

# The gender progression and pay gap for teachers in Wales

Authors: Catherine Foster

Date: May 2023

**This Data Insight examined differences between female and male teaching staff at different career stages using the School Workforce Annual Census (SWAC). The analysis found that female teachers earned more than male teachers at classroom teacher level. However, this trend reversed for teachers in senior leadership, where male teachers earned, on average, 6% more after controlling for other measured characteristics. In addition, female teachers were significantly less likely to hold senior management roles.**

## Background

Despite pay legislation, increased participation of women in education and training, and better performance of female students in all subjects in both secondary and university education (Ofqual, 2021; HESA, 2022), the gender<sup>1</sup> pay gap (GPG) persists.

In Wales, the GPG using weekly earnings was estimated at 10.9% across all sectors for full time workers (Stats Wales, 2022), down from 18.6% in 2004, but up from 8.5% in 2020. Further, career progression often plateaus for women in their late 20s (Costa Dias, Joyce and Parodi, 2018) and women are under-represented in senior roles in Wales, as in the rest of the UK, in both the private and public sectors (Senedd Research, 2022). Whilst the teacher labour market in Wales has recently been examined in a report by the Nuffield Foundation (Ghosh and Worth, 2022), there is a relative lack of evidence on gender differences in the pay and progression of teachers in Wales compared to what is available for England (NAHT, 2021).

Given the differences in pay and management structures that exist in Wales, this analysis aimed to address that evidence gap, examining the gender gaps in both pay and career progression, once personal and school characteristics had been controlled for.

## What we did

We used School Workforce Annual Census (SWAC) data from 2019 and 2020 (Welsh Government, 2020) which covers all maintained schools in Wales. Teaching roles were divided into qualified classroom teachers and qualified teachers holding senior management positions. These groups were created to examine gaps in

<sup>1</sup> The literature typically refers to the gender pay gap experienced by female workers. However, sex, not gender identity, is the measured variable in this dataset hence the use of both terms.

pay and representation by sex between types of roles within schools. First, descriptive analysis to identify the proportion of male and female teachers in each role type was carried out, followed by examination of average weekly earnings. Binary logistic regression was used to estimate the probability of women entering senior management roles after accounting for other school and personal characteristics. Linear regression was then used to estimate whether sex was a predictor of pay, again, after controlling for other relevant available characteristics. In this data insight, we focus on findings for qualified classroom teachers and those in senior management roles.

## What we found

Figure 1 shows the proportion of all male and female qualified teaching staff holding each category of role. Fewer male teachers held classroom teacher positions, suggesting that they tend to progress to roles outside the classroom, including senior leadership.

Figure 1 – Percentage of staff with qualified teacher status (QTS) in each type of role. A greater proportion of male QTS were in senior management whereas more female qualified teachers were in classroom teacher roles. QTS total N=69970.

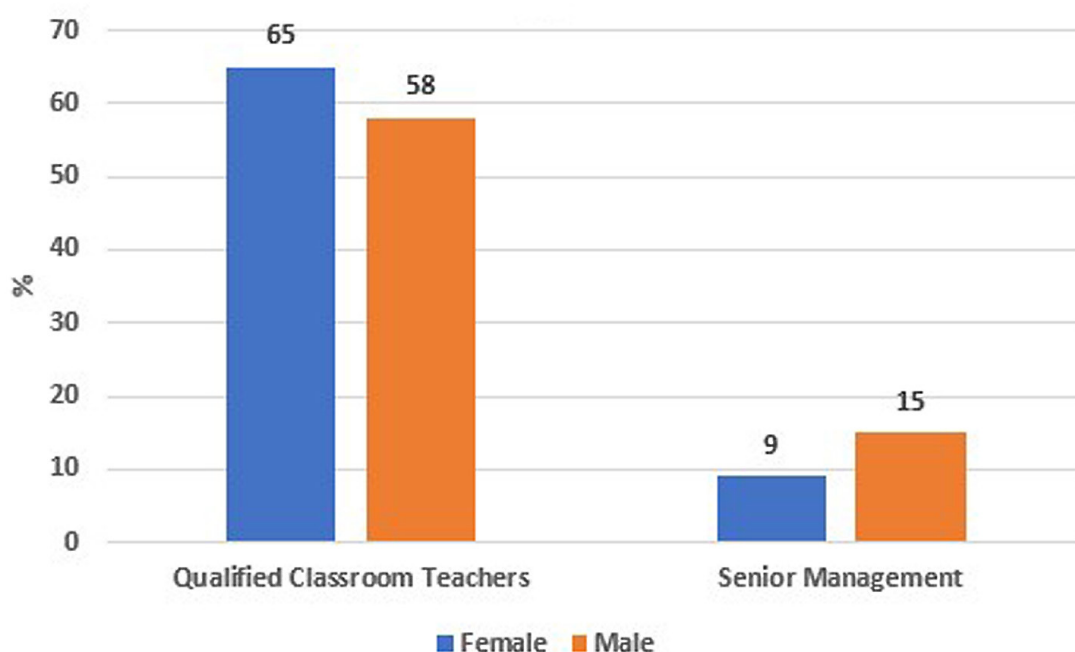


Figure 2 shows the pay gap in mean weekly earnings for male and female classroom teachers before controlling for other factors.

**The key take-away from figure 2 is that female teachers had lower take home pay in teaching from the beginning of their careers and pay does not catch up to that of male teachers.**

The GPG was 1.5% in the first few years after achieving qualified teacher status, increasing to 10% by 12-14 years post qualification. For those progressing to senior leadership positions, the trend was similar. As few teachers reach senior leadership in the first five years of their career, we looked from 6-8 years post qualification where there was a 6% pay gap, which increased to 12% for those 15-17 years post-qualification (figure 3).

Figure 2 - N=22170 (average across 2019 and 2020). Average weekly earnings by years as a qualified teacher (proxy for experience) for staff holding classroom teacher roles.

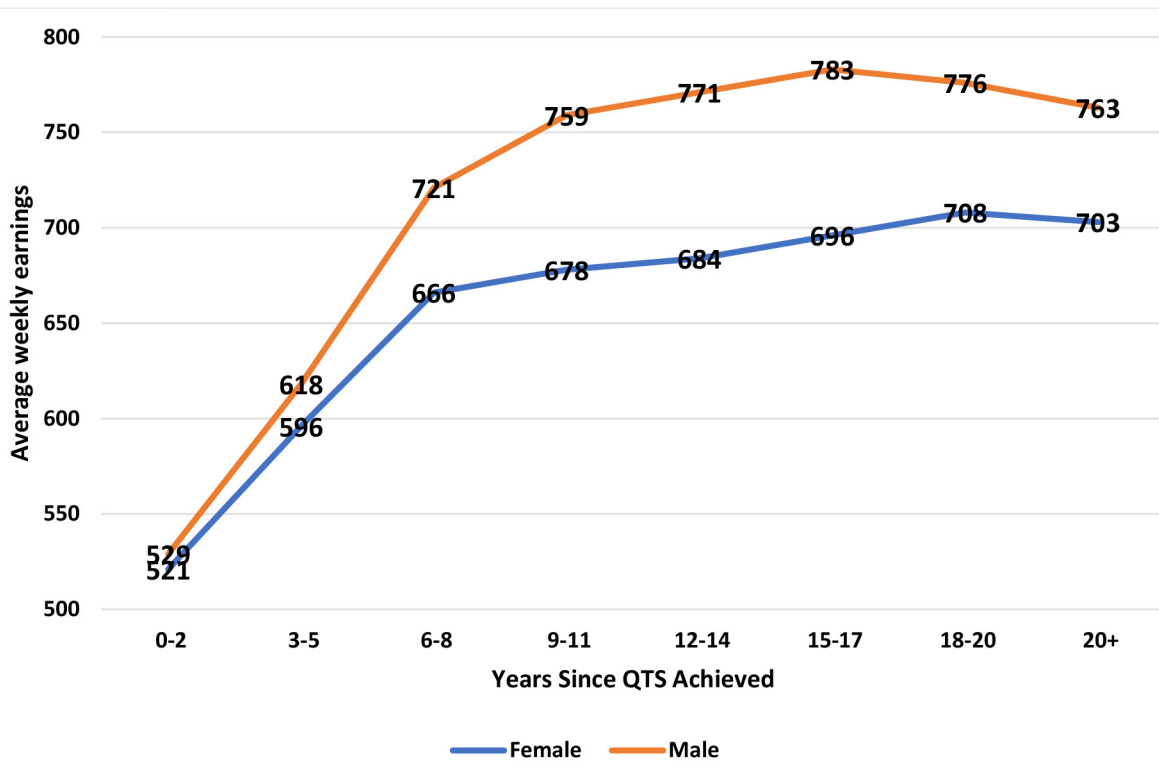
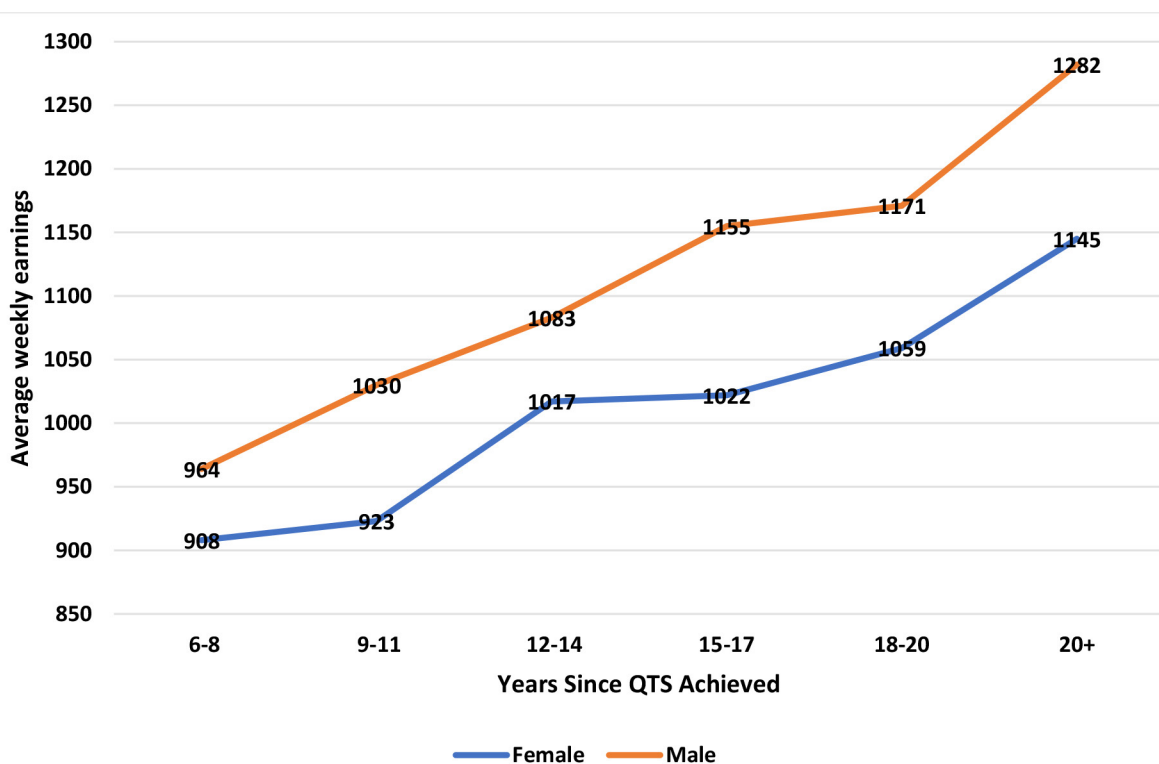


Figure 3 - N=3715 (average across 2019 and 2020). Average weekly earnings by years as a qualified teacher (proxy for experience) for staff holding senior leadership roles. Included roles are executive headteachers, headteachers, heads of school, acting headteachers, deputy headteachers and assistant headteachers.



# Regression analyses - Predictors of senior leadership roles and pay

Although data on the differences in actual earnings is valuable, key factors influencing pay other than sex, must be controlled for. For example, the SWAC data revealed that female teachers, on average, were more likely to work part time than their male colleagues and therefore would be expected to earn less. However, the SWAC data also revealed that women were on average older than their male colleagues and had more years as qualified teachers across the sample. The greater experience of female teachers might be expected to be associated with progression to management positions and higher earnings. Such factors need to be accounted for when examining differences in pay and progression.

## Examining progression

Binary logistic regression was conducted on all qualified teachers to examine factors associated with the probability of being in a senior management role. Logistic regressions allow us to examine the effect of sex on the likelihood of progression after taking other available characteristics into account. Control variables were:

- Contracted hours
- Years since qualified teaching status (QTS) achieved (proxy for experience)
- Age of entry to teaching (proxy first or second career)
- Local education authority (LEA)
- School sector and language medium
- School religion
- School size
- Number of teachers
- Whether a school had been part of a recent merger

**Our analysis revealed that male teachers were more than twice as likely as female teachers to be in a senior leadership position when controlling for the other factors outlined above.**

## Examining pay

Linear regression was conducted to estimate the impact of sex on pay for the qualified classroom teacher and senior management team groups. Statistically significant but opposing effects were found for these groups. Female qualified classroom teachers earned, on average, 1.6% more in weekly pay than male teachers, when controlling for the included personal and school characteristics. On the other hand, female teachers in senior management positions earned approximately 6% less in average weekly pay than their male counterparts, even after controlling for contracted hours and years since qualifying as a teacher (our proxy for experience).

## Why it matters

Women are under-represented in leadership positions and are paid significantly less than men in senior leadership roles, after controlling for contracted hours and time since qualifying as a teacher as well as other factors such as school sector.

These findings show that there are still barriers to equal pay and progression for women, even in sectors with clearly defined pay scales and a predominantly female workforce (77% of all qualified teaching staff in Wales). This raises the obvious issue of pay and pension inequality for women, but also issues of representation. We already know that there is a lack of ethnic minority representation in schools, especially at senior leadership level (Education Workforce Council, 2020). However, there are also issues with low representation of male

teachers in classroom roles, particularly at primary school level, and similarly with women in senior leadership positions.

## What next?

This is an ongoing piece of research, and we plan to look at differences in the pay gap using measures of hourly pay to better control for working patterns, and scrutinise in more detail, the specific within-category roles where pay and progression are most unbalanced. We also plan to analyse additional payments above basic salary to identify whether these payments increase the GPG. As more annual SWAC data becomes available we plan to look at the retention and progression of teachers longitudinally, as well as linking to additional datasets to examine the impact of caring responsibilities which is not possible using the SWAC alone.

## Acknowledgements

The author would like to thank Rhys Davies, Katy Huxley and Ian Thomas for their input on this piece of work.

This Data Insight has been produced by the Wales Institute of Social and Economic Research and Data (WISERD) Education Data Lab, working in collaboration with the ADR Wales Education research team. It provides a snapshot of informative research currently underway at ADR Wales but is not intended to provide a complete picture of work undertaken within this field or the ADR Wales programme of work. The information presented in this Data Insight have been reviewed by ADR Wales colleagues with expertise within this thematic area and are accepted to be accurate at the point of publication. Views expressed in this Data Insight are those of the researchers and not necessarily those of ADR Wales partner organisations.

## References

1. Higher Education Student Data (HESA) (2022). What are HE students' progression rates and qualifications? Available at: <https://www.hesa.ac.uk/data-and-analysis/students/outcomes>
2. The Office of Qualifications and Examinations Regulation (2021). Summer 2021 student-level equalities analysis - GCSE and A level. Available at: <https://www.gov.uk/government/publications/analysis-of-results-a-levels-and-gcses-summer-2021/summer-2021-student-level-equalities-analysis-gcse-and-a-level#results>
3. StatsWales (2022). Gender pay difference in Wales by year. Available at: <https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Earnings/genderpaydifferenceinwales-by-year>
4. Costa Dias, M., Joyce, R., Parodi, F. (2018). Wage progression and the gender wage gap: the causal impact of hours of work. Institute for Fiscal Studies. Available at: <https://ifs.org.uk/publications/wage-progression-and-gender-wage-gap-causal-impact-hours-work#:~:text=Report,Wage%20progression%20and%20the%20gender%20wage%20gap%3A%20the,impact%20of%20hours%20of%20work&text=In%20the%20early%201990s%2C%20average,it%20remains%20at%20around%2020%25.>
5. Senedd Research (2021). Gender equality in Wales: progression or regression? Available at: <https://research.senedd.wales/research-articles/gender-equality-in-wales-progression-or-regression/>
6. Ghosh, A., Worth, J. (2022). Teacher labour market in Wales. Annual report 2022. National Foundation for Education Research. Available at: <https://www.nfer.ac.uk/teacher-labour-market-in-wales-annual-report-2022/>
7. National Association of Head Teachers (NAHT), (2021). Closing the Gender Pay Gap in Education: A leadership imperative. Available at: <https://www.naht.org.uk/Our-Priorities/Our-policy-areas/Equality-diversity-and-inclusion/ArtMID/824/ArticleID/1414/Closing-the-Gender-Pay-Gap-in-Education-A-leadershipimperative#:~:text=Looking%20at%20the%20latest%20school,age%20and%20seniority%20in%20roles>
8. Education Workforce Council (2020). Ethnic minority representation within the school workforce in Wales (2020). Available at: <https://www.ewc.wales/site/index.php/en/documents/research-and-statistics/research-reports/published-research/2965-ethnic-minority-representation-within-the-school-workforce-in-wales-01-05-20.html>
9. Welsh Government (2020). School Workforce Census results. Available at: <https://www.gov.wales/school-workforce-census-results>

## Produced by ADR Wales

Website: [ADRUK.org](http://ADRUK.org)

Twitter: [@ADR\\_Wales](https://twitter.com/ADR_Wales)

This research has been carried out as part of the ADR Wales programme of work, as part of the Skills and Employability thematic research area. The thematic research areas are aligned to the priority themes as identified in the Welsh Government's Programme for Government. ADR Wales brings together data science experts at Swansea University Medical School, staff from the Wales Institute of Social and Economic Research and Data (WISERD) at Cardiff University and specialist teams within the Welsh Government to develop new evidence which supports the Programme for Government by using the SAIL Databank at Swansea University, to link and analyse anonymised data. ADR Wales is part of the Economic and Social Research Council (part of UK Research and Innovation) funded ADR UK.

For further information please contact

[Cathrine.E.Richards@Swansea.ac.uk](mailto:Cathrine.E.Richards@Swansea.ac.uk)

## ADR Wales Partners



Swansea University  
Prifysgol Abertawe

Medical School  
Ysgol Feddygaeth



Llywodraeth Cymru  
Welsh Government



Sefydliad Ymchwil Cymdeithasol  
ac Economaidd a Data Cymru  
Wales Institute of Social and  
Economic Research and Data