



Kent Academic Repository

Litsardopoulos, Nicholas, Saridakis, George and Clark, Andrew (2023) *Variants of gender bias and sexual-orientation discrimination in career development*. *The B.E. Journal of Economic Analysis and Policy*, 23 (4). pp. 1175-1185.

Downloaded from

<https://kar.kent.ac.uk/102690/> The University of Kent's Academic Repository KAR

The version of record is available from

<https://doi.org/10.1515/bejeap-2023-0026>

This document version

Publisher pdf

DOI for this version

Licence for this version

CC BY (Attribution)

Additional information

AAM requested > T2309-3635. MW 6.9.23 ☒Pubrouter update. Emailed author on T2310-21835 27/10/2023 EH

Versions of research works

Versions of Record

If this version is the version of record, it is the same as the published version available on the publisher's web site. Cite as the published version.

Author Accepted Manuscripts

If this document is identified as the Author Accepted Manuscript it is the version after peer review but before type setting, copy editing or publisher branding. Cite as Surname, Initial. (Year) 'Title of article'. To be published in **Title of Journal**, Volume and issue numbers [peer-reviewed accepted version]. Available at: DOI or URL (Accessed: date).

Enquiries

If you have questions about this document contact ResearchSupport@kent.ac.uk. Please include the URL of the record in KAR. If you believe that your, or a third party's rights have been compromised through this document please see our [Take Down policy](https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies) (available from <https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies>).



Letter

Nicholas Litsardopoulos*, George Saridakis and Andrew E. Clark

Variants of Gender Bias and Sexual-Orientation Discrimination in Career Development

<https://doi.org/10.1515/bejeap-2023-0026>

Received January 26, 2023; accepted September 5, 2023; published online September 27, 2023

Abstract: We use a nationally-representative dataset that includes a large sample of sexual-orientation minorities to investigate gender bias and sexual-orientation discrimination in career progression. Our results are consistent with persistent gender bias findings and non-heterosexual identity-based employment discrimination. Our findings are consistent with previous work noting that protective legislation for gay and lesbian sexual identities have increased the cost of discrimination and contribute to the improved socioeconomic status of a substantial number of people in these minority groups. However, these gains have not been shared with other minority groups in the LGB+ community, which still have some of the lowest probabilities of holding managerial jobs, and higher probabilities of appearing in lower socioeconomic classes.

Keywords: sexual orientation; discrimination; socioeconomic status; LGB+

JEL Classification: J15; J16; J62; J71; J78

1 Introduction

Gender disparities in the labour market have long been in the spotlight, and a number of countries have taken steps to provide legal protection against gender and other minority-group related discrimination (e.g. regarding sexual orientation and

*Corresponding author: **Nicholas Litsardopoulos**, Kent Business School, University of Kent, CT2 7FS, Canterbury, UK, E-mail: n.litsardopoulos@kent.ac.uk

George Saridakis, Kent Business School, University of Kent, CT2 7FS, Canterbury, UK

Andrew E. Clark, PSE, Paris, France

Open Access. © 2023 the author(s), published by De Gruyter. This work is licensed under the Creative Commons Attribution 4.0 International License.

non-binary gender). Some recent notable examples¹ of these initiatives in the UK are the EU Council Directive 2000/78/EC (EC 2000) and the UK Equality Act of 2010 (UK.GOV 2010).

Following the latter 2010 Act, there were no statistically-significant differences between the earnings of gay and heterosexual men, or those of lesbian and heterosexual women, in workplaces with equal-opportunities policies (Bryson 2017). However, lesbian women earned significantly less than did heterosexual women in workplaces without these policies (Bryson 2017). Swedish results from register data of all those living in civil unions shows that the heterosexual-homosexual earnings difference is not subject to misclassification biases (Ahmed and Hammarstedt 2010). The meta-analysis by Klawitter (2015) finds mixed results, but overall earnings penalties for gay men and earnings premia for lesbian women. The same study also identifies a convergence in the earnings of heterosexually -and homosexually-oriented men and women over time during the 1989–2007 period.

It has been suggested that LGB+ (lesbian, gay, bisexual, or other sexual orientation) workers face similar ‘glass ceiling’ effects as those traditionally found for heterosexual women (Frank 2006). However, traditional heterosexual gendered labour-stereotypes, with men being more active in the labour market than women, may not apply for non-heterosexually oriented individuals (Aksoy, Carpenter, and Frank 2018). Furthermore, Aksoy, Carpenter, and Frank (2018) find that over the 2012–2014 period there was no significant difference in earnings between gay and heterosexual men, or lesbian and heterosexual women, in the UK when demographic controls were included in the model(s), arguing that couples-based studies likely overestimate the true earnings differences. However, Aksoy, Carpenter, and Frank (2018) still conclude that there is an earnings penalty for bisexual men. Bryson (2017) similarly finds that bisexual men earn less than heterosexual men (in some instances up to 31 percent less), regardless of occupational categories. The UK’s economy is characterised by market liberalisation, low taxation, and flexible regulations. In this kind of liberal marketplace, lesbian women may well compete for jobs not only with heterosexual women, but also with heterosexual men, gay men, and people beyond the traditional binary gender dichotomy. We thus consider labour-market outcomes combining individual gender and sexual-orientation information.

Considering the UK labour-market context, gender legislation and institutions, the cross-sectional analysis in Bryson (2017), which uses data from the Workplace Employment Relations Survey 2011, may not have picked up the ongoing socio-economic changes (e.g. the Equality Act 2010), regardless of whether

¹ Other important UK legislation includes the Sexual Offence Act of 1967, the Gender Recognition Act of 2004, and the Marriage (Same Sex Couples) Act of 2013.

workplaces had adopted sexual-orientation legislation(s) in their policies. The analysis in Aksoy, Carpenter, and Frank (2018), and Aksoy et al. (2019) on the contrary uses longitudinal data from the UK Integrated Household Survey. However, the data modelling does not include cross-gender comparisons (for example, that of lesbians compared to bisexual men). Furthermore, the earnings differences may not reflect the non-salary benefits that are often preferred by employed women (Moors, Malley, and Stewart 2014), potentially leading to inaccurate conclusions about socio-economic effects. This is especially pertinent considering that wage differences may be related to company talent-acquisition strategies (e.g. the use of applicant tracking systems) (Frissen, Adebayo, and Nanda 2023).

We use 2009–2019 longitudinal household data to examine the relationship between gender and sexual-orientation identity² and socioeconomic classification (as opposed to earnings only). Our results complement the recent findings in Bryson (2017), Aksoy, Carpenter, and Frank (2018), and Aksoy et al. (2019), extending the analysis over the range of occupational career levels and making comparisons between sexual-identity groups beyond the traditional binary gender dichotomy. We in addition report the data from survey participants who did not choose to identify themselves with either a heterosexual, homosexual or bisexual identity. While it is difficult to draw any concrete inferences about these individuals, this is nonetheless information that enriches the data and consequently the data analysis.

Our results show that heterosexual women have a lower probability of being in the top classification than either heterosexual or gay men or lesbian women, with gay men having the highest probability of being in this top classification. Also, the probability of being in a higher socioeconomic classification is lower in most cases for individuals with ‘other’ sexual identities and those who preferred not to disclose their sexual orientation.

2 Data

This paper uses data from nine waves of the UK Household Longitudinal Study (UKHLS),³ covering the 2009–2019 period (University of Essex, Institute for Social and Economic Research 2019). Sexual-orientation information comes from the

² ‘Sexual-orientation identity’ and ‘sexual orientation’ are used interchangeably in this paper, as the survey asks respondents to identify themselves with a sexual orientation.

³ The UKHLS (a.k.a. Understanding Society) is the largest longitudinal household survey study in the UK and is funded by the Economic and Social Research Council (ESRC) and various Government Departments. The UKHLS general population is a clustered and stratified probability sample of approximately 24,000 households in Great Britain and 2000 households in Northern Ireland. From Wave 2 onwards, another 8000 households from the now-discontinued British Household Panel Survey sample were added into the UKHLS.

question ‘Which of the following options best describes how you think of yourself’, with response categories of heterosexual/straight, gay or lesbian, bisexual, or another sexual orientation not listed (e.g. trans people), and preferring not to answer the question.⁴ Some notable contributions, such as Bryson (2017), merge the ‘Other’ (80 respondents) and ‘Prefer not to say’ (803 respondents) categories in the data analysed. In our panel data these response categories were far larger (with 3095 and 10,501 observations respectively), which allows us to carry out our analysis without needing to merge categories. We consider working-age individuals (16–64 years old), yielding unbalanced panel data with 260,601 observations over the nine survey waves.

Table 1 lists the gender and sexual-orientation distributions by three economic-activity categories: Employed (self-employed or wage-employee), Unemployed, and ‘Other’ (unpaid work for family business, government training schemes, apprenticeships, retired, homemakers and students). The percentage unemployed is lowest in the ‘Heterosexual’ category, and second-lowest for ‘Gay or Lesbian’; it is the highest for the ‘Other’ orientation. These figures are consistent with the literature on

Table 1: Economic activity by gender and sexual orientation (%).

	Men	Women	Heterosexual	Gay or lesbian	Bisexual	Other	Prefer not to say
Employed	74.1	64.0	69.4	70.8	52.8	53.3	57.1
Unemployed	6.9	4.9	5.5	7.0	9.3	11.1	9.7
Other	19.1	31.1	25.1	22.1	37.9	35.6	33.2
Employed			75.0	69.6	59.6	58.9	64.4
Unemployed	Men		6.6	7.5	10.4	13.2	11.1
Other			18.5	22.9	30.0	27.9	24.6
Employed			64.9	72.6	48.7	49.4	52.0
Unemployed	Women		4.6	6.4	8.6	9.7	8.7
Other			30.5	21.0	42.8	41.0	39.3
No. Obs.	116,509	144,092	238,825	3865	4315	3095	10,501

Note: The pairwise tests of equal proportions between the three economic-activity statuses by gender and sexual orientation are rejected in most cases.

⁴ The sexual-orientation question was asked in Waves 3, 5, 7 and 9; we fill in values in the other waves. For example, sexual orientation at Waves 1 and 2 is measured by that reported at Wave 3.

the barriers to employment faced by individuals with non-heterosexual orientation (Drydakis 2017; Elmslie and Tebaldi 2007).

Employment is more prevalent for lesbian women than gay men, whereas this gender difference is reversed in heterosexual people (and indeed in every other sexual-orientation category). The share of women in the ‘Other’ economic activity status is larger for bisexuals, and women of other sexual orientations beyond lesbian or bisexual, as well as those women who preferred not to disclose their sexual orientation.

3 Empirical Method

Table 1 revealed significant differences in economic activity by gender and sexual orientation. In Table 2 we turn to the occupational status of the employed, using the official UK National Socio-Economic Classification system (NS-SEC).

The ‘Other’ and ‘Prefer not to say’ sexual orientations differ the most from the majority ‘Heterosexual’ group, being concentrated in the Semi-routine NS-SEC classification. As LGB+ community equal-rights activism initially focused on gay and lesbian identities, other minority identities (e.g. trans people) may still struggle to achieve similar levels of social acceptance. It is notable that the percentage of ‘Prefer not to say’ individuals in higher and intermediate NS-SEC categories is larger than that of ‘Other’ individuals, highlighting the interest in distinguishing between these two groups.

To control for potential composition effects between different groups, we estimate multinomial logit regressions (Greene 2012) of occupational-class membership:

$$\Pr(y = m|\mathbf{X}) = \frac{\exp(\mathbf{X}\beta_{m|b})}{\sum_{j=1}^J \exp(\mathbf{X}\beta_{j|b})} \quad (1)$$

where the β are the coefficients to be estimated on the \mathbf{X} explanatory variables and b is the reference group, with a number j of equations to be solved.

We control for age and its square, education, homeownership, UK birth, full-time/part-time work, urban/rural, marital status, children in the household, and economic-activity status,⁵ in addition to wave and length of time in the survey. The

⁵ Respondents report their main economic activity in the week prior to their interview. Some who are for example retired or caring for the family/home also report having a job and will so be routed to follow-up employment questions, including occupation, and have a derived NS-SEC value. The estimation results for those with main activity of self-employment or wage-employment (dropping these 7356 observations) are similar to those in the larger sample.

Table 2: Sexual orientation and NS-SEC occupational class (%).

NS-SEC classes	Men	Women	Heterosexual	Gay or lesbian	Bisexual	Other	Prefer not to say
Large employers & higher management	6.1	3.4	4.8	7.5	3.3	0.5	1.9
Higher professional	11.4	6.1	8.7	9.2	8.9	4.3	6.3
Lower management & professional	25.8	32.6	29.8	37.3	23.3	18.1	19.7
Intermediate	9.0	18.1	13.8	11.7	12.9	10.7	13.4
Small employers & own account worker	12.4	6.1	9.1	6.3	9.7	11.1	9.8
Lower supervisory & technical	10.6	4.3	7.3	5.1	7.3	8.4	8.0
Semi-routine	13.1	22.2	17.4	16.2	23.1	28.7	25.7
Routine	11.6	7.2	9.0	6.7	11.6	18.3	15.2

Note: The highest percentage figure for each sexual-orientation category appears in **bold**.

regressions have individual clustered errors, and bootstrapping with 1000 resamples. We also ran the post-estimation Small-Hsiao test of the independence of irrelevance alternatives (IIA): all choices, apart from the Routine NS-SEC, are independent of the others. We nevertheless explored a number of non-independent tests with different subsets. While the classifications can be considered independent, they are broadly ordered.⁶

4 Empirical Findings

The estimated coefficients in Table 3 refer to the probabilities of NS-SEC class membership (with the Intermediate class being the omitted category) for each sexual-orientation group (baseline: Heterosexual). There is a clear distinction between Gay/Lesbian and Bisexual, Other, and ‘Prefer not to say’. Compared to Heterosexual individuals, Gay/Lesbian respondents are more likely to be in higher socioeconomic classes (in the first three columns), while Other and ‘Prefer not to say’ respondents (and to a lesser extent Bisexuals) are more likely to be found in lower socioeconomic classes (the last four columns).

In the fifth row, men are more prevalent in both NS-SEC classes that are higher and lower than Intermediate, but the magnitude of the coefficients in ‘Lower management’ and ‘Semi routine’ jobs, which are arguably closer to the Intermediate NS-SEC, are noticeably smaller.⁷ This is consistent with the invisible barriers (‘glass ceilings’) that women face in the labour market, leading to intermediate-level jobs being dominated by women (Christofides, Polycarpou, and Vrachimis 2013).

Sexual orientation and gender are interacted in Table 4. This first shows that heterosexual men are more likely to be found in all of the classifications above or below Intermediate, as compared to the baseline of heterosexual women, providing further support for the ‘glass ceiling’ and women’s subsequent concentration in intermediate-level jobs. Strikingly, gay and lesbian respondents have greater probabilities of being in NS-SEC managerial occupations above Intermediate, compared to heterosexual women. On the contrary, non-heterosexual individuals who are neither gay nor lesbian are more likely to work in lower NS-SEC categories.⁸

6 We calculated the constrained model for each choice to test robustness with restricted choices. The results are consistent with the findings presented in the text.

7 The estimated gender coefficients in regressions with only the gender variable are similar to those in Table 3 where sexual orientation is included.

8 Probit regressions of high versus low monthly gross income (above/below the average) yield results in line with those for occupation.

Table 3: Multinomial logit of sexual orientation by NS-SEC occupational class.

NS-SEC baseline: intermediate	Large employers-higher management	Higher professional	Lower management	Small employers-own account	Lower supervisory	Semi routine	Routine
<i>Gay/Lesbian</i>	0.601*	0.009	0.365*	0.053	-0.177	0.178	-0.199
<i>Bisexual</i>	0.080	0.127	-0.084	0.460*	0.132	0.137	0.219
<i>Other</i>	-1.598*	-0.256	-0.081	0.362	0.465	0.619**	0.732**
<i>Prefer not say</i>	-1.007***	-0.285+	-0.297**	0.059	0.088	0.226*	0.379**
<i>Men</i>	1.048***	1.288***	0.411***	1.489***	1.328***	0.358***	1.369***
Controls	YES	YES	YES	YES	YES	YES	YES
Constant	-11.245***	-4.870***	-1.966***	-2.188***	0.619+	3.791***	3.301***

Notes: These are multinomial logit regression results of NS-SEC categories by sexual orientation. Log likelihood = -251365.2; $\chi^2 = 12680.3$; $N = 150,141$; the NS-SEC baseline category is 'Intermediate' and the Sexual-Orientation baseline category is 'Heterosexual'. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$.

Table 4: Multinomial logit of sexual orientation – gender by NS-SEC occupational class.

NS-SEC baseline: intermediate	Large employers-higher management	Higher professional	Lower management	Small employers-own account	Lower supervisory	Semi routine	Routine
<i>Heterosexual-men</i>	1.067***	1.299***	0.413***	1.512***	1.366***	0.345***	1.405***
<i>Gay</i>	1.411***	0.927**	0.641**	0.997***	0.564+	0.406+	0.758**
<i>Lesbian</i>	0.818*	0.532	0.455*	0.690*	0.596+	0.216	0.394
<i>Bisexual-men</i>	0.216	1.294***	-0.030	1.605***	1.528***	0.653*	1.301***
<i>Bisexual-women</i>	0.628+	0.126	0.085	0.751**	-0.161	0.014	0.435*
<i>Other-men</i>	0.305	1.445*	0.619	1.997***	1.884***	1.396**	2.395***
<i>Other-women</i>	-16.729***	-0.633	-0.182	0.448	0.682+	0.434	0.644+
<i>prefer not say-men</i>	0.120	1.010***	0.218	1.684***	1.296***	0.617***	1.696***
<i>prefer not say-women</i>	-1.070**	-0.250	-0.370**	-0.151	0.335+	0.204	0.503**
Controls	YES	YES	YES	YES	YES	YES	YES
Constant	-11.171***	-4.658***	-1.923***	-2.404***	0.584+	3.892***	3.514***

Notes: These are multinomial logit regression results of NS-SEC categories by sexual orientation and gender. Log likelihood = -251,233.7; $\chi^2 = 27,290.8$, $N = 150,141$; the NS-SEC baseline category is 'Intermediate' and the Sexual Orientation baseline category is 'Heterosexual woman'. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$.

5 Conclusions

We have examined the relationship between sexual orientation, gender and occupation in the UK labour market. The results are consistent with evidence of continuing career barriers for women: heterosexual men are more likely than heterosexual women to appear in every NS-SEC category other than 'Intermediate'. For sexual orientation, heterosexual people are more likely to be employed. There are also substantial barriers to career development for non-heterosexual people who do not identify as gay or lesbian, who are more likely to have jobs in lower socioeconomic classifications and less likely to appear in higher socioeconomic classifications. We should note that non-heterosexual people who identify neither as gay nor as lesbian or bisexual, likely include gay, lesbian, and bisexual people who are not confident enough to disclose their sexual orientation in the survey, as well as trans people, non-binary sexually oriented people, pansexual, and asexual.

On the contrary, the career barriers for gay and lesbian individuals in employment seem to be thinner than in the past. This could reflect the continued convergence of labour-market outcomes found in Klawitter (2015). A number of explanations of the potential career success of lesbian women and gay men have been proposed, including a lower likelihood of having children, more education (Aksoy et al. 2019), competitive preferences (Buser, Geijtenbeek, and Plug 2018), and increased number of workplaces with equal-opportunities policies (Bryson 2017). Lesbian women who form families and care for children also share caring responsibilities more evenly with their spouse/partner (Elmslie and Tebaldi 2007). Additionally, it is possible that social norms regarding at least some aspects of sexuality have changed over time (and it is these changing norms that lie behind the development of protective legislation). Nevertheless, we should also consider that survey participants who are confident enough to disclose their non-heterosexual orientation identity might also have other unobserved characteristics associated with their higher occupational status. Last, it is likely that much of the struggle in previous decades against sexual-orientation discrimination and for greater gender equality, as well as much of the related research, focused on gay and lesbian individuals while paying less attention to other sexual identities. As such, it may be unsurprising that labour-market gains have been more concentrated amongst gay and lesbian in the LGB+ community.

References

- Ahmed, A. M., and M. Hammarstedt. 2010. "Sexual Orientation and Earnings: A Register Data-Based Approach to Identify Homosexuals." *Journal of Population Economics* 23 (3): 835–49.
- Aksoy, C. G., C. S. Carpenter, and J. Frank. 2018. "Sexual Orientation and Earnings: New Evidence from the United Kingdom." *ILR Review* 71 (1): 242–72.
- Aksoy, C. G., C. S. Carpenter, J. Frank, and L. MattHuffman. 2019. "Gay Glass Ceilings: Sexual Orientation and Workplace Authority in the UK." *Journal of Economic Behavior & Organization* 159: 167–80.
- Bryson, A. 2017. "Pay Equity after the Equality Act 2010: Does Sexual Orientation Still Matter?" *Work, Employment & Society* 31 (3): 483–500.
- Buser, T., L. Geijtenbeek, and E. Plug. 2018. "Sexual Orientation, Competitiveness and Income." *Journal of Economic Behavior & Organization* 151: 191–8.
- Christofides, L. N., A. Polycarpou, and K. Vrachimis. 2013. "Gender Wage Gaps, 'sticky Floors' and 'Glass Ceilings' in Europe." *Labour Economics* 21: 86–102.
- Drydakis, N. 2017. "Trans People, Well-Being, and Labor Market Outcomes." *IZA World of Labor* 386.
- EC. 2000. "Council Directive 2000/78/EC." *Official Journal of the European Communities* 43.
- Elmslie, B., and E. Tebaldi. 2007. "Sexual Orientation and Labor Market Discrimination." *Journal of Labor Research* 28 (3): 436–53.
- Frank, J. 2006. "Gay Glass Ceilings." *Economica* 73 (291): 485–508.
- Frissen, R., K. John Adebayo, and R. Nanda. 2023. "A Machine Learning Approach to Recognize Bias and Discrimination in Job Advertisements." *AI & Society* 38 (2): 1025–38.
- Greene, W. H. 2012. *Econometric Analysis*, 7th ed. Essex: Pearson Education Limited.
- Klawitter, M. 2015. "Meta-Analysis of the Effects of Sexual Orientation on Earnings." *Industrial Relations: A Journal of Economy and Society* 54 (1): 4–32.
- Moors, A. C., J. E. Malley, and A. J. Stewart. 2014. "My Family Matters: Gender and Perceived Support for Family Commitments and Satisfaction in Academia Among Postdocs and Faculty in STEM and Non-STEM Fields." *Psychology of Women Quarterly* 38 (4): 460–74.
- UK.GOV. 2010. "Equality Act 2010 CHAPTER 15." Also available at <https://www.legislation.gov.uk/ukpga/2010/15/contents>.
- University of Essex, Institute for Social and Economic Research. 2019. "Understanding Society: Waves 1–9, 2009–2019 and Harmonised BHPS: Waves 1–18, 1991–2009. [Data Collection]." *UK Data Service*, <https://doi.org/10.5255/UKDA-SN-6614-18>.