differences between secondary teachers in England and Wales differ across subjects



Source: NFER analysis of 2019-20 SWAC and SWC data.

Note: (***) shows a statistically significant difference at the 5 % level between Wales and the England comparison group, (n) shows no significant difference.

3.1.5. Attrition rates by working pattern

This may suggest that greater attention is paid in Wales to making part-time working opportunities available for teachers and that part-time working may also be better supported in schools in Wales compared to in England.

Figure 6 compares attrition rates across part-time and full-time teachers in Wales and the England comparison group. For both primary and secondary teachers, there are no significant differences in attrition rates between Wales and the England comparison group for full-time teachers.

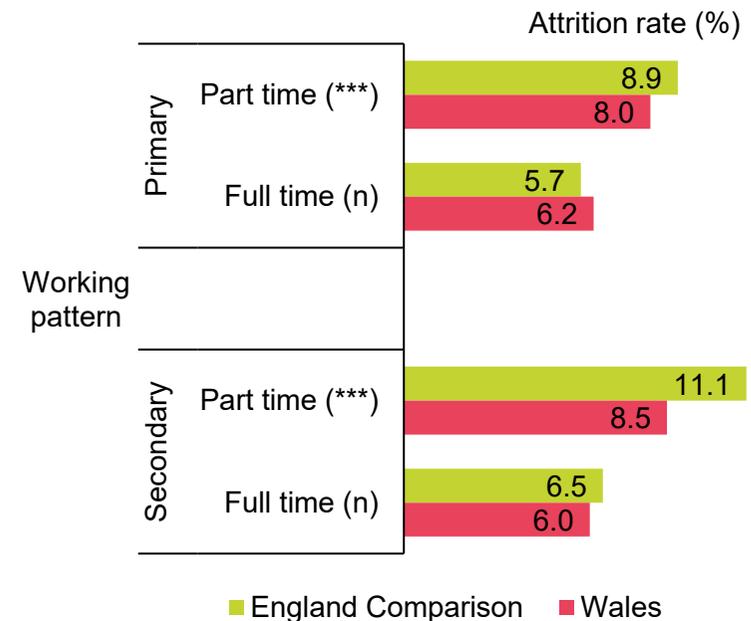
However, across both primary and secondary teachers, attrition rates are significantly lower for part-time teachers in Wales compared to the England comparison group.

The attrition rates of part-time teachers are higher than full-time teachers within each phase and country. Nonetheless, the comparison between Wales and the England comparison group may suggest that schools in England are generally less good at making attractive and sustainable opportunities for part-time teaching available to staff who may want to do so.

Part-time teachers make up a greater share of the teaching workforce in Wales compared to the England comparison group, with 39 per cent of the primary workforce and 34 per cent of the secondary workforce working part time, compared to 28 and 20 per cent, respectively, in England. This may suggest that greater attention is paid in Wales to making part-time working opportunities available for teachers and that

part-time working may be also be better supported in schools in Wales compared to in England.

Figure 6 Attrition rates for part-time teachers are significantly lower in Wales



Source: NFER analysis of 2019-20 SWAC and SWC data.

Note: (***) shows a statistically significant difference at the 5 % level between Wales and the England comparison group, (n) shows no significant difference.

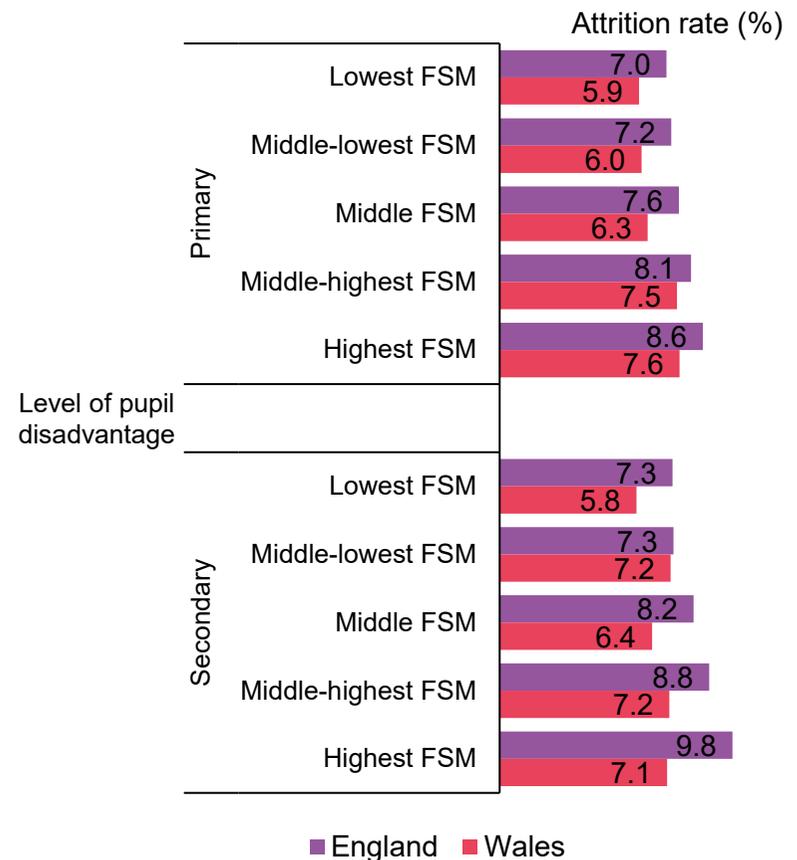
3.1.6. Attrition rates by level of pupil disadvantage

Figure 7 shows the relationship between the level of pupil disadvantage and the rate of teacher attrition, in both primary and secondary schools in Wales and England. The data shown is for all schools in England rather than the England comparison group.

The level of pupil disadvantage is measured by the proportion of pupils eligible for free school meals (FSM) in 2019, divided into five categories. The categories are defined as five equal-sized categories (known as quintiles) in Wales. We then apply the same FSM levels to schools in England. Therefore, the categories in England correspond to the same *levels* of pupil disadvantage, but are not five equally-sized groups of schools within England.

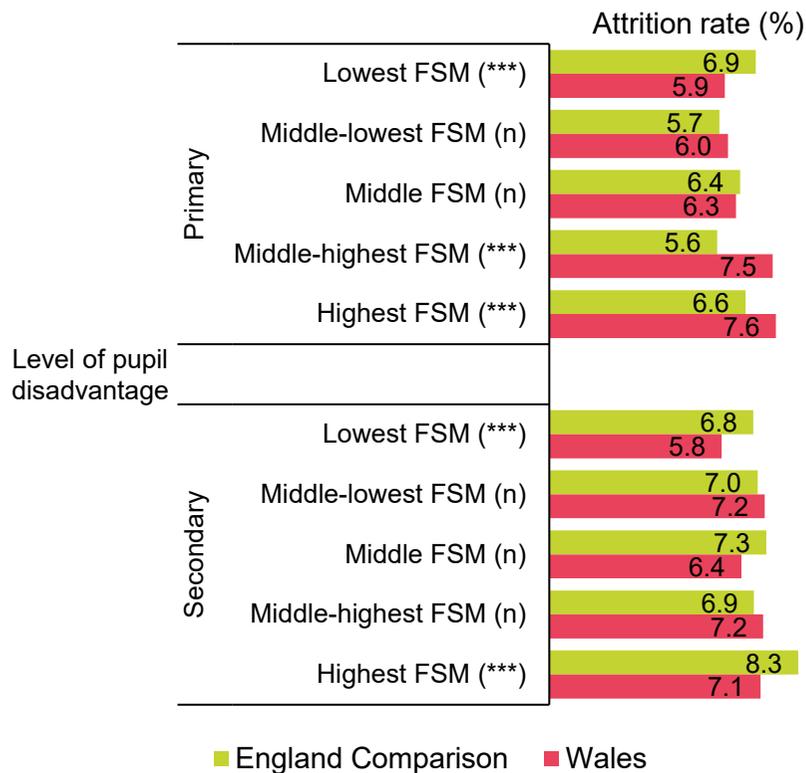
The data shows a clear relationship between the level of pupil disadvantage and the rate of teacher attrition in both countries and in both phases, with higher rates of teacher attrition in schools with higher levels of pupil disadvantage. This relationship is slightly less clear for secondary schools in Wales, given the relatively high attrition rate in schools with the middle-lowest levels of pupil disadvantage. However, on average, schools with higher levels of pupil disadvantage tend to find retaining teachers more challenging.

Figure 7 Schools with more deprived pupil intakes find retaining teachers more challenging



Source: NFER analysis of 2019-20 SWAC and SWC data.

Figure 8 Primary schools in Wales with the highest levels of pupil disadvantage have higher teacher attrition rates than comparator schools in England



Source: NFER analysis of 2019-20 SWAC and SWC data.

Note: (***) shows a statistically significant difference at the 5 % level between Wales and the England comparison group, (n) shows no significant difference.

Figure 8 compares teacher attrition rates between levels of pupil disadvantage, between Wales and the England comparison group, in both primary and secondary schools.

Among teachers in primary schools, attrition rates are significantly higher in the England comparison group compared to Wales in the lowest-FSM schools. Attrition rates are significantly lower in the England comparison primary schools compared to Wales in the middle-highest and highest-FSM schools. This suggests that primary schools in Wales with the highest levels of pupil disadvantage find retaining teachers more challenging than comparator schools in England.

In contrast, among teachers in secondary schools, attrition rates are significantly higher in the England comparison group compared to Wales in the highest-FSM schools. Attrition rates are also significantly higher in the England comparison secondary schools compared to Wales in the lowest-FSM schools. This suggests that secondary schools in Wales with the highest levels of pupil disadvantage tend to find retaining teachers less challenging than comparator schools in England.

There is therefore no evidence of a uniform pattern of attrition rate differences between teachers in Wales and the England comparison group, by level of pupil disadvantage.

3.2. Workload comparisons

This section analyses differences in working hours and perceptions of workload in England and Wales, using data from the Labour Force Survey.

Nationally representative teacher surveys measuring working hours and perceptions of workload in England and Wales have been conducted in both countries. The 2021 EWC national education workforce survey found that full-time teachers in Wales reported working 56 hours per week (EWC, 2021), while the most recent DfE teacher workload survey in 2019 found that full-time teachers in England reported working 53 hours per week (DfE, 2019).

However, there are reasons to doubt that these findings are directly comparable with one another. Firstly, the wording of the questions differed between the surveys, which means the findings are unlikely to be truly comparable.¹ Second, the two different years in which the surveys were taken are not comparable as the Covid-19 pandemic may have had impacts on teacher workload. We use comparable data for teachers in England and Wales over a consistent and longer period of time to analyse the potential differences in workload in this report (see section 2).

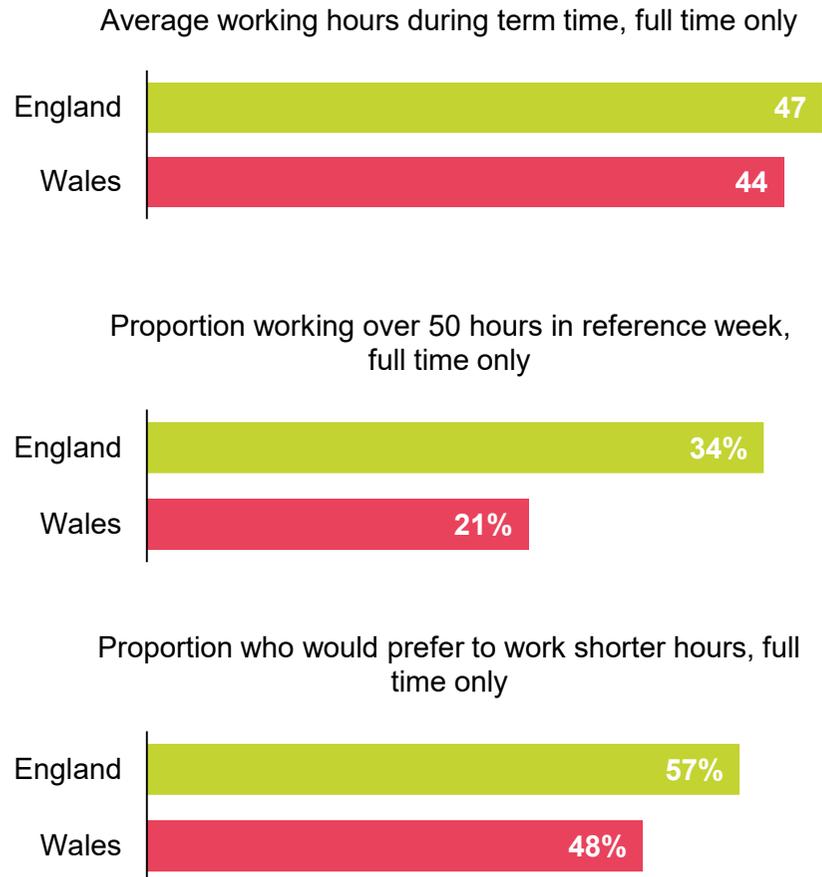
¹ In England: “In your most recent full working week, approximately how many hours did you spend in total on teaching, planning lessons, marking, covering for absence, interacting with other teachers, participating in staff meetings, pastoral care and other activities related to your job at [name of school]?”.

Figure 9 reports the average outcomes for specific working hours and workload-related questions asked in the Labour Force Survey. The data represents averages for teachers in England and Wales over the period 2010 to 2020. The data shows that on average, full-time teachers in Wales work significantly fewer hours than teachers in England. The data also shows that full-time teachers in England are significantly more likely to have worked over 50 hours a week compared to full-time teachers in Wales and significantly more full-time teachers in England would prefer to work shorter hours than in Wales.

The same patterns of difference between England and Wales are evident in the data for full-time primary teachers and full-time secondary teachers.

In Wales: “During an average working week how long do you spend on the following [list of activities]? Please state number of hours (numerically). Include tasks that take place outside of your usual working hours, including during weekends and evenings.”

Figure 9 Teachers in Wales work fewer hours and are less likely to report wanting to work fewer hours



Source: NFER analysis of LFS data, 2010-2020.

Our LFS analysis does not use the same weighting of local areas to disentangle the influence of economic and contextual factors. Economic and contextual factors could therefore play a role in explaining part of the differences in working hours and perceptions of workload. We split the data by region to explore the extent to which regions that are more similar in characteristics to Wales, such as the North East, differ in these measures of teacher workload.

Figures 10 and 11 show the differences in working hours and the preference to work fewer hours for teachers in England and Wales, split by region in England. The data shows that full-time teachers in Wales report working significantly fewer hours than full-time teachers in all regions across England apart from London, where the difference is not statistically different. Full-time teachers in all regions in England were also significantly more likely to have preferred to work fewer hours than full-time teachers in Wales.

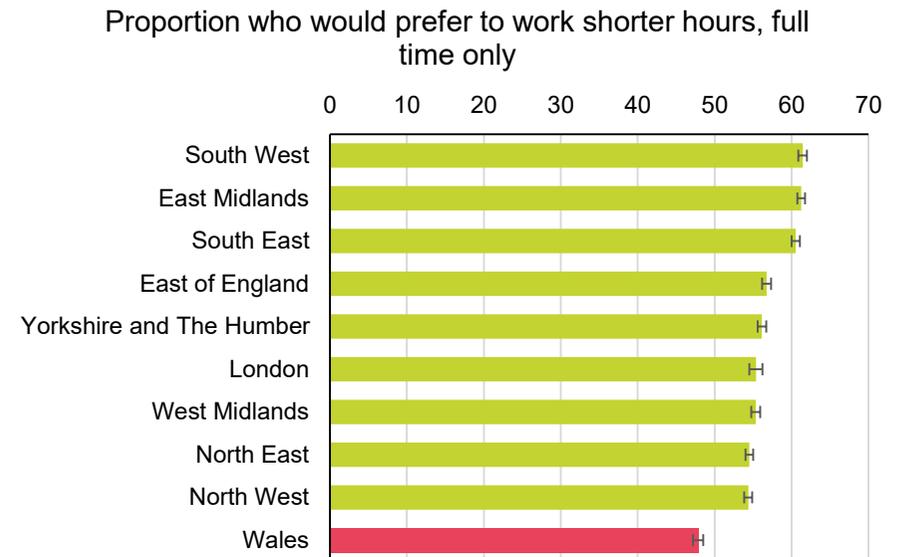
These figures provide some evidence that while full-time teachers in Wales work long hours and many would prefer to work shorter hours, overall working hours and perceptions of workload for full-time teachers in Wales have been significantly lower over the past ten years compared to in England.

Figure 10 Teachers in Wales work significantly fewer hours than teachers in all regions in England except London



Source: NFER analysis of LFS data, 2010-2020.

Figure 11 Teachers in Wales are significantly less likely to report preferring to work shorter hours, compared to teachers across all regions in England



Source: NFER analysis of LFS data, 2010-2020.

4. Conclusions

There is mixed evidence on the association between the different policy approaches in England and Wales and teacher attrition, which implies a more complex relationship than our initial hypothesis suggested there might be

Our analysis shows that while teacher attrition rates are lower in Wales than in England overall, a substantial portion of this difference is due to differences in economic and contextual factors between the two countries. Therefore, it is important to bear this in mind when any comparison of teacher retention rates in England and Wales is made.

We also find that there are significant differences in attrition rates between teachers in the two countries after accounting for differences in economic and contextual factors. However, these are not all in the same direction, which appears to challenge the hypothesis that the contrasting approach to policymaking in Wales compared to England is associated with universally lower rates of teacher attrition.

The attrition rate among secondary classroom teachers is 0.6 percentage points higher in England compared to in Wales, a difference that is statistically significant. However, among primary classroom teachers, there is a statistically significant difference of 0.6 percentage points in attrition rates between the England comparison group and Wales, with *lower* attrition in England.

Our findings on teacher working hours and perceptions of workload in the two countries show that teachers in Wales work fewer working

hours per week on average and have slightly better perceptions of their workload compared to England. However, it is important to note that teachers in both countries report high working hours and many teachers in both countries report preferring to work shorter hours.

The working hours data appears to be consistent with the hypothesis that the more collaborative approach to policymaking in Wales may be associated with lower slightly lower working hours in Wales. However, our data cannot definitively draw this link as there may be other factors influencing differences in teacher working hours in the two countries.

Overall, the findings suggest that there is a more complex relationship between policy approaches, teacher workload and attrition than implied by our initial hypothesis. While there may be underlying policy reasons contributing to differences in attrition rates, it might indicate that there are policy differences affecting primary and secondary schools differently, rather than a universal difference in overall policy approach.

There are key groups of teachers and schools where there are more substantial differences in attrition rates between teachers in England and Wales, after accounting for differences in economic and contextual factors

There are some key groups of teachers in Wales that appear to have significantly lower attrition rates compared to in England. These include primary and secondary teachers with more than 20 years of experience, who trained to be teachers before the devolution of education policymaking to the Welsh Government.

Secondary schools in Wales with the highest levels of pupil disadvantage (measured by the proportion of pupils eligible for FSM) tend to have lower teacher attrition rates than comparator schools in England. However, among teachers in primary schools, schools in Wales with the middle-highest and highest levels of pupil disadvantage tend to have higher attrition rates than comparator schools in England.

Part-time teachers have significantly higher retention rates in Wales compared to comparator schools in England, and the fact that substantially more of the teaching workforce in Wales works part time suggests that greater attention is paid in Wales to making part-time working opportunities available for teachers. Recent policy work in England aimed at encouraging part-time and flexible working in schools may benefit from exploring and understanding further why part-time working appears to be more widespread and better supported in schools in Wales.

Devolution of policymaking provides some valuable opportunities to evaluate impact where individual policies and approaches to policymaking differ, but research in this area also has significant challenges

The evaluation of policies is particularly challenging where the change introduced is at a national level, since there is typically no suitable comparison group available to understand what the counterfactual (i.e. what might have happened otherwise) path of outcomes might have been.

The devolution of education policymaking, particularly to Wales since 2000 given the similarities between the two systems before then and

the substantial differences in policy approach that have been taken since, therefore potentially provides good opportunities to evaluate the impact of policies. For example, Burgess *et al.* (2013) used the decision by the Welsh Government early in the devolution process to abolish school league tables as a ‘natural experiment’.

However, significant challenges for research in this area remain. A key challenge is the isolation of the impact of individual policy changes when multiple policy changes are made at similar times. This is the reason why this research paper focuses on attempting to understand the impact of overarching policy approaches rather than individual policy changes.

The availability of comparable SWAC and SWC data provides further opportunities for research to explore the differences in teacher attrition between the two countries, and perhaps to unpick the influence of policy approaches. For example, a key limitation of this study is that the attrition rate data is based on the 2020/21 academic year, which was significantly affected by the Covid-19 pandemic in both countries. Research exploring differences in attrition rates between the two countries in future years that have more typically functioning teacher labour markets would help to test the robustness of the tentative conclusions drawn here.

Further, the devolution of pay-setting to the Welsh Government in 2019, and the ensuing divergence in salaries at different teacher pay scale points, could provide research opportunities to influence of teacher pay on attrition rates. However, such research would also need to be carefully designed to isolate the impact of pay from other

concurrent changes that potentially also affect country-specific teacher attrition rates.

References

- BBC News (2004). 'Welsh scrap KS1 tests', *BBC News*, 14 May [online]. Available: <http://news.bbc.co.uk/1/hi/wales/3712937.stm> [14 September 2022].
- Britton, J., Farquharson, C., Sibieta, L., Tahir, I. and Waltmann, B. (2020). *2020 Annual Report on Education Spending in England* [online]. Available: https://ifs.org.uk/sites/default/files/output_url_files/R183-2020-annual-report-on-education-spending-in-England%252520%2525281%252529.pdf [14 September 2022].
- Burge, P., Lu, H, and Phillips, W. (2021). *Understanding Teaching Retention: Using a Discrete Choice Experiment to Measure Teacher Retention in England* [online]. Available: https://www.rand.org/pubs/research_reports/RRA181-1.html [14 September 2022].
- Burgess, S., Wilson, D. and Worth, J. (2013). 'A natural experiment in school accountability: The impact of school performance information on pupil progress', *Journal of Public Economics*, **106**, 57-67 [online]. DOI 10.1016/j.jpubeco.2013.06.005.
- Daugherty R. (2007). 'National curriculum assessment in Wales: evidence-informed policy?', *Wales Journal of Education*, **14**, 1, 69-84 [online]. Available: <https://journal.uwp.co.uk/wje/article/270/gallery/289/view/> [15 September 2022].
- Department for Education (2017). *Analysis of School and Teacher Level Factors Relating to Teacher Supply* [online]. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/682023/SFR86_2017_Main_Text.pdf [14 September].
- Department for Education (2019). *Teacher Workload Survey 2019* [online]. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/855933/teacher_workload_survey_2019_main_report_amended.pdf [14 September 2022].
- Education Workforce Council (2020). *Policy Briefing 2020: Teacher Recruitment and Retention in Wales* [online]. Available: <https://www.ewc.wales/site/index.php/en/documents/research-and-statistics/briefings/2633-briff-polisi-2020-pdf-dwyieithog-policy-briefing-2020-bilingual-pdf/file.html> [14 September 2022].
- Education Workforce Council (2021). *2021 National Education Workforce Survey Report* [online]. Available: <https://www.ewc.wales/site/index.php/en/documents/research-and-statistics/education-workforce-survey-2021/3058-national-education-workforce-survey-report-2021/file.html> [14 September 2022].
- Ghosh, A. and Worth, J. (2022). *Teacher Labour Market in Wales Annual Report 2022* [online]. Available: https://www.nfer.ac.uk/media/4958/teacher_labour_market_in_wales_annual_report_2022.pdf [14 September 2022].

Hutchings, M. (2011). *What Impact Does the Wider Economic Situation Have on Teachers' Career Decisions? A Literature Review* (Research Report DfE-RR136) [online]. Available:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/181566/DFE-RR136.pdf [14 September 2022].

Lynch, S., Worth, J., Bamford, S. and Wespieser, K. (2016). *Engaging Teachers: NFER Analysis of Teacher Retention* [online]. Available: <https://www.nfer.ac.uk/publications/lfsb01/lfsb01.pdf> [14 September 2022].

Office for National Statistics (2022). *Labour Force Survey – user guidance* [online]. Available: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/labourforcesurveyuserguide> [14 September 2022]

Organisation for Economic Co-operation and Development (2015). *Pisa 2015 Results. Policies and Practices for Successful Schools. Volume II* [online]. Available: <https://www.oecd-ilibrary.org/docserver/9789264267510-en.pdf?expires=1663173046&id=id&accname=guest&checksum=0FD72E3B37A84CE087A04091B7017EA1> [14 September 2022].

Power, S. (2016). 'The politics of education and the misrecognition of Wales', *Oxford Review of Education*, **42**, 3, 285-298 [online]. DOI 10.1080/03054985.2016.1184871.

Reynolds, D. (2008). 'New Labour, education and Wales: the devolution decade', *Oxford Review of Education*, **34**, 6, 753-765 [online]. DOI 10.1080/03054980802519019.

Sharp, C., Walker, M., Lynch, S., Puntan, L., Bernardinelli, D., Worth, J., Greaves, E., Burgess, S. and Murphy, R. (2017). *Evaluation of Teachers' Pay Reform* [online]. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/652763/Evaluation_of_Teachers_Pay_Reform-Final_Report.pdf [14 September 2022].

Sibieta, L. and Jerrim, J. (2021). *A Comparison of School Institutions and Policies Across the UK* [online]. Available: <https://epi.org.uk/wp-content/uploads/2021/04/EPI-UK-Institutions-Comparisons-2021.pdf> [14 September 2022].

TES (2001). 'Welsh scrap KS1 tests', *TES Editorial*, 2 November [online]. Available: https://www.tes.com/magazine/archive/welsh-scrap-ks1-tests?amp_27 [14 September 2022].

Welsh Government (2011). *Written Statement - Performance and Standards* [online]. Available: <https://gov.wales/written-statement-performance-and-standards> [14 September 2022].

Welsh Government (2016). 'KS4 performance measures in Wales: changes and comparability', 16 July [online]. Available: <https://gov.wales/sites/default/files/statistics-and-research/2019-05/article-on-key-stage-4-performance-measures-in-wales-changes-and-comparability-2016.pdf> [14 September 2022].

Welsh Government (2019). 'Newly qualified teachers to receive a 5% pay rise as teacher pay devolved to Wales for first time', 22 July [online]. Available: <https://gov.wales/newly-qualified-teachers-receive-5-percent-pay-rise-teacher-pay-devolved-wales-first-time> [14 September 2022].

Worth, J. and Faulkner-Ellis, H. (2022). *Teacher Labour Market in England Annual Report 2022* [online]. Available: https://www.nfer.ac.uk/media/4885/teacher_labour_market_in_england_annual_report_2022.pdf [14 September 2022].

Appendix

Weighting methodology

The aim of our weighting methodology is to identify a group of local authority areas in England that have, on average, similar economic and contextual characteristics to local authorities in Wales. We then use these weights in our analysis to account for the contribution that economic and contextual factors make to the differences in teacher retention rates between the two countries. By accounting for these factors separately, we aim to identify the role of other factors in explaining differences in retention rates, a key difference being the differences in policy approach the respective governments have taken since devolution.

We use a statistical technique called *entropy balancing* to create our England comparison group of weighted local authorities. We created two sets of weights using this method. As shown in Table 1, weight 1 includes all our economic and contextual factors, while weight 2 does not include the Key Stage 4 performance measure. The main weight we use is weight 1, but we use weight 2 to test the sensitivity of the results to the excluding Key Stage 4 attainment from the matching.

Table 1 Variables used in the weighting

Weight variable	Weight 1	Weight 2
Key Stage 4	●	
IDACI scores	●	●
Employment deprivation	●	●
Unemployment rate	●	●
Average weekly pay	●	●
Population density	●	●

Table 2 presents the differences in means of the economic and contextual factors used in the weighting between England, the constructed England comparison group and Wales. The data shows that while there are substantial differences in economic and contextual factors between England and Wales, particularly in population density and average earnings, after using the entropy balancing method the characteristics of the England comparison group match very closely to average among local authorities in Wales.

Table 2 Results of entropy balancing

Weighting Variable	England	England Comparison	Wales
Percentage of pupils achieving at least five GCSEs A*-C in 2014	63	58	58
IDACI score	0.17	0.19	0.19
Employment deprivation	0.10	0.14	0.14
Unemployment rate in 2019	4.3	4.2	4.2
Average weekly earnings in 2019 (£)	450	406	406
Population density	26	4	4
Number of LAs	149	149	22

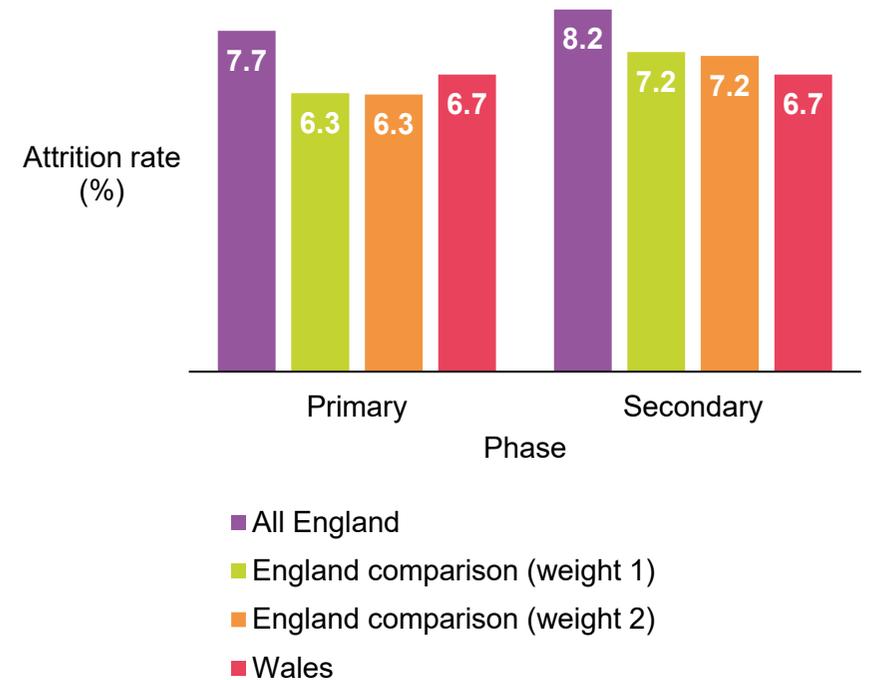
Table 3 presents a list of the ten English local authorities that are most highly weighted by the entropy balancing weighting technique, for each of the two weights. Some local authorities in northern England, such as Cumbria, Redcar and Cleveland and County Durham, were given the highest weights due to their greater comparability with Welsh local authorities across the weighting characteristics. All local authorities in London were given virtually zero weight, given their dissimilarity to any local authority in Wales, particularly with population density and average earnings.

Table 3 English local authorities that received the highest weighting were more likely to be northern and rural

Rank in weighting	Weight 1	Weight 2
1 = highest	Cumbria	County Durham
2	Redcar and Cleveland	Cumbria
3	County Durham	Redcar and Cleveland
4	Knowsley	Knowsley
5	Barnsley	Isle of Wight
6	Cornwall	Cornwall
7	Lancashire	Barnsley
8	Isle of Wight	Lancashire
9	Lincolnshire	Northumberland
10	Northumberland	Lincolnshire

Figure 12 presents the differences in overall attrition rates for teachers in primary and secondary schools, respectively, using the two weights for calculating the England comparison group. The results are virtually identical, suggesting that the findings are not sensitive to the inclusion of Key Stage 4 attainment as a contextual characteristic. We therefore focus on weight 1 throughout in the main analysis.

Figure 12 The inclusion of Key Stage 4 attainment as a characteristic in the weighting did not significantly alter our findings



Source: NFER analysis of 2019-20 SWAC and SWC data.

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