Centre for Higher Education Research & Evaluation | Lancaster University

CHERE@LU

Working Paper Series

Working Paper No. 8, March 2024

Athena Swan Awards: Are they an indicator of institutional gender equality?

Toni Dismore

Department of Educational Research, Lancaster University

Working Papers can be downloaded from the CHERE@LU Webpage.

Athena Swan Awards: Are they an indicator of institutional gender equality?

Abstract

The Athena Swan Charter is a gender equality framework that includes academic staff representation as well as their career progression and working environment. The granting of an institutional Athena Swan award indicates a commitment to addressing gender inequality, with plans, policies and processes in place to support this. AdvanceHE and others have put forward the case for Athena Swan making a positive impact on gender issues, although the awards have not been without criticism. In particular, there is a reported unequal burden of work placed on female staff to support the Athena Awan process, and arguably a lack of meaningful institutional change. This paper looks at the AdvanceHE Athena Swan award holders as well as the Higher Education Statistics Authority (HESA) staff data to see if holding an Athena Swan award is correlated with variables associated with academic gender balance and career progression. The findings suggest that at least in terms of representation across academic staff, holding an Athena Swan award can be an indicator of gender equality. However, awards are not necessarily an indicator of gender equality in terms of career progression. Moreover, institutional size is significant in the attainment of Athena Swan awards, with larger institutions more likely to hold a higher status award than smaller ones.

Keywords: Athena Swan, gender, equality.

Introduction

The Athena Swan Charter is a framework managed by AdvanceHE to "*support and transform gender equality*" within Higher Education (HE) (AdvanceHE, 2020). Established in 2005, it was initially set up specifically to support women in STEMM (Science, Technology, Engineering, Maths and Medicine) and has now evolved to address gender equality across HE. According to AdvanceHE (2020), the charter "*helps institutions achieve their gender equality objectives*". The charter covers staff representation as well as their career progression and working environment. In addition to signing up to the charter itself, individual departments, research institutes and Higher Education Institutions (HEIs) can apply for an Athena Swan award. There are three levels of award (bronze, silver and gold) each with a set of criteria assessed through AdvanceHE. It is these awards, that this paper will focus on.

The granting of an Athena Swan award indicates that the institution is committed to addressing gender inequality, and has plans, policies and processes in place to support this (AdvanceHE, 2023b). For those who are renewing their applications, there is a requirement to have made progress against action plans to address priorities in these areas. In addition, at the higher award levels (silver and gold), there is there a requirement to have had success at addressing gender inequality. Gold awardees are also required to have evidence of

"*sector-leading gender equality practice and supporting others to improve*" (AdvanceHE, 2023b). At the time of writing, there are 106 HEIs with institutional Athena Swan awards, of which 73% (77) are bronze and 27% (29) are silver. There are currently no HEIs with institutional gold awards (AdvanceHE, 2023a).

AdvanceHE (2020) claim that Athena Swan "*has a proven impact as a catalyst for change*", with 93% of 'Athena Swan Champions' considering it "*has had a positive impact on gender issues*". Ovseiko et al (2017), analysed research with staff at University of Oxford medical sciences departments. They found that respondents reported participating Athena Swan awards had led to improved career support, greater appreciation for those with caring responsibilities and more awareness of gender and diversity issues. This is similar to the findings of Caffrey et al (2016) who found in their qualitative study, that implementation of Athena Swan had raised awareness of gender equality issues and facilitated an environment where these can be addressed. Gregory-Smith (2017) looked at the impact of Athena Swan awards on female academic employment in medical schools from 2004-2013. They found that female academic employment did not significantly increase during the period amongst those who were early to attain Athena Swan awards, compared to those who joined later. They also found that holding an Athena Swan silver award, was not an indicator of positive impact on female academic careers (Gregory-Smith, 2017). Xiao et al (2020), looked at Athena Swan status and female representation at senior level across HEIs between 2012/13 – 2016/17. They found that female representation at senior level increased across institutions irrespective of Athena Swan status. In addition, they found that non-awardees had higher senior female representation than those with Athena Swan awards. However, conversely to Gregory-Smith (2018) they found that silver award holders had faster improvement rates in moving towards increased representation (Xiao et al, 2020).

The Athena Swan awards, have also not been without criticism, primarily focussing on the unequal burden of work placed on female staff to support the Athena Awan process, and the lack of meaningful change the awards have engendered (Ovseiko et al, 2017, Caffrey et al, 2016, Yarrow and Johnston, 2023). In Ovseiko et al's (2017) study, alongside positive impacts, respondents reported that they felt some changes were tokenistic and intended to attain the award, rather than make structural changes that could address power and pay inequalities. In addition, the Athena Swan application process, was reported as putting a greater burden of work on female academics (Ovseiko et al, 2017). Similarly, Caffrey et al (2016) found that the implementation itself created gender inequality with the majority of the work associated with it falling to female staff with potential consequences for career progression. Yarrow and Johnston's (2023), research with Athena Swan champions found that contrary to AdvanceHE's claims, the majority of champions were neutral regarding Athena Swan's impact on gender equality. They argue that holding an Athen Swan award is a form of what they term "*institutional peacocking*" (Yarrow and Johnston, 2023). This concept implies that attainment of the Athena Swan award is performative and a form of virtue signalling. Institutions actively promote or 'peacock' their Athena Swan credentials, without necessarily embodying the principles of gender equality in structurally meaningful ways. Having an Athena Swan award is therefore more of a status symbol than a true indicator of gender equality.

The insights in the literature have led me to want to explore for this paper, the following research question:

Is Athena Swan status an indicator of gender equality amongst academic staff?

Method

To address the research question, I conducted a quantitative study looking at similar data to Gregory-Smith (2018) and Xiao et al (2020). I used publicly available data from two sources: AdvanceHE Athena Swan award holders (AdvanceHE, 2023a) and the Higher Education Statistics Authority (HESA) staff data, specifically, Table 2 – HE staff by HE provider and personal characteristics 2014/15 – 2021/22 (HESAb, 2023). The Athena Swan data provided me with current award holders, the level of award (bronze, silver or gold) and the type of award (departmental, research institute or university/institutional). The HESA data provided me with academic staff numbers by sex and contract level (professor, other senior management, other contract type) for each of the Higher Education Institutions (HEIs) that submitted data to HESA during the timeframe. Given the changes in how sex was reported to HESA (HESAa, 2023), only data from 2017/18 - 2021/22 was looked at. During this period, sex was reported based on self-identified choice of gender. Prior to 2017/18 sex was reported as legal sex.

For the purposes of this research, only the Athena Swan awards held at HEI institutional level were included (N=106). For the HESA data, institutions were included if they returned academic staff data in 2021/22 (N=212). A dataset was created using data from both sources and included: institution name, Athena Swan institutional award status (silver, bronze or none), total typical academic staff, typical academic staff by sex at all levels, typical academic staff on professorial and senior level contracts by sex. Typical academic staff are those on standard (permanent or fixed term) contracts (HESAa, 2023). A new variable of 'gender balance' calculated based on how close the proportion of female academics was to 50%. While UK censuses (ONS, 2022, Scottish Government, 2023) have the female population as 51%, 50:50 is a common target for gender balance across sectors (50:50 Parliament, 2024; BBC, 2021) Finally, the change in gender balance between 2017/18 and 2021/22 was calculated as a new variable, for all typical academic staff and those at professorial/senior level.

While the majority of the variables were interval, the Athena Swan awards status is ordinal. Punch (2013) indicates that where variables are ordinal, non-parametric tests should be used. In addition, histograms of the variables indicates that they were not all normally distributed. Therefore, the Spearman's rho test of correlation was used rather than Pearson's product moment. Correlation tests indicate the relationship between two variables, showing "*both the direction and strength of the relationship*" (Punch, 2013, p263). Correlation tests were performed for each of the staff variables against Athena Swan status using SPSS.

Findings

To address my research question, I used a number of variables as a proxy for gender equality, both in terms of academic staff representation, and career progression as per the aims of the Athena Swan charter (AdvanceHE, 2020). These were, 'gender balance' and 'change in gender balance' for both institutions' academic staff overall and specifically for those at professorial/senior level ('senior'). The variables associated with 'senior' academics were looked at as proxies for career progression. These variables were correlated with Athena Swan status, both amongst all HEIs and for Athena Swan award holders only (see table 1).

Table 1: Spearman's rho correlations of all variables with Athena Swan status

Variable	N (All)	N (Award Holders)	Correlation Coefficient (All)	Correlation Coefficient (Award Holders)	Significance (All)	Significance (Award Holders)
Gender Balance in 2021/22	212	106	-0.217**	0.173	0.002	0.076
Improvement in Gender Balance 2017/18 – 2021/22	162	106	0.173*	0.173	0.028	0.076
Senior Gender Balance in 2021/22	150	106	0.143	0.299**	0.081	0.002
Improvement in Senior Gender Balance 2017/18 – 2021/22	140	105	0.105	0.076	0.217	0.444
Academic Staff Size in 2021/22	212	106	0.794**	0.429**	<0.001	<0.001

*= significant at 0.05 level, **= significant at 0.01 level

There was a weak but significant negative correlation with gender balance amongst academic staff (r(210) = -0.217, p=0.002). This indicates that the 'higher' the institutional Athena Swan status (silver award = highest, no award =lowest) the more gender balanced the academic staff population (i.e. their proportion of female typical academic staff was

closer to 50%). Interestingly, however, when those who do not hold an institutional Athena Swan award were excluded, there was no significant relationship between Athena Swan award level (silver vs bronze) and gender balance ($r(104)=0.173$, $p=0.076$). This suggests that silver award holders are not necessarily more gender balanced than bronze institutions.

For senior academics, there was no significant correlation between Athena Swan status and gender balance ($r(148)=0.143$, $p=0.81$). However, amongst those who hold an award, there was a significant relationship between Athena swan award level and gender balance at the senior level ($r(104)=0.299$, $p=0.02$). Unlike gender balance overall, at this senior level, the relationship is positive. The higher the Athena Swan award status, the greater the gender imbalance. This indicates that at senior levels, silver award holders are somewhat less gender balanced than those who hold a bronze award, which is consistent with Xiao et al's (2020) findings.

Looking at change in gender balance, there was a very weak somewhat significant correlation ($r(160)=0.173$, $p=0.028$). This indicates that to some extent institutional Athena Swan status is linked to improved gender balance over the 5 years looked at. As with overall gender balance, for award holders there was no significant relationship between change in gender balance and level of Athena Swan award across the years looked at ($r(104)= 0.173$, $p=0.076$). This indicates that silver award holders have not necessarily made greater gains in attaining gender balance than their bronze counterparts.

There was no significant correlation between improvements in gender balance at the most senior levels across the years looked at, and Athena Swan award status either overall ($r(138)=0.105$, $p=0.217$) or amongst award holders ($r(103)=0.076$, $p=0.444$). This indicates that holding a silver award, does not necessarily indicate an improvement in gender balance at senior level. These findings are more consistent with those of Gregory-Smith (2017) than Xiao et al (2020).

Due to the criticisms of Athena Swan in the literature (Caffrey et al, 2016, Ovseiko et al, 2017, Yarrow and Johnston, 2023), particularly concerning the workload of the award process, I also looked at overall academic staff population size (see table 1). I hypothesised that larger institutions would be better placed to undertake the substantial work involved with applying for Athena Swan awards. I found a strong significant correlation between institutional Athena Swan status and size of academic staff population ($r(210)=0.794$, $p<0.001$), with larger institutions more likely to hold and have a higher status (i.e. silver vs bronze) than smaller institutions. This is a substantially stronger correlation than any of the gender balance metrics looked at. When only looking at Athena Swan award holders, though the correlation is moderate rather than strong, it is still as significant ($r(104)=0.429$, $p<0.001$). This indicates that size matters even amongst Athena Swan award holders. This supports my hypothesis derived from the literature.

Conclusions

Overall, my findings do indicate that at least in terms of representation across academic staff, holding an Athena Swan can be an indicator of gender equality. However, in terms of gender equality with respect to academic career progression (as evidenced by findings related to senior academics), Athena Swan awards are not an indicator of gender equality. This supports the findings in the literature (Caffrey et al, 2016, Ovseiko et al, 2017, Gregory-Smith, 2017, Yarrow and Johnston, 2023) that suggest that despite some improvement in awareness, Athena Swan awards have not necessarily led to meaningful change. I found that more than an indicator of gender equality, Athena Swan awards are an indicator of institutional size. This suggests that they may play a role in institutional peacocking as argued by Yarrow and Johnston (2023), with larger institutions better able to take on the workload required for the awards and able to utilise the reputational benefits holding the award can bring. More research looking at the institutional motivations, and considerations with respect to their choices to apply for Athena Swan awards (or not) would be beneficial.

Reference list

50:50 Parliament (2024) *50:50 Parliament*. Available at: https://5050parliament.co.uk/ (Accessed 11/01/24)

AdvanceHE (2020) *Athena Swan Charter*. Available at: https://www.advance-he.ac.uk/equality-charters/athena-swan-charter (Accessed 09/01/24)

AdvanceHE (2023a) *Athena Swan, current award holders*. Available at: https://www.advance-he.ac.uk/equality-charters/athena-swan-charter/members#current (Accessed 10/01/24)

AdvanceHE (2023b) *Transformed UK Athena Swan Charter: Information pack for Universities*. Available at: https://s3.eu-west-2.amazonaws.com/assets.creode.advancehe-document-manager/documents/advance-he/AdvHE_AS%20University%20info%20pack_v1.3_1700045752.pdf (Accessed 10/01/24)

BBC (2021) *50:50 The Equality Project – Impact Report 2021* https://www.bbc.com/5050/documents/50-50-impact-report-2021.pdf (Accessed 10/01/24)

Caffrey, L., Wyatt, D., Fudge, N., Mattingley, H., Williamson, C. and Mckevitt, C. (2016) 'Gender equity programmes in academic medicine: a realist evaluation approach to Athena SWAN processes', *BMJ Open*, 6(9), Available at: https://bmjopen.bmj.com/content/6/9/e012090 (Accessed 11/01/24)

Gregory-Smith, I. (2017) 'Positive Action Towards Gender Equality: Evidence from the Athena SWAN Charter in UK Medical Schools: Athena SWAN in UK Medical Schools', *British Journal of Industrial Relations*, 56, 463-483

Higher Education Statistics Authority (2023a) *Definitions: Staff.* Available at: https://www.hesa.ac.uk/support/definitions/staff (Accessed 09/01/24)

Higher Education Statistics Authority (2023b) *Table 2 - HE staff by HE provider and personal characteristics 2014/15 to 2021/22*. Available at: https://www.hesa.ac.uk/data-and-analysis/staff/table-2 (Accessed 09/01/24)

Office for National Statistics (2022) *TS008: Sex, Census 2021*. Available at: https://www.ons.gov.uk/datasets/TS008/editions/2021/versions/4 (Accessed 09/01/24)

Ovseiko, P. V., Chapple, A., Edmunds, L. D. and Ziebland, S. (2017) 'Advancing gender equality through the Athena SWAN Charter for Women in Science: An exploratory study of women's and men's perceptions', *Health Research Policy and Systems*, 15 (12)

Punch, K. (2013) *Introduction to social research: Quantitative and qualitative approaches*, 3rd Edition, Sage: London

Scottish Government (2023) *Scotland's Census 2022 - Rounded population estimates - data*. Available at: https://www.scotlandscensus.gov.uk/documents/scotland-s-census-2022-rounded-population-estimates-data/ (Accessed 11/01/24)

Xiao, Y., Pinkney, E., Au, T.K.F. and Yip, P.S.F. (2020) 'Athena SWAN and gender diversity: a UK-based retrospective cohort study', *BMJ Open*, 10 (2), Available at: https://bmjopen.bmj.com/content/10/2/e032915 (Accessed 13/01/24)

Yarrow, E. and Johnston, K. (2023), 'Athena SWAN: "Institutional peacocking" in the neoliberal university', *Gender, Work, and Organization*, 30, 757-772