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**A multifaceted view of the Muslim penalty in Britain:  
Investigating differences in job *quantity* and job *quality*  
using survey data analysis.**

**By**

**Samir Sweida-Metwally**

School of Sociology, Politics, and International Studies (SPAIS)

November 2022

A dissertation submitted to the University of Bristol in accordance with the requirements for award of the degree of Doctor of Philosophy in the Faculty of Social Sciences and Law.

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



# Abstract

With a particular focus on the experience of Muslims, this study challenges previous conceptions and findings to offer a fresh theorisation and account of religious and ethno-religious labour market inequalities in Britain. Existing research largely focuses on the inequality experienced by Muslims in terms of labour market participation, occupational attainment, and earnings differentials. While this scholarship offers important insights into the different ways that Muslims and other ethno-religious minorities are disadvantaged in the world of work, two key lacunae stand out. First, despite Muslims being problematised in the literature because of their faith, empirical scholarship has not actually properly connected with religiosity and so-called ‘sociocultural’ attitudes, such as traditionalist views and supposed ‘isolationist tendencies’. Second, studies have overwhelmingly focused on differences in access to work – i.e. job *quantity* – ignoring inequalities *in* work – i.e. job *quality*. While there are a number of useful contributions on differences in earnings, these are necessarily partial in their focus on remuneration, and therefore offer a narrow view of inequalities of people in work. To address these lacunae, this thesis uses a range of advanced quantitative methods, including multilevel modelling, to exploit Understanding Society data – the largest panel study of its kind worldwide – to provide a comprehensive understanding of the experience of Muslims and on religious stratification in the British labour market more broadly.

The thesis makes four major contributions. From a methodological perspective it advances a novel multidimensional conceptualisation of job quality and offers researchers a ready-made empirical job quality index that is easily reproducible, statistically robust, and suitable for analysing a multicultural workforce. Second, the study deepens our understanding of the Muslim penalty in job quantity from two perspectives. By analysing a greater range of ethnic groups it suggests that beyond colour and religion, the Muslim penalty might also be moderated by a person’s country of origin. Moreover, by finding that considerable penalties remain for Muslims even after adjusting for so-called ‘sociocultural attitudes’, it challenges the assumption that value orientations offer a suitable explanation for the Muslim penalty. Third, the study unites two hitherto separate fields, job quality and ethnic penalty research. In doing so, my study reveals, for the first time, the extent to which variances in job quality are differentiated by religious and ethno-religious affiliation. It

reveals that religious minority groups likely benefit to a lesser extent than their Christian White British peers when occupying superior quality jobs, and experience relatively lower job quality still when in poor quality occupations. The study shows that it is generally Muslim women and Sikh men who are most disadvantaged, on average, and that their penalty cannot be explained by individual or work characteristics. As a result, my study extends the ethnic penalties scholarship by offering a more rounded view of the nature and extent of the Muslim penalty beyond the confines of job quantity. My research also brings to light the surprising finding that certain ethno-religious groups traditionally understood as disadvantaged from a job *quantity* perspective, such as Christian Black African and Christian Black Caribbean men, and others typically considered advantaged, such as Chinese people, might in fact be advantaged/disadvantaged from a job *quality* standpoint. Fourthly, and finally, the thesis makes an important contribution by advancing company- and societal-level solutions to attenuate the Muslim penalty and other religious inequalities and build a more inclusive society.





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The thesis draws on the following papers and blog post (Appendix 5):

Sweida-Metwally, S. 2022. “Does the Muslim penalty in the British labour market dissipate after accounting for so-called ‘sociocultural attitudes’?”, *Ethnic and Racial Studies*, 45:16, 359-388, DOI:10.1080/01419870.2022.2097887.

Sweida-Metwally, S. 2022. “‘Muslim culture’ is routinely blamed for lower levels of employment – but my research shows this is not what is behind the problem”, *The Conversation*, 22 August.

Sweida-Metwally, S. 2020. “Why Britain should not follow Germany’s approach to recognising its racist legacy”, *The Open Review*, volume 6, pp. 73-79. DOI:10.47967/NNIR8436.

Sweida-Metwally, S. “‘All in it together’? Religious and ethno-religious penalties across different employment areas in Britain.” (Prepared for publication)

Sweida-Metwally, S. “Beyond labour market status: Religious and ethno-religious differences in job quality in the British labour market.” (Prepared for publication)



# Acknowledgements

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To my parents and siblings, thank you for all you have done - and continue to do - to get me to this point. I will never be able to repay you for all the love and support you have given me over the years; I am truly blessed to have you as family. To the coolness of my eyes, it has been a privilege watching us grow together spiritually and develop our viewpoints throughout this project. I am eternally grateful for your support, for being able to build on my ideas in discussion with you, and for your enthusiasm for my work. May Allah reward you all abundantly. Amo, what I would give to share this with you now. I pray Allah reunites us in Jannatul Firdous.

I am very grateful to my supervisors, Professor Saffron Karlsen and Dr Siobhan McAndrew, for their guidance and support throughout my PhD. Thank you for your dedication to this project and for encouraging me to take it where I wanted. Your invaluable comments during our many discussions were instrumental in shaping the thesis into what it is today. A special thank you to Dr Siobhan McAndrew for making her move to Sheffield so seamless.

I would also like to thank the Economic and Social Research Council for offering me a scholarship to undertake this project. It is an immense privilege to pursue a PhD. I am also grateful for the many speaking invitations to share my findings and to have received support from the following: Migration, Ethnicity, Race and Diversity Research Group (Cardiff University), University of Bristol Alumni Fund, Society for the Scientific Study of Religion, SPAIS Virtual Conference Fund, Bristol Collegiate Research Society Conference Scholarship, PGR Development Fund, UKRI, and Cumberland Lodge.

Thank you to Professors Therese O'Toole, Paula Surridge and David Manley for agreeing to be my examiners at various stages throughout my degree, and for their very helpful feedback and encouraging comments.

I am very grateful to the team at Institute for Social and Economic Research for their excellent training sessions. I am particularly thankful to Dr Alita Nandi for her patience and time spent answering my questions, especially at the beginning of my PhD journey when I was less familiar with UKHLS.

Last, but most certainly not least, I am eternally grateful to all family members, friends and strangers, alive and who have passed on, who made du'ā' for me over the years. I pray Allah accepts it from you.





# Impact Statement

One of the thesis' central contributions is that it shows that the popular discourse which rehearses Islamophobic tropes to demonise Muslims, their religion, and cultures and blames them for their poor labour market outcomes is not supported by the evidence. Adopting a more comprehensive perspective of what constitutes labour market experience, the study also shows the pervasive nature of the Muslim penalty, especially amongst women, which does not stop even after they are successful in overcoming barriers to access to work and find employment. My hope is that my findings (i) advance the academic debate by offering a more in-depth and complete understanding of the labour market experiences of Muslims in Britain and the inequalities they face, (ii) support the Muslim community in Britain with robust empirical evidence to help counter Islamophobic narratives which seek to demonise them and their religion and justify their inequality, and (iii) provide policymakers with the necessary evidence-based statistics and details to enact targeted policies to attenuate the Muslim penalty in job quantity and job quality. In the course of writing this thesis I have sought to further all three goals in tandem and bridge that gap between academia and practice, and maximise the impact of my research.

From an academic perspective, I contributed to the debate by publishing (open-access) a paper entitled, "Does the Muslim penalty in the British labour market dissipate after accounting for so-called 'sociocultural attitudes'?", with *Ethnic and Racial Studies*. This thesis makes use of this paper, especially Chapter 5 which largely reproduces some of this published material. Chapters 2, 3 and 7 also include material from the paper. The relevant sections are clearly referenced in line with the University of Bristol's rules on plagiarism. I also published another piece ("Why Britain should not follow Germany's approach to recognising its racist legacy") with *The Open Review*, which involved a comparative analysis of societal attitudes towards Muslims in Germany and in Britain. Despite the pandemic, I was fortunate to be able to share my findings on the labour market inequalities experienced by people from religious and ethnic minority backgrounds to a broad national and international audience. The conferences I spoke at included: Society for the Scientific Study of Religion Annual Meeting 2022, *Religion, Racial Unrest and Pandemics* (Baltimore, Nov 2022); University of Bristol, *Festschrift Conference in Honour of Professor Tariq Modood* (invited)

(Bristol, Sep 2022); MEAD Conference 2022, *Migration, Race, Ethnicity and Diversity in Post-Brexit Pandemic Britain* (Cardiff, Jul 2022); Doha Institute for Graduate Studies Seminar Series, *Youth, Fragility and Risks in MENA Region* (invited) (Doha, Feb 2022); American Academy of Religion Annual Meeting 2021, *Religion, Poverty, and Inequality: Contemplating Our Collective Futures* (Texas, Nov 2021); Society for the Scientific Study of Religion Annual Meeting 2021, *Global and Comparative Perspectives on Religion* (Portland, Oct 2021); Society for Longitudinal and Life Course Studies International Conference, *Identity and Transformation: Studying Lives in Times of Social Change* (Vilnius, Sep 2021); The Centre of Islamic Studies (University of Cambridge), *Muslims in UK and Europe Postgraduate Symposium 2021* (Cambridge, Jun 2021); Cardiff University, *Breaking Boundaries Conference 2021* (Cardiff, May 2021); University of Melbourne, *16<sup>th</sup> Annual 2020 CILIS Islamic Studies Postgraduate Conference* (Melbourne, Nov 2020); and Centre for the Study of Ethnicity and Citizenship's 20<sup>th</sup> Anniversary Conference, *Multiculturalism, Nationalism, Religions and Secularism* (Bristol, Nov 2019). As my PhD is in Advanced Quantitative Methods, I also sought to add value to the academic community by making a methodological contribution. To that end, after successfully applying for funding, I designed and organised an all-day workshop on longitudinal panel data analysis for doctoral researchers across all six faculties at the University of Bristol (Sep 2020). Separately, I also created and delivered a workshop on statistical literacy for non-academics (Sep 2020).

From a wider societal and specifically Muslim-community engagement perspective, my research featured (both online and in print) in the *Guardian* newspaper. My research has also been covered in international news outlets, including in Australia, KSA, Morocco, Turkey, the UAE and others. I was also invited to give an in-depth 20-minute interview entitled, "The lowdown on the Muslim penalty", on the *Islam Channel*. My research also featured as 'read of the day' in the widely shared The Bridge Initiative's *Today in Islamophobia* (Georgetown University) newsletter twice. Finally, the findings of my journal article have also been converted into short bitesize videos by the *Islam Channel* and the *Muslim Women Network*, making it more accessible to the wider non-academic audience.

Further in the context of disseminating my research widely, I have taken several steps to convert my research into more consumable literature suitable for a non-academic audience. This included

publishing a piece with *The Conversation* entitled, “‘Muslim culture’ is routinely blamed for lower levels of employment – but my research shows this is not what is behind the problem”. I have also published other blogs throughout my PhD, namely with the *European Network Against Racism* and *Transforming Society* (Bristol University Press). To diversify my research output, in addition to papers, conferences, videos and blogs, I also planned and led a podcast conversation with Dr Valentina Di Stasio at Utrecht University entitled “Ethnicity & Religion in Recruitment”. I also organised and chaired an interdisciplinary lunchtime symposium entitled “Migrant workers or ethnic minority labour force - what’s the difference, what’s the same?”. The symposium was co-hosted by the Centre for the Study of Ethnicity and Citizenship, and Migration Mobilities Bristol at the University of Bristol.

From a policy perspective, I was invited to share my findings with a range of divisions at the Department for Work and Pensions (DWP). I presented my research to the DWP Race Disparity Audit Steering Group (Jan 2021), the Impact Evaluation & Regression Analysis Group (Jan 2021), and I gave a presentation to the analytical, policy, and labour market teams (Dec 2020). I was also invited to present my research as part of the Leeds Social Science Institute Seminar Series which brings together academics and DWP practitioners for open discussion (Jun 2021). I was able to build my networks at DWP during my time there, having been selected for a 3-month funded UKRI Policy Internship Scheme with them whilst reading for my PhD. I further contributed to the policy debate by submitting evidence to the UK Government’s Commission on Race and Ethnic Disparities’ call for evidence: “Ethnic disparities and inequality in the UK” (Nov 2020). During my PhD I was also selected for a two-year Fellowship with Cumberland Lodge (Sep 2020 - Jun 2022) whose objective is to bring people together to tackle social divisions. One such example is my contribution to the Cumberland Lodge’s “Shaping Social Mobility: Education & Employment” report (Mar 2022).

Throughout my PhD I have also leveraged my position as an academic at the University of Bristol to contribute towards fighting global Islamophobia and the injustice experienced by Muslims beyond the remits of my thesis. For example, I published a paper entitled “Spending Ethically for Justice: A Muslim Response to the Uyghur Genocide” with a leading US Islamic Research Institute. The paper was widely shared by leading Muslim organisations not only in the US but also in the

UK and beyond. I was also invited by Universiti Malaysia Kelantan to discuss the Uyghur genocide as part of their *PEMIKIR Distinguished Leaders Lecture Series* (Dec 2021). Finally, I also authored a briefing note circulated to member of both Houses of Parliament ahead of the UK House of Commons Uyghur Genocide Recognition Debate (Apr 2021).

Forging ahead, I look forward to continuing to use my research to be beneficial not only in academic circles but to the broader society by engaging with policymakers and collaborating with Muslim communities and other racialised minorities to tackle the labour market inequalities they face.



# Author's Declaration

I declare that the work in this dissertation was carried out in accordance with the requirements of the University's Regulations and Code of Practice for Research Degree Programmes and that it has not been submitted for any other academic award. Except where indicated by specific reference in the text, the work is the candidate's own work. Work done in collaboration with, or with the assistance of, others, is indicated as such. Any views expressed in the dissertation are those of the author.

**Signed:** Samir Sweida-Metwally

**Date:** 30 November 2022





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# **Part I: Setting the scene**

**Chapter 1:** Introduction

**Chapter 2:** Literature review

# 1. Chapter 1: Introduction

## 1.1. Muslim migration to Britain

Muslim migration to Britain leading to settled Muslim communities, mainly from British colonies, dates back to the 19<sup>th</sup> century with migration flows fluctuating depending on Britain's economic needs (Ansari, 2018). For example, while Britain saw a sizeable influx of Muslim (and non-Muslim) migration between 1945 and 1973 as it needed (wo)manpower to rebuild the country (Cheung and Heath, 2007), the demand for labour relented after the early 1970s following the 1973 recession. Nevertheless, while 'unemployment in Britain significantly reduced Indian and Pakistani migration' (Ansari, 2018, p. 172), this was not the case for Bangladeshis who like Pakistanis are overwhelmingly Muslim. More than 80 per cent of people from Bangladesh arrived in England and Wales after 1981 when unemployment peaked (Platt, 2019). Similarly, while Turkish Cypriot migration apexed in the 1960s following independence, East African Asians, 25 per cent of whom were estimated to be Muslim (Ansari, 2018), did not begin substantial migration to Britain until 1972 following ex-African colonies' Africanisation policies. Black African Muslim migration, such as from Somalia, is also more recent still with Somalis arriving predominantly in the 1980s and 1990s fleeing conflict and famine (Lessard-Phillips and Li, 2017; see also Berthoud, 2000; Li and Heath, 2008). This period also saw 'the number of asylum seekers from countries where Muslims have lived for centuries... [such as] Afghanistan, Kurdistan, Algeria, Iran and Bosnia' increase (Ansari, 2018, p. 179), although Muslim Arab migration had also been notable prior to that in the 1950s (e.g. Egyptians) and 1970s (e.g. Egyptians and Moroccans). That said, it is worth remembering that it was only in 1990 that Britain was properly established as 'a country of net immigration' (Cheung and Heath, 2007, p. 509) having been a nation characterised by white colonial emigration throughout the British Empire.

In general, Muslim labour was used for unskilled work in an array of sectors, including healthcare (excluding doctors), catering, hotels, and the textile industry. Employment opportunities and the general nature of chain migration – '95% of Bangladeshi migrants were from Sylhet district; the majority of Pakistanis originally belonged to the Mirpur and Cambellpur (now Attock) districts;



and in India the pioneers and their kin and friends who later joined them came only from the districts of Jullundhar and Ludhiana in east Punjab’ (Ansari, 2018, p. 168) – meant that Muslim settlement was generally concentrated. While African Asians and Indians were established in London and the South East, Pakistani migrants generally settled outside the capital, for example in the West Midlands, Lancashire and Yorkshire (Virdee, 2010). Bangladeshis would also eventually settle in London, notably Tower Hamlets (Modood *et al.*, 1997; Blackaby *et al.*, 1999). Today, nearly one in two (46 per cent) Muslims in England reside in the 10 per cent most deprived local authorities, while only 1.7 per cent ‘live in the 10% least deprived’ (Ali *et al.*, 2015, p. 46). Daniel (1968) highlights that this was in part socially engineered as discriminatory policies directed migrants towards areas with poor quality housing and services.

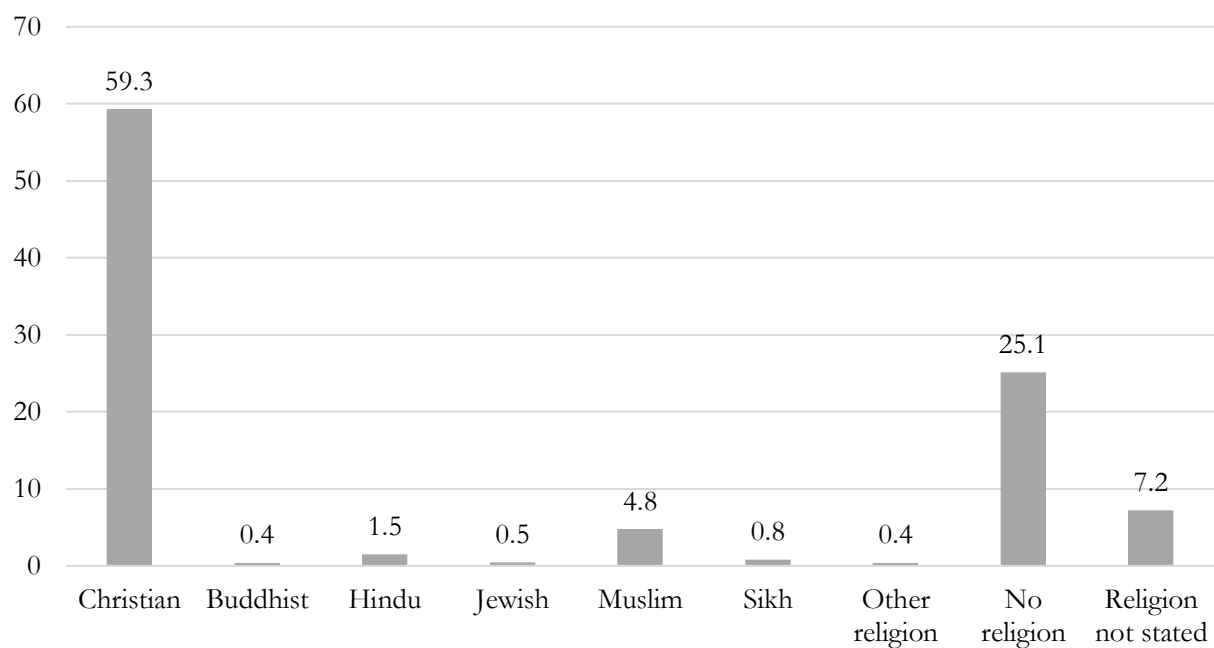
## **1.2. Muslims in numbers today**

Asian migration, particularly from India and Pakistan, was initially predominantly male. By the mid 1970s, after migration from both countries increased, in part due to family reunification, ‘Asian men still outnumbered women by six to four’ (Modood *et al.*, 1997, p. 340). However, at the last Census in 2011, the overall number of Muslims was recorded at 2.7 million (4.8 per cent of the total population) with a roughly equal gender balance. Men accounted for 52 per cent of the Muslim population and women 48 per cent (Ali *et al.*, 2015). Today Islam represents the largest minority religion and the second largest faith community after Christianity; or third-largest community of faith-based affiliation if those with no religious affiliation are taken into account (Figure 1.1).<sup>1</sup> Muslims are also relatively younger than the Christian population. As of 2011, around 40 per cent of the Muslim population in England and Wales is between 25 and 49 years of age (Figure 1.2). This proportion is expected to increase in the next Census, data for which have not been released as of November 2022.

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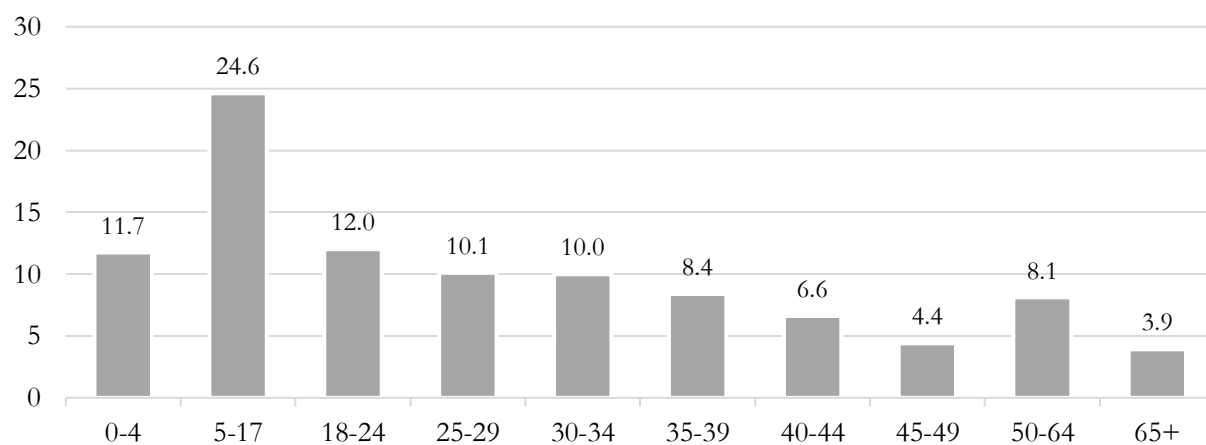
<sup>1</sup> High level Census 2021 data on religion released on 29 November 2022 confirms this pattern and also shows, for the first time, that the number of people who identify as Christian in England and Wales is below 50 per cent of the population.

**Figure 1.1.** Religion in the Census, in per cent (England and Wales, 2011)



Source: Compiled with data from Census 2011 (ONS, 2011 - Table DC2201EW)

**Figure 1.2.** Muslims by age group, in per cent (England and Wales, 2011)

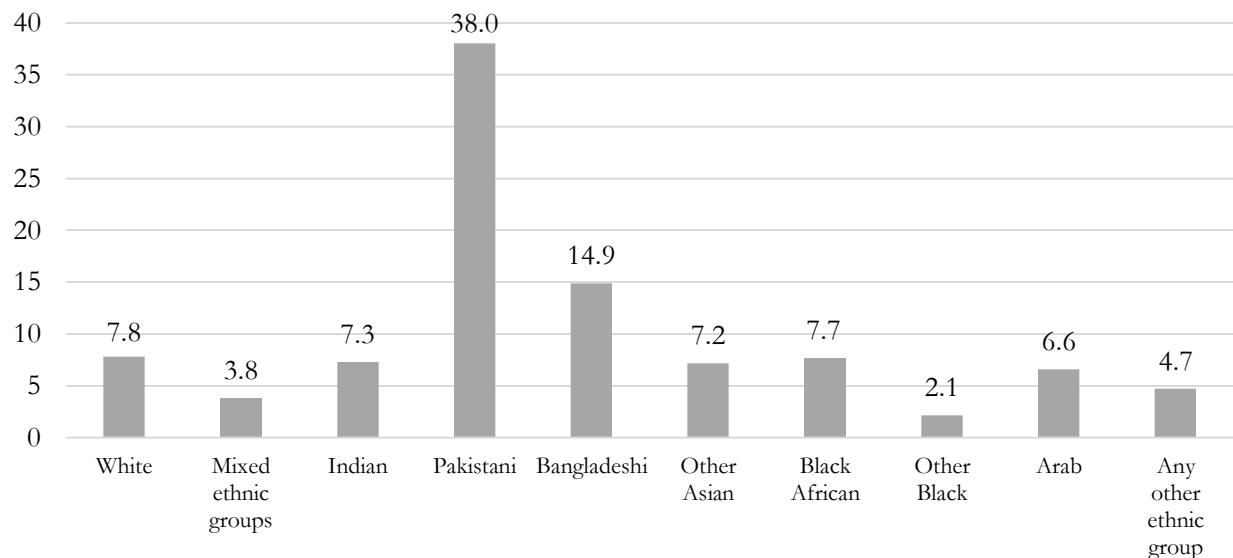


Source: Compiled with data from Census 2011 (ONS, 2015 - Table DC2107EW)

While those of South Asian origin represent over half of all Muslims in England and Wales, their share of the total is declining as the Muslim population increasingly reflects the global diversity of the group. In the 2001 Census, Pakistanis, Bangladeshis and Indians represented 42.5 per cent,

16.8 per cent, and 8.5 per cent of all Muslims, respectively. In the 2011 Census, these dropped to 38 per cent, 14.9 per cent, and 7.3 per cent, respectively. Meanwhile, Black Africans came to represent 7.7 per cent of the Muslim population in 2011, up 1.5 percentage points from 6.2 per cent in 2001. The share of ‘Other Black’ Muslims (excluding Black Caribbean) jumped from 0.4 per cent to 2.1 per cent over the same time period. Similarly, the percentage of Muslims in England and Wales identifying as ‘Other Asians’ (e.g. Afghanistan) rose from 5.8 per cent to 7.2 per cent between 2001 and 2011 (Ali *et al.*, 2015). Crucially, the 2001 Census did not include a specific category for participants to identify as Arab, perhaps because of their relatively small number at the time. It is therefore striking that in 2011 they accounted for 6.6 per cent of the overall Muslim population (Figure 1.3).

**Figure 1.3.** Muslims by ethnicity, in per cent (England and Wales, 2011)



Source: Compiled with data from Census 2011 (ONS, 2011 - Table DC2201EW)

### 1.3. Societal attitudes towards Muslims

Public attitudes towards Muslims by non-Muslims appear to reflect a variety of prejudices, both religious and ethnic. The 2014 European Social Survey found that 18 per cent of Britons agreed with the statement that ‘some races or ethnic groups are born less intelligent’ (Kelley, Khan and Sharrock, 2017, p. 8). A Pew Research Centre (2019) report found that 18 per cent of people in

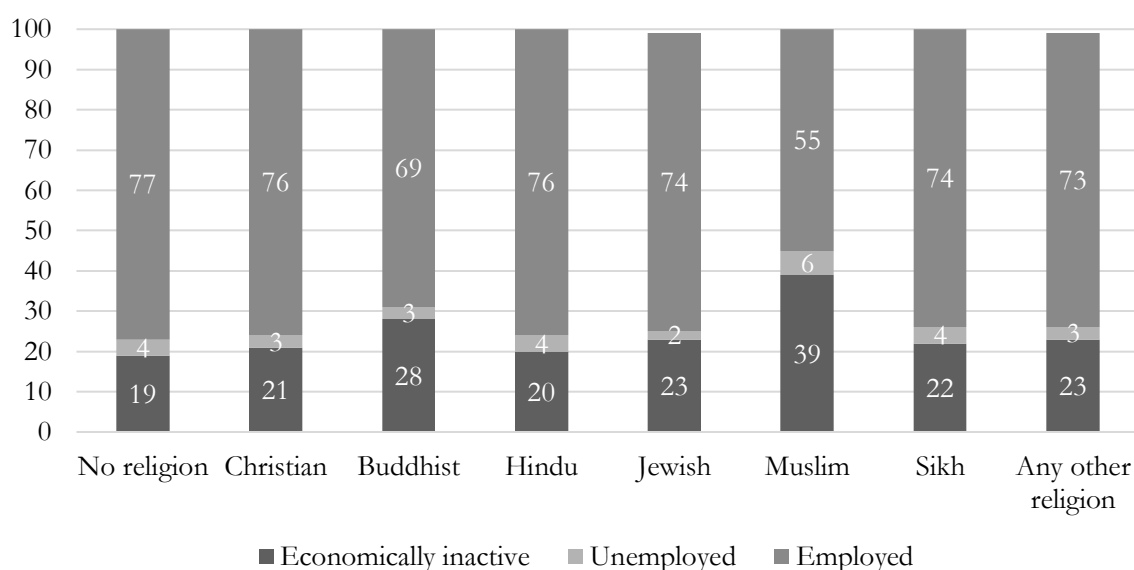
the UK had an unfavourable view of Muslims, while another survey found that nearly one in two individuals in the UK (44 per cent) ‘would mind if a close relative married a Muslim’ (Kelley, Khan and Sharrock, 2017, p. 11). Evidence shows that Muslims are “the UK’s second ‘least liked’ group, after Gypsy and Irish Travellers” (Jones and Unsworth, 2022, p. 7), and that they are being increasingly ‘singled out for unique hostility from both the white majority and other minorities, including from many who express inclusive attitudes towards other groups’ (Storm, Sobolewska and Ford, 2017, p. 431). The most recent official data on hate crime in England and Wales shows that in the year 2021/22, Muslims were the most targeted religious group (Home Office, 2022). Despite accounting for 5 per cent of the population in England and Wales at the last official count (see above), Muslims were the target of 42 per cent of all religious hate crime. This translates to a 28 per cent increase in anti-Muslim attacks relative to the previous year (Home Office, 2021, 2022). Evidence also suggests that Islamophobia may be gendered in nature. Muslim women have to contend with the intersection between the latter, ‘race’ and misogyny, and they carry more visible markers of the faith (e.g. hijab). This makes them the primary targets of anti-Muslim attacks, with White men being the principal assailants (Awan and Zempi, 2015; Atta, 2019). Islamophobia is not, however, limited to overt actions; a recent report by the Social Mobility Commission concluded that ‘Islamophobia, discrimination and/or racism is ever present and pervasive, experienced in both direct and indirect forms’ (Stevenson *et al.*, 2017, p. 2) across British society. Overall, in Britain today, “Muslims are widely viewed as a ‘threat’ to the nation (whether through association with terrorism, criminality, grooming, sharia law and so on), as not, or only contingently belonging to the nation, and as bearers of sets of values deemed irreconcilable with the values of Britain’s asserted status as a liberal democracy” (Shankley and Rhodes, 2020, p. 214).

#### **1.4. Research problem**

Muslims experience some of the worst labour market outcomes. Figure 1.4 shows that, in England and Wales in 2018, they have the highest proportion of unemployed (6 per cent) and are also mostly likely to be inactive (39 per cent). Among women, Muslims in particular are more likely to experience worklessness (56 per cent), with 57 per cent stating as the reason for this that they were ‘looking after the family or home’ (Figure 1.5). A comparison of median pay in 2012 and 2018 shows that Muslims consistently display the lowest pay among all religious groups (Figure

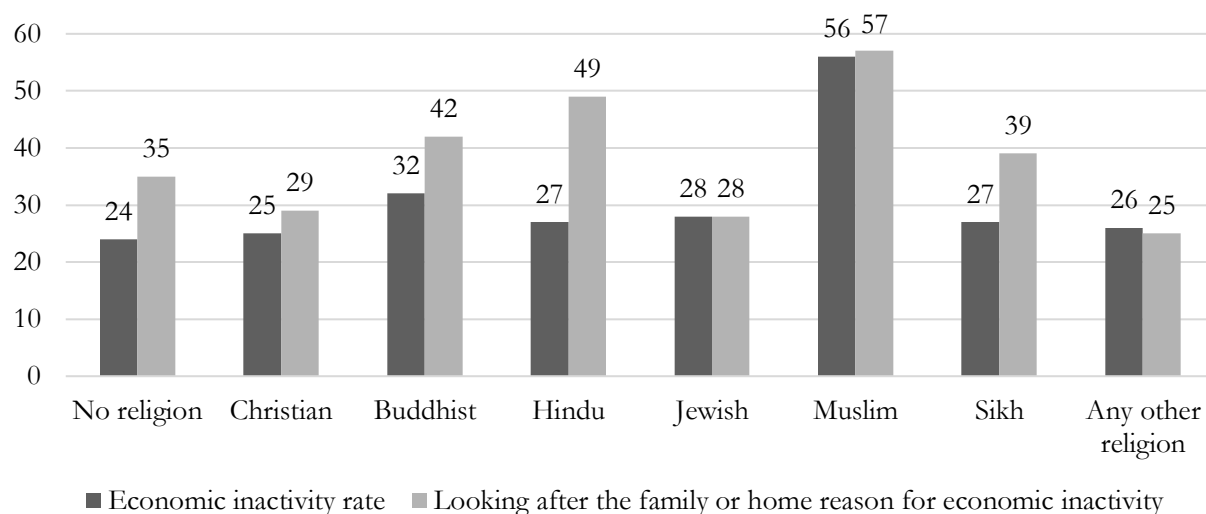
1.6). Meanwhile, only 15 per cent of Muslim employees in England and Wales in 2018 occupy a managerial role. This is the lowest proportion of any other religious group and those with no religious affiliation (Figure 1.7). Muslims also have a considerably higher incidence of poverty than other religious minorities and Christians, and research further shows this cannot be attributed to socio-demographic or human capital characteristics (Heath and Li, 2014; Heath, Li and Woerner-Powell, 2018).

**Figure 1.4.** Employment status by religious groups, in per cent (England and Wales, 2018)



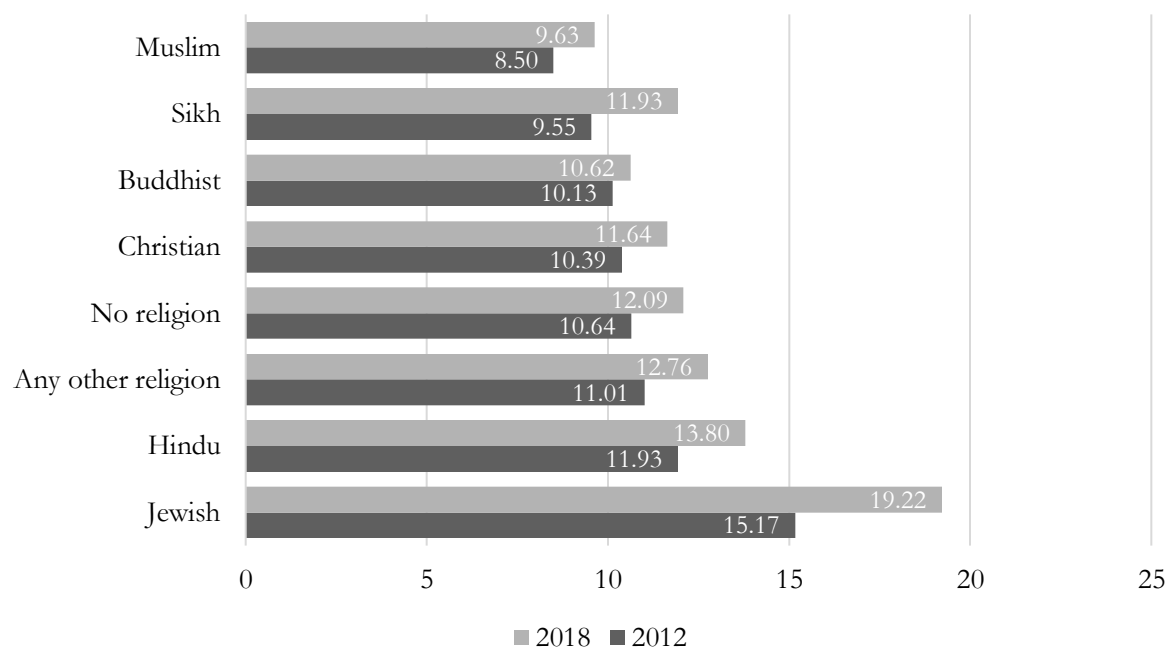
Source: Compiled with data from Annual Population Survey (January to December 2018) provided by ONS (2020)  
 Notes: Figures may not add to 100 per cent due to rounding.

**Figure 1.5.** Women - Economic inactivity and looking after the home, in per cent (England and Wales, 2018)



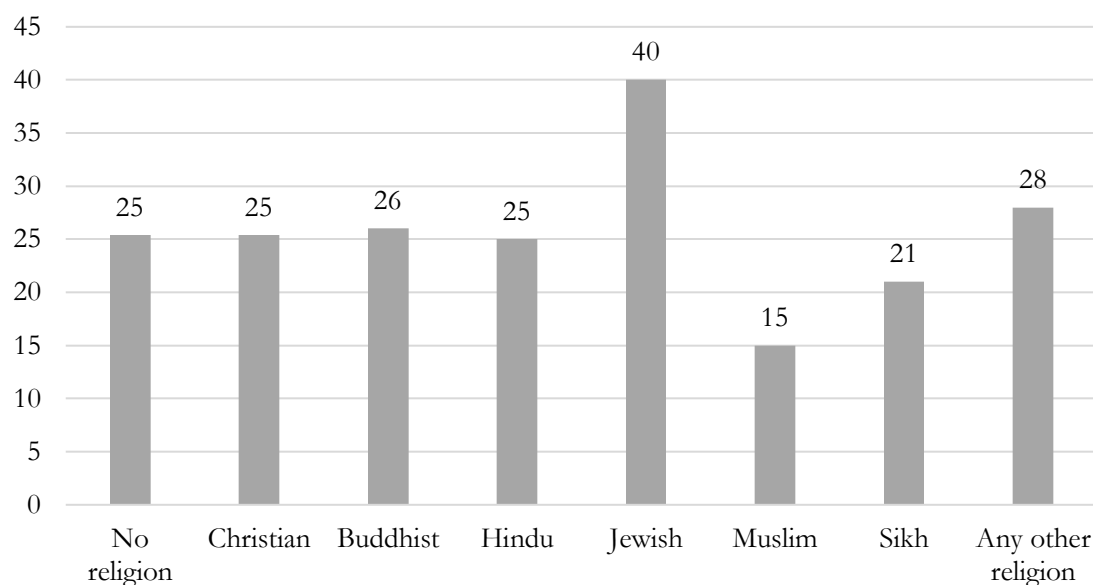
Source: Compiled with data from Annual Population Survey (January to December 2018) provided by ONS (2020)

**Figure 1.6.** Median hourly pay by religion in pounds (£) (England and Wales, 2018)



Source: Compiled with data from Annual Population Survey (January to December 2018) provided by ONS (2020)

**Figure 1.7.** Proportion of employees in managerial roles, in per cent (England and Wales, 2018)



Source: Compiled with data from Annual Population Survey (January to December 2018) provided by ONS (2020)

Governments and international specialist bodies such as the International Labour Organization have repeatedly stressed that ‘work is the best route out of poverty’ (ILO, 2003, p. vi). If that is the case, this poses an obvious puzzle for Muslims. They are more likely to be in poverty and a lower proportion are in work relative to other faith communities and those with no religious affiliation. And what about Muslims who are in work? Are they thriving like their peers from other religious traditions and none? Access to the labour market is only one part of the labour force story. How people flourish when they are in a job is another.

It is worth noting that research has shown that Muslims in other ‘Western’ countries are also disadvantaged in the labour market. For example, in Canada, evidence shows that similar to findings in the UK (see Khattab and Modood, 2015), the labour market appears to be hierarchised by religion (Islam) and colour (Black), particularly in terms of unemployment and inactivity (Khattab, Miaari and Mohamed-Ali, 2020; see also Model and Lin, 2002). Meanwhile, in the Netherlands and Germany, a country with significant anti-Muslim sentiment (Sweida-Metwally, 2020), there is evidence that Muslims, especially women who wear the *hijab*, are less likely to be hired in customer facing roles (Fernández-Reino, Di Stasio and Veit, 2022). In France too, where

like Germany there are laws banning women who wear the *hijab* from entering certain professions, Adida, Laitin and Valfort (2010) find that Catholic women are two and a half times more likely to have a prospective employer follow up on their application than their Muslim counterparts, even when country of origin is held constant. Meanwhile, in the United States, research finds that ‘the overall discrimination against Muslims is stronger than the overall discrimination against non-whites, which indicates that Muslim religious affiliation has become a new dominant social cleavage’ (Yemane, 2020, p. 23; see also Adida, Laitin and Valfort, 2015).

However, due to the varied colonial histories of the host countries, Muslim migration to these countries follow distinct migration trajectories. For example, while Muslims in Britain principally originated from Pakistan, Bangladesh, and India, in Germany Muslims are overwhelmingly Turkish, while in France they are chiefly from the Maghreb (Modood *et al.*, 1997; Adida, Laitin and Valfort, 2010; Fernández-Reino, Di Stasio and Veit, 2022). These different migration stories means settled Muslim communities in ‘Western’ nations come from distinct regions, possess different skills, and originate from varying occupational classes. For these reasons, and because of the range and specificity of the quantitative data needed to conduct the study undertaken in this thesis, a comparative study of Muslims across ‘Western’ countries is not pursued. Instead, the aim of the thesis is to offer a more in-depth view of Muslim disadvantage in the British context.

More specifically, this thesis examines the critical relationship between religion and work throughout Muslims’ labour market experiences in Britain, for whom religion constitutes an important sense of their identity (Modood *et al.*, 1997). This is a group that has a young age profile - and thus a long working life ahead - and for whom spirituality plays a bigger part in their life than it does for other religious groups (Scourfield *et al.*, 2012; Murad, 2020). Importantly, my study goes beyond standard economic approaches to the analysis of employment differentials by examining participation and job quality in turn. In doing so, I offer not only a corrective but a fresh theorisation of how religious and ethno-religious labour market inequalities are conceptualised.

More specifically, there has been considerable work on ethnic - and to a lesser extent ethno-religious - penalties in terms of access to work. However, this literature has not been strongly connected with religiosity. In light of how Muslims are problematised because of their faith (Foner



and Alba, 2008; Joppke, 2009) and their presumed religious values being ‘associated with greater challenges for integration in destination societies’ (Platt, 2019, p. 98), it is notable that - bar a few exceptions (Connor and Koenig, 2015; Heath, Li and Woerner-Powell, 2018; Khoudja and Platt, 2018) - many ethnic penalty studies do not account for religiosity. This is an area requiring further exploration. At the same time, there has also been little research in understanding the relationship between work and religion for those *in* employment. This is a lacuna I address in my thesis. In the same way that a person’s labour market experience starts long before direct engagement with the labour market - for example, through their education and extracurricular activities - one’s labour market experience does not end once a person accesses work. Rather, this can be the beginning of a flourishing career (and life), or, as it is for many, the beginning of a continuous cycle of poor quality jobs. By undertaking research in both these areas and adopting a more comprehensive conceptualisation of what constitutes people’s labour market experience, this thesis adds a depth of understanding to an area of religious stratification we currently know nothing about.

### **1.5. Thesis overview**

The thesis is formed of seven chapters. The second chapter provides a review of the ethnic penalty literature and offers an account of current understandings of the Muslim penalty and its different proposed explanations. These are (i) differences in characteristics, (ii) discrimination, and (iii) the ‘cultural norms’ argument. In this chapter, I also advance a multidimensional conceptualisation of job quality which forms the basis of my study into religious and ethno-religious stratification among employees.

The third chapter is dedicated to discussing the data and methodology adopted throughout the thesis. In it I explain the advantages of the survey data used, and why it is the best dataset for the current study. I also explain the statistical models adopted in the analytical chapters and the justification for my use of multilevel modelling. The chapter culminates with a technical discussion surrounding complex survey design and the weighting decisions adopted in the study, as well as some essential points regarding statistical interpretation.

In chapter four I create my multidimensional measure of employee job quality. The chapter also includes details of robustness tests providing strong evidence for the index's validity. My index makes a significant methodological contribution to the literature by offering researchers a ready-to-use measure of job quality that is transparent, statistically robust, and suitable for analysing a multicultural workforce.

Chapter five, which largely draws on my published paper with *Ethnic and Racial Studies* (Sweida-Metwally, 2022a), is focused on an analysis of ethno-religious differences in job *quantity*. I do this by examining whether so-called 'sociocultural' attitudes are - as some have posited - a plausible explanation for the Muslim penalty in unemployment and inactivity. This is another key contribution of my thesis in that the analysis provides more depth of understanding regarding religious stratification by connecting it to religiosity. By distinguishing between hitherto included but not disaggregated groups, the analysis also offers a level of granularity that has not always been possible in previous research because sample sizes have not been large enough. The chapter therefore additionally makes an important methodological contribution to the literature which provides new insights regarding the potential mechanisms driving the Muslim penalty.

Chapter six marks another major contribution of the thesis. It does so by examining for the first time in the literature religious and ethno-religious differences in job *quality*. I do this by using the job quality index devised in chapter four and analysing differences therein across distinct work characteristics to examine whether variations in job quality can be explained by people's concentration in particular employment areas. These are (i) professional/non-professional, (ii) part-/full-time, and (iii) private /public sector employment. By doing so, and integrating this within a study of labour market access, this chapter offers a more complete understanding of religious and ethno-religious inequalities in the British labour market.

Finally, chapter seven provides an overview of the key findings of my analysis and discusses how the thesis adds depth to our current understanding of the Muslim penalty and religious labour market inequalities more generally. In this chapter I also offer an interpretation of how we can make sense of the results along with the limitations and strengths of the study. The chapter also contributes a roadmap on how to attenuate the Muslim penalty. I propose a two-pronged approach.

At the lower company-level, I put forth a set of easy and cost-effective policy proposals with a particular focus on tackling job quality inequality. At the higher state-level, I argue that there is a need for an internal revaluation of British national identity, which needs to be replaced by an imagined community which is a more authentic, inclusive, and historically-accurate reflection of who we truly are.

## 2. Chapter 2: Literature review

Religious differences in labour market outcomes have not garnered as much attention as ethnic differences, which have long attracted much more scholarly and policy interest in Britain. In this chapter I take a thematic approach to discussing the findings from both these research areas. This research has been undertaken from diverse perspectives and with diverse foci, including pay gaps (Longhi and Brynin, 2017; Li and Heath, 2020), occupational attainment (Cheung, 2014), and the probability and duration of unemployment (Khattab and Modood, 2015; Longhi, 2020). In doing so, I highlight findings relating to the existence of a ‘Muslim penalty’ (Connor and Koenig, 2015, p. 198) in the British labour market. A discussion then follows on the various explanations posited in the literature for this penalty in employment outcomes, focusing on those receiving the most attention in the contemporary literature. These are (i) human capital and socio-demographic characteristics, (ii) discrimination, and (iii) the ‘cultural norms’ argument. Evaluating the research in this way provides an important account of the current debates in the field. In so doing, it naturally foregrounds areas where further research is needed to expand our understanding of the Muslim penalty, thereby locating my research in the broader literature. A central contribution of this chapter is that it advances a novel multifaceted conceptualisation of job quality. The chapter culminates in a discussion of the further contributions of my thesis, and their importance and value to the existing scholarship.

### 2.1. Religious, ethnic and ethno-religious penalties in the British labour market

#### 2.1.1. Earnings

People in many different ethnic minority groups experience a pay gap relative to the White British charter population. Evidence indicates male and female Bangladeshis and Pakistanis exhibit the largest earnings differentials (Modood *et al.*, 1997; Berthoud, 2000; Brown, 2000; Heath and Cheung, 2006; Longhi and Platt, 2008). Black African men and women are also disadvantaged relative to the White British majority but to a lesser extent than Pakistanis and Bangladeshis, while Black Caribbeans (male and female) fare comparatively better, although not as well as Chinese

and Indian people (Longhi and Brynin, 2017; Longhi and Platt, 2008). Importantly, Pakistani, Bangladeshi, Black African men and women remain the groups with the highest pay penalties relative to White British men and women, respectively, even after a range of socio-demographic factors are accounted for (Li and Heath, 2020). Pakistanis and Bangladeshis - men and women - also have lower earnings over the life course. Their income not only rises at a slower rate but also peaks much earlier than the White British population. This is particularly acute among males whose income apex is ten years before White British men's earnings stop growing (Li and Heath, 2020).

Research also suggests considerable gender variation in pay gaps (Brynin and Longhi, 2015). However, while all ethnic minority women and White British women display lower earnings than White British men (Longhi and Platt, 2008), the gender pay gap varies by ethnic minority group. Black Caribbeans, for example, stand out as the only group where women earn on average more than men (Breach and Li, 2017). Excluding the gender pay gap, the gaps for ethnic minority women relative to White British women are generally smaller than they are for ethnic minority men relative to White British men (Longhi and Brynin, 2017; Li and Heath, 2020). For example, among ethnic-minority women, Chinese, Indians, and Caribbeans exhibit a pay advantage relative to White British women, a feature not as prominent among ethnic minority men when their incomes are compared to those of White British men (Longhi and Brynin, 2017). In general, Chinese men and women are the most advantaged group with Chinese men also displaying an hourly pay advantage relative to White British men (Longhi and Brynin, 2017). Similarly, Indians, although also considered a 'South Asian' group in many analyses, are typically less penalised in terms of pay, if at all (Heath and Cheung, 2006).

That said, findings show considerable intra-group heterogeneity among Indians based on religion, with Muslims, followed by Sikhs, more disadvantaged than Hindus, be they men or women (Longhi and Platt, 2008; Longhi, Nicoletti and Platt, 2013). However, Khattab (2016) finds that while some groups experience a pay penalty on average, the results do not indicate that this is associated with religion or colour. It is however important to point out that this study is focused on evaluating pay gaps among salariat workers only. Rather than providing conclusive evidence that there is no religious penalty, the findings might instead be indicative of the fact the drivers of

religious disadvantage operate differently for distinct type of workers, or that certain workers have better strategies and resource to overcome their poor outcome than others (Zwysen, Di Stasio and Heath, 2020). Longhi, Nicoletti and Platt analysing ethno-religious pay gaps also contest ‘accounts of an overarching Muslim experience of disadvantage’ (2013, p. 488) due to the distinct experience of Indian Muslims (who have better outcomes) and Pakistanis Muslims. They find that occupational distribution might be a better explanation for the pay gaps among Indian Muslims (Longhi, Nicoletti and Platt, 2013). However, more recent research shows that Muslim groups (notably Pakistanis and Bangladeshis), both male and female, are paid less relative to the majority group ‘even when working in the same occupation as them’ (Longhi and Brynin, 2017, p. 31). This suggests that occupational segregation is unlikely to fully explain the pay gap.

### **2.1.2. Occupational attainment**

Ethnic and religious gaps are also visible in terms of access to managerial and professional roles. Research indicates that this trend dates back to at least the late 1960s when employers held that ‘coloured people are generally considered suited to only those jobs for which it was not possible to get white labour or to particularly menial and unskilled jobs’ (Daniel, 1968, p. 97). From a religious perspective, Christians and Hindus generally fare best, while Muslims and Sikh are worse off (Brown, 2000; Platt, 2005; Cheung, 2014; Karlsen, Nazroo and Smith, 2020). There are however important ethno-religious differences within religious groups. For example, while Christian Irish do not experience a penalty, Christian Africans are among the most disadvantaged groups with penalties even above that of Muslims in some instances. Christian Caribbeans also experience a penalty but to a lesser extent than the latter (Johnston *et al.*, 2010). Evidence that the Muslim disadvantage relative to White British Christians holds across ethnic groups has led to the suggestion that a Muslim penalty might be at play (Khattab, 2009).

There is also considerable heterogeneity among ethnic minorities, including by gender, and the penalties in occupational attainment remain, even after controlling for a range of personal and employment characteristics (Heath and Cheung, 2006; Li and Heath, 2008; Cheung, 2014). Among men, those of Chinese and Indian ethnicity are more likely to be in managerial roles and are the non-White groups that fair best. Bangladeshis and Pakistanis are least likely to be in such roles

and are to a proportionately higher degree employed in routine and semi-routine roles. Black Africans and Black Caribbeans do better, but the former only marginally so (Li and Heath, 2008). Among women, while Chinese do particularly well, so do Black African and Black Caribbean women, albeit to a lesser extent. While Caribbean women do better than Caribbean men when compared to the White British group of their own gender, Indian women perform less well than Indian men when compared to White British women/men. Meanwhile, as is the case for men, Pakistani and Bangladeshi women exhibit the lowest occupational attainment, with Indian women performing better than both these groups (Modood *et al.*, 1997; Heath and Cheung, 2006).

While some commentators indicate that access to the salariat has improved for second generation non-White ethnic minorities (Heath and McMahon, 1997; Heath, McMahon and Roberts, 2000; Heath and Cheung, 2006; Cheung and Heath, 2007; Li and Heath, 2016), others find no such inter-generational amelioration (Cheung, 2014). Either way, the evidence shows that being born in the UK does not remove the ethnic penalty for second generation non-Whites in its entirety for either men or women. The fact that second generation ethnic minorities are fluent in English, have increasingly better qualifications, and have an education profile that is more similar to the White majority, suggests that poor qualifications, the holding of foreign qualifications and/or weak language proficiency cannot be the sole reasons for the disadvantage experienced by first generation ethnic minorities (Karlsen, Nazroo and Smith, 2020).

### **2.1.3. Unemployment, duration of unemployment, and inactivity**

Men and women from non-White minority backgrounds are also more likely to be unemployed than their White British comparison peers, and this trend holds even after human capital and socio-demographic factors are accounted for (Brown and Gay, 1985; Berthoud and Blekesaune, 2007; Cheung and Heath, 2007; Li and Heath, 2020). From a religious perspective, Muslims are more likely to be unemployed, a penalty holding across a variety of ethnic groups (Khattab and Johnston, 2013). There is also evidence that this Muslim disadvantage has been persistent over time, especially for women (Berthoud and Blekesaune, 2007). Sikhs, especially men, also experience higher levels of unemployment relative to Christians but generally to a lower extent than Muslims (Lindley, 2002; Karlsen, Nazroo and Smith, 2020), while Hindus, particularly males, are the best

positioned minority group (Khattab and Johnston, 2013). Those with no religious affiliation have a similar employment pattern to Christians (Berthoud and Blekesaune, 2007). However, among both groups there is, again, important heterogeneity. For example, Christian and non-religious Black men, whether Black African or Black Caribbean, face considerable employment penalties, but still less than Muslim men (Berthoud and Blekesaune, 2007). Among Muslims, Black Muslims are the most disadvantaged (Khattab and Modood, 2015). Relative to Christians, Muslim men and women are also the most likely to be outside the labour force compared to members of other religious groups or those with no religious affiliation, with the inactivity penalty being more severe for women (Brown, 2000; Heath and Martin, 2013).

Assessing ethnic differences in silo, the hierarchy is similar to that of previously discussed labour market outcomes. For both men and women the ethnic penalties over time indicate the following hierarchy. Black Africans and Caribbeans are less disadvantaged than Pakistanis and Bangladeshis who are the groups with the highest likelihoods of being unemployed relative to the White majority. Meanwhile, all White groups, Indians and Chinese appear to be in a better overall position (Li and Heath, 2020). There are nevertheless notable gender differences. Among Black Africans and Black Caribbeans, women fare much better than men relative to White British men/women, but among Pakistanis and Bangladeshis women fare worse, with their disadvantage being more persistent. White British females still perform best among women, with the employment profiles of Indians and Chinese people mirroring them (Modood *et al.*, 1997; Heath, McMahon and Roberts, 2000; Heath and Cheung, 2006; Berthoud and Blekesaune, 2007; Li and Heath, 2008; Khattab and Johnston, 2013).

Evidence is mixed on whether there is an improvement in terms of access to employment for second generation non-Whites relative to the first generation, with some finding there is (Heath, McMahon and Roberts, 2000), and others that there is not (Heath and Cheung, 2006; Cheung and Heath, 2007; Cheung, 2014). The penalties for both men and women who identify as Caribbean, Pakistani and Bangladeshi appears not to have improved over time (Karlsen, Nazroo and Smith, 2020), while those of Indians shows signs of improvement (Heath and Cheung, 2006). In fact, for men, the unemployment situation of Black Africans, Black Caribbeans, and Pakistanis, and Bangladeshis appears to be one that has deteriorated over time (Li and Heath, 2008).



There is also evidence that the increased risk of unemployment for ethnic minorities varies with economic cycles. In times of economic recession minorities generally experience a faster rate of unemployment than their White peers whereas in times of growth they are hired at a faster rate (Jones, 1993; Li and Heath, 2008; Khattab and Johnston, 2013). This is concerning in light of evidence that ethnic minorities experience longer periods of unemployment and that spells of unemployment have an increasingly determinantal effect on their future probability of unemployment (Longhi, 2020). Among men who experienced a spell of unemployment, Black Caribbeans and Bangladeshis in particular find it more challenging relative to their White British peers to enter re-employment, while among women, it is Pakistanis and Black Africans (Li and Heath, 2020).

In sum, across a variety of outcomes - earnings, occupational attainment, economic inactivity, unemployment, duration of unemployment - there is consistent evidence of hierarchies based on both ethnicity and religion (Khattab and Modood, 2015). The fact that these differences in labour market outcomes remain for Muslims even after accounting for a range of socio-demographic and human capital factors (e.g. education, age, region, language proficiency, health) resulted in these differentials being described as a ‘Muslim penalty’ (Connor and Koenig, 2015, p. 198).

## **2.2. Explanations for the Muslim penalty**

The existence of a Muslim penalty in employment does not in and of itself indicate that discrimination is taking place. There are multiple reasons why gaps in labour market outcomes can transpire. These range from supply-side to demand-side factors (Zwysen, Di Stasio and Heath, 2020). The former includes personal characteristics such as qualifications and work search strategies, while the latter includes an employer’s hiring decisions.

### **2.2.1. Differences in personal characteristics**

#### *2.2.1.1. Human capital*

Education signals ability to a prospective employer (Becker, 1964; Arrow, 1973; Spence, 1973), and it is widely held that its primary aim is to improve economic outcomes (Winch, 2002). The higher one's education, the more skilled a person is understood to be. Given the asymmetry of information between employer and employees, higher education can signal to a prospective employer that a worker is potentially more productive and/or that they are less costly to train. If Muslims, as Khattab (2009) notes, have a lower education profile this might 'explain' their poorer labour market outcomes.

Similarly, better English language proficiency improves employment outcomes (Lindley, 2002; Dustmann and Fabbri, 2003). Poor linguistic skills make it more difficult for a job-seeker to communicate their abilities to a prospective employer, increase an employer's training costs, narrow the scope of information available to a job-seeker when searching for employment opportunities, and can reduce the chance of a promotion into a managerial role if in work. Consequently, those with poor language skills are more likely to experience poorer labour market outcomes.

Bridging and bonding social capital are also correlated with employment outcomes. The former refers to interethnic connections between minority and majority members, while the latter alludes to intra-ethnic networks (Putnam, 2000). The logic is that connections with members of the host country population (bridging capital) are a resource that enables minorities to gain access to information regarding job opportunities that they would otherwise not have access to if they only relied on their co-ethnic networks (bonding capital) because people with a minority background are over-represented in lower paid and non-managerial roles (discussed above). Beyond simply notifying minorities of certain job openings, host country contacts can help them navigate the unspoken norms that govern the employment market which is important for labour market access. The general view is that bridging capital has a positive effect on successful employment outcomes (Lancee, 2012; Heath, Li and Woerner-Powell, 2018) while the advantages of bonding capital are less clear. For example, Clark and Drinkwater (2002) and Lancee and Hartung (2012) find that bonding capital does not support better economic outcomes, while others find that bonding capital increases the likelihood of economic activity (Cheung, 2014). As such, the purported logic is that

if Muslims have particularly low bridging capital but high bonding social capital, this can explain their poor employment outcomes (Koopmans, 2016).

#### *2.2.1.2. Socio-demographic characteristics*

Women tend to have a different labour market profile to men. They are less likely to be economically active, earn a lower income within the same occupation, are more likely to be in part-time work, and are concentrated in certain low paid occupational sectors (Brynin 2017; Francis-Devine and Foley, 2020). Therefore, when investigating the Muslim penalty men and women should be analysed separately. This is the preferred approach rather than creating models with full range of interactions by gender which become increasingly difficult to run and interpret as the number of moderations increases.

Research shows that married people are more likely to experience more positive labour market outcomes, such as lower chances of being unemployed and inactive (Blackaby *et al.*, 1999b; Clark and Drinkwater, 2005; Khattab *et al.*, 2011; Khattab and Modood, 2015). This is distinct from the effect of having children where evidence suggests that as the number of dependent children increases, the probability of unemployment increases (Dustmann and Fabbri, 2003; Li and Heath, 2008; Khattab and Hussein, 2018), particularly among women (Heath and Martin, 2013; Khoudja and Platt, 2018). This might be because as the number of children increases, the opportunity cost of working increases (Nickell, 1980). Alternately, having children can limit employment opportunities as parents become less able or willing to relocate.

The economic environment and local labour market conditions in which a person resides also affect employment outcomes. As Platt cogently puts it, '[p]eople's lives are very different depending on where they live. Inequalities of environment, services, schooling, access to jobs and quality of housing are linked to different areas of residence' (2019, p. 264). For example, *ceteris paribus*, a person living in an area with high unemployment is likely to find it more difficult to find work than a person living in an area with low unemployment who faces lower competition when applying for a given job or might have more job openings to apply to. If an area is serviced with poor transport links, it is also then harder to travel outside of one's area of residence to search for

employment. The challenge is compounded if residents in a particular area share similar skillsets. An example of this might be the old textile powerhouse regions (e.g. Oldham and Bradford) - where Pakistani migrants initially settled - where the industry's collapse in the 1980s (Seward, 2006) created a pool of similarly skilled unemployed people. In short, 'to the extent that local labor markets differ and that labor is largely immobile in the short-run, these differences in regional location will also shape labor market outcomes' (Altonji and Blank, 1999, p. 3153). London has a unique economic position, with considerably higher job creation than in any other area in the UK (McCall, 2018); better transport connections and services; and serving as home to the majority of ethnic minorities (Jivraj and Simpson, 2015). This accordingly means any analysis into labour market differentials should account for the capital's special status.

Poor mental and physical health also adversely affect labour market outcomes (Jones, Latreille and Sloane, 2006; Robroek *et al.*, 2013). For example, it can impact focus at work which could lead to underperformance thereby reducing chances of a promotion and increasing the chances of being dismissed. For job-seekers, poor health could result in it taking longer to complete a job-application or it being harder to make a good impression at an interview. Stigma could also mean certain employers are reluctant to hire workers suffering from poor mental and physical health. That said, it is important to remember that the causal relationship between health and employment is of course not unidirectional (Heath and Cheung, 2006).

Being born outside the UK or migrating in adult life suggests that a person completed their education and initial work experience abroad. If employers do not value the latter to the same extent as they do UK qualifications and local work experience, or if they prefer domestic qualifications because of familiarity with national qualifications, migrants are more likely to have poorer employment outcomes.

Younger people are also more likely to be unemployed, earn less, and have lower occupational attainment (Furlong, 2013; ILO, 2017; Powell, Francis-Devine and Clark, 2022). Given that the majority of UK Muslims are younger than 35 (discussed above), the reasoning is that analysis needs to factor in worker age differences.

#### 2.2.1.3. *Work characteristics*

In addition to accounting for worker characteristics, it is also argued that employment features need to be taken into account when studying labour market penalties (Longhi and Brynin, 2017). This is because certain roles and sectors are associated with higher earnings and lower turnover than others. From this perspective, if minority groups face occupational segregation whereby they are excluded from those areas, it could be understood that minorities are not paid less for doing the same work as their majority peers, rather that they are in work that pays less (Brynin and Güveli, 2012). The fact that minorities members are ‘under-represented in professional and managerial occupations and overrepresented in semi-routine and routine occupations’ (Heath and Cheung, 2006) gives purchase to this view. However, evidence that people from minority groups still experience pay gaps even after work characteristics are accounted for suggests that this cannot account for differences in labour market outcomes (Longhi and Brynin, 2017).

Similarly, since part-time work is paid less than full-time employment and exhibits higher hiring volatility (Warhurst, Wright and Lyonette, 2017), if minorities are over-represented in those work areas, as Pakistani women and Bangladeshi men and women are (Heath and Cheung, 2006) then this might explain the existence of poor outcomes (e.g. pay gaps, higher unemployment). There is also evidence that ‘men from ethnic minorities experience a significantly larger penalty with respect to hourly earnings in the private sector than they do in the public sector’ (Heath and Cheung, 2006, p. 44). Correspondingly, the logic is that sectoral differences could explain (some of) the Muslim penalty.

#### 2.2.1.4. *From individualised to structural processes*

The above factors are recognised as potential factors contributing to gaps in labour market outcomes. However, as previously discussed, research shows that accounting for differences in characteristics does *not* dissipate the Muslim penalty. In other words, the average gaps in earnings, unemployment, occupational attainment, and inactivity discussed above, remain even after controlling for socio-demographic and personal characteristics. As a result, some have posited

discrimination as the driver of the Muslim penalty. Before discussing this in more detail, it is important to note an ontological difference between these two ways of thinking.

The approach of controlling for personal characteristics, popular among economists, is a positivist model and an individualised way of conceptualising the issue. The approach problematise the victims of poor labour market outcomes and takes a problematic perspective on minorities and their cultures by positing individual reasons to ‘explain’ their situation. In that sense then, the methodology has also been used to politically downplay the significance of racism and blame its victims. This is because, by attempting to separate drivers neatly into one issue, sociologists argue that the approach ignores the broader structural processes which play a critical role in shaping people’s human capital and socio-demographic characteristics, which in turn produce the poor labour market outcomes. In doing so, the individualised approach ignores the multiple ways in which racism impacts people’s lives in a whole range of different manners.

For example, a weaker education profile might explain some of the differences in pay, but discriminatory practices in the education sector have been found to play a role in shaping the educational profiles of people from a minority background (Shiner and Modood, 2002). Likewise, the number and types of jobs available differ by region, however, it is misleading to consider residential choices as purely a matter of desire given evidence shows that ‘[p]ractices of discrimination and racism exists in housing, for example in restricting ethnic minority household from entering specific housing tenures in Britain’ (Chouhan and Nazroo, 2020, p. 149). Similarly, while poor health might make it more likely for a person to experience poorer employment outcomes, it is important to note that ‘discrimination, racism and cultural incompetence have been identified in the delivery of care across the health service’ (Chouhan and Nazroo, 2020, p. 73) which all contribute to worse health outcomes in the first place. Furthermore, while evidence shows that occupational segregation might explain part of the pay gap, it is possible that discrimination, and fear of possible discrimination, is actually driving certain minorities away from better paid industries (Heath and Martin, 2013). In short, evidence shows that racism and discrimination can, and are, driving differences in the explanatory variables - i.e. ‘causes of causes’ (Marmot, 2018) - that are posited as explanations for poor labour market outcomes. Racism is therefore not ‘separate’ to socio-economic exclusion, but rather is one of the many ways it

manifests in people's lives. In statistical terms, racism and discrimination are distal variables, and demographic and human capital characteristics (e.g. region of residence, education, health) are mediators of these fundamental variables. The next section discusses the nature of racism and discrimination and highlights some of their causal mechanisms.

### **2.2.2. The discrimination thesis**

Discrimination in the labour market can be understood 'as a situation in which persons who provide labour market services and who are equally productive in a physical or material sense are treated unequally in a way that is related to an observable characteristic' (Altonji and Blank, 1999, p. 3168). Religion – identifiable through, for example, name, dress, dietary choice – is an example of a potentially observable characteristic. How 'unequal treatment' is manifested will depend on both the power and influence of the person doing the discriminating and the victim's labour market position (National Research Council, 2004; Brynin and Güveli, 2012). For example, unequal treatment at the job-seeking phase can occur at the application and/or interviewing stages which might lead to disproportionately higher rates of unemployment and/or inactivity (Di Stasio *et al.*, 2021). For those in work, discrimination might mean experiencing a more hostile work environment, being held to a higher standard than peers of the majority culture, or being paid less than a colleague from the majority group in the same role (Longhi and Brynin, 2017). Importantly, while discrimination is often understood as being an explicit manifestation of prejudice (CMEB, 2000), 'it can also be subtle and unconscious (such as nonverbal hostility in posture or tone of voice)' (National Research Council, 2004, p. 56; see also Essed, 1991). Discriminatory behaviour can often be motivated by racism (Pager and Shepherd, 2008).

#### *2.2.2.1. Biological and cultural racism*

Biological racism can be understood as 'the antipathy, exclusion, and unequal treatment of people on the basis of their physical appearance or other imputed physical differences' (Modood, 2005, pp. 28–29). Its ideology "postulates the existence of discrete 'races', and attributes a negative evaluation to one or some of these putative 'races'" (Miles and Brown, 2003, p. 8). Unsurprisingly,

at the top of the hierarchy sat the authors of the taxonomy: white Europeans.<sup>2</sup> Creating hierarchised groups in this way is an essential characteristic of racism (Garner, 2017). Racism also requires a power dynamic where the dominant white majority forces a particular definition of what it means to be a member of a particular ‘race’ on those being racialised. The process of using a phenotypical marker to deny a person their individuality and subscribe to them a pre-conceived idea of what it means to be member of that assumed ‘race’ can be understood as the racialisation process. It is the ‘means by which racism can be made functional and sustained’ (Garner, 2017, p. 32). A third fundamental feature of ‘race’ classification is the value judgement imbued in the pre-conceived ‘racial’ differences and the discriminatory practices it justifies (CMEB, 2000; Garner, 2017). One group, the majority white one, defines its positive attributes relative to the other: Black Africans are associated with ‘evil’ and ‘darkness’ while White European Christians represent ‘goodness’ and ‘light’ (CMEB, 2000, p. 65).

Despite a lack of empirical evidence, the ideas put forward by ‘race science’ remain popular in the public discourse (Saini, 2019), and other justifications have emerged to reproduce the negative stereotyping of some groups and maintain exclusionary policies without necessarily being reified in biological and phenotypical terms. Here the racialisation process does not necessarily focus on colour and physical differences but is more reliant on cultural markers (CMEB, 2000). Modood (2005) defines this as cultural racism, arguing that the move away from a Black and White dualism has resulted in cultural traits (e.g. Islam among ‘South Asians’) being adopted to problematise the group. For Modood, this is a new mechanism which is at play, in parallel to colour racism rather than a simple rebranding of the concept. At its source, cultural racism ‘builds on biological racism a further discourse that evokes cultural differences from an alleged (...) civilized norm to vilify, marginalize or demand cultural assimilation from groups who also suffer from biological racism’ (Modood, 2005, p. 29).

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<sup>2</sup> The French aristocrat, Arthur de Gobineau, proposed one the earliest taxonomies in his *Essai sur l'inégalité des races humaines* published in 1853.



#### 2.2.2.2. *Islamophobia is racism*

Islamophobia is a form of cultural racism (Runnymede Trust, 2017; Modood, 2020). Building on their landmark report (Runnymede Trust, 1997), Runnymede Trust (2017) defines Islamophobia as ‘anti-Muslim racism’, elaborating that Islamophobia is ‘any distinction, exclusion or restriction towards, or preference against, Muslims (or those perceived to be Muslims) that has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise, on an equal footing, of human rights and fundamental freedoms in the political, economic, social, cultural or any other field of public life’ (Runnymede Trust, 2017, p. 7). The All Party Parliamentary Group on British Muslims also highlights that ‘Islamophobia is rooted in racism and is a type of racism that targets expressions of Muslimness or perceived Muslimness’ (APPG, 2018, p. 11, emphasis removed). Like biological racism, the core of Islamophobia is its essentialising and stereotyping nature ‘and attributing negative, backward and exotic otherness to them [Muslims] as a group’ (Garner, 2017, p. 159). It treats ‘Muslims as if they were a single, racial or quasi racial group’ (Modood, 2019b, p. 103) ignoring their diversity and individuality. This racialisation of Muslims occurs not only through phenotypical markers but also through cultural ones, such as name, culinary choices, dress, accent, hobbies, and values. For example, in the context of employment, by adopting certain forms of dress, candidates and employees can be victimised and denied jobs. It is crucial to note that stereotypes are not static. Racism ‘has deep historical roots, so that ideas and arguments derived from imperialist history are continually being reworked and given new meanings as a result of contemporary endogenous political-economic forces, and combined with new ideas and images’ (Centre for Contemporary Cultural Studies, quoted in Miles and Brown, 2003, p. 62). The evolution in the representation of the British Asian Muslim man from ‘effeminate’ (CMEB, 2000, p. 67), ‘unassertive, overdeferential, and docile ... [to] ‘fanatical, and aggressive’ (Modood, 2005, p. 14) post-1989 is a recent example of said fluidity.

That Islamophobia is a type of racism has been resisted by some (Malik, 2005). Three arguments drive this charge. First, that Islamophobia is about antipathy to a set of beliefs not a people. Second, that being Muslim is a voluntary identity, unlike colour. Third, that racism only refers to hostility that is premised on biological differences, and Muslims are not a ‘race’. Each argument is addressed in turn.

While acknowledging anti-Muslim antipathy, there are those who argue that Islamophobia has been exaggerated (Mirza, Senthilkumaran and Ja'far, 2007) and that it is not a suitable term to capture anti-Muslim hostility (Halliday, 1999). In response Meer and Modood (2009) point out that the notion of being Muslim and being a follower of Islam are so inherently interlinked that making the distinction between the term Islamophobia and the alternative suggested term 'anti-Muslimism' (Halliday, 1999, p. 898) to distinguish between attacks on Islam as a religion and attacks on Muslims as people is almost redundant. As Alexander cogently puts it, "it is impossible, and indeed disingenuous, to separate either Islam from Muslims themselves, or 'Muslims' from the black and brown bodies who form the largest proportion of Muslims in Britain, and globally. To do so separates 'Muslim' bodies from the longer and broader histories of race and racism" (2017, p. 15). On a broader point, such terminological nit-picking does not change the fact that, as previously discussed, Muslims, as a group, face measurable patterns of inequality in many areas of British life. Similarly, arguing that 'Arabs are Semites too' does not make the discrimination and racism experienced by Jews on account of their religious and cultural traits any less real. Such pedanticism only serves to shift the focus of the debate away from its actual purpose of capturing individual and systemic racist processes that produce real inequalities (APPG, 2018) to one of 'making a fetish out of words' (Meer, 2015).

The second argument posits that since one's religion is chosen - as opposed to skin colour which is not - Muslims cannot be considered victims (Malik, 2005). The implication is that they need simply to choose not to identify as Muslim. However, as Meer and Modood (2009) note, one does not choose into which family one is born. Being born into a Muslim family and having markers which associate a person with being Muslim (first name, surname, geographic heritage, cultural heritage, accent and so on) occur whether a person chooses to be Muslim or not. A person 'cannot help looking Muslim'. The Islamophobia suffered by Sikhs after being racialised as Muslim is evidence of this (Sian, 2017; Jhutti-Johal and Singh, 2019). It does not matter that Sikhism is separate to Islam or that Sikh victims do not identify as Muslim. An important driver of the Islamophobic verbal and physical racist abuse they suffer is the fact they are racialised as Muslim by their aggressors. A related point argues that Islamophobia cannot be racism because one cannot be racist against a set of beliefs. The argument thus follows that the term Islamophobia covertly

silences legitimate debate or critiques about Islam (Malik, 2005; Joppke, 2009). However, this critique ignores existing frameworks to distinguish between the latter and Islamophobia. Modood (2020) outlines a five-point test which claims can be verified against, while Runnymede Trust (1997) offered a framework (distinguishing between ‘closed’ and ‘open’ views on Islam) over 20 years ago.

A third contestation in the popular discourse is that Muslims are not a ‘race’, and therefore Islamophobia cannot be racism. This view holds that ‘race’ is purely about biology, and therefore Islamophobia is just about religious discrimination. However, this position ignores the history that some of the earliest recorded instances of racism were based on culture and religious characteristics. The English colonisation of Ireland, justified (in-part) based on the fact that the Irish were inferior, was premised on cultural and religious customs rather than physical features (Garner, 2009). Similarly, even when Jews and Muslims converted to Christianity at risk of being burned at the stake during the Spanish Inquisition, they were still perceived of suspiciously and as not ‘true Christians’ because ‘their old religion was in their blood’ (Modood, 2005, pp. 9–10). To argue that Muslims are not a ‘race’ and therefore cannot be subject to racism is to decontextualise the practice of racism from history. Such arguments overlook the fact that antisemitism is a racism against Jews that is premised not on any biological characteristics but is instead rooted in their cultural and religious practices. As such, to continue to aver that racism is only racism if rooted in biological ‘inherentism’ is to adopt a narrow understanding of racism that only focuses on a particular instance in history when colour racism was dominant (Modood, 2005; Meer and Modood, 2009). On a broader level, such an understanding ignores the fact that ‘race’ in and of itself is a social construct. Taxonomies could have easily been based on eye colour rather than skin colour (Miles and Brown, 2003). Therefore, to aver that Muslims are not a ‘race’ is meaningless since there are no ‘races’ period.

In sum, ‘[r]acism is a multifaceted social phenomenon, with different levels and overlapping forms. It involves attitudes, actions, processes and unequal power relations. It is based on the interpretations of the idea of ‘race’, hierarchical social relations and the forms of discrimination that flow from this’ (Garner, 2017, p. 18). It is perpetuated through a process of racialisation which uses both phenotypical and cultural traits as markers of distinction. Like biological racism,

Islamophobia strips people of their individuality by condensing a diverse group of people into one homogenous group and produces systemic measurable patterns of inequality. From this perspective, the Muslim penalty in the British labour market can be understood as an articulation of Islamophobia. The causal discriminatory mechanisms of how these inequalities are produced are discussed next.

#### *2.2.2.3. Causal mechanisms*

Racism operates on two levels impacting its victims through various channels to produce variations in employment. There is an interpersonal as well as an institutional dimension to racism (CMEB, 2000; Karlsen and Nazroo, 2002b; Garner, 2017). These do not operate in silo but are interdependent. The distinction is made purely to facilitate the understanding of the different mechanisms of the nature of racism rather than to distinguish between distinctive concepts.

##### *2.2.2.3.1. Interpersonal mechanisms*

Labour market discrimination is traditionally conceptualised through competitive models in the economic literature. Such models frame discrimination as individual-based action. They are contrasted with collective models, where discrimination is understood as the outcome of group action (Altonji and Blank, 1999). Competitive models are divided between two theories of discrimination: (i) taste-based discrimination (Becker, 1971) and (ii) statistical discrimination (Phelps, 1972).

Taste-based discrimination is premised on the idea that discrimination is driven by a preference among majority group members to be among people of their own group. Discrimination here is understood to be intentional and predominantly takes the form of ‘avoidance’. This can lead to poorer labour market outcomes for minorities especially members of groups considered ‘more different’. Field experiment results that find evidence of discrimination in the British labour market (Thijssen *et al.*, 2021), particularly towards Muslims (Di Stasio *et al.*, 2021), and research showing that groups that face higher discrimination also experience higher labour market penalties (Zwysen, Di Stasio and Heath, 2020) could be understood as manifestations of taste based discrimination.

Conversely, statistical discrimination argues that in the face of employer/employee information asymmetry employers use information they have (e.g. perceptions based on a group's average unemployment rate or previous employer experiences with minority members) as a proxy marker to deduce the job-seeker's average productivity. Under this theory, discrimination is an outcome based on a rational thought process born out of the necessity to deal with an information gap. Discrimination is not intentional and might therefore not necessarily be explicit, and can also be unconscious.

The practice of statistical discrimination reinforces labour inequalities for multiple reasons. First, the assumption that employers' conclusions about minorities are exogenous and accurate is questionable. In truth, views of minority groups are likely based on rigid stereotypes reinforced over time (Pager and Shepherd, 2008; Midtbøen, 2014). For example, the centuries old trope that 'Black people are lazy' was perpetuated by the UK government well into the mid-20<sup>th</sup> century when Black Caribbean workers were described as having 'low output ...[and] high rate of turnover', as well as being argumentative and ill-disciplined (McDowell, 2018). Second, the reliance on 'rational thinking' is undermined by evidence that even when employers have a positive working experience with a member of a minority group, that experience is rationalised as being an exception, and the event does not improve the employer's wider view of that minority group (Pager and Karafin, 2009). Third, statistical discrimination overlooks the fact that employer reasoning can be 'self-confirming' (Platt, 2019, p. 115). For example, if an employee from the majority group is paid a particularly high salary, an employer might be more likely to think they are more productive. Finally, statistical discrimination is a racist expression at its core because it 'uses group characteristics to make decisions about individuals' (National Research Council, 2004, p. 62), and the act of stripping away individuality and racialising minorities as a monolith based on stereotypes is, as discussed above, the cornerstone of racist ideology.

#### 2.2.2.3.2. *Structural mechanisms*

The sociological view emphasises that discriminatory behaviour does not operate uniquely through an individual lens and neither does it have to be explicitly discriminatory. Rather, disadvantage

can be reified, intentionally and unintentionally, through institutional, cultural and historical structures and processes that preserve and reproduce, in various ways, white privilege. This can be understood as structural racism. Institutional racism, like interpersonal racism (discussed above), is one manifestation through which structural racism is perpetuated (Potapchuk et al., 2005). A term coined in the 1960s in the US, the concept of institutional racism gained currency in the UK following the publication of the Macpherson report in 1999. It ‘refers specifically to the ways in which institutional policies and practices create different outcomes for different racial groups’ (Potapchuk et al., 2005, p. 39). Institutional discrimination therefore ‘focuses not only on the processes of an organisation but also on its output’ (CMEB, 2000, p. 73), and refers to the situation where ‘individuals are treated equally according to a given set of rules and procedures but when the latter are constructed in ways that favor members of one group over another’ (Pager and Shepherd, 2008, p. 182). It operates across different societal spaces, including the education system, housing, the labour market, healthcare, and the legal system. Importantly, disadvantage in all these areas are interconnected and work together to produce compounded disparities over people's life course. Inequalities in outcomes experienced by people with a minority background are therefore not serendipitous but by design.

A more granular understanding of the drivers of discrimination that goes beyond explicit interpersonal discriminatory behaviour and recognises structural racism and mechanisms of institutional discrimination, ‘encourages us to consider how opportunities may be allocated on the basis of race [and religion] in the absence of direct prejudice or wilful bias’ (Pager and Shepherd, 2008, p. 200). A good example of this is the arts (Bridge Group, 2020), and civil society sector. Both are sectors that tend to be, at least outwardly, liberal and pro-diversity with clear policies in place, yet research shows that 89 per cent of workers in the non-governmental sector ‘feel their organisations aren’t truly committed to diversity, equality and inclusion’ and 68 per cent of workers ‘experienced or witnessed an incident of racism in the workplace in the past year, or had supported someone else who experienced a racist incident’ (Bond, 2021, p. 4).

Institutional frameworks at both a company and government level can lead to discriminatory outcomes. At an organisation level for example, this can occur when there are insufficient policies in place to limit individual (conscious and unconscious) discriminatory hiring practices based on

‘cultural fit’ that risk legitimising and perpetuating homophily and bias in recruitment (Rivera, 2012). Formalised and transparent recruitment and promotion processes are examples of steps that can limit such a practice, as are electronic application processes that prevent recruitment by referrals which favours members of majority groups (CMEB, 2000). Evidently, the cost of implementing a formalised framework will reduce a profit-maximizing company’s incentive to apply such policies. Directives and legal obligations promoting anti-racism and supporting strict and transparent employment procedures might offer a suitable panacea to this issue. In fact, the Commission on the Future of Multi-Ethnic Britain - whose proposals are still, in my opinion, the most extensive and easily accessible on the topic to this day - made the recommendation, over 20 years ago, for the government to make it a legal obligation for companies to implement ‘equity plans’ (CMEB, 2000, p. 199) that include targets, deadlines and an explicit roadmap to reduce ethnic inequality.<sup>3</sup> The success of government intervention of this nature in Northern Ireland (e.g. monitoring) ‘to ensure fair participation of Catholic and Protestant communities in the workforce’ (CMEB, 2000, p. 198) is evidence that this strategy is worth serious consideration.

### **2.2.3. The ‘cultural norms’ argument**

#### *2.2.3.1. What is it?*

While the discrimination thesis offers a clear causal mechanism on how it can impact labour market outcomes, some argue that this is a premature conclusion (Malik, 2005) and that discrimination plays only a ‘distant role’ (Koopmans, 2016, p. 214). Others argue that inferring that the unexplained variance is due to discrimination requires too much of a leap (Macey and Carling, 2011). This is not only because the survey data analysis adopted does not allow for causal inference, but also because the models used do not account for all factors that likely affect employment nor do they always include a measure of discrimination. In other words, the models suffer from omitted variable bias. In the context of Muslims, these variables are understood to be

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<sup>3</sup> The Commission on the Future of Multi-Ethnic Britain was setup by The Runnymede Trust in 1997, and brought together academics, public intellectuals, and journalists to discuss ways to counter ‘racial’ discrimination in Britain. The results were published in 2000 in what became known as the Parekh report, in honour of its chair, Bhikhu Parekh (for further details see Modood, 2019b, pp. 92–97).

related to ‘internal cultural factors’ (Joppke, 2009, p. 456; see also Macey, 1999; Mirza, Senthilkumaran and Ja’far, 2007), namely ‘tastes for isolation’ (Blackaby *et al.*, 1999b, p. 3) and, particularly for women, a supposed commitment to traditional gender norms (Koopmans, 2016). Both are assumed to stem from their religion. For advocates of this position once this information is accounted for, the remaining variance (i.e. the Muslim penalty) is substantially reduced, if not completely eliminated, particularly among women (Koopmans, 2016).

Therefore, ‘[a]ccording to such arguments, rather than inequalities between groups telling us something about the way society disadvantages those with particular characteristics, relative inequalities would be telling us about relevant differences between the groups themselves that we simply cannot see’ (Platt, 2019, p. 18). For proponents of the ‘cultural norms’ argument, ‘culture and religion have more significant impact on life chances than the existence of racism’ (Commission on Race and Ethnic Disparities, 2021, p. 8).

#### 2.2.3.2. *Causal mechanisms*<sup>4</sup>

##### 2.2.3.2.1. *‘Tastes for isolation’*

“The alleged desire for ‘self-segregation’ (Joppke, 2009, 460) implies individuals are more committed to establishing relationships with co-religionists and co-ethnics than forging relationships with members of other groups, including the ethnic/religious majority. This results in minorities developing the less professionally advantageous bonding capital (Clark and Drinkwater, 2002) at the expense of the more favourable bridging capital (Lancee, 2012; Heath, Li and Woerner-Powell, 2018). [As explained above, t]he latter is developed through ties with members of the majority group (Putnam, 2000) who, on average, have higher occupational attainment than [religious and] ethnic minorities (Heath and Cheung, 2006) and therefore can provide them with information on better job opportunities. The insinuation, therefore, is that if Muslims did not hold ‘isolationists tastes’ there would be little variance in their employment

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<sup>4</sup> This section partly reproduces some of the material previously published in my academic article (Sweida-Metwally, 2022a). In line with the University of Bristol’s guidelines, all relevant sections are referenced with in-text citations.



outcomes relative to majority group members (Koopmans, 2016)” (Sweida-Metwally, 2022a, pp. 360–361).

#### *2.2.3.2.2. Traditional gender attitudes*

“In terms of holding traditional gender norms, the more conservative a person, the more sympathetic they are assumed to be to the ‘male breadwinner model’ (Lewis, 2001). The corollary is that women prioritize childrearing and household work, dedicating less time to finding employment. This is posited as another explanation for Muslim women’s poor labour market outcomes (Koopmans, 2016; see also Khoudja and Fleischmann, 2015). It is worth noting, however, that the mechanism could also operate in reverse with women who are unable to find successful employment potentially validating their labour market status retrospectively by holding more traditional views on the division of labour. Khoudja and Platt (2018) capture gender attitudes through participant views on female employment, namely whether they believe it is a husband’s role to earn money, and whether they feel a mother working is detrimental to her child’s wellbeing. The authors find that ‘gender attitudes are not related to labour market entries of Indian and Sri Lankan and Pakistani and Bangladeshi women’ (Khoudja and Platt, 2018, 13). Nevertheless, the authors do find that traditional gender views are associated with labour market exits, but this is found to be the case across all ethnic groups, and not only with Muslims” (Sweida-Metwally, 2022a, p. 361).

#### *2.2.3.2.3. Religiosity*

Religiosity is assumed to impact economic outcomes by how it frames a person’s interaction with the labour market, the same way that attachment to a religion influences a person’s dress (e.g. kippah, black suit among Hasidic Jews, hijab, turban, shpitzel), and diet (e.g. halal, kosher, vegetarianism, teetotalism). For example, a religious Muslim is unlikely to take up employment in the gambling industry or work in a bar, thereby narrowing the opportunities of employment available to them. Religiosity could also alter a person’s preferences by making them less focused on climbing the corporate ladder (i.e. occupational attainment) and more committed to social work which also tends to be less well-paid. This is not to suggest that Islam commands its adherents to

shun affluence. Such ‘allegations of an inherent Islamic opposition to industry and (especially capitalistic) wealth accumulation represent an enduring Orientalist trope, readily relatable to the history of European imperialism in South Asia and the Middle East’ (Heath, Li and Woerner-Powell, 2018, p. 207).

### **2.3. Moving the conversation forward<sup>5</sup>**

“In light of how Muslims are often problematized and critically discussed in the public discourse as ‘segregationists’ because of their faith (Field 2007; Joppke 2009)” (Sweida-Metwally, 2022a, p. 361), it is noteworthy that the majority of studies into the Muslim penalty ‘do not account for religiosity. Among the exceptions are Heath, Li and Woerner-Powell (2018) who capture religiosity through how much difference religion makes to a person’s life (see also Connor and Koenig 2015), and frequency of attendance at religious services’ (Sweida-Metwally, 2022a, p. 361). However, while the latter has traditionally been an important measure of ‘religious involvement’ (McAndrew and Voas, 2011, p. 3) this understanding is based on measuring religiosity among Christians. Whilst this approach is suitable for capturing religiosity among Muslim men it is not appropriate for capturing religiosity among Muslim women. This is because there is no religious obligation for them to attend the mosque as exists for men. As such, more religious women might actually choose to worship at home. Therefore, when measuring religiosity among Muslim women, ‘focusing solely on how important religion is to a woman’s life’ (Sweida-Metwally, 2022a, p. 361) would be a better measure of Muslim women’s religiosity.

“Given the claim that these key sociocultural variables ‘are not often taken into account in ethnic penalty studies’ (Koopmans, 2016, 198), but that when they are included ‘there are hardly any statistically significant differences left’ (Koopmans, 2016, 213), there is a need for” (Sweida-Metwally, 2022a, p. 361) fresh investigation into the Muslim penalty in Britain. Indeed, Koopmans’ (2016) conclusion is based on a small sample size. In assessing the probability of female unemployment, the sample size for Pakistani women from which findings are drawn is 32. This

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<sup>5</sup> This section partly reproduces some of the material previously published in my academic article (Sweida-Metwally, 2022a). In line with the University of Bristol’s guidelines, all relevant sections are referenced with in-text citations.

figure is calculated using Table 1 (Koopmans, 2016, p. 202) in the following way. Out of a total of 868 valid cases for Pakistanis, 41 per cent are women. Of those, 41 per cent are participating in the labour force, and of those 22 per cent are unemployed. It is worth noting that Pakistanis in Koopmans' (2016) study are the group that are deemed to hold the most conservative gender norms, the underlying premise of his paper, hence why the group is used as an example to highlight the study's low sample size.

It is also likely that Koopmans (2016) is overcontrolling in his models. This is where the very concept supposedly being investigated is actually controlled for. In his case, so many of the aspects included as a proxy for 'sociocultural attitudes' reflect discrimination's pervasive workings in society (see previous discussion). "Specifically, measuring the degree of assimilation [as Koopmans (2016) does] based on 'host-country neighbourhood acquaintances', 'host-country friendships', and 'host-country family members' ignores [among other things] the discriminatory housing policies and redlining practices that regulated immigrant neighbourhood settlement (Daniel, 1968)" (Sweida-Metwally, 2022a, p. 381) and 'produced a physical segregation that can still be observed in most Western societies' (Ramadan, 2017, p. 101). It also overlooks 'the role racism plays in creating ethnically segregated neighbourhoods (Harrison, Law and Phillips 2005), [and] the evidence that White members of the majority culture actively migrate out of, and are less likely to migrate into, neighbourhoods with increased cultural diversity (Bråmă 2006)' (Sweida-Metwally, 2022a, p. 381). It similarly ignores 'that institutional bias directs ethnic minorities towards specific universities less attended by Whites (Shiner and Modood, 2002), [and how] interpersonal racism plays an important role in precluding Muslims from establishing multi-ethnic family ties (Pew Research Centre 2018)' (Sweida-Metwally, 2022a, p. 381). It also overlooks the fact 'that, in 2011, 46 per cent of the UK Muslim population lived in the 10 per cent most deprived local authority districts in England (MCB 2015) and are, therefore, more likely to live among co-ethnics/co-religionists' (Sweida-Metwally, 2022a, p. 381).

Innovative research using the best-available techniques and data with sufficient sample sizes, and 'which also adopts a more heterogenous reading of Muslims' (Sweida-Metwally, 2022a, p. 361), is therefore essential. 'This is particularly needed since, in (...) [Britain], research has tended to focus on Muslims with a Pakistani, Bangladeshi and Indian background, yet the population today

includes a reasonable number of Muslims with White, Black African and Arab ethnicities [discussed above]. Based on the established evidence of a religious (Muslim) and colour (Black) penalty at play in the British labour market (Khattab and Modood 2015), one might assume that any penalty Muslim Arabs face on account of their religion is mitigated by the fact they identify as White (Modood 2005). As such, their penalty should be close to that of White British Muslims. However, recent findings that Muslim male job applicants originating from the Middle East and Africa ‘experience a double burden: independent of the stigma they face for signalling their closeness to a Muslim association, they are also *penalised for the geographic region they originate from*’ (Di Stasio et al. 2021, 13; emphasis added) suggest that our initial assumption might need to be revisited. Indeed, if we also account for the evidence that ‘respondents from North Africa and Sub-Saharan Africa report the highest levels of discrimination’ in Europe (Fundamental Rights Agency, 2017, 24), we can see that a study accounting for the plurality of ethnicities that constitute the Muslim community (i.e. distinguishing between labour markets participants who are Muslim Arabs, Muslim Black Africans, White British Muslims [and Arabs with no religious affiliation]) that also accounts for so-called ‘sociocultural’ attitudes is essential to better understand the potential drivers of the Muslim penalty’ (Sweida-Metwally, 2022a, pp. 361–362). In doing so, it will progress the debate on whether discrimination or ‘cultural norms’ is the most plausible explanation for the outcome differentials. Put differently, while my analysis cannot, by itself, explain the religious gap, it can assess whether ‘cultural characteristics’ are strongly related with the Muslim penalty, as has been posited.

As a result, the findings will be of value to those working on policies to attenuate these inequalities by supporting them to provide more effective and targeted solutions. Without such clarity there is a risk of directing policies towards aspects (e.g. culture) which are not actual causes of the inequality. In turn, not only will there be a delay in efforts to improve the situation, but the group’s marginalisation will also be further reified. This is concerning because ‘poor labour market outcomes affect multiple aspects of a person’s life. Among other things, they affect what people can afford to eat, where they can afford to live, the education they and their children can access, as well as their physical and mental health. Delaying work to tackle (...) [Muslim disadvantage in accessing work] in the British labour market therefore reinforces a range of inequalities that extend well beyond the world of work’ (Sweida-Metwally, 2022b).

## **2.4. Beyond labour market status: Not just work, but quality work**

Besides the vitally important question of labour market participation, there is the question of flourishing on the labour market. While labour market disadvantage can occur when searching for work it can also occur once *in* work. Put differently, differences in job *quantity* (i.e. whether people have a job or not) are but one facet of labour market disadvantage. Differences in job *quality* are another. Therefore, in addition to providing a clearer understanding of the Muslim penalty by analysing the ‘cultural norms’ argument in the context of job *quantity*, this thesis deepens our understanding of the Muslim penalty by also investigating issues of job *quality*.

### **2.4.1. Policy interest in job quality in the UK and beyond**

Since 1945, governments have principally focused on job creation to reduce the number of unemployed people. Creating jobs, not necessarily ‘good’ jobs, has been the target (Green, 2006; Warhurst, Wright and Lyonette, 2017). Most recently, ‘while there has clearly been a jobs-rich recovery in the UK since the GFC [global financial crisis], it has not been a rich-jobs recovery’ (Warhurst, Wright and Lyonette, 2017, p. 8). This is despite, as part of the Lisbon Strategy, the European Commission having outlined a ‘framework for investing in quality’ employment at the turn of the millennium (European Commission, 2001) and putting forward what later became known as the Laeken indicators. These are described as ‘the biggest attempt by the European institutions so far to construct an EU system of job quality indicators’ (Muñoz de Bustillo *et al.*, 2009, p. 69). When doing so, the Commission confirmed that ‘[q]uality in work – *better jobs* – means not only looking at, or taking account of, the existence of paid employment but also looking at the characteristics of that employment’ (European Commission, 2001, p. 7, emphasis in original). Improving job quality was also an objective of Europe 2020 (European Commission, 2010), Europe’s growth strategy between 2010-2020 which succeeded the Lisbon Strategy that expired in 2010. Today, it still forms one of the six strategic areas that the European Foundation for the Improvement of Living and Working Conditions is focused on between 2021-2024 (Eurofound, 2020). Meanwhile, the International Labour Office also stresses the focus on what they call ‘decent

work’ (ILO, 2008; Méda, 2016), the promotion of which forms goal eight of the 2030 United Nation Sustainable Development Goals (UN General Assembly, 2015).

More recently, ‘partly in response to labour market trends of stagnating wages and rising job insecurity since the financial crash of 2008, the idea that paid work should be of a certain quality, as well as simply available, has become a much more prominent focus of debate and attention in the public discourse and in the political arena’ (Irvine, White and Diffley, 2018, p. 13) in the UK. England, Scotland, Northern Ireland, and Wales have all signalled a national policy commitment to improving job quality. Each government has setup bodies tasked with driving the strategy towards better work, such as the Scottish Fair Work Convention group, and the Wales Fair Work Commission. In Northern Ireland, outcome six of the Executive Office’s Outcomes Delivery Plan published in December 2019 stipulates a target of having ‘more people working in *better jobs*’ (The Executive Office, 2019, p. 6, emphasis added). In the capital, the Mayor of London launched the Good Work Standard in 2019. On the civil society front, the London Good Work Commission was established in 2019 by London Plus, the umbrella body of charitable and voluntary organisations, to investigate how London can be a city of good work by 2030. The Greater Manchester Good Employment Charter is another initiative concerned with improving job quality in the north of England.

More broadly, the UK government, as part of its Industrial Strategy, is also ‘committed to high quality jobs for all UK citizens’ (HM Government, 2017, p. 29). This commitment is also emphasised in its Good Work Plan (HM Government, 2018), published in response to the Taylor Review (Taylor *et al.*, 2017). The latter was called by then Prime Minister May in 2016 to investigate ‘working practices in the modern UK economy’ (Irvine, White and Diffley, 2018, p. 13), a year after the government signed up to the G20 Ankara declaration in which the OECD Secretary-General called for policy to focus, among other things, on the fact that ‘we need jobs. But not just any jobs. (...) We need *quality jobs*’ (Gurría, 2015, emphasis added). It’s worth noting that the UK government accepted the overwhelming majority of recommendations put forward in the Taylor Review (Irvine, White and Diffley, 2018), and to underscore its commitment to afford equal importance to job *quality* and job *quantity* (under the purview of the Secretary of State for Work and Pensions), the government appointed the Secretary of State for Business,

Energy and Industrial Strategy (BEIS) to be responsible for promoting good quality work (HM Government, 2018).

## **2.5. Traditional unidimensional understandings of job quality**

Establishing consensus on the nature of employee job quality is challenging (Green, 2006; Dahl, Nesheim and Olsen, 2009; Findlay, 2015; Warhurst, Wright and Lyonette, 2017; Felstead *et al.*, 2018). This is due, in part, to the literature on job quality emerging disjointedly across different disciplines, each with their own normative understanding for what work is for. For this reason, various conceptualisations and theorisations of job quality are found in the literature. For example, ‘decent work’ - as defined by the ILO - considers work as a poverty reduction tool and, accordingly, includes the level of child labour to be one of its indicator (ILO, 2008). The European Council’s understanding (prior to the 2008 financial crisis at least) is that the concept of good work should be used to ‘to strengthen economic and social cohesion’ (Warhurst, Wright and Lyonette, 2017, p. 13). Meanwhile, the notion of fair work, which emerged in policy circles, understands it to mean guaranteeing a minimum set of employment standards (Warhurst, Wright and Lyonette, 2017). Other fields, like psychology, consider ‘good quality’ employment to mean workers undertaking meaningful work and building healthy social relations (Green, 2006). Psychologists therefore traditionally focus on subjective measures such as job satisfaction and wellbeing at work to study job quality (Dahl, Nesheim and Olsen, 2009; Felstead *et al.*, 2018). Others, however, argue that job satisfaction is distinct from job quality since it is better understood as an outcome rather than a driver of job quality and, therefore, exclude it from their measurement (Irvine, White and Diffley, 2018). For reasons discussed in the next section, economists also traditionally oppose the use of subjective measures and overwhelmingly focus only on earnings (Green, 2006) and, to a lesser extent, on non-monetary ‘fringe benefits’ (e.g. the availability of private healthcare or occupational pension schemes) to study job quality (Dahl, Nesheim and Olsen, 2009; Warhurst, Wright and Lyonette, 2017).

Conversely, sociologists generally assess job quality through the prism of intrinsic value (Warhurst, Wright and Lyonette, 2017). In other words, the focus is on job features such as skill level and the extent of autonomy and control a worker has in their role rather than a one-dimensional focus on

pay. The Goldthorpe schema (Erikson and Goldthorpe, 1992), devised to capture differences in employment relations (Bergman and Joye, 2005), could be understood as one way of measuring job quality. It splits the class structure into three main groups: (i) employers, (ii) self-employed, and (iii) employees. The latter group is divided into three classes: (i) the salariat which comprises professional workers, (ii) the intermediate class, and (iii) manual workers (Evans, 1992). Broadly speaking, the conditions of the salariat are preferred to those of the working class whose work is considered monotonous, low paid, of limited autonomy, and thus susceptible to dehumanising workers with its ever increasing focus on the divisibility of tasks (Green, 2006). The intermediate class lies in-between the latter two groups. While the group enjoys better employment conditions than the working class in terms of having more influence in the decisions that affect their tasks, they, nevertheless, receive lower earnings than the salariat. Studies assessing ethnic differences in occupational attainment could be interpreted as a type of study into job quality differentials (Heath and McMahon, 1997; Heath and Cheung, 2006; Cheung and Heath, 2007; Li and Heath, 2008; Cheung, 2014).

However, the broadness of the Goldthorpe classifications makes it difficult to capture within-class differences. The fact that the employee classification can be further split into seven categories does not help address this lack of specificity. First, the service category is only split into two groups: high and low grade (Bergman and Joye, 2005). However, as of 2016, the tertiary sector accounts for 84 per cent of total UK employment indicating that these groups are too broad (Chiripanhura and Wolf, 2019). Assessing whether minorities are more likely to be in the high or low service grade employment, tells us nothing about whether minorities are limited to relatively poorer quality jobs *within* these categories. Cheung and Heath (2007) are alive to this issue and examine ethnic differences *within* the salariat, but they only do so from an earnings perspective. However, research reveals job quality to be a multidimensional rather than a unidimensional concept (Muñoz de Bustillo *et al.*, 2011) with earnings but one - albeit important - aspect of job quality. Studies evaluating differences through a unidimensional lens of job quality are therefore incomplete.

Second, on a more fundamental point, the focus of the schema is around who owns and who sells labour. While concepts such as ‘job rewards’ and ‘conditions of employment’ (Bergman and Joye, 2005, p. 9) are important to the schema’s construction, these are only considered in a general sense.



Ultimately, capturing the nuances of job quality is not the aim of the schema, and therefore it is not an accurate measure of job quality. Capturing these specifics is however important given job quality's multidimensional nature (Muñoz de Bustillo *et al.*, 2011), and in light of the considerable labour market transformations that have occurred since the schema was first devised in the late 60s (and revised in the 90s). The latter have resulted in significant changes in our understanding of what constitutes 'job rewards' and 'conditions of employment' with varying effects on employee job quality (Green, Felstead and Gallie, 2015). For example, liberalisation and legislative changes (e.g. National Minimum Wage Act, 1998; Fixed Term Workers Regulations, 2002; Employment Act, 2003) means short fixed term contracts, generally associated with poor employment conditions, are affecting workers in traditionally considered better jobs (e.g. professionals in academia). Likewise, while technological advances have meant more flexible working opportunities for professionals, they have also impacted on work-life balance resulting in poorer working conditions (Currie and Eveline, 2011). Meanwhile, increased global competition has meant that drops in job quality have been more acute for those in higher occupational classes than those at the bottom, especially in the public sector (Gallie, 2015).

By proposing a multidimensional measure of job quality that accounts for the different types of job rewards, and considers the various elements that make up an employee's conditions of employment, my analysis offers a finer measure of job quality that is suitable for the present day labour market. Advancing my own conceptualisation of job quality that will be used to create an empirical measure constitutes a central contribution of my thesis.

## **2.6. Conceptualising job quality: Constituent selection criteria**

Before proposing my measure of job quality, it is important to clarify the theoretical framework guiding the choice of dimensions and measures for inclusion in my metric. This framework is based on three principles extrapolated from the job quality measurement literature.

### **2.6.1. Principle one: A job-focused approach**

Principle one relates to the important philosophical discussion in the scholarship on the use of objective versus subjective measures (Eurofound, 2012). Since for economists ‘[i]t is not what people say, but what they do, that counts’ (Green, 2006, p. 10), they generally advocate for the former. Conversely, psychologists, whose interest lies in understanding workers’ perspectives, give more weight to the latter. Consequently, psychologists often use job satisfaction data as an overall rating of job quality. However, it has been argued that job satisfaction is better understood as an outcome rather than a constituent of job quality and therefore is better not used as an indicator of job quality (Eurofound, 2012; Irvine, White and Diffley, 2018). In fact, evidence shows that ‘the overall hierarchy in the quality of work is not synonymous with the overall hierarchy in job satisfaction’ (Williams, Zhou and Zou, 2020, p. 47). Another issue is that ‘what might be objectively bad might be perceived positively by the job-holder’ (Warhurst, Wright and Lyonette, 2017, p. 19). However, ‘[a]s theories of social stratification in sociology, based on the Weberian notion of life chances, an approach to mapping the quality of work should ultimately be about the *potential* that a job can be good for its incumbent rather than how good its incumbent personally finds it’ (Williams, Zhou and Zou, 2020, p. 26; emphasis in original).

The sensitivity of subjective measures to changes between people (Ros, Schwartz and Surkiss, 1999) is an obvious problem for a study attempting to measure job quality differentials between religious and ethno-religious groups. This is because it makes it difficult to offer an independent definition of what constitutes a ‘good job’ and establish an agreed upon point of reference (Hauff and Kirchner, 2014). Given evidence that immigrant workers are more likely to accept worse working conditions than the native population (Knox *et al.*, 2015), this point is especially relevant for a study focused on investigating hierarchies in job quality among religious and ethno-religious minorities.

The use of objective characteristics ‘to obtain a measure of job quality independent of workers’ personal circumstances and the external labour market’ (Warhurst, Wright and Lyonette, 2017, p. 19) is therefore better suited for the aims of this study. Accordingly, when measuring ‘good work’ I focus on job characteristics only, so far as the data allows, rather than include measures of worker preferences and perceptions (Muñoz de Bustillo *et al.*, 2009). Specifically, the use of subjective information is only applied for practical reasons as a last resort when no alternative objective data

is available. In my analysis, this relates to only two out of 21 job quality measures (discussed in Chapter 3). My approach follows that adopted by other researchers in this area (Green, 2006; Leschke, Watt and Finn, 2008; Muñoz de Bustillo *et al.*, 2011; Eurofound, 2012, 2017; Cazes, Hijzen and Saint-Martin, 2015; Green, Felstead and Gallie, 2015).

To be clear, the distinction between objective and subjective measures of job quality is a conceptual one, it does not relate to how a particular item is measured. This point is neatly summarised by the following paragraph,

“Of course, in a survey of individuals (...) it is job-holders who are the informants about the job’s working conditions. Self-reported variables are sometimes referred to as ‘subjective’, but this is a potential source of confusion when such reports are about objective job features. Rather, ‘subjective’ is a term that should be reserved for reports of feelings, perceptions, attitudes or values. (...) the argument about reporting accuracy should not detract from the conceptual distinction between objective and subjective variables about work” (Eurofound, 2012, pp. 10–11).

### **2.6.2. Principle two: A focus on worker-wellbeing**

The second principle highlights that ‘[t]o justify their inclusion as a measure of job quality, then, each feature needs to be theoretically and empirically connected to worker well-being’ (Felstead *et al.*, 2018, pp. 1–2; see also Muñoz de Bustillo *et al.*, 2011). The causal mechanisms between each constituent included in my index and worker well-being are elaborated upon in Section 2.8 when I discuss the details of my job quality measure.

### **2.6.3. Principle three: A multidimensional concept**

The third principle is that job quality measures need to be multidimensional. Indeed, evidence shows that ‘high-pay jobs’ can be high from one job quality perspective ‘but low in others’ (Green, Felstead and Gallie, 2015, p. 12). A corollary is that an exclusive focus on pay to ascertain job quality, as has been the traditional approach among economists (see for example Osterman and

Shulman, 2011), is incomplete. On a conceptual basis, moving away from a unique focus on earnings towards one which also accounts for the conditions under which work takes place, implies a move away from the purely instrumental view of work (as in classical economics) towards one that also brings in the sociological viewpoint that considers work as an arena for self-realization (Muñoz de Bustillo *et al.*, 2011). This means that, in addition to pay, a measure of job quality should also capture non-monetary aspects including worker autonomy, working hours, training, flexibility and scheduling.

Given the ‘variety of job attributes which have the capability of enhancing or reducing worker well-being’ (Felstead *et al.*, 2018, p. 2, emphasis removed), a multidimensional perspective of job quality therefore ‘allows for a wide range of possible needs to be met’ (Felstead *et al.*, 2018, p. 2; see also Green, 2006). By including both pay and non-pay related indicators in my measure, my aim is, therefore, ‘to provide a more holistic assessment’ of job quality (Knox *et al.*, 2015, p. 1550; see also Kalleberg, 2011).

## **2.7. Towards a multidimensional understanding of job quality**

Recent measurement guidelines provided by supranational organisations, such as the United Nations (UNECE, 2015), the European Union (European Commission, 2001), and the OECD (Cazes, Hijzen and Saint-Martin, 2015; OECD, 2017) are practical examples of a multidimensional approach to measuring job quality. However, despite agreement that job quality is best measured multidimensionally (Muñoz de Bustillo *et al.*, 2011; Felstead *et al.*, 2018; Irvine, White and Diffley, 2018; Williams, Zhou and Zou, 2020), there is no unanimity on its constitutive dimensions and measures (Hauff and Kirchner, 2014; Warhurst, Wright and Lyonette, 2017). In fact, the metrics put forward by the aforementioned supranational organisations are not only inconsistent with my theoretical framework (discussed above) but also differ to each other. They also often include measures that are not relevant for the British context thereby rendering the index unsuitable for this study. For example, the Laeken indicators (European Commission, 2001) include concepts related to measuring labour market characteristics and are therefore criticised for being too wide-ranging (Muñoz de Bustillo *et al.*, 2009; Leschke, Watt and Finn, 2012; Warhurst, Wright and Lyonette, 2017). The indicator also has a significant omission. By not accounting for earnings, it

excludes an integral constituent of job quality. Meanwhile, the ILO's measure of 'decent work' (ILO, 2008) includes measures related to the female labour force participation rate, the existence of maternity related laws, and children's employment rate. These measures might be relevant in the field of development, but the measures are not relevant in the British context which already legislates for the latter two. This is not unexpected since the choice of measurements 'will be different for poor countries, from what it is in the industrialized world' (Green, 2006, p. 15). In fact, most international frameworks (see also UNECE, 2015), because of their intended geographical coverage which includes countries with variegated economic and institutional structures (OECD, 2017), are unsuitable for use in the British context for similar reasons.

Even the major proposals for a UK-focused index have shortcomings. For example, Irvine, White and Diffley (2018) - the first attempt to create a UK focused job quality metric - endorse 18 priority measures (with an additional 14 in the appendix) located within seven dimensions. These are (i) Terms of employment (measures: job security, minimum guaranteed hours, underemployment); (ii) pay and benefits (measures: actual pay, satisfaction with pay); (iii) Health, safety and psychosocial wellbeing (measures: physical injury, mental health); (iv) job design and nature of work (measures: use of skills, control, sense of purpose); (v) social support and cohesion (measures: peer support, line manager relationship); (vi) voice and representation (measures: trade union membership, employee information, employee involvement); (vii) work-life balance (measures: over-employment, paid and unpaid overtime, anxiety and work-life balance). Similar to Warhurst, Wright and Lyonette (2017), Irvine, White and Diffley (2018) not only amalgamate both subjective and objective measures, but also include an entirely subjective 'social support and cohesion' dimension. This is because they 'believe a national set of job quality metrics should prioritise a focus on job quality as the worker experiences it, rather than on the existence of workplace policies or institutions' (Irvine, White and Diffley, 2018, p. 21). However, this violates the maxim of using objective measures as outlined in Section 2.6, which, as previously explained, is paramount for a study investigating religious and ethno-religious hierarchies in job quality rather than how distinct minority groups *experience* work.

Meanwhile, Warhurst, Wright and Lyonette (2017) recommend the use of six dimensions which are discussed in Wright et al. (2018, p. 21). These are (i) 'pay and other rewards' (measures: pay,

pay satisfaction, non-wage rewards); (ii) ‘intrinsic characteristics of work’ (measures: skills, autonomy, control, variety, work effort, meaningfulness, social support); (iii) ‘terms of employment’ (measures: contract stability, opportunities for training and development, progression, perception of job security); (iv) ‘health and safety’ (measures: physical risk, psychosocial risk); (v) ‘work–life balance’ (measures: scheduling, working time arrangements, flexibility, work intensity); (vi) ‘representation and voice’ (measures: representation, involvement in decision-making). However, despite acknowledging that ‘incorporating objective and subjective dimensions into definitions and measures of job quality is not universally accepted’ (Warhurst, Wright and Lyonette, 2017, p. 21), half of their dimensions alternate between including objective and subjective measures. For instance, in their first dimension (‘pay and other rewards’) the authors recommend including both the wage level (objective measure) as well as workers’ satisfaction with their pay (subjective measure). This also seems to contradict evidence that considerations of pay being fair rank low among workers’ evaluation of job quality (Stuart *et al.*, 2016). This might also be one reason why ‘aspects concerning fairness at work, are used rather seldom’ (Hauff and Kirchner, 2014, p. 3) in job quality measurement. Similarly, Warhurst, Wright and Lyonette’s (2017) ‘intrinsic job’ dimension includes objective metrics such as the level of control and autonomy a worker has over their tasks, and subjective characteristics about fulfilment and social support (see also Williams, Zhou and Zou, 2020).

While there is no agreed upon approach to measuring job quality, it is nonetheless clear that there is a significant degree of overlap and commonality in the measurement components proposed by researchers (see also Findlay, Kalleberg and Warhurst, 2013). Broadly speaking, these are: (i) earnings and other benefits (Eurofound, 2002; Cazes, Hijzen and Saint-Martin, 2015; Stuart *et al.*, 2016); (ii) intrinsic job characteristics comprising discretion, voice and autonomy (Gallie, 2007; Muñoz de Bustillo *et al.*, 2011; Stier and Yaish, 2014); (iii) job security and terms of employment (Tangian, 2009; Kalleberg, 2011; Green, Felstead and Gallie, 2016); (iv) work-life balance (Green, 2006; Holman, 2013); and (v) health and safety at work (Olsen, Kalleberg and Nesheim, 2010; Taylor *et al.*, 2017). This is also the view of Hauff and Kirchner who after an extensive literature review of cross-national differences in job quality, find that along with autonomy measures, ‘variables concerning variety, physical and ambient demands [i.e. work effort], wage level, duration and scheduling of work, training and development opportunities, and perceived job

security’ (2014, p. 3) are the most frequently used to measure job quality in the literature. Worker representation also features considerably as a dimension in the literature, albeit less frequently than the aforementioned five dimensions.

## **2.8. A new conceptualisation of job quality**

Drawing on this consensus, I advance my own conceptualisation of job quality, the constituents of which satisfy the three tenets outlined above. I propose an index constituted of four dimensions and 21 measures. These dimensions, discussed in detail next are (i) Pay and Other Benefits, (ii) Job Security and Representation, (iii) Work-Life Balance, and (iv) Intrinsic Job Attributes.

### **2.8.1. Dimension 1: Pay and other benefits**

Dimension 1 is captured through (i) a worker’s effective gross hourly pay, (ii) whether a worker is offered a pension scheme, and (iii) whether their pay is set to rise every year.

#### *(i) Effective gross hourly pay*

Pay is a foundational component of job quality measurement. It is the compensation given to workers in return for their time. The existence of legislation guaranteeing a minimum wage, and civil society movements such as ‘The Living Wage Foundation’ captures the importance of this feature to quality of employment. Low earnings impact a person’s purchasing power. This has a significant bearing on people’s mental and material wellbeing by dictating what they are able to do, including what they can afford to eat, the extent to which they can actively participate in society, and the neighbourhood they can afford to live in. Low remuneration also affects an individual’s short and long-term savings potential whether that be for emergencies, periods of unforeseen unemployment, purchasing a home, savings towards a pension, or providing security against potential future loss of earnings. The importance of pay therefore derives from its role in giving workers access to goods and services. All other things being equal, high wages can be understood as an indication of a ‘good job’, while the opposite would be indicative of a ‘bad job’.

(ii) *Employer runs a pension scheme*

A key benefit workers gain access to through their profession is a pension. Pensions can be understood as suspended earnings for future consumption, and, therefore, form an important constituent of Dimension 1. Following a similar logic as for effective gross hourly pay, all things being equal, the availability of a pension scheme is associated with better job quality.

(iii) *Pay includes annual increments*

Workers exchange income for goods from which they derive utility. Therefore, with (traditionally) rising inflation year-on-year and increased costs, a job that guarantees earnings will rise every year will be of a superior quality to jobs that do not. This is because for workers who are guaranteed an annual pay rise, their job protects them against a more significant drop in purchasing power, or, at best, leads to an increase in purchasing power.

## **2.8.2. Dimension 2: Job Security and Representation**

Dimension 2 is captured by: (i) whether a worker's job is permanent or temporary, (ii) how secure a worker feels in their job, and (iii) whether a worker is in a job where there is a recognised union that negotiates pay and working conditions.

(i) *Contract type & sense of job security*

Job insecurity can be understood as 'the loss of welfare that comes from uncertainty at work' (Green, 2006, p. 130). Job insecurity puts considerable pressure on workers by adding to their stress of being in a constant state of uncertainty about job loss. For those on short contracts, they have the added pressure of always having to look for another job to ensure a constant income stream to maintain their living standard. This impacts a person's mental and physical health (Gash, Mertens and Gordo, 2007; Cheng and Chan, 2008; Moscone, Tosetti and Vittadini, 2016). The pressure of being in a precarious situation also makes it difficult to plan for the future as current and future income are uncertain. Short contracts also limit opportunities for employees to hone



their skills, develop professionally and get promoted (Dahl, Nesheim and Olsen, 2009). This can contribute to dissatisfaction at work (Sverke, Hellgren and Näswall, 2002) with a person feeling like they are hopping from one job to the next without a sense of purpose or career progression. In a study with low paid workers in Scotland, job security ranked second only to pay as a priority for good quality work (Stuart *et al.*, 2016). A similar trend is also visible across European labour markets (Green, 2009; Cazes, Hijzen and Saint-Martin, 2015). For these reasons, increased job security and being in a permanent role is associated with better job quality.

(ii) *Employment conditions negotiated by union*

Representation matters because it offers workers an avenue to voice their concerns to management (Green, 2006). One way this can be achieved is through a union. There are various mechanisms through which unions can improve job quality. A union with a large representative membership conveys substantial clout, thereby increasing the chances of employee concerns being heard and addressed, even unofficially. Externally this clout can also serve to influence government policy and partnership with civil society towards better long-term working conditions (Warhurst, Wright and Lyonette, 2017). Internally it can be used to negotiate higher pay and a better working environment. *Ceteris paribus*, the presence of a union is therefore positively related to job quality. Although, it is worth noting that while union representation is traditionally understood as positive for workers, evidence shows that unions have traditionally worked in favour of White male workers at the expense of women and ethnic minorities where their needs might differ, such as in promoting ‘race’ equality at work (Dickens, 1997).

Nevertheless, in areas where needs are aligned - e.g. desire for improved earnings and pay increases, better holidays, less work intensity - union representation is a positive job feature. In fact, research shows a positive relationship between the latter and perceived worker job quality (Hoque *et al.*, 2017), with findings revealing that job stability is ‘correlated with trade union density’ (Tangian, 2009, p. 537) and that a ‘non-negligible percentage of non-unionized workers are usually affected by collective agreements negotiated by main unions’ (Muñoz de Bustillo *et al.*, 2011, p. 103).

### **2.8.3. Dimension 3: Work-Life Balance**

In addition to accounting for regular and overtime weekly hours worked, and the degree of autonomy over said hours, Dimension 3 includes information on whether the following options are available at an employee's place of work: (i) working term-time only, (ii) job-sharing, (iii) flexi-time, (iv) working compressed hours, (v) regular working from home, (vi) other flexible working provisions, and (vii) informal flexible arrangements.

#### *(i) Duration of working hours*

Working long hours is negatively associated with a healthy work-life balance. It reduces the time individuals have to rest and to spend with their family and friends, and results in fewer opportunities to participate in social activities which are necessary for a healthy mental wellbeing (Cleary, Lees and Sayers, 2018). The situation is worsened if those who work long hours are not compensated for their work. Therefore, all other things remaining equal, longer working hours are associated with poorer job quality.

#### *(ii) Flexibility, and scheduling of working hours*

Duration of working time is not the only element of a healthy work-life balance. Flexibility and the control of work-time scheduling also play a significant role (Holman, 2013). This flexibility enables workers to more easily deal with the interplay between work and family life. Being able to manage both personal and work obligations without having to worry about repercussions at work or having to take time off allows for better work-life balance through, in part, a reduction in stress. In essence, 'the more control the worker has of her own work schedule, the better she will be able to adapt it to her non-work commitments (and vice versa)' (Muñoz de Bustillo *et al.*, 2011, p. 187). Ceteris paribus, higher employee flexibility and control over working hours is associated with better job quality.

### **2.8.4. Dimension 4: Intrinsic Job Attributes**

The fourth dimension accounts for a worker's training expectations as well as their autonomy with respect to (i) the tasks they perform at work, (ii) the speed at which they work, (iii) the manner in which they complete their work and (iv) the order in which they complete tasks. As opposed to monetary compensation, intrinsic job rewards are defined as those remunerations which are 'derived from the job experience in itself' (Dahl, Nesheim and Olsen, 2009, p. 15). It relates to the extent to which a person finds their job intellectual or physically rewarding and their tasks interesting, as well as the extent to which they are able to build their knowledge bank and acquire new skills (Kalleberg and Vaisey, 2005).

*(i) Autonomy over: (a) job tasks, (b) work pace, (c) work manner, and (d) task order*

Intrinsic job rewards encompasses employee discretion which includes one's control and autonomy in completing their job. The former refers to the extent to which workers have influence over the content of their tasks, while the latter is about the scope of independence they have in deciding the order they complete said tasks in. In short, autonomy and control are the avenues through which employees can express themselves at work, and 'is the space in which they participate in the creative and collective act of production' (Green, 2006, p. 94). Loss of worker discretion is found to be one of the main drivers of falling job satisfaction (Gallie, 2013). Autonomy and control are therefore inherently important aspects of - and positively correlated with - job quality in Britain (Gallie, Felstead and Green, 2012; Méda, 2016). It is important to note that, for the reasons previously discussed, despite their seeming subjectivity, autonomy and control are in fact objective measures (Warhurst, Wright and Lyonette, 2017).

*(ii) Work related training*

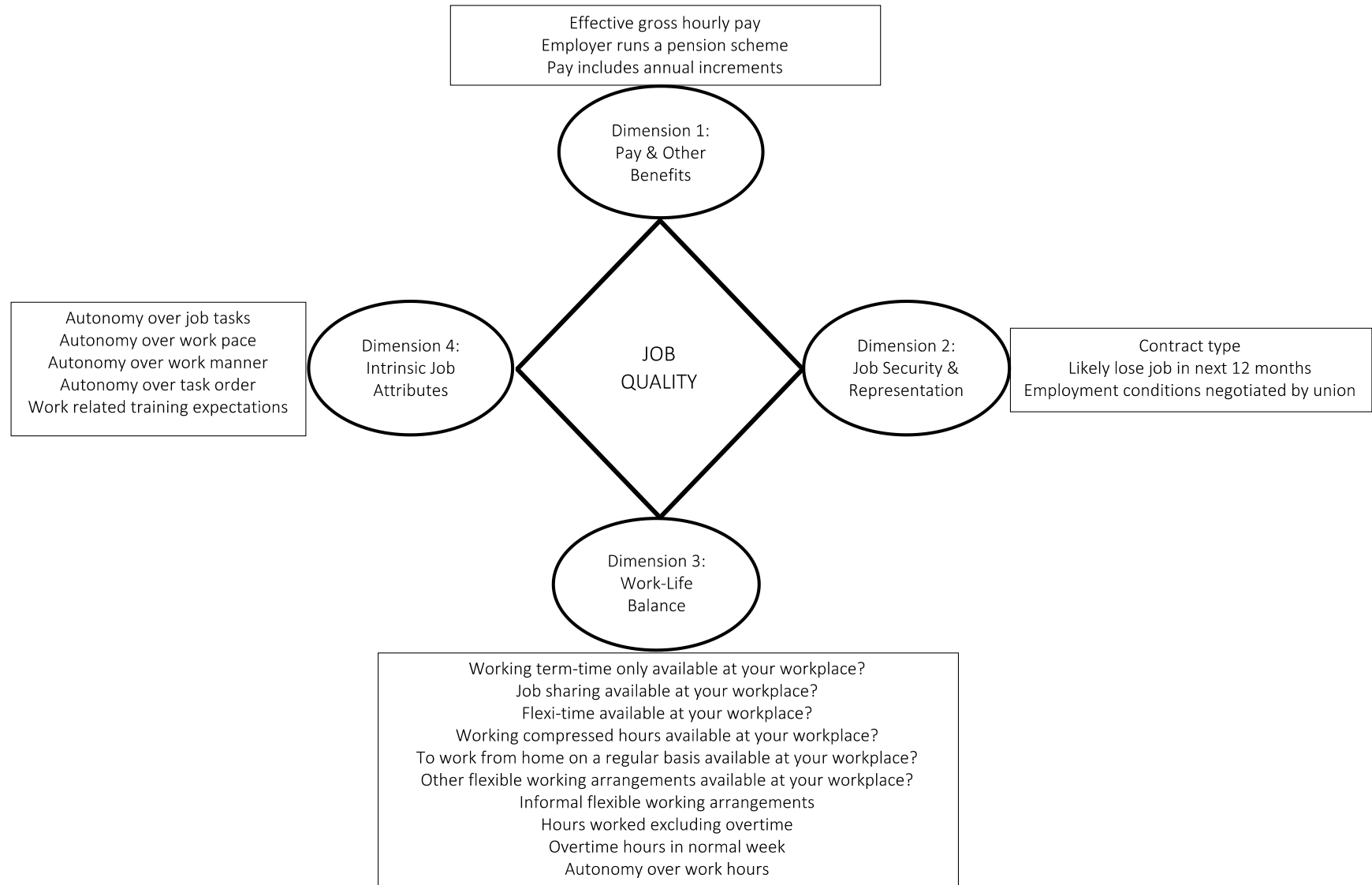
In a knowledge economy that 'carries with it a dynamic imperative to engage in lifelong learning' Green (2006, p. 25), training and development opportunities at work are crucial constituents of job quality. Generally, low skilled jobs present relatively fewer opportunities for training and development (OECD, 2019), compounding the disadvantage among employees in such occupations. The mechanisms through which worker well-being is impacted by on-the-job training

opportunities are multiple. Improved skill builds worker self-esteem, and confidence in completing a job effectively and efficiently thereby cultivating their ability for self-expression through work. It also allows employees to continue their professional development opening up further career opportunities. Being offered training opportunities can also give the worker a sense of being valued by their employer. All of this can lead to increased job satisfaction. The availability of training at work is therefore a sign of better job quality.

#### **2.8.5. Summary**

A thorough review of the literature revealed high consensus that a multidimensional approach to measuring job quality is valuable, but little consensus as to what the dimensions are. Nevertheless, the scholarship shows an important degree of commonality in the proposed measures. Building on this, and particularly the work of Irvine, White and Diffley (2018) and Warhurst, Wright and Lyonette (2017), I advanced a new conceptualisation of job quality, the constituents of which were selected based on widely agreed job quality measurement principles. The final product uses 21 items to form an index constituted of four dimensions. These are (i) Pay and other benefits, (ii) Job Security and Representation, (iii) Work-Life Balance, and (iv) Intrinsic Job Attributes. Figure 2.1 summarises the index dimensions and their associated measures.

**Figure 2.1.** Job quality dimensions and measures



## **2.9. Job quality inequality: What we know**

Among researchers and academics, investigations into job quality inequality has been examined from multiple vantage points, with considerable focus on differences between (i) part-time and full-time work, (ii) male and female workers, (iii) occupational classes and (iv) sectors, revealing the multifaceted nature of job quality disparities and the importance of intersectionality in understanding them (Felstead, Gallie and Green, 2015). For example, while part-timers generally fare worse than full-timers across the majority of job quality dimensions (Warren and Lyonette, 2015), evidence shows that the wage gap is moderated by education (Williams, Zhou and Zou, 2020). Similarly, while work intensity increased for all workers in the first decade of the millennium, full-time workers - particularly women - and female part-time workers working over 20 hours a week reported the highest work intensity levels (Warren and Lyonette, 2015). Evidence also shows that the job quality gap is not equal among part-timers; female part-timers working less than 20 hours per week are more disadvantaged than their peers working above 20 hours (Gallie and Zhou, 2011). Meanwhile, notwithstanding their small sample size in the analysis, Warren and Lyonette (2015) find that male part-time workers are the most disadvantaged of all in terms of job quality. A strict part-time/full-time bifurcation to explain ‘poor/good’ quality jobs appears therefore to be too simplistic.

Warren and Lyonette (2018) find that occupational class is a better predictor of poor job quality than part-time/full-time status with those in higher occupational classes enjoying superior job quality than peers in lower occupational classes (see also Williams, Zhou and Zou, 2020). Those in the lower occupational class experience relatively poorer job quality be they full- or part-timers, albeit to a greater extent in the latter case. Meanwhile, growth in part-time employment among women in higher occupational classes means their job quality is increasingly similar to that of their full-time peers. However, while workers in professional occupational classes enjoy better job quality including in terms of earnings (Williams, Zhou and Zou, 2020), evidence indicates that some non-monetary aspects of job quality converged downwards in the public sector among professionals and non-professionals (Gallie, 2015). For example, managers and professionals in the public sector experienced a greater increase in work intensity relative to those in low-skilled routine work, leading to important class differences. Concurrently, the increase in work insecurity

among the skilled group employed in public services brought them in line with their less-skilled peers (Gallie, 2015). This might explain why Blackaby and colleagues (2015) contest the narrative of public sector occupations having a job quality advantage over private sector work. They argue that after controlling for intrinsic job quality attributes, the public sector pay premium (Powell and Booth, 2021) is reduced and restricted to female workers.

Evaluating job quality from a gender perspective, while there is evidence that women earn less (ONS, 2021) and report higher work intensity than men, there is also evidence of women faring better than men when different measures of work intensity are adopted, such as ‘in respect of working to tight deadlines’ (Lindley, 2015, p. 59). More recent research shows no gender differences in overall job quality (Williams, Zhou and Zou, 2020). That said, the relative disadvantage among women in high-status occupations compared with equivalent aged men in similarly senior positions indicates the enduring relevance of gender as an analytical tool (Warren, 2003), albeit one that should be moderated by socio-economic and demographic characteristics. This suggest that a study of job quality among women adjusting for religious and ethno-religious affiliation is likely to offer some important insights.

## **2.10. Religion overlooked**

While it is evident that the literature provides important insights into the complexity of job quality inequalities including across work areas and by gender, it is also apparent that research has badly neglected religious and ethno-religious differences within groups. This might be due to data not being available for such analysis until fairly recently. For example, the Labour Force Survey only collected job quality data in 2019 in an ad hoc module, and the UK Household Longitudinal Study only completed collection of its fifth wave of job quality data in November 2020. Meanwhile, other popular datasets used by job quality researchers such as, the UK Working Lives Survey, the Skills and Employment Survey, the European Working Conditions Survey, do not collect data on religious affiliation. Nevertheless, in not accounting for religious and ethno-religious differences, research is treating the experiences of minority and majority members as homogenous across the labour market, including in these different employment areas (i.e. full-time/part-time, professional/non-professional, private/public sector). This could be masking differences between

the labour market experiences of minority religious and ethno-religious members and the majority, thereby concealing important inequalities.

Indeed, while ethnic differentials in certain facets of job quality have been the focus of analysis in the US (Gittleman and Howell, 1995; Storer, Schneider and Harknett, 2020) where evidence finds that ethnic minorities are less likely to have access to employer-provided benefits such as healthcare and pensions (Hersch and White-Means, 1993; Semyonov, Lewin-Epstein and Bridges, 2011; Kristal, Cohen and Navot, 2018), the literature is more limited in the UK. Here, research shows that people in different ethnic minority groups, especially Pakistanis and Bangladeshis, are less likely to be covered by a private pension (Ginn and Arber, 2001) and more likely to be in lower quality jobs compared to Whites, though not Chinese and Indians who are more advantaged than the latter (ONS, 2019). A more recent study also shows that ‘individuals from ethnic minorities were more likely to be in severely insecure work than white workers ... [and] women of all ethnicities are much more likely to experience insecure work than white men’ (Florisson, 2022, p. 18). Meanwhile, rather than focus on only one facet, Zwysen and Demireva (2020) offer a rare and important insight of ethnic differentials in job quality from a multidimensional perspective. They find that UK-born non-White ethnic minorities are less likely than their UK-born White peers to occupy ‘high quality’ jobs.<sup>6</sup> Meanwhile, non-White ethnic minorities migrants have a higher likelihood of occupying a poor quality job than White migrants and non-White ethnic minorities born in the UK. However, in other instances where ethnicity is included in job quality analysis, it is done rather crudely distinguishing between too broad ethnic groups such as ‘White, Black, Asian, and Other’ (Baumberg and Meager, 2015) or combining all ethnic minorities into one ‘non-white’ group only to find a ‘large ethnic penalty’ without investigating or commenting on the matter further (Williams, Zhou and Zou, 2020).

## **2.11. Why my study is needed**

While it is evident that research into the Muslim penalty continues to enhance our understanding of the complex nature of religious inequality, it is also apparent that it occupies a relatively narrow

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<sup>6</sup> The authors combine those who identify as White British and White Other into one White group.



remit, focusing overwhelmingly on investigating differences in job *quantity* (i.e. whether people have a job or not) with little attention given to differences in job *quality*. However, the fact that jobs are of varying quality with considerable consequences for health and wellbeing (OECD, 2017; What Works Wellbeing, 2017; Henseke, 2018; Irvine, 2019), and evidence (discussed above) that job quality is not equally divided across the population but seemingly distributed based on demographic characteristics, highlights the importance of investigating not only religious and ethno-religious inequalities in accessing employment but also inequalities *in* employment. Without such analysis, we are missing a more complete understanding of the labour market experience of people from different minority backgrounds.

Nevertheless, there is no such analysis of inequalities in job quality. This absence is noteworthy, particularly in Britain where, as previously discussed, there is overwhelming evidence indicating that religious affiliation is an important predictor of poor labour market access, particularly among Muslims. In that sense, we might expect to find this group to also exhibit the largest mean differences in job *quality* relative to Christians. Indeed, there is no reason to expect that the penalties experienced by people from a minorities background are not compounded. That is, that their penalties are not only limited to job *quantity* but extend to job *quality*. However, we know very little, if anything, of its manifestations. Investigating whether certain minorities groups are, on average, more at risk of being in poor quality employment than others, is particularly relevant given that Britain is home to an increasingly multicultural workforce that continues to grow in both religious and ethnic diversity (Jivraj and Simpson, 2015), and given its impact on people's quality of life (Henseke, 2018).

Identifying inequalities 'at a sufficient level of specificity and accuracy is an essential first step towards being able to analyse and theorize' (Platt, 2019, p. 16). It is the first step to identifying where policy needs to focus its efforts by 'draw[ing] attention to the particular groups who appear to be affected by unacceptably poor quality work' (Irvine, White and Diffley, 2018, p. 55). In short, investigating religious and ethno-religious difference in job quality "puts us at the start of an embedded, evidence-based focus on who enjoys and who does not enjoy 'good work' and what we should do about the differences" (Irvine, White and Diffley, 2018, p. 15).

## 2.12. Summary of thesis contributions

By using ten waves of the adult panel of *Understanding Society*: the UK Household Longitudinal Study (UKHLS) (University Of Essex, 2020) and a range of advanced quantitative data analysis techniques, my thesis offers a more expansive understanding of the labour market experience of people with a religious minority background. It does this by examining the relationship between religion and work both in terms of employee access to employment and job quality. In doing so, the thesis makes an important contribution to the literature on the Muslim penalty and religious and ethno-religious labour market stratification more broadly.

First, using the best available data my study tests whether the empirical evidence provides support for the hypothesis put forward by some that the Muslim penalty is due to Muslims' 'cultural habits'. The analysis also disarticulates between hitherto included but not disaggregated ethno-religious groups who identify as White (namely Muslim Arabs, White British Muslim, and Arabs with no religious affiliation) to investigate differences between them and to establish whether identifying as White offers equal protection against the Muslim penalty for different ethnic Muslim groups.

Second, to investigate religious and ethno-religious differences in job quality, I advance my own conceptualisation of job quality and propose an index suitable for the study of a multicultural workforce. This is a key methodological contribution of the thesis. Measuring job quality differentials in the British labour market also makes a significant contribution to the literature by revealing, for the first time, patterns of religious and ethno-religious inequalities for employees *in* work. This will show whether the disadvantage faced by people from minority backgrounds in terms of access to work is compounded by inequalities *in* employment, or whether there is an offsetting mechanism at play. I investigate job quality differentials not only overall but also by dimensions, and also *within* employment areas putatively understood as being of high/low quality. These are part-/full-time work, professional/non-professional occupations, and private/public sector employment. In doing so, the study provides novel insights as to what might be driving the in-work stratification of religious and ethno-religious minorities, and investigates whether variations in job quality can be explained by people's concentration in particular employment areas.

The specific research questions considered are:

Analysing differences in job *quantity*:

- 1) Does the Muslim penalty, among men and women, dissipate once so-called ‘sociocultural attitudes’ are accounted for? Specifically, are religiosity, traditionalist views, and lower civic participation associated with a higher risk of unemployment and inactivity?
- 2) Do both Muslim groups that identify as White - Arabs and White British people - exhibit a similar risk of being unemployed and inactive relative to White British Christians? In other words, does identifying as White offer equal protection against the Muslim penalty for Muslim Arabs and White British Muslims?

Analysing differences in job *quality*:

- 1) Is there a religious penalty in job quality? Specifically, is there a Muslim penalty in job quality?
- 2) Do religious and ethno-religious minorities within employment areas which traditionally depict low job quality (i.e. non-professionals, part-timers, private sector workers) experience poorer job quality still relative to White British Christians? Similarly, do religious and ethno-religious minorities experience equally high job quality as members of the Christian White British group when employed in roles which are associated with high job quality (i.e. professionals, full-timers, public sector workers)?
- 3) Can religious and ethno-religious differences in job quality be explained by people’s concentration in particular employment areas, namely professional/non-professional occupations, full-/part-time work, and public/private sector employment?

In sum, our current understanding of the Muslim penalty and how it is manifest is incomplete. This is because (i) research into job *quantity* differentials oft-exclude so-called ‘sociocultural variables’

which are posited as reason for the existence of the Muslim penalty, and (ii) because religious and ethno-religious differences in job *quality* are under-researched. By addressing these gaps, the thesis gives a more comprehensive understanding of the Muslim penalty in the British labour market and its possible drivers. In the next chapter I discuss the data used in the analysis.

## **Part II: Data, methodology, and operationalisation**

**Chapter 3:** Data and Methodology

**Chapter 4:** Creating a British job quality index

### **3. Chapter 3: Data and Methodology**

Chapter 3 discusses the data and methods adopted for the analysis. The first section outlines the data used and its advantages in answering the research questions. Section two outlines the methodological approaches adopted in each analytical chapter. This segment also details the variables used throughout the study. The third and final section outlines statistical considerations associated with the analysis and interpretation of the results.

#### **3.1. Data**

The thesis uses information from the first ten waves of the adult panel of *Understanding Society*: the UK Household Longitudinal Study (UKHLS) (University Of Essex, 2020). This annual survey, the sequel to the British Household Panel Survey (BHPS), started data collection in 2009. Information is collected over a 24-month period through a mixed-mode survey design involving face-to-face computer-assisted personal interviewing (CAPI), web-based data collection (CAWI), and telephone interviewing (CATI). Data is collected on people's socio-economic situation and events that have occurred between each wave. UKHLS offers the most detailed and highest-quality source currently available on the labour market status and job quality of British Muslims in their social, religious and cultural contexts.

The survey 'counts approximately 100,000 individuals from 40,000 households (38,000 households in wave one (2009/11) which includes 4,000 household from an ethnic minority boost sample [and 8,000 rolled over from BHPS]), making it one of the largest studies of its kind [worldwide]. It also benefits from an Immigrant and Ethnic Minority Boost Sample added in wave six (2014/16), which provides an additional 2,900 households' (Sweida-Metwally, 2022a, p. 363). Given the thesis' focus on people with an ethnic and religious minority background, these boost samples are another advantage of using UKHLS. In addition to over-sampling ethnic minorities, the survey design involves clustering and stratification, meaning it is not a simple random sample. The former is based on postcodes and is applied to reduce survey costs. The latter is based on 12 regions; 10 in England, and one each in Scotland and Wales. Sub-strata are then created based on

the proportion of non-manual worker households, population density, and ethnic minority density (Knies, 2018). Stratification is implemented to improve representativeness.

While the analyses of both job quantity and job quality use the adult panel of UKHLS and information that is only directly collected from respondents (i.e. excluding data collected by proxy), the analysis in each part relies on distinct samples. The former pools waves one (2009/2011) to ten (2018/20). The latter pools data from waves two (2010/12), four (2012/14), six (2014/16), eight (2016/18), and ten (2018/20). Data are combined in this way because the relevant job quality information is only collected in every other wave starting in wave two. Also, while the sample for investigation into job quantity differences includes both the self-employed and employees, the analysis into job quality differentials excludes the self-employed since the relevant job quality data are not collected for them. Pooling waves - which generates the average association between a dependent and independent variable over time - ‘allows me to disaggregate between groups that have traditionally been combined for sample size reasons, such as Muslim Arabs and Muslim White British’ (Sweida-Metwally, 2022a, p. 367), and people from ethnic minority backgrounds with no religious association, such as, Arabs, Black Caribbeans, Black Africans, Indians and Chinese.

Indeed, a key advantage of using UKHLS for this study is that it offers both a rich sample size with significant data on religious and cultural practices as well as considerable job quality information, above and beyond other potentially relevant surveys. For example, while the Labour Force Survey has a large sample size, information on job quality is limited and only collected as part of an ad-hoc module (i.e. not part of the main survey) in 2019. Data on cultural and religious practices therein are also limited, as they are in the UK Working Lives Survey and the Skills and Employment Survey despite containing a healthy selection of job quality data. This is also true of one of the best regarded and mostly used datasets for job quality analysis, the European Working Conditions Survey. Either way, the last available dataset from the European Working Conditions Survey is from 2015, and its relatively small UK sample size (1,600 participants) means it does not offer valuable data for a study concerned with the British labour market.<sup>7</sup> Meanwhile, whilst

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<sup>7</sup> To be clear, the survey ran in 2021 but the data is only expected to be released in December 2022.

the Workplace Employment Relations Survey offers valuable job quality information, it has not run since 2011, and has limited sample size for the segmentation needed in this study. Conversely, the Census boasts a very large sample size but does not collect any of the relevant information on religious practice or job quality.

The UKHLS survey is not only unique in its ability to answer my research question, it is also representative of the broader population. This is important since statistical research, like mine, aims to make inferences about the population, meaning that survey participants should be ‘selected from the target population with known or credibly estimated probabilities, so that the well-developed statistical methodologies for population inferences from probability samples may be brought to bear’ (Benzeval *et al.*, 2020, 6). This does not mean that the survey needs to be a simple random sample, indeed the UKHLS is not. However, the use of weights (in addition to accounting for the survey’s clustering and stratification design) adjusts for the unequal sample probability and reduces bias in the estimate.

To check the representativeness of my sample, I compared the average education levels and unemployment rates of different religious groups therein to those reported in the Census 2011 and the Annual Population Survey, respectively (results available on request). The former is the only source from which to get a picture of the entire population of England and Wales, while the latter, along with the Labour Force Survey, is the principal UK household survey on employment data. While the results appeared to suggest that my sample over-represented educated people across all religious groups, it is important to clarify that such a check does not in fact offer a direct comparison. One reason for this is the differences in response categories between surveys. Moreover, the UKHLS is a longitudinal survey whereas the Census is a measure at one point in time, which does not account for the fact that populations evolve and change. Similarly, comparing the average unemployment rates from my sample to those estimated by the Annual Population Survey in 2018 (see Figure 1.4) does not offer a direct comparison either. Indeed, evidence indicates that minority groups experience hyper-cyclical levels of unemployment (Li and Heath, 2008; Khattab and Johnston, 2013), and therefore estimates at one point in time will differ to average rates, especially the longer the period under consideration (my sample pools multiple waves over 10 years). It is also important to bear in mind that comparisons to statistics devised



from surveys such as the Annual Population Survey are themselves also estimates with their own level of measurement error.

However, in-depth methodological studies have shown that the UKHLS is a robust and reliable survey for population inference. In addition to being the largest study of its kind worldwide, and it being utilised by leading ethnic penalty academics in their research (Heath, Li and Woerner-Powell, 2018; Li and Heath, 2020), the survey has been found to show solid representativeness when verified against more exhaustive tests across a range of leading national surveys (Borkowska 2019; Benzeval *et al.* 2020). The results show UKHLS to have consistently robust response rates (even better than the Labour Force Survey), and ‘weighted estimates ... [that] are relatively comparable with key benchmarks’ (Benzeval *et al.*, 2020, p.16).

### **3.2. Methodology**

As previously discussed, the aim of the thesis is to investigate the association between religious and ethno-religious affiliation and labour market outcomes through the analysis of secondary survey data. To do this, multilevel modelling is adopted. This is because, in addition to having a large sample size, the longitudinal dataset used is hierarchical in nature with observations (level 1) clustered within an individual (level 2). Adopting a multilevel model ensures standard errors are efficient and accounts for the serial correlation between the error term and observations due to repeated observations (Gayle and Lambert, 2018). However, because of the distinct nature of the analyses being undertaken - both parts of the analyses answer different questions using distinct dependent and independent variables - different types of multilevel models are used for each study. Descriptive analysis of the variables is undertaken before the multivariate analysis in Chapter 5 and Chapter 6, respectively, and a detailed statistical description of the independent variables is also available in Appendix 2 (Tables B1, B2, B3 and B4).

The analyses are undertaken for men and women separately. This is because, as previously discussed, evidence shows that the labour market experiences between men and women differ in important ways. Analysing men and women separately effectively means we expect the association between the control variables and the dependent variable to differ by gender. Evidence that marital

status and number of children, for example, have a particularly negative relationship with labour market outcomes for women than they do for men (Blackaby *et al.*, 1999b; Heath and Martin, 2013; Khattab and Hussein, 2018), lend support to the view that men and women are better analysed separately. This is also supported by evidence that ethnic minority women do not only have to contend with religious and ethnic discrimination but also the interaction between these and their gender (Crenshaw, 1991).

It is important to keep in mind that the analysis does not allow me to make causal claims. In other words, should a penalty exist, the models are not able to establish *why* it does. Nevertheless, by adopting a broader definition of what is traditionally understood by labour market outcomes, and establishing whether religious and ethno-religious affiliation are more strongly associated with the same, the analysis advances our understanding of the complex nature of ethnic and religious employment penalties. In adding this new piece of information to the broader researcher landscape, we can theorise, based on existing research, as to the potential mechanism at play (Chapter 7).

### **3.3. Analysing differences in job *quantity*<sup>8</sup>**

#### **3.3.1. Model**

In my study that investigates the Muslim disadvantage in job quantity, namely, whether so-called ‘sociocultural variables’ are a reasonable explanations for the Muslim penalty in unemployment and inactivity, the dependent variable in both cases is binary. Here, I use a two-level logistic random intercept model (Eq.1). ‘Adopting a random effect model is suitable since people’s ethno-religious grouping is relatively stable in the sample. Among the unemployed, out of a total of 11,469 men and 13,941 women, only 1,463 and 1,773, respectively, showed a change in ethno-religious grouping at one point between waves one and ten. Similarly, among the inactive, out of a total of 14,601 men and 21,272 women, only 1,869 and 2,647 respectively, showed a change in ethno-religious grouping at one point between waves one and ten. Importantly, for both groups,

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<sup>8</sup> This section partly reproduces some of the material previously published in my academic article (Sweida-Metwally, 2022a). In line with the University of Bristol’s guidelines, all relevant sections are referenced with in-text citations.

the majority were transitions between Christian White British and No Religion White British.<sup>9</sup> This means that a within-subjects design is less useful for understanding the extent to which ethno-religious background is associated with employment outcomes, particularly among ethno-religious minorities for whom there are fewer observations. Adopting a random effect model, which models both within- and between-person effects concurrently, is therefore a suitable approach to adopt (Gayle and Lambert 2018)' (Sweida-Metwally, 2022a, p. 367). This is also supported by the Intraclass Correlation Coefficient. The latter denotes the proportion of total variation that is explained by between-group variation. It shows that 88 per cent (unemployed/employed male sample), 91 per cent (active/inactive male sample), 87 per cent (unemployed/employed female sample), and 86 per cent (active/inactive female sample) of the differences in labour market outcomes can be explained by differences between individuals while only 12 per cent (unemployed/employed male sample), 9 per cent (active/inactive male sample), 13 per cent (unemployed/employed female sample), and 14 per cent (active/inactive female sample) can be explained by differences within an individual (e.g. education or skill level which can change for a person over time).

$$(Eq.1) \quad Y_{ij} = \beta_0 + \beta_1 x_{1(ij)} + \dots + \beta_n x_{n(ij)} + u_j$$

where,

- $Y_{ij}$  is outcome  $i$  for person  $j$
- $\beta_0$  is the intercept
- $\beta_1 \dots \beta_n$  are the fixed effect coefficients
- $x_{1ij} \dots x_{nij}$  are level one control variables
- $u_j$  is the level two residual

### 3.3.2. Analysis

I adopt a stepwise approach to the analysis for both men and women. "In both instances, first, I run a model examining the differentials in the risk of unemployment and inactivity after common

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<sup>9</sup> Details of the ethno-religious groups derived for the analysis are discussed in Section 3.3.3 below.

human capital and demographic factors are accounted for. The subsequent models assess how the ethno-religious differences change once so-called ‘sociocultural attitudes’ are considered. Model 2 controls for (...) religiosity. Model 3 adjusts for attitudes towards traditional gender norms and so-called ‘isolationist tendencies’ (...).

The results are presented as log-odds, which display the average risk of a particular ethno-religious group being unemployed or inactive relative to the Christian White British majority, along with information on the 95 per cent confidence intervals. Confidence intervals that include 0 (...) impl[y] that the odds of being unemployed [or inactive] are possibly equal to that of the reference category, i.e. equal to 1” (Sweida-Metwally, 2022a, p. 367). A summary of the full models is presented during the analysis in Chapter 5, with the full regression outputs available in Appendix 2 (Table B5 and Table B6).

### **3.3.3. Measures**

#### *3.3.3.1. Dependent variables: Unemployment and inactivity*

The investigation into job quantity differentials is centred on two distinct analyses and therefore, utilises two different dependent variables in turn. “First, I focus on estimating the average probability of unemployment within the active population between 2009 and 2020, distinguishing between those who are unemployed (1) and those who are employed (0). Respondents are considered to be employed if they report being in either employment (full- or part-time) or self-employment. Those on maternity leave, government training schemes, and apprenticeships are also considered employed. Individuals are categorized as unemployed if they self-report as such. All other groups are excluded from the analysis. Second, I assess the likelihood of inactivity. Those in full-time education, retired, working in a family business in an unpaid capacity, focused on ‘family care or home’, ‘doing something else’, or who identify as long-term sick or disabled are classified as inactive (1). Those who are employed and unemployed (as defined above) are coded as (0)” (Sweida-Metwally, 2022a, p. 363).

#### *3.3.3.2. Independent variables*

*“Ethno-religious groups:* Data on ethnicity and religious affiliation are combined in order to capture the interaction between the two and create a set of ethno-religious categories (Khattab, 2009; Khattab and Modood, 2015). To identify ethnic membership, responses to the question ‘*What is your ethnic group?*’, which is asked once of participants when they first enter the study, is used. For religious affiliation, I use information from the question that asks, ‘*Which religion do you regard yourself as belonging to?*’. When information is missing at a particular wave, I fill the gap using information from the closest prior wave. Otherwise, I use information from the closest next wave. I also use information from a question that asks ‘*Do you regard yourself as belonging to any particular religion?*’ to create No Religion groups based on those who answered ‘no’ to the question.

Based on the ethnicity and religious affiliation questions which have 18 and eight modalities each (once Other religion is included, Christian denominations are combined, and a No Religion group is created), there are 144 different possible combinations of ethno-religious groups that can theoretically be created. Only those groups which have at least 100 observations [each for men and women] are assigned their own group in the regression analysis. The groups with too few observations or with missing ethno-religious identity information are combined into one ‘Other’ group which also includes all those who specified their ethnicity to be Other/Other Mixed” (Sweida-Metwally, 2022a, p. 364). Table 3.1 lists the categories of ethno-religious groups derived for the analysis of job quantity differentials.

**Table 3.1.** Ethno-religious categories for job quantity analysis

Buddhist Asian Other [BAO] (U: men: 111   women: 146) (A: men: 122   women: 218)	Christian White British [CWB] (U: men: 18,033   women: 28,160) (A: men: 22,049   women: 39,241)	Muslim Pakistani [MP] (U: men: 1,897   women: 1,234) (A: men: 2,429   women: 3,465)	No Religion White British [NRWB] (U: men: 37,574   women: 36,204) (A: men: 44,820   women: 49,432)
Buddhist White British [BWB] (U: men: *   women: *) (A: men: *   women: 169)	Christian White Irish [CWI] (U: men: 235   women: 446) (A: men: 300   women: 566)	Muslim White British [MWB] (U: men: 106   women: 150) (A: men: 141   women: 246)	No Religion White Irish [NRWI] (U: men: 171   women: 135) (A: men: 209   women: 156)
Christian Asian & White Mix [CAW] (U: men: *   women: 129) (A: men: 116   women: 187)	Christian White Other [CWO] (U: men: 946   women: 1,400) (A: men: 1,079   women: 1,828)	No Religion Arab [NRA] (U: men: 100   women: *) (A: men: 120   women: *)	No Religion White Other [NRWO] (U: men: 916   women: 1,118) (A: men: 1,046   women: 1,392)
Christian Asian Other [CAO] (U: men: 205   women: 339) (A: men: 252   women: 475)	Hindu Asian Other [HAO] (U: men: 199   women: 205) (A: men: 244   women: 343)	No Religion Asian & White Mix [NRAW] (U: men: 226   women: 179) (A: men: 265   women: 274)	Other [OTHER] (U: men: 2,497   women: 3,800) (A: men: 1,875   women: 2,218)
Christian B&W African Mix [CBWA] (U: men: *   women: 163) (A: men: 111   women: 191)	Hindu Indian [HI] (U: men: 1103   women: 987) (A: men: 1,295   women: 1,464)	No Religion Asian Other [NRAO] (U: men: *   women: 192) (A: men: 163   women: 282)	Other Religion Black Caribbean [ORBC] (U: men: *   women: 100) (A: men: *   women: 124)
Christian B&W Caribbean Mix [CBWC] (U: men: 162   women: 307) (A: men: 219   women: 495)	Jewish White British [JWB] (U: men: 123   women: 203) (A: men: 150   women: 289)	No Religion B&W African Mix [NRBWA] (U: men: *   women: *) (A: men: *   women: 115)	Other Religion White British [ORWB] (U: men: 369   women: 553) (A: men: 477   women: 906)
Christian Black African [CBA] (U: men: 847   women: 1,372) (A: men: 1,093   women: 1,985)	Muslim Arab [MA] (U: men: 177   women: *) (A: men: 247   women: 299)	No Religion B&W Caribbean Mix [NRBWC] (U: men: 251   women: 399) (A: men: 345   women: 559)	Other Religion White Other [ORWO] (U: men: *   women: 123) (A: men: *   women: 142)
Christian Black Caribbean [CBC] (U: men: 496   women: 1,435) (A: men: 625   women: 1,854)	Muslim Asian Other [MAO] (U: men: *   women: *) (A: men: *   women: 146)	No Religion Black African [NRBA] (U: men: 162   women: 136) (A: men: 198   women: 206)	Sikh Indian [SI] (U: men: 689   women: 679) (A: men: 803   women: 1,030)
Christian Chinese [CC] (U: men: *   women: 103) (A: men: *   women: 124)	Muslim Bangladeshi [MB] (U: men: 1,117   women: 708) (A: men: 1,435   women: 1,915)	No Religion Black Caribbean [NRBC] (U: men: 488   women: 526) (A: men: 590   women: 713)	
Christian Indian [CI] (U: men: 206   women: 203) (A: men: 233   women: 281)	Muslim Black African [MBA] (U: men: 282   women: 291) (A: men: 376   women: 635)	No Religion Chinese [NRC] (U: men: 288   women: 227) (A: men: 353   women: 301)	
Christian Other Black [COB] (U: men: *   women: *) (A: men: *   women: 165)	Muslim Indian [MI] (U: men: 433   women: 281) (A: men: 533   women: 638)	No Religion Indian [NRI] (U: men: 407   women: 326) (A: men: 492   women: 405)	

Notes: U=unemployed/employed sample; A=active/inactive sample; Unweighted N in brackets; \* signifies insufficient sample size to form stand-alone group; 'Asian Other' refers to other than Indian, Pakistani, Bangladeshi, Chinese, and Asian and White mix; 'Other Black' refers to other than Black Caribbean, Black African, Black and White mixed Caribbean, and Black and White mixed African.

*Age:* Age is included in the models as a continuous variable. I also include a squared age variable to capture any curvilinear effect.

*Marital status:* I distinguish between those who are: (1) single, (2) married, in a same sex civil partnership, or cohabiting, and (3) divorced, separated (including from a civil partnership) and widowers/surviving civil partners.

*Region of residence:* I distinguish between those residing in the capital and those outside. The four regional groupings created are: (1) rest of England, (2) London, (3) Wales, and (4) Scotland.

*Health concern:* The variable is dichotomous, those with a health impairment (1) and those without (0). Information is captured from the question: ‘*Do you have any long-standing physical or mental impairment, illness or disability? By 'long-standing' I mean anything that has troubled you over a period of at least 12 months or that is likely to trouble you over a period of at least 12 months*’.

*Children:* I distinguish between those who are: (0) responsible for no children aged under 16, (1) responsible for one child, (2) responsible for two children, and (3) responsible for three or more children. This information is obtained from a derived variable which computes the ‘*number of children aged under 16 that respondent is responsible for*’ based on information collected from the household grid module.

*UK born:* The variable distinguishes between whether a person is born in the UK (1) or not (0). This information is obtained from a derived variable which is based on other questions, including those that ask: ‘*Were you born in the UK, that is in England, Scotland, Wales or Northern Ireland?*’, and, ‘*In which country were you born?*’. All White British not born in the UK are dropped to get a more accurate picture of the impact of this variable.

*Education:* Education is grouped into five categories: (1) degree or higher, (2) post-secondary qualification (below-degree), (3) secondary education, (4) other qualification (below secondary), and (5) no qualifications. This coding follows information from a derived variable which records the current highest educational or vocational qualification held. This information is supplemented

with data, only collected from members of the Immigrant and Ethnic Minority Boost Sample in wave 6, which asks, *‘Can you tell me the highest educational or school qualification you have obtained?’*.

*Difficulty with English language:* The variable is dichotomous, those who experience linguistic difficulty (1) and those who do not (0). Participants are recorded as having limited English language proficiency (1) if they affirm any of the following questions: (i) *‘Do you have any difficulty speaking English to people for day to day activities such as shopping or taking the bus?’*; (ii) *‘Do you have any difficulty reading formal letters or documents written in English?’*; (iii) *‘And do you have any difficulty speaking English on the telephone?’*; and (iv) *‘And do you have any difficulty filling in official forms in English?’*. Those who answer no to all questions are coded as 0. ‘The relevant information is only collected in waves one, five, six, and ten. Information from wave one is used for the first four waves, wave five data for the fifth, wave six data are used for the subsequent four waves, and wave ten uses its own information. If information is still missing after this, I use information on whether the respondent completed the survey in English. If they didn’t, participants are coded as 1. Otherwise, like those whose first language is English, they are recorded as 0’ (Sweida-Metwally, 2022a, p. 365).

The fact participants did not complete the survey in English might simply be indicative of the fact that English is not their first language. However, it might also indicate that they have weak English language proficiency since English is the primary language of the survey and to complete the survey in any other language a request must be made. To go through the effort to proceed with making this accommodation to be able to complete the survey is likely an indication of a lack of comfort with the English language. It therefore seems reasonable to me to code those who didn’t complete the survey in English as having difficulty with the English language. Importantly, even if this is not the case (i.e. by assigning participants as having difficulty with English language when they do not) making this adjustment to the control variable effectively means that my results are conservative, giving further weight to findings under these conditions.

It is worth noting that this adjustment has a negligible impact on the number of observations recorded as having difficulty with the English language. After using information regarding



difficulty (i) speaking English (in person and over the phone), (ii) reading English, or (iii) filling in official forms in English, but before adjusting for whether the survey was completed in English, the missing number of observations is at a rate of 37 per cent. Dropping these observations from the analysis through listwise deletion would significantly bias the estimates (Bennett, 2001). However, after boosting N, the missing rate is 9 per cent. This rate of missingness is below the 10 per cent threshold, meaning that my results are not likely to be biased by applying listwise deletion of missing data. Importantly, the majority of previously missing data are now recorded as not having weak English language proficiency. Only 139 observations out of 208,911 were recorded as having language difficulties. Such a small number would have virtually no effect on estimated results. In fact, I ran the analysis with and without these 139 observations and the results are practically identical. I also ran the analysis categorising the 139 observations as having no English language difficulty (rather than having English language difficulty), and, the results are also virtually unchanged. In fact, in some cases (especially among men) the estimated coefficients for the Muslim groups were actually slightly larger providing evidence that findings under my chosen approach are indeed conservative. The reason I keep the 139 observations who did not complete the survey in English and are recorded as having English language difficulty in the analysis is for consistency (i.e. because I recorded those who completed the survey in English as having no difficulties with the English language).

*Religiosity:* Religiosity is captured through two variables. “First, ‘*How much difference would you say religious beliefs make to your life?*’. Responses are grouped into three categories: (1) *A great difference*’, (2) *Some difference*’ or *A little difference*’ and (3) *No difference*’” (Sweida-Metwally, 2022a, p. 365). ‘It is worth noting that while the majority of those who identify as having no religious affiliation aver that religion makes ‘no difference’ to their life, not all do. Specifically, out of a total of 94,400 observations who identify as having no religious affiliation, 24,691 aver that religion makes at least ‘some difference’ to their life. This is not surprising, as people might not identify with a religion but still consider themselves to be spiritual’ (Sweida-Metwally, 2022a, p. 384).

“The second question asks, ‘*How often, if at all, do you attend religious services or meetings?*’. Responses are grouped into three categories: (1) once a week or more, (2) at least once a month,

and (3) once a year, never, or only on special occasions. As both questions are only asked in waves one, four and eight, information from wave one is used for the first three waves, data from wave four for the subsequent four waves, and wave eight for the remaining waves” (Sweida-Metwally, 2022a, pp. 365–366). As previously explained, attendance at religious service is not an accurate measure of Muslim women’s religiosity and is therefore not accounted for in the women-only models.

*Civic participation:* “Following a similar logic adopted by Heath, Li, and Woerner-Powell (2018) who use information on the number of social organizations a person is a member of or active in as a proxy for bridging capital, here the information is used to proxy for so-called ‘isolationist tendencies’. The rationale is that the lower the number of civic organizations a person is involved with, the more socially isolated they are, and vice versa. Participants are asked about their involvement with 16 different organizations: a political party, trade union, environmental group, parents’ or school association, tenants or residents group, religious or church organization, voluntary services group, pensioners organization, scouts or guides organization, professional organization, other community group, social or working men’s club, sports club, women’s institute or townswomen’s guild, women’s group or feminist organization, and any other group or organization. The data are only collected in waves three, six and nine. As such, wave three data are used for waves one to five, wave six data for waves six to eight, and wave nine data are used for the last two waves [to create this continuous variable]” (Sweida-Metwally, 2022a, p. 366).

*Traditionalism:* “The degree of traditionalism is captured through two questions where respondents are asked whether they (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, (5) strongly agree with two statements. The first reads, ‘*Husband should earn, wife should stay at home*’. The second is, ‘*Family life suffers if mother works full-time*’. As both questions are only asked in waves two, four and ten, information from wave two is used for the first three waves and wave four data are used for all other waves bar wave ten which utilizes its own information” (Sweida-Metwally, 2022a, p. 366).

*Wave:* Period effects are controlled for in the model using wave as a categorical variable.

Only observations with valid information across all independent variables are included in the analysis. For men the final dataset counts N=70,816 (employed/unemployed; 78 per cent of the sample) and N=84,805 (active/inactive; 76 per cent of the sample). For women, the sample size is N=82,959 (employed/unemployed; 83 per cent of the sample) and N=115,474 (active/inactive; 80 per cent of the sample).

### 3.4. Analysing differences in job *quality*

#### 3.4.1. Model

For my study examining whether there is evidence of a Muslim penalty at play from a job quality perspective, the methodological approach for this analysis consists of two steps. First, I create a multidimensional job quality index based on the conceptualisation previously discussed. Second, in Chapter 6, I use the metric derived as the dependent variable to analyse religious and ethno-religious differentials therein. Since job quality scores are continuous, for this analysis I use a two-level linear random intercept model (Eq.2).

The large sample size supports the use of a hierarchal model. The Intraclass Correlation Coefficient shows that 77 per cent (men) and 76 per cent (women) of the differences in job quality can be explained by differences between individuals while only 23 per cent and 24 per cent, respectively, can be explained by differences within an individual (e.g. education or skill level which can change for a person over time). A random effects model, which models both within- and between-person effects concurrently, is therefore appropriate (Gayle and Lambert, 2018).

$$(Eq.2) \quad Y_{ij} = \beta_0 + \beta_1 x_{1(ij)} + \dots + \beta_n x_{n(ij)} + e_{ij} + u_j$$

where,

- $Y_{ij}$  is outcome  $i$  for person  $j$
- $\beta_0$  is the intercept
- $\beta_1 \dots \beta_n$  are the fixed effect coefficients
- $x_{1ij} \dots x_{nij}$  are level one control variables

- $e_{ij}$  is the level one residual
- $u_j$  is the level two residual

The main mathematical difference between Eq.1 and Eq.2 reflects the fact that in logistic regression the level one residual ( $e_{ij}$ ) is theoretical and fixed at a value of  $\frac{\pi^2}{3}$ , which is why it does not appear in the formula.

### 3.4.2. Analysis

The analysis in Chapter 6 is divided into four segments. First, I examine differences in job quality using one single index measure. Since jobs are offered to workers as a bundle of financial and non-financial characteristics which workers evaluate in the round before taking a job (i.e. they cannot pick and choose the features of their job), the analysis highlights the extent of *overall* average job quality inequality between majority and minority group members. Second, I investigate differences across each job quality dimension: (i) Pay and Other Benefits, (ii) Job Security and Representation, (iii) Work-Life Balance, and (iv) Intrinsic Job Attributes. This more granular analysis offers an insight into the areas where people from a minority background might be particularly worse off, indicating where bespoke remedial policies might be needed.

Third, to answer the question on whether minorities experience similar job quality as the charter population employed in similar work areas, I examine job quality differences within particular employment types. These are areas where job quality is putatively high/low, such as (i) professional/non-professional work, (ii) full-/part-time work, and (iii) public/private sector work. This analysis uses a combination of two-way interactions between religious/ethno-religious affiliation and each of the latter employment categories in turn.

Fourth, I extend the analysis by investigating how employment characteristics work together in forming inequalities in job quality and whether variations in job quality can be explained by people's concentration in specific work types. To do this, I analyse religious difference in job quality while adjusting for the aforementioned employment characteristics that are known to moderate job quality. I also include three-way interactions to investigate the extent to which the

disadvantage non-professional and professional religious minorities experience is moderated by sector. This is followed by models using ethno-religious affiliation as the explanatory variable but which do not include the three-way interactions.

The analysis in the preceding section invites three different possible approaches for this last part of the study: (i) religious differences in job quality by occupational class, moderated by part-/full-time work; (ii) religious differences in job quality by sector, moderated by part-/full-time work; or (iii) religious differences in job quality by occupational class, moderated by sector. The third option is selected in part due to practical considerations. More specifically, the three-way interaction between religious affiliation, occupational status, and sector, is the only combination where there is sufficient N to undertake this more granular analysis (Table D15 and Table D16). Sample size considerations are also why religious affiliation rather than ethno-religious identity is used as the explanatory variable for the models including two-way and three-way interactions, and why the models using ethno-religious affiliation do not include the interactions.

Since the purpose of this study is not to explain away differences in job quality by controlling for variables which are likely to be obfuscating important ‘causes of causes’ (Marmot, 2018), but rather to offer a much needed and hitherto non-existent appraisal of religious differences in job quality in the British labour market, in addition to the interaction effects all the models adjust for age, age-squared, period effects (wave), and graduate status.<sup>10</sup>

The analyses in Chapter 6 are undertaken from two perspectives. First, differences are evaluated from an overall religious perspective between the following groups (i) Christian White British, (ii) Christian non-White British, (iii) Muslims, (iv) Hindus, (v) Sikhs, (vi) Other Religion, and (vii) No Religion. The Christian group is dichotomised to guard against having one potentially misleading Christian coefficient that is driven by the large number of White British Christians who, as previously discussed, are the most privileged group in the British labour market. Second, since religious and non-religious groups are not ethnically homogenous, differences are also investigated

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<sup>10</sup> The male-only model analysing ethno-religious differences in the private sector does not control for age-squared as the model does not converge.

from an ethno-religious perspective among (non)religious groups where there is sufficient ethnic heterogeneity. These are Christians, Muslims, and those with no religious affiliation. In doing so, the analysis offers a more comprehensive understanding of the extent to which job quality differentials are distinguished by religious and ethnic affiliation and the extent to which they are multiplicative. It is worth noting that having one consistent reference group (i.e. Christian White British) throughout the entire sequence of analysis allows us to compare results across religious and ethno-religious models that include the same controls, to break down the overall religion coefficient and better understand its possible drivers.

The coefficients presented depict the pairwise differences in mean job quality between minority groups and the Christian White British group. I also report the confidence intervals which indicate the range of estimates that are compatible with the data. The results are presented in table format while the full model results are available in Appendix 4.

### **3.4.3. Measures**

#### *3.4.3.1. Dependent variable: Job quality*

The investigation into job quality differentials uses job quality scores as the dependent variable. As previously explained, these are calculated using a job quality measure of my own formation. Advancing my own conceptualisation of job quality and constructing an index are key contributions of my thesis. Details of how job quality is measured and the particulars of each step of the index creation process are the subject of the next chapter (Chapter 4).

#### *3.4.3.2. Independent variables*

As discussed, investigations into job quality differentials are undertaken from two vantage points. First, religious affiliation is the explanatory variable of interest. Second, more granular analysis is undertaken using ethno-religious identity. Since the analysis into labour market access differentials (Chapter 5) and the analysis into job quality differentials (Chapter 6) rely on different samples,

with the former having a larger sample because it relies on ten rather than five pooled waves, the ethno-religious groups created are similar but not identical.

*Religious groups:* I identify a combination of six religious and non-religious groups. These are (i) Christian, (ii) Muslim, (iii) Hindu, (iv) Sikh, (v) Other Religion, and (vi) No Religion. The first five groups are created using information which asks, ‘*Which religion do you regard yourself as belonging to?*’, with the various Christian denominations amalgamated into one group. Because of small sample size, the Other Religion category includes those who identify with a religion but are not Christian, Muslim, Hindu, or Sikh. The No Religion group represents those who claim they do not belong to any religion. As previously explained, the Christian group is further dichotomised between Christian White British and Christian non-White British. The final groups used to analyse religious differences are therefore: (i) Christian White British, (ii) Christian non-White British, (ii) Muslims, (iii) Hindus, (iv) Sikhs, (v) Other Religion, and (vi) No Religion. The next paragraph explains how ethno-religious groups like Christian White British are created.

*Ethno-religious groups:* Ethno-religious groups are created using the same methodology as previously discussed. One key differences in coding ethnic group affiliation however is that, unlike in Chapter 5, Black and White mixed Caribbean and Black and White mixed African groups are merged with their respective ethnic minority group to boost sample size. This is justified theoretically based on research showing the importance of the minority identity to the experience of mixed groups especially when it comes to racism in employment (Tizard and Phoenix, 1993). Based on the combination of six (non)religious categories and the 16 ethnic categories, 22 ethno-religious groups are created. Again, this is because only groups with at least 100 observations for each gender are assigned their own group. Christian Other, Muslim Other, and No Religion Other groups capture the smaller sample size ethnic groups within each relevant religious category. There is insufficient ethnic heterogeneity in the dataset among Hindus, Sikhs, and members of Other Religion to create associated ethno-religious categories. Table 3.2 lists the categories of ethno-religious groups derived.

**Table 3.2.** Religious and ethno-religious categories for job quality analysis

Religious & Ethno-religious groups	Men	Women
<b>Christian White British [CWB]</b>	6,586	11,252
<b>Christian non-White British [CnWB]</b>	1,323	2,314
Christian White Irish [CWI]	*	180
Christian White Other [CWO]	354	538
Christian Black Caribbean [CBC]	213	603
Christian Black African [CBA]	342	541
Christian Indian [CI]	*	105
Christian Asian Other [CAO]	*	135
Christian Other [CO]	414	212
<b>Muslim [Muslim]</b>	1,538	1,090
Muslim Bangladeshi [MB]	408	253
Muslim Pakistani [MP]	636	460
Muslim Indian [MI]	209	140
Muslim Other [MO]	285	237
<b>Hindu [Hindu]</b>	485	482
<b>Sikh [Sikh]</b>	292	319
<b>Other Religion [Other Religion]</b>	320	506
<b>No Religion</b>	18,078	19,193
No Religion White British [NRWB]	16,507	17,372
No Religion White Other [NRWO]	446	525
No Religion Black Caribbean [NRBC]	267	399
No Religion Black African [NRBA]	*	114
No Religion Indian [NRI]	210	160
No Religion Chinese [NRC]	144	123
No Religion Other [NRO]	504	500

Notes: Religious groups are in bold, ethno-religious groups are indented; Unweighted N; ‘Asian Other’ refers to other than Indian, Pakistani, Bangladeshi, Chinese, and Asian and White mix; \* signifies insufficient sample size to form stand-alone group.

*Age:* Like in Chapter 5, the analyses in Chapter 6 adjust for age, restricted to those between 16 and 64, and its curvilinear effect.

*Graduate status:* I distinguish between those who are (1) graduates and (0) those who are not. This coding follows information from a derived variable which records the current highest educational or vocational qualification held (see above). The difference here is that only two education types are distinguished for the present analysis to boost sample size.<sup>11</sup>

<sup>11</sup> I am unable to control for whether a degree was obtained in the UK because the relevant variable has a missingness rate of 68 per cent in the survey.



*Professional:* The relevant information is taken from a derived variable which classifies current jobs into three categories based on the National Statistics Socio-economic Classification, an indicator that ‘is both widely used and well validated for mapping social disparities at work’ (Williams, Zhou and Zou, 2020, p. 75). These are (1) management and professional, (2) intermediate, and (3) routine. To increase power, the last two categories are combined in the present analysis. The study therefore distinguishes between employees in a (1) professional and a (0) non-professional role.

*Full-time/Part-time:* I distinguish between (1) full-timers and (0) part-timers. The information is taken from a derived variable that distinguishes between both types of workers, where full-time workers are defined as those who work more than 30 hours per week, including overtime.

*Sector:* The analysis distinguishes between those employed in (1) the private sector or (2) the public sector. This information is taken from a question which asks ‘*Do you work for a private firm or business or other limited company or do you work for some other type of organisation?*’.

*Wave:* I include wave as a categorical variable to account for period effects.

In preparing the variables for analysis, unless otherwise stated, when information is missing at a particular wave, information is carried forward. If data are still missing then backward imputation is applied. Thereafter, only valid cases are retained. The final dataset of valid cases consists of N=28,622 for men (85 per cent of the sample) and N=35,156 for women (86 per cent of the sample).

### **3.5. Statistical considerations**

#### **3.5.1. Weighting and complex survey design**

Since UKHLS is not a simple random sample, the descriptive statistics and multivariate analysis (unless otherwise stated) are adjusted for the survey’s complex design. Without accounting for clustering and stratification in the data (described above) the standard errors would be inefficient.

Weights are also applied to adjust for over-sampling due to the survey design (i.e. unequal selection probabilities) and non-response (Knies 2018). Non-response encompasses panel attrition, the fact that certain sample members cannot be contacted or refuse to participate (i.e. wave 1 non-response), and instrument non-response (e.g. answering the individual interview but not the self-completion questionnaire). Weights also include an adjustment for mortality and new-borns. However, the weights do not adjust for item non-response (i.e. not answering a particular question). Weighting therefore ensures coefficient estimates are unbiased (accuracy) and standard errors are efficient (precision). It is worth noting, however, that weighting involves a trade-off; while their application reduces bias of the estimate, it increases variance (i.e. widens standard errors). However, it is necessary to weight the models particularly since the present analysis here is at heart descriptive and I am attempting to infer a trend in the population from the sample. Among other things, not weighting the data implies a number of assumptions about the populations structures, including that ethnic minority people are the same as people of White British origin (Knies 2018). In light of the evidence discussed in Chapter 2, this is not a plausible assumption to make.

In my analysis of job *quantity* differentials, in Chapter 5, I use the longitudinal weights provided by UKHLS. However, the weights provided by UKHLS should only be used when all waves are pooled rather than if every other wave is used, as is the case in my study of job *quality* differentials in Chapter 6 (Kaminska and Lynn, 2019). The provided weights are therefore not appropriate for the analysis in that chapter. Instead, I create bespoke weights. The result is a final scaled weight using the cross-sectional weights provided by UKHLS in waves two, four, six, eight and ten. The scaling is applied because ‘each weight is scaled to a mean value of 1.0 within each wave, and therefore produces a different weighted sample size in each wave. As a result, cases from later waves will tend to be under-represented when pooling waves, unless the weight is adjusted. This matters because each monthly sample is not a random subset’ (Kaminska and Lynn, 2019, p. 9). Scaling is necessary to ensure that each year contributes equally to the overall estimated average effect. My approach was confirmed by the methodology team at the Institute for Social and Economic Research at the University of Essex, where UKHLS is based.

### 3.5.2. A word on interpretation

P-values communicate the likelihood of observing data that is at least as extreme as that observed by chance and assuming that the null hypothesis - and all other model assumptions ('often questionable if not unwarranted' (Greenland *et al.*, 2016, p. 339)) - are true. A p-value is therefore not, as is often held, the likelihood of the null hypothesis being true in the population or the probability that the data was produced by chance (Wasserstein and Lazar, 2016). This cannot be the case since the assumptions made in order to calculate the p-value *are* that chance alone is at play and that the null is true. The p-value is also not the error rate of our study, i.e. the probability of rejecting the null hypothesis if it were true (Type I error). This is because the p-value of study is devised based on a *single* set of data whereas the p-value denotes the risk of making a Type I error across *multiple* studies (Greenland *et al.*, 2016). To calculate the error rate of a specific study a Bayesian rather than Frequentist approach would be needed (Sellke, Bayarri and Berger, 2001). There are multiple other related misconceptions surrounding the p-value (McCloskey, 1985; Ziliak and McCloskey, 2008; Wasserstein, Schirm and Lazar, 2019; Ziliak, 2019). For our purpose, it is important to clarify three.

First, a high p-value is not evidence in favour of the null hypothesis. Aside from the fact that a high/low p-value could be due to large random error or (model) assumption violations other than the null hypothesis (and there is no way of knowing which is the driver), as long as there exists another hypothesis with a higher p-value then that would suggest that that null hypothesis is even less compatible with the data than our initial null (Greenland *et al.*, 2016). In other words, a p-value of a specific hypothesis is only evidence in favour of that specific hypothesis in relation to a lower p-value of another hypothesis. In that sense, as long as our p-value is below one, then that cannot be the hypothesis most compatible with the data; and even if it were equal to one that would still not allow us to say anything conclusive (Greenland *et al.*, 2016). Second, a p-value above alpha (0.05) does not indicate that the analysis found no effect. Quite the contrary, unless the estimated effect equals the test hypothesis, a p-value less than one means 'some association must be present in the data, and one must look at the point estimate to determine the effect size most compatible with the data under the assumed model' (Greenland *et al.*, 2016, p. 341). Third, a low

p-value says nothing about the practical importance of a particular effect (Gelman and Stern, 2006; Ziliak and McCloskey, 2008).

Understanding the above allows us to appreciate that p-values communicate something much narrower than is commonly thought. In essence, all the p-value informs us about is how compatible our sample data are with ‘what we would predict or expect to see if we knew the entire statistical model (*all* the assumptions used to compute the *P* value) were correct’ (Greenland *et al.*, 2016, p. 339; emphasis in original). With that in mind, it is the estimated coefficients which are the effects that are most compatible with the data, and values closer to that estimate are more compatible than values further away (Amrhein, Greenland and McShane, 2019). Therefore, when analysing my results and determining the importance of a finding I rely on a variety of statistical information, including sample size, the magnitude and direction of the estimated coefficients, and their confidence intervals. The latter are considered by leading statisticians as ‘superior to [hypothesis] tests and *P* values because they allow one to shift focus away from the null hypothesis, toward the full range of effect sizes compatible with the data’ (Greenland *et al.*, 2016, p. 344). In other words, counter to common practice in the (non-statistical) scientific community, and following advice from the American Statistical Association (Wasserstein and Lazar, 2016), I do not de facto rely on a simple dichotomisation of the p-value when discussing results.

A corollary is that tests are not adjusted for multiple comparisons. Adjustments are normally applied to ensure researchers are not getting a ‘significant’ result which is in fact a Type I error (i.e. they reject the null hypothesis when they shouldn’t) as a result of undertaking more than one hypothesis tests. One of the most well-known methods used to do this is the Bonferroni approach.<sup>12</sup> The logic behind adjusting for multiple comparisons is to set the chosen alpha (traditionally 5 per cent) across the *entire* experiment rather than set a 5 per cent error rate for each pairwise

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<sup>12</sup> The Sidak method is another a popular method which assumes each test is independent. However, this is not considered a realistic assumption for our analysis since the comparisons made are often in relation to the same reference category. The Bonferroni method makes no such assumption. It is also worth mentioning that other methods such as Tukey’s method, Student–Newman–Keuls’ method, Duncan’s method, and Dunnett’s method cannot be computed with complex survey adjusted data in Stata which is the data analysis software used throughout the thesis. For these reasons, the discussion here is focused on the Bonferroni approach.

comparison. The 5 per cent is therefore referred to as the Family-Wise or Experiment-Wise Error Rate. The idea is that if the null hypothesis is true in all comparison cases, there would always only be a 5 per cent chance of getting a mistaken ‘significant’ result. So with 20 comparisons, one would expect only one such result.<sup>13</sup>

The Bonferroni method adjusts the p-value by dividing alpha (traditionally 0.05) by the number of tests undertaken to ensure that overall Family-Wise Error Rate (i.e. 5 per cent) is maintained.<sup>14</sup> For example, with five tests the target p-value (i.e. ‘significance level’) for each test is  $0.05/5 = 0.01$ .<sup>15</sup> This is a simple example, in reality it is not always clear how many tests have been undertaken and therefore should be included in the adjustment, which is a critical drawback of Bonferroni adjustments (Perneger, 1998). In any case, evidently this is a conservative approach which becomes more conservative still as the number of tests increase. However, for the Bonferroni adjustment to decrease the risk of a Type I error it must simultaneously increase the likelihood of a Type II error (i.e. not rejecting the null when we should). Yet, there is no scientific rationale to consider it a blanket rule that Type I errors are more egregious than Type II ones. It is for this reason that while some advocate to adjust for multiple comparison, others argue against it postulating that it can limit the advancement of a subject and hinder ‘the accumulation of knowledge’ (Nakagawa, 2004, p. 1045).

There are other drawbacks of the Bonferroni method (for details see Perneger, 1998). However, it is worth mentioning one in particular to further underscore why the adjustment is not applied here. The argument ties in to the aforementioned point that statistical significance testing says nothing about scientific importance. More specifically, depending on whether an adjustment for multiple comparisons is applied, inferences from the *same* data can be markedly different, despite the fact

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<sup>13</sup> This is the logic of other multiple comparison adjustment methods too such as the Sidak and Tukey approach.

<sup>14</sup> In Stata, the software used here, the adjustment is made slightly differently, although the outcome is identical. The software multiplies the p-value by the number of tests undertaken which is then reported as the p-value. In cases where the multiplicative generates a p-value above 1, the software sets the value to 1.

<sup>15</sup> It is worth noting that rather than simply dividing  $\alpha$  by the number of comparisons to get an adjusted Family-Wise Error Rate, the Sidak method makes the following adjustment  $1-(1-\alpha)^{1/n}$ .

that the estimated coefficient has not changed (the Bonferroni and Sidak methods increase the standard errors but do not impact the estimate). For example, '[i]n a clinical setting, a patient's packed cell volume might be abnormally low, except if the doctor also ordered a platelet count, in which case it could be deemed normal. Surely this is absurd' (Perneger, 1998, p. 1236).

To be clear there are benefits to adjusting for multiple comparisons. Arguably most importantly in how it is used today, the Bonferroni approach is a useful mechanism to limit researchers from 'hacking' the data in search of a 'significant' result. However, in light of the above discussion on the drawbacks of an over reliance on p-values, adjusting for multiple comparisons for this purpose is akin to a band-aid solution. It is useful in limiting bad practice within the unsound paradigm of significance testing, but does not address the root cause of the problem associated with dichotomising results as important/unimportant based on the p-value being above/below an arbitrary 0.05 cut off. It could also make matters worse still by giving the impression that if a result withstands the (conservative) Bonferroni correction that gives greater evidence against the null, which, as discussed above, is not the case.

One final word of caution is in order to keep in mind when interpreting the findings. When using confidence intervals instead of p-values when interpreting results, as suggested by the American Statistical Association, we should be mindful of not falling into the same pitfalls associated with the use of p-values. For this, it is important to be clear on what a confidence interval is and best practice when interpreting the latter. First, a 95 per cent interval indicates that if we ran 100 studies, and all model assumptions (which are used to calculate the intervals) are met therein, 95 of the computed confidence intervals would include the true (unknown) population mean (Greenland *et al.*, 2016). A confidence interval, therefore, does not indicate that there is a 95 per cent probability of the population mean lying within a *specific* interval. Second, a cut-off at alpha equals 0.05 is arbitrary. It is adopted here because it is the most commonly used in the scientific community. However, we should avoid the temptation of dichotomising the data (the very pitfall when using p-values) as though estimates in the range are valid while those outside are not. Indeed, values that fall outside the range are still possibly compatible with the data, albeit to a lesser degree (Amrhein, Greenland and McShane, 2019). Third, just because a confidence interval includes zero this does not mean that a zero effect is equally compatible with the data as the main estimated effect,

especially the further away zero is in the range of estimated values (Amrhein, Greenland and McShane, 2019).

### **3.5.3. On ethno-religious background**

In conceptualising ethno-religious groups in this thesis there are some important considerations to be aware of. The combination of ethnicity and religion to get a more granular understanding of the mechanism driving religious penalties is used as it assists in partly dealing with the ‘identification problem’ (Heath and Martin, 2013, p. 1007) due to the fact some ethnic groups, such as Bangladeshis and Pakistanis, display high levels of religious homogeneity. As such, by creating ethno-religious groups, I do not only effectively capture the interaction between religion and ethnicity, but it is also a way of teasing out the effect of religion from ethnicity within groups that have high religious heterogeneity (e.g. Indians). That said, while ethnicity and religion are combined for analytical purposes, this does not reflect a belief that groups are internally homogenous. Similarly, the fact that ethno-religious groups are not created for certain groups, namely Hindus and Sikhs, does not suggest that they are homogenous. It only reflects the fact that these groups do not exhibit sufficient intra-group ethnic heterogeneity in the sample. We should therefore be cautious against ‘the reification of categorical labels’ and keep in the fore front of our mind that their use in the analysis ‘implies provisional acceptance of labels for the purposes of studying inequalities, while remaining aware of the inherent danger in treating social labels as monolithic, unchanging, and inflexible’ (Evans *et al.*, 2018, p. 65). It is also important to remember that ethno-religious group labels - e.g. Muslim Arab or Christian Black African - reflect a participant’s self-defined religion and ethnic affiliation, not nationality. That said, it is essential to keep in mind that the question on ethnicity is only asked of UKHLS participants once when they first enter the study, but evidence indicates that ethnicity is not static and can change over time (Simpson, Warren and Jivraj, 2015).

## **4. Chapter 4: Creating a British job quality index**

### **4.1. Introduction**

This chapter presents my chosen approach to measuring job quality, which I will use as the dependent variable for my analysis in Chapter 6 to investigate religious and ethno-religious inequality in job quality. First, I discuss the index items and their distributions among men and women. Second, I discuss the advantages and disadvantages of analysing job quality as a ‘composite index’ and as a ‘system of indicators’ (Muñoz de Bustillo *et al.*, 2011, p. 72). I argue that to get a complete picture of employment inequalities the best approach is to evaluate each facet of job quality separately as well as through one overall job quality score. In creating one overall measure, I make the case for the use of equal weights when constructing the index. This weighting approach, which follows the approach taken by the European Trade Union Institute (Leschke, Watt and Finn, 2008) and others (OECD and JRC, 2008; Tangian, 2009), is preferred because of the inherent arbitrariness of assigning unequal weights across dimensions, and the lack of a suitable statistical methodology or theoretical argument for devising these unequal weights. My metric is validated through a series of tests on the internal consistency of scales and is found to be robust to a range of exploratory factor analysis checks. The final result, which constitutes a significant methodological contribution to the literature, is a well-designed index that is transparent in structure and easily replicable.

### **4.2. The variables used in my job quality index**

Before detailing the steps to create the index, I first outline the variables used to operationalise the metric, including my coding decisions. Appendix 1 includes a detailed description of the UKHLS variable names and the exact question wording.



#### 4.2.1. Coding of the index variables

##### Dimension 1 items: Pay and Other Benefits

- *Effective gross hourly pay*

In order to account for pay in the job quality index, rather than use gross or net pay (see for example Eurofound, 2017) I correct earnings for working hours by calculating the effective hourly pay. The effective hourly pay is preferred to simply looking at gross income as the former adjusts for hours worked and accounts for the fact that some workers are paid for their overtime while others are not. To do this I use data on gross monthly income, total weekly hours worked excluding overtime, and total weekly hours of overtime worked. The first is a derived variable and it is important to note that UKHLS imputes missing data on earnings which is why, contrary to what we would expect, there is a very low number of missing data points in this variable (Fisher *et al.*, 2019). UKHLS also encourage participants to share their payslips and additional checks are incorporated into the survey to increase reliability of the data (Fisher *et al.*, 2019). The latter two variables are summated and the total multiplied by 52 (number of weeks in a year) then divided by 12 (number of months in a year) to get the total hours worked per month. The effective gross hourly pay is calculated by dividing total gross monthly income by the total hours worked in a month. Seven different pay classes are then created.

The first group captures those earning below £7.83. This cut off reflects those earning below the 2018 national living wage (BEIS, 2020). The second category reflects those whose effective hourly pay is below £9.00 but above or equal to £7.83 per hour. The upper limit of this second category reflects the UK living wage (UKLW) in 2018 which - contrary to the government's National Living Wage - is calculated by the Living Wage Foundation and is a better reflection of the real cost of living (Living Wage Foundation, 2021). The third group reflects those who earn below £11.82 but above or equal to the UKLW of £9.00. £11.82 is chosen as the cut-off for this category because it reflects the actual average UK hourly pay in 2018 (UK Government, 2020). Using values of the national minimum wage, national living wage, and the average hourly wage as cut offs is adopted as they offer intuitive reference points and are naturally ordinal. Thereafter, for

simplicity, the upper limits for each group are based on an incremental of £5.00. As such, the subsequent group reflects those who earn £15 or below but above or equal £11.82. Those who earn £20 or below but above £15 are captured in the fifth group. The sixth are those who earn £25 or below but above £20. The final group reflects those whose effective gross hourly pay is above £25. The latter is adopted as the final cut off as there are too few observations to justify the creation of higher pay categories, such as ‘£30 or below but above £25’, ‘£35 or below but above £30’, ‘Below £40 but above £35’, or ‘£40 and above’.

- *Employer runs a pension scheme*

Dimension one includes data on whether an occupational pension is offered by an employer. This information is captured by a variable that asks, ‘*Does your present employer offer a pension scheme or superannuation scheme for which you are eligible?*’. The variable is coded as 1 if yes and 0 if not.

- *Pay includes annual increments*

The information is taken from a question that asks, ‘*Some people can normally expect their pay to rise every year by moving to the next point on the scale, as well as receiving negotiated pay rises. Are you paid on this type of incremental scale?*’. Those who affirm are assigned a value of 1 and those who do not are allocated a value of 0.

#### Dimension 2 items: Job Security and Representation

- *Contract type & Likely lose job in next 12 months*

Job insecurity can be measured in different ways. One approach relates to using information on how likely people feel they are at risk of losing their job. A second uses data on turnover rates and tenure duration. There is a trade-off here. The former might make more conceptual sense but is susceptible to individual bias, while the second might be more reliable but does not capture the stress impact and potential consequences on wellbeing. To capture job insecurity in my study I

include both information on contract type (temporary or permanent) and how secure employees feel in their job.<sup>16</sup> I do not distinguish between those who hold a temporary contract out of choice versus those who do not since the purpose of the study is not to assess preferences but to examine differentials in objectively ‘good’ and ‘bad’ occupations.

To capture contract type information from the survey that asks, ‘*Leaving aside your own personal intentions and circumstances, is your job a permanent job or is there some way that it is not permanent?*’ is used. Employees with a permanent contract are assigned a value of 1, and those without are assigned a value of 0. To capture job security, information from the following question is used, ‘*How likely do you think it is that you will lose your job during the next 12 months?*’. The responses are categorised in two groups: those who think it is ‘Very likely’ or ‘Likely’ (0) and those think that it is ‘Unlikely’ or ‘Very unlikely’ (1).

- *Employment conditions negotiated by union*

Representation is captured in my index using information on whether a worker’s employment conditions are negotiated by a union rather than whether an employee is a member of a trade union, since that is more likely to reflect their interest (or lack thereof) in unions (which for reasons previously alluded to might be bias downwards for people with a religious and ethnic minority background).

The specific question asks, ‘*Is there a trade union, or a similar body such as a staff association, recognised by your management for negotiating pay or conditions for the people doing your sort of job in your workplace?*’. Employees where this is available are assigned a value of 1. Otherwise, they are assigned a value of 0.

### Dimension 3: Work-Life Balance

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<sup>16</sup> As previously noted, this is one of the two cases where the use of subjective data (i.e. peoples’ sense of job security) is applied because no suitable alternative objective measure is available.

- *Formal flexible working arrangements*

The index also includes data on a host of questions regarding flexible working. The information used asks, ‘*Which of the following arrangements are available at your workplace:*

- *Working term-time only?*
- *Job sharing?*
- *Flexi-time?*
- *Working compressed hours?*
- *To work from home on a regular basis?*
- *Other flexible working arrangements?*

Positive responses are given a value of 1 while negative ones are ascribed a value of 0.

- *Informal flexible working arrangements*

Here information comes from a question that asks, ‘*Aside from any formal arrangements for flexible working you have, are you able to vary your working hours on an informal basis, for example by re-arranging your start or finish times if you need to?*’. I distinguish between those who answer (1) no; (2) sometimes; and (3) yes.

- *Total hours worked excluding overtime*

Duration of work time is captured from the following question, ‘*How many hours, excluding overtime and meal breaks, are you expected to work in a normal week?*’. Responses are recoded as a trichotomized ordinal variable since ‘although working hours is in theory a continuous variable, in practice (as a result of regulations and cultural norms) it behaves as a discrete or categorical variable. In other words, workers do not really have the chance to choose any number of hours of work’ (Muñoz de Bustillo *et al.*, 2011, p. 185). The first group accounts for those working 40 hours or below. The second accounts for those who work 48 hours or below but above 40 hours. The third category represents those who work more than 48 hours. The latter is taken as

the cut off given UK regulation that stipulates that 48 hours are the maximum number of hours that an employee can be made to work unless they actively opt out of the maximum weekly limit.

As per other variables, based on the economic argument that working fewer hours is preferred since it frees up leisure time, lower working hours are considered better than higher ones. I appreciate this means that very low hours are therefore considered to be a ‘good’ outcome which might not necessarily be true for those wanting longer hours but are unable to secure them. In 2021, 12 per cent of UK part-time workers were involuntarily working fewer hours because they could not find a full-time job (OECD Stat, 2022). However, the disadvantage of low hours is not in the fact people work fewer hours per se, rather it generally reflects the fact that fewer hours would result in lower earnings, which limits consumption and utility in turn. This is therefore an issue related to pay rather than hours, and its effect is accordingly captured through the effective hourly pay variable accounted for as part of Dimension 1.

- *Overtime hours in normal week*

Since the previous question excludes overtime, a variable accounting for overtime hours, both paid or unpaid, are included in the job quality index. The data are collected from a question that asks, ‘*And how many hours overtime do you usually work in a normal week?*’. The variable is recoded into four groups. Those working: (1) above 10 hours overtime, (2) 10 hours or below but above 5, (3) 5 hours or below but above 0, and, finally, the most advantaged category (4) those working 0 overtime hours. These four categories are devised based on suitable sample size availability.

- *Autonomy over work hours*

A final item related to work-life balance captures information from a question that asks, ‘*In your current job, how much influence do you have over the time you start or finish your working day?*’. As opposed to more formal flexible arrangements captured by the previous variables, this variable records the extent to which a job allows for individual discretion over hours without having to make formal or informal arrangements of any kind or discussing them with their superior. Answers are recoded as (1) ‘none’; (2) ‘a little’; (3) ‘some’; and, (4) ‘a lot’.

#### Dimension 4: Intrinsic Job Attributes

##### ○ *Worker discretion*

The index also includes information on the extent of employee autonomy at work. This is captured through questions that asks ‘*In your current job, how much influence do you have over*’:

- ‘*what tasks you do in your job?*’
- ‘*the pace at which you work?*’
- ‘*how you do your work?*’
- ‘*the order in which you carry out tasks?*’

The original four response categories are preserved but the answers are inversed in order to ensure that the direction in answers for all questions is in line. Specifically, that an ascending value is ‘good’ while a descending one is ‘bad’. As such, those who aver having no influence are assigned a value of 1. Followed by those have (2) ‘a little’, those who have (3) ‘some’ and, finally, those who have (4) ‘a lot’.

##### ○ *Work related training expectations*

Information on training and development opportunities is captured through worker training expectations.<sup>17</sup> The specific question asks participants if they think they will take up work related training over the next 12 months. Responses are recoded so that those who respond in the affirmative are assigned a value of 1, and those who answer negatively are assigned a value of 0.

Figure 4.1 summarises the different job quality dimensions which constitute the index, as well as their associated items and related ranges.

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<sup>17</sup> This is the second of the two cases where the use of subjective data is applied. Again, using information of worker expectations of training is only adopted because no suitable alternative objective measure is available.

**Figure 4.1.** Job quality index structure: dimensions, items and ranges.

<b>JOB QUALITY</b>			
<b>I. Pay and Other Benefits</b>	<b>II. Job Security and Representation</b>	<b>III. Work-Life Balance</b>	<b>IV. Intrinsic Job Attributes</b>
▪ Effective gross hourly pay (1-7)	▪ Contract type (0-1)	▪ Working term-time only available at your workplace? (0-1)	▪ Autonomy over job tasks (1-4)
▪ Employer runs a pension scheme (0-1)	▪ Likely lose job in next 12 months (0-1)	▪ Job sharing available at your workplace? (0-1)	▪ Autonomy over work pace (1-4)
▪ Pay includes annual increments (0-1)	▪ Employment conditions negotiated by union (0-1)	▪ Flexi-time available at your workplace? (0-1)	▪ Autonomy over work manner (1-4)
		▪ Working compressed hours available at your workplace? (0-1)	▪ Autonomy over task order (1-4)
		▪ To work from home on a regular basis available at your workplace? (0-1)	▪ Work related training expectations (0-1)
		▪ Other flexible working arrangements available at your workplace? (0-1)	
		▪ Informal flexible working arrangements (1-3)	
		▪ Hours worked excluding overtime (1-3)	
		▪ Overtime hours in normal week (1-4)	
		▪ Autonomy over work hours (1-4)	

#### 4.2.2. Distribution of variables

Table 4.1 (men) and Table 4.2 (women) offer a full description of the distribution of the measures and reveal that the manifest variables making up the index vary by religious group and gender.

Table 4.1 shows that for men, a higher proportion of Muslims and Sikhs have an effective gross hourly pay below £7.83 while the Christian White British category has the lowest. Conversely, the latter has the highest proportion of workers who have an hourly rate above £25 while Muslims and Sikhs have the lowest. The Christian White British group also has the highest proportion of employees: (i) with employers who run a pension scheme, (ii) in a permanent role, and (iii) in work with union representation. Sikhs, followed by Muslims, tend to have the lowest proportions across these areas. Christian White British employees also tend to have higher flexibility at work relative to other groups. Only the Christian non-White British group has a higher proportion of employees working in a place where flexi-time is available. Meanwhile, people with ‘other’ religious affiliation are more likely to have other flexible arrangements available at their work place. Sikhs and Muslims also have the lowest percentage of workers where informal flexible arrangements are available at their workplace. However, Sikhs appear to have, on average, the most autonomy in deciding how to complete their work, particularly when it comes to autonomy over: (i) job tasks, (ii) work pace, and (iii) work manner.

Among women, people who are affiliated with the ‘other’ religion group have the highest proportion of workers with an effective hourly pay above £25 (Table 4.2). Christian White British women display the highest proportion of employees: (i) working for an employer who runs a pension scheme, (ii) who are in a permanent role, and (iii) who are in a job where employment conditions are negotiated by a union. They are also, along with Hindus, most likely to feel secure in their job. Meanwhile, with the exception of whether employment conditions are negotiated by a union, Muslims, followed by Sikhs, tend to have the lowest proportions across the aforementioned items. Christian White British women display the highest proportion of employees who confirm having a range of flexible arrangements available at their workplace, including: (i) job sharing, (ii) flexi-time, (iii) working compressed hours, (iv) working from home on a regular basis, (v) other flexible working arrangements, and (vi) informal flexible working arrangements.



Meanwhile, Sikhs - and to a lesser extent Hindus - have the highest proportion of workers with the least flexible arrangements at work. Christian non-White British women - and to a lesser extent people who are affiliated with the 'other' religion - tend to have the highest proportion of workers with lower average autonomy and control over their work.

**Table 4.1.** Men - Distribution of variables used in index by religious affiliation (percentages unless otherwise stated)

Variable	Christian White British	Christian non-White British	Muslim	Hindu	Sikh	Other religion	No religion	Total
<b>Effective Gross Hourly Pay (£)</b>								
0.00 - 7.82	11.7	14.4	26.9	14.1	25.3	13.5	18.2	16.5
7.83 - 8.99	6.4	10.0	7.6	7.7	12.4	9.1	9.0	8.4
9.00 - 11.81	17.5	15.9	17.8	20.1	21.9	11.0	20.4	19.3
11.82 – 15.00	16.8	14.9	15.1	12.1	17.3	17.0	17.7	17.3
15.01 - 20.00	20.7	18.3	16.8	16.4	15.7	17.6	16.7	17.8
20.01 - 25.00	11.9	11.2	8.4	15.9	2.7	12.5	8.3	9.4
25.01+	15.0	15.4	7.3	13.6	4.7	19.2	9.7	11.3
<b>Employer runs a pension scheme</b>								
Yes	87.5	82.5	75.7	76.9	65.7	85.1	83.4	84.1
<b>Pay includes annual increments</b>								
Yes	39.7	39.7	43.1	38.5	35.1	40.0	39.7	39.7
<b>Contract type (permanent/temporary)</b>								
Permanent	97.1	96.5	92.7	95.8	95.7	95.9	95.1	95.6
<b>Likely lose job in next 12 months</b>								
Very likely / Likely	7.1	6.7	9.2	10.3	10.8	9.0	7.5	7.4
Very unlikely / Unlikely	92.9	93.3	90.8	89.7	89.3	91.0	92.5	92.6
<b>Employment conditions negotiated by union</b>								
Yes	49.8	48.1	43.5	35.4	33.0	47.8	42.8	44.7
<b>Working term-time only available at your workplace</b>								
Yes	16.1	11.1	12.4	11.0	7.0	12.6	11.5	12.7
<b>Job sharing available at your workplace</b>								
Yes	20.7	15.9	15.8	6.5	8.4	19.5	15.1	16.5
<b>Flexi-time available at your workplace</b>								
Yes	34.8	35.8	38.5	30.3	24.8	33.6	32.9	33.6
<b>Working compressed hours available at your workplace</b>								
Yes	17.4	13.7	12.5	7.3	8.1	11.1	14.8	15.2
<b>To work from home on a regular basis available at your workplace</b>								
Yes	23.2	22.0	14.1	17.9	10.3	21.1	19.7	20.5
<b>Other flexible working arrangements available at your workplace</b>								
Yes	22.9	20.6	21.4	20.6	9.3	23.5	21.3	21.7
<b>Informal flexible working arrangement</b>								
No	30.8	36.1	38.3	39.0	39.9	30.0	31.5	31.7
Sometimes	11.6	10.6	13.8	11.4	17.7	13.3	12.4	12.2

<b>Hours worked excluding overtime</b>	Yes	57.6	53.4	48.0	49.6	42.4	56.7	56.1	56.1
	Above 48hrs	5.8	6.0	3.3	9.1	9.8	4.6	5.3	5.5
	48hrs or below but above 40	9.4	8.5	8.0	11.7	9.3	12.7	11.4	10.8
	40 hrs or below	84.8	85.5	88.6	79.2	80.9	82.7	83.3	83.8
<b>Overtime hours in normal week</b>									
	Above 10hrs	13.6	10.6	7.6	10.8	6.1	7.2	11.6	11.9
	10hrs or below but above 5	17.7	16.6	10.4	17.4	16.0	13.9	16.6	16.7
	5hrs or below but above 0	25.0	24.3	18.4	13.2	17.7	30.2	22.6	23.1
	0 hrs	43.8	48.6	63.6	58.5	60.2	48.7	49.3	48.3
<b>Autonomy over work hours</b>									
	None	27.2	32.7	31.7	23.5	25.8	24.6	31.3	30.1
	A little	16.5	17.1	16.9	14.6	21.0	22.7	19.5	18.6
	Some	25.2	24.4	27.2	27.5	23.0	32.8	23.5	24.2
	A lot	31.1	25.8	24.2	34.5	30.2	19.9	25.7	27.1
<b>Autonomy over job tasks</b>									
	None	10.0	10.5	9.0	9.4	10.5	8.3	11.1	10.7
	A little	12.3	11.6	14.2	10.1	14.3	15.6	14.4	13.7
	Some	31.9	38.6	38.0	33.7	27.5	37.1	32.7	32.9
	A lot	45.8	39.3	38.8	46.8	47.7	39.0	41.8	42.7
<b>Autonomy over work pace</b>									
	None	10.4	10.8	7.9	11.1	10.8	9.7	9.6	9.8
	A little	12.3	15.4	15.1	10.4	11.3	16.2	13.3	13.2
	Some	30.1	35.4	41.2	34.7	26.3	31.2	31.5	31.5
	A lot	47.2	38.4	35.8	43.7	51.7	43.0	45.6	45.5
<b>Autonomy over work manner</b>									
	None	4.4	7.8	5.3	7.2	8.3	3.9	5.0	5.0
	A little	8.1	8.3	12.1	8.7	8.4	10.2	9.6	9.2
	Some	27.5	29.7	34.0	32.0	23.1	34.2	28.6	28.5
	A lot	60.0	54.2	48.6	52.0	60.2	51.7	56.9	57.3
<b>Autonomy over task order</b>									
	None	5.3	10.5	6.9	7.6	11.8	5.5	6.6	6.5
	A little	8.6	10.4	10.3	10.1	6.0	11.8	9.5	9.3
	Some	26.8	31.9	35.8	33.5	26.9	34.8	28.7	28.6
	A lot	59.4	47.2	47.0	48.9	55.4	47.9	55.2	55.7
<b>Work related training expectations</b>									
	Yes	39.5	49.9	47.9	51.5	53.1	39.2	39.5	40.3
<b>Total number of observations (unweighted)</b>		6,586	1,323	1,538	485	292	320	18,078	28,622

Notes: Descriptive statistics adjusted for complex survey design.

**Table 4.2.** Women - Distribution of variables used in index by religious affiliation (percentages unless otherwise stated)

Variable	Christian White British	Christian non-White British	Muslim	Hindu	Sikh	Other religion	No religion	Total
<b>Effective Gross Hourly Pay (£)</b>								
0.00 - 7.82	23.1	21.4	36.1	22.6	37.2	19.2	29.1	26.6
7.83 - 8.99	10.9	10.8	13.1	10.9	15.6	11.7	12.7	12.0
9.00 - 11.81	22.0	21.6	21.4	18.2	17.2	18.8	21.2	21.4
11.82 – 15.00	17.5	18.6	15.6	23.0	10.4	14.3	14.7	15.9
15.01 - 20.00	15.4	16.5	8.3	16.2	10.9	17.4	13.1	14.1
20.01 - 25.00	5.6	5.8	2.8	4.2	3.3	7.9	4.8	5.1
25.01+	5.7	5.5	2.8	4.9	5.4	10.9	4.4	5.0
<b>Employer runs a pension scheme</b>								
Yes	85.9	83.5	76.1	82.6	81.2	82.3	82.4	83.6
<b>Pay includes annual increments</b>								
Yes	46.0	47.8	36.6	47.9	40.0	48.4	44.2	45.0
<b>Contract type (permanent/temporary)</b>								
Permanent	95.7	94.2	87.1	94.8	94.5	91.8	94.4	94.7
<b>Likely lose job in next 12 months</b>								
Very likely / Likely	7.3	9.4	13.4	7.2	8.2	12.5	7.9	7.9
Very unlikely / Unlikely	92.7	90.7	86.6	92.8	91.8	87.5	92.2	92.1
<b>Employment conditions negotiated by union</b>								
Yes	59.2	56.1	45.2	55.7	46.8	54.9	52.1	54.8
<b>Working term-time only available at your workplace</b>								
Yes	29.1	21.0	21.2	16.6	20.5	28.0	23.2	25.1
<b>Job sharing available at your workplace</b>								
Yes	29.8	21.3	19.3	15.2	23.2	30.1	24.4	26.1
<b>Flexi-time available at your workplace</b>								
Yes	31.2	37.3	34.9	46.4	25.9	33.8	33.7	33.1
<b>Working compressed hours available at your workplace</b>								
Yes	16.5	12.7	10.4	14.2	7.3	22.2	16.2	16.1
<b>To work from home on a regular basis available at your workplace</b>								
Yes	16.9	15.9	7.0	17.8	6.9	21.6	16.1	16.3
<b>Other flexible working arrangements available at your workplace</b>								
Yes	20.0	19.4	13.3	17.1	14.9	22.1	19.3	19.5
<b>Informal flexible working arrangement</b>								
No	36.1	38.8	40.2	39.0	42.3	33.1	34.3	35.3
Sometimes	12.4	11.1	12.3	15.4	14.6	13.4	13.1	12.8

	Yes	51.5	50.1	47.5	45.6	43.2	53.6	52.6	52.0
<b>Hours worked excluding overtime</b>									
	Above 48hrs	1.3	1.5	0.4	0.3	3.4	0.5	1.3	1.3
	48hrs or below but above 40	2.2	4.3	4.3	4.5	3.3	1.5	3.2	2.9
	40 hrs or below	96.5	94.2	95.3	95.3	93.4	97.9	95.5	95.8
<b>Overtime hours in normal week</b>									
	Above 10hrs	8.6	9.0	4.7	5.3	6.3	9.9	7.7	8.0
	10hrs or below but above 5	13.0	14.8	12.9	12.1	11.1	9.9	11.6	12.2
	5hrs or below but above 0	23.7	22.5	13.9	16.5	16.7	22.6	24.4	23.8
	0 hrs	54.8	53.8	68.5	66.1	66.0	57.6	56.4	56.0
<b>Autonomy over work hours</b>									
	None	37.8	38.3	33.5	29.7	32.5	30.9	38.2	37.8
	A little	18.8	15.9	21.0	18.7	17.5	23.4	19.3	19.0
	Some	21.0	25.4	23.3	26.4	25.7	22.1	22.1	21.9
	A lot	22.4	20.4	22.2	25.2	24.4	23.6	20.4	21.2
<b>Autonomy over job tasks</b>									
	None	10.8	13.4	10.4	10.1	9.6	13.5	12.4	11.9
	A little	16.9	15.8	13.7	17.7	16.3	16.9	15.9	16.3
	Some	35.0	34.0	33.1	34.5	33.1	33.0	34.7	34.7
	A lot	37.4	36.8	42.8	37.7	41.0	36.6	37.0	37.2
<b>Autonomy over work pace</b>									
	None	12.0	12.3	10.6	8.2	5.2	12.8	12.8	12.4
	A little	15.0	13.8	13.4	17.2	18.6	13.2	14.6	14.7
	Some	30.1	32.4	33.8	37.4	34.3	30.8	30.3	30.5
	A lot	42.8	41.6	42.2	37.1	41.9	43.3	42.4	42.4
<b>Autonomy over work manner</b>									
	None	4.9	8.3	7.6	5.3	4.2	7.2	5.9	5.7
	A little	11.2	11.2	10.7	10.6	12.1	10.2	11.8	11.5
	Some	31.0	30.1	27.5	38.6	32.5	28.8	30.2	30.5
	A lot	53.0	50.5	54.3	45.5	51.3	53.8	52.1	52.3
<b>Autonomy over task order</b>									
	None	5.8	8.6	7.6	8.6	6.4	8.2	6.8	6.6
	A little	10.3	10.5	10.7	10.4	11.7	12.1	11.3	10.9
	Some	28.4	31.8	34.9	37.4	33.4	25.5	27.4	28.1
	A lot	55.6	49.0	46.9	43.6	48.6	54.2	54.5	54.4
<b>Work related training expectations</b>									
	Yes	41.4	53.7	50.1	52.5	40.1	39.3	40.7	41.7
<b>Total number of observations (unweighted)</b>		11,252	2,314	1,090	482	319	506	19,193	35,156

Notes: Descriptive statistics adjusted for complex survey design.

#### 4.2.3. Measures not included in the index

Having outlined the dimensions and variables that constitute my job quality index, it is important to make note of two key aspects of job quality that, based on agreement in the literature, would have ideally been included in my metric but are not due to data limitations.

##### (i) *Health and safety*

Working in an unsafe environment, in exploitative conditions, or without protective gear in dangerous settings negatively impacts worker health and wellbeing. It can result in injuries with varying degree of severity and, at the most extreme, to fatalities. The importance of working in a safe environment to good quality employment is captured by health and safety legislation (e.g. Health and Safety Work Act 1974). Mental and physical health issues are equally important. These can relate to whether a worker has ‘experienced anxiety or depression caused by’ (Irvine, White and Diffley, 2018, p. 26) work either directly or indirectly. However, information on health and safety at work is not available in UKHLS.<sup>18</sup>

##### (ii) *Work intensity*

Work intensity - the amount of (mental and physical) effort it takes to fulfil a task (Green, 2006) - is an important consideration when assessing quality of employment because of its effects on Work-Life Balance. While the average yearly hours worked by an employee in the UK remained stable between 2000 and 2019, averaging 1,535 hours (OECD Stat, 2021), evidence shows work pressure has intensified (Green, 2006). The increase in work pressure, as a result of increasing work intensity, manifests itself in different ways. It includes having to work to very tight deadlines, working long hours, and having a consistently heavy workload. Working in a systematically high-intensity environment can engender increased stress levels which are associated with a host of

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<sup>18</sup> To be clear, there is one question which asks participants whether they have felt unsafe at work, and theoretically could be used to capture one facet of work safety. However, this question forms part of the UKHLS five-minute ethnic minority questionnaire meaning that the data are only collected for a small number of participants and, thus, has a sizeable missingness rate.

mental and physical illnesses (Salleh, 2008). This information is not, however, available in UKHLS.<sup>19</sup>

There is also information that is available in UKHLS but is not included despite at first glance seeming relevant. These are discussed below.

(i) *Annualised hours*

Information on whether an employee works annualised hours is not included because its effect on job quality is not clear. Annualised hours refers to the fact that an employer agrees to hire an employee for a certain number of hours per annum that a worker does not have to complete at a particular time. Rather, it gives the employer the liberty to sync part of an employee's working hours with business cycle fluctuations. This means that during busier periods a worker can be asked to work more, and during periods of lower business intensity the employee works fewer hours. On the one hand, this might be indicative of a job being flexible as it means workers experience an increase in leisure time in certain periods while also being guaranteed a set number of hours (and therefore a stable income) throughout the year and the opportunity for increased future earnings. In that sense, a job with annualised hours is better than a job that does not have this feature. On the other hand, it is not clear why it would be preferred to a standard contract, since it could result in increased shift work at short notice. For this reason, this information is not included in the index.

(ii) *Night shifts and weekend work*

UKHLS collects information regarding the time of day work is undertaken (e.g. morning, afternoon, evening, night, and so on) and the frequency of weekend work. At first glance it might appear obvious that working nights and weekends is a disadvantage and therefore should be used to capture facets of Work-Life Balance (Dimension 2). However, evening and weekend work may

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<sup>19</sup> It is worth noting that the absence of data on work intensity in UKHLS is likely to be marginal given the availability of information on multiple other facets of Work-Life Balance (Dimension 2) which are included in the index (see Figure 4.1 for details).

be a response to flexible working patterns which are already considered positively correlated with job quality in the index in the same dimension. As a result of the ambiguous effects of both variables on job quality, I exclude them from the index.

(iii) *Zero hour contracts*

The number of workers on zero hour contracts has risen dramatically over the past 20 years. In Q4-2000, 225,000 were people on such contract types (0.8 per cent of all people in employment) and by Q1-2022 the figure reached 1.02 million (3.1 per cent of all people in employment) (Leaker, 2022). Evidence shows that women, part-timers, and younger workers have a higher likelihood of holding such a contract (Warhurst, Wright and Lyonette, 2017). Zero hour contracts means workers are not guaranteed a set of minimum hours and face, among other things, unpredictable working hours and earnings, low pay, and poor work-life balance as workers might be pressured into accepting last minute changes in shift patterns. However, since this information is only collected in waves eight and 10, it cannot be used in my analysis.

(iv) *Career development opportunities*

As part of Intrinsic Job Attributes (Dimension 4), a job quality index would also ideally account for career development opportunities at work. In theory, UKHLS does have one variable which could have been exploited to this end. The question asks participants if they think they will get a better job with their current employer over the next 12 months. However, not only does this variable have a large number of participants for whom this information is not available as it does not apply, the answer categories available to respondents slightly differ before and after wave six, and the data is subjective. For these multiple reasons, I do not include this variable in my metric.

#### **4.3. ‘Composite index’ or ‘System of indicators’?**

Having familiarised myself with the data, I can now start to consider how best to analyse the information. There are two ways job quality is studied in the literature. First, by examining dimensions separately through ‘a system of indicators’ (Green, 2006; Olsen, Kalleberg and



Nesheim, 2010) and evaluating differences and trends therein. Second, by creating one ‘composite index’ and evaluating overall differences in job quality (Tangian, 2009; Muñoz de Bustillo *et al.*, 2011; Leschke, Watt and Finn, 2012; Warren and Lyonette, 2018; ONS, 2019; Williams, Zhou and Zou, 2020). The former focuses on assessing the dimensions of job quality independently, which is useful for researchers concentrated on assessing specific facets of employment conditions. The second approach summarises all the different job quality dimensions in one inclusive measure to evaluate job quality in a general sense. Using one single index captures the fact that jobs are associated with a bundle of (monetary and non-monetary) features which interact with each other to determine whether a job is of *overall* ‘good’ or ‘poor’ quality, and the fact that these features are evaluated in the round by workers against their preferences to decide whether to take up a particular occupation or not. This approach ‘has gained much traction amongst researchers of job quality, particularly in Europe’ (Wright *et al.*, 2018, p. 15).

In this thesis, I adopt a combination of both methods and investigate inequalities in overall job quality and across specific dimensions. This is a valuable approach here because an investigation into religious and ethno-religious differences in job quality has not been previously undertaken. This approach, supported by Carnegie’s Measuring Job Quality Working Group (Irvine, White and Diffley, 2018), also offers the most complete analysis of religious and ethno-religious job quality differences because it can reveal important information from multiple vantage points. More specifically, an investigation of differences across separate job quality facets offers an opportunity to identify where exactly Muslims and other religious minority members are disadvantaged, and can therefore be valuable in identifying bespoke remedies (Irvine, White and Diffley, 2018).

Meanwhile, adopting a summative scale has the advantage of reducing noise associated with any single measure, and means my index is based on a comprehensive range of indicators. Another significant benefit of using one overall index score to evaluate job quality ‘lies in its ability to rank occupations (...) along a meaningful metric to map enduring disparities’ (Williams, Zhou and Zou, 2020, p. 124), which is one of my key research objectives. Condensing job quality into one easy to understand figure is therefore an effective way to communicate the complexities of this topic to a broad audience at a time when job quality is gaining increased traction. Distilling job quality into one continuous score entails aggregating my four job quality dimensions and associated measures.

The obvious question is then, how should the dimensions be weighted when combining them to form the index?

#### 4.4. Equal or unequal weighting?

Weights determine the significance of a particular input in the overall metric. There are two approaches to weighting constituents when creating an index. The first is to assign equal weights across all dimensions and variables. This is tantamount to creating an overall index using the arithmetic mean where the values of all dimensions are summed and the total is divided by the number of dimensions to come up with an overall score. This approach, adopted by the European Trade Union Institute (Leschke, Watt and Finn, 2012) and others (Tangian, 2005, 2007; ILO, 2008), effectively assigns a weight of  $\frac{1}{n}$  where  $n$  is the number of variables or dimensions.<sup>20</sup> Mathematically, the equation can be written as:

$$\text{Eq. 3} \quad \text{Index} = \frac{1}{n} * \sum_{i=1}^n \text{Dimension}_i$$

The second approach involves assigning unequal weights. Conceptually this approach is adopted when one item/dimension is considered more important than another. The Austrian Work Climate Index adopts this approach. In creating the overall index, three dimensions are assigned a weight of 0.2 whereas the final one is allocated a weight of 0.4 (Muñoz de Bustillo *et al.*, 2011). Within dimensions though, in this example, the constituent variables are assigned an equal weight. However, there is no clear justification as to why the weights are equal for the creation of each dimension on the one hand but unequal within the dimension on the other. This is also the case in Leschke, Watt and Finn (2012) where other than earnings being described as an important item, it is not clear why in the wages dimension the variable capturing the rate of ‘in-work poverty’ is assigned a weight of 0.3, whereas the second constituent, ‘nominal compensation per employee’, is assigned a weight of 0.7. It is also not clear why the weight assigned is 0.7 and *not* 0.6 or 0.8.

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<sup>20</sup> To be clear, Leschke, Watt and Finn (2012) assign equally weights to the job quality dimensions but assign unequal weights to measures within some dimensions.

Equal weighting is used here for a number of reasons. First, as the OECD's *Handbook on Constructing Composite Indicators*, created jointly with the European Commission, puts it '[m]ost composite indicators rely on equal weighting' (OECD and JRC, 2008, p. 31; see also Tangian, 2007). One reason for this is that deviating from equal weights towards unequal ones necessitates even greater theoretical reasoning, yet it is generally held in the literature that '[t]here are no universal rules for determining weights' (Eurofound, 2012, p. 18). The decision of applying non-equal weights is a subjective process. For instance, assigning a higher weight to one dimension, such as earnings, as is sometimes theorised (see for example Leschke, Watt and Finn 2012) implies it is more important in determining job quality than another constituent, such as job security for example. However, it is not clear why that would necessarily be the case, especially given evidence that among workers job security appears as important as pay (Stuart *et al.*, 2016), if not more so (Williams, Zhou and Zou, 2020). Even so, even if there is unanimity that one dimension is more important than another in determining job quality, it is not clear by how much. For example, should earnings count for 5, 10, 15, or 20 per cent more in the overall index? Again, such a choice is arbitrary and deciding on the exact weight to be assigned to each variable/dimension is at its core a subjective exercise with no agreed upon methodology (Williams, Zhou and Zou, 2020). This might also shed light on why, when unequal weights are applied to an index in the literature, 'there is no clear justification of the weighting used' (Muñoz de Bustillo *et al.*, 2011, p. 127). Yet, it is a statistical 'tradition to accept the equal distribution (weights) by default, unless no other information is available' (Tangian, 2007, p. 25). This is one reason why I elect to use equal weights.

Second, sensitivity tests in prior studies show 'that (equally) plausible moderate shifts in these weightings do not lead to fundamentally different rankings for the sub-indices' (Leschke, Watt and Finn, 2008, p. 21). Validation tests of my index (discussed in Section 4.7) also show my use of equal weights to be robust. Third, surveys have inherent measurement error, so proceeding to estimate weights that are as close as possible to the 'true' population weights is neither sensible nor, in a sense, actually achievable. It lends to being more of a technical endeavour than an exercise that will offer substantive benefit of increased understanding of the sociological phenomena being investigated. Notwithstanding the lack of a theoretical foundation, the cost of applying unequal weights therefore appears limited given the reward (Eurofound, 2012). Fourth, aside from the statistical and theoretical arguments in favour of using equal weights, this approach has the

advantage of being transparent and easily replicable by others. This is a significant advantage in light of current concerns regarding research reproducibility (Baker, 2016).

A corollary of my index creation approach is that the effect of weighting occurs twice. First, there is the question of the weight assigned to each item *within* a specific dimension. Second, there is the question of the weight associated with each dimension when creating the *overall* index. These questions are interrelated. If one dimension is constituted of three variables and another of four, and an equal weight is assigned to each variable in the dimension, then, overall, it means that the variables that are assigned a weight of  $\frac{1}{3}$  in the creation of the relevant dimension are accounting for more in the overall job quality index than those that are assigned a weight of  $\frac{1}{4}$ . This issue affects my job quality index since the dimensions are not constituted from an equal number of items. Specifically, while Dimension 1 (Pay and Other Benefits) and Dimension 2 (Job Security and Representation) have three constituent variables, Dimension 3 (Work-Life Balance) and Dimension 4 (Intrinsic Job Attributes) are constituted of ten and five, respectively.

As such, it might plausibly be asked why the variables in Dimension 1 and Dimension 2 should account for more in the overall index than those in Dimension 4. However, this question would be misplaced since we are not concerned with the specific variables per se, but rather with the overall dimensions. Therefore, the fact that UKHLS has more ways to capture one dimension (e.g. Work-Life Balance) than another (e.g. Pay and Other Benefits) does not pose a theoretical drawback, but rather suggests that the former dimension has the advantage of being more accurately measured than the latter. Moreover, given that both Dimension 3 (Intrinsic Job Attributes) and Dimension 4 (Work-Life Balance) are more of latent concepts relative to pay, it makes sense that it is more complex to measure their multifaceted nature, and that they therefore require more information to be captured. In such a case, dropping variables for the purpose of ensuring dimensions have the same number of variables would mean discarding important information and measuring dimensions imperfectly. Ultimately, the number of variables within a particular dimension is of little material significance if we are confident that the other dimensions with fewer constituent variables are captured in the best possible way given the data available, which is the case here.

Figure 4.2 summarises the weighting structure associated with the dimensions and items that constitute my index.

**Figure 4.2.** Index weighting structure: dimensions and items

<b>Job Quality</b>			
<b>I. Pay and Other Benefits (25%)</b>	<b>II. Job Security and Representation (25%)</b>	<b>III. Work-Life Balance (25%)</b>	<b>IV. Intrinsic Job Attributes (25%)</b>
▪ Effective gross hourly pay (33%)	▪ Contract type (33%)	▪ Working term-time only available at your workplace? (10%)	▪ Autonomy over job tasks (20%)
▪ Employer runs a pension scheme (33%)	▪ Likely lose job in next 12 months (33%)	▪ Job sharing available at your workplace? (10%)	▪ Autonomy over work pace (20%)
▪ Pay includes annual increments (33%)	▪ Employment conditions negotiated by union (33%)	▪ Flexi-time available at your workplace? (10%)	▪ Autonomy over work manner (20%)
		▪ Working compressed hours available at your workplace? (10%)	▪ Autonomy over task order (20%)
		▪ To work from home on a regular basis available at your workplace? (10%)	▪ Work related training expectations (20%)
		▪ Other flexible working arrangements available at your workplace? (10%)	
		▪ Informal flexible working arrangements (10%)	
		▪ Hours worked excluding overtime (10%)	
		▪ Overtime hours in normal week (10%)	
		▪ Autonomy over work hours (10%)	

#### 4.5. Normalising

With four dimensions constituted from 21 items, my job quality metric offers a more complete evaluation of job quality over a unidimensional index. However, a corollary is that the range of data are on entirely different scales. For example, effective gross hourly pay is in pounds sterling, while autonomy and control at work are on a Likert scale, and duration of work is in hours. This means that I cannot simply add these variables together to obtain an overall index score; it would be non-sensical to add gross income (measured in pound sterling) to how secure a person feels in their job (measured on a Likert scale). In order to address this issue and complete my index creation, I rescale the variables to make sure they share a common scale. Importantly, this can only be done after having recoded the variables so that the direction of responses all have the same meaning; that is, that a high value is ‘good’ and a low one is ‘bad’.

There are two options for rescaling items, either by normalising or standardising the variables. The former entails rescaling the range of the variables ‘by setting a maximum value and a minimum value for each indicator’ (Leschke, Watt and Finn, 2008, p. 14). The latter rescales the variables in terms of standard deviations from the mean. In such a case, the distribution of each variable is preserved but expressed in standard form making it easier for cross-variable comparisons. Here, I prefer the normalisation approach and rescale the variables between a minimum value of zero and a maximum of 100. This is done by subtracting the value of  $x$  by its minimum and dividing the difference by the difference between the maximum of  $x$  and the minimum of  $x$ , then multiplying the overall result by 100. I multiply the final value by 100 in order to move the score from a scale between zero and one, to one between zero and 100. The formula is written in Equation 4.

(Eq. 4) 
$$y = \frac{x - x_{min}}{x_{max} - x_{min}} * 100$$

I prefer normalising the variables to standardizing them as rescaling the variables this way makes them more ‘normatively meaningful’ (Muñoz de Bustillo *et al.*, 2011, p. 154) in that it is intuitively easier to understand a score between zero and 100 than it is to understand and compare differences in standard deviations.

## 4.6. Index creation

Having (i) identified the constituents of the job quality index, (ii) recoded the variables to ensure they are all operating in the same direction, (iii) normalised each variable in order to equalise the scales, and (iv) justified my equal weighting approach, the final step is to create the index. This involves two steps. First, I calculate the score for each of the four dimensions. Second, I aggregate the dimension scores and compute the overall job quality index. This is a similar approach to that adopted by Tangian (2007), and Leschke, Watt and Finn (2008) who create an overall index based on the weighted average scores of their sub-indices, and Muñoz de Bustillo, Fernandez-Macias and Anton (2011) who do the same but using a weighted geometric average.

### 4.6.1. A look inside the index created

Table 4.3 shows the pairwise correlation (and associated p-values) between the dimensions. They show that, among men and women, the pairwise correlations between the dimensions are all overwhelmingly positive. This is particularly noteworthy for dimensions one (Pay and Other Benefits) and two (Job Security and Representation), as well as three and four where increased Intrinsic Job Attributes are associated with better Work-Life Balance for both men and women. The positive pairwise correlations across dimensions among men and women from different religious groups suggest that the overwhelming picture is that ‘good’ jobs tend to be good across the board, while ‘bad’ jobs tend to be ‘bad’ across the board. Therefore, similar to Muñoz de Bustillo and colleagues, I find that rather than an offsetting/compensatory relationship between different dimensions, ‘the predominant mechanism seems to be one of accumulation of good and bad attributes’ (Muñoz de Bustillo *et al.*, 2011, p. 188; see also Williams, Zhou and Zou, 2020). The only exception where the coefficient estimate appears to display a (very weak) negative relationship is between Intrinsic Job Attributes (Dimension 4) and Job Security and Representation (Dimension 2). This negative association, strongest among Sikh men and Muslim women, suggests that a job with better intrinsic characteristics is associated with slightly worsening job security. This indicates that, on average, Sikh men and Muslim women who would like to work in an environment where they have more autonomy and ownership over their work and how to complete it need to accept more insecure jobs. Although, the size of the p-values suggest we should be



cautious about overemphasising this finding, especially for Sikh men. Importantly, this is the only case where a pair of dimensions display a negative association for some groups, and no other pair of dimensions - among men or women - exhibits such a trend. Otherwise, generally speaking, the patterns of correlation between dimensions are similar across all religious groups notwithstanding some differences in magnitude.

**Table 4.3.** Pairwise correlations among job quality dimensions by religious affiliation

		Men				Women			
		Pay & Other Benefits	Job Security & Representation	Work-Life Balance	Intrinsic Job Attributes	Pay & Other Benefits	Job Security & Representation	Work-Life Balance	Intrinsic Job Attributes
<b>Christian White British</b>	Pay & Other Benefits	1.00				1.00			
	Job Security & Representation	0.36**	1.00			0.47**	1.00		
	Work-Life Balance	0.24**	0.13**	1.00		0.21**	0.09**	1.00	
	Intrinsic Job Attributes	0.17**	-0.06**	0.31**	1.00	0.12**	<0.001 (0.94)	0.31**	1.00
<b>Christian non-White British</b>	Pay & Other Benefits	1.00				1.00			
	Job Security & Representation	0.43**	1.00			0.46**	1.00		
	Work-Life Balance	0.33**	0.14**	1.00		0.26**	0.11**	1.00	
	Intrinsic Job Attributes	0.28**	-0.02 (0.60)	0.40**	1.00	0.19**	0.04 (0.15)	0.35**	1.00
<b>Muslim</b>	Pay & Other Benefits	1.00				1.00			
	Job Security & Representation	0.36**	1.00			0.35**	1.00		
	Work-Life Balance	0.29**	0.18**	1.00		0.27**	0.16**	1.00	
	Intrinsic Job Attributes	0.31**	0.09 (0.02)	0.35**	1.00	0.15**	-0.10 (0.06)	0.25**	1.00
<b>Hindu</b>	Pay & Other Benefits	1.00				1.00			
	Job Security & Representation	0.39**	1.00			0.45**	1.00		
	Work-Life Balance	0.18*	-0.02 (0.78)	1.00		0.25**	0.14 (0.02)	1.00	
	Intrinsic Job Attributes	0.29**	0.08 (0.14)	0.31**	1.00	0.25**	0.07 (0.25)	0.34**	1.00

<b>Sikh</b>	Pay & Other Benefits	1.00				1.00				
	Job Security & Representation	0.52**	1.00			0.44**	1.00			
	Work-Life Balance	0.20*	0.07 (0.36)	1.00		0.17 (0.02)	0.13 (0.08)	1.00		
	Intrinsic Job Attributes	0.10 (0.14)	-0.11 (0.15)	0.30**	1.00	0.09 (0.21)	-0.04 (0.52)	0.36**	1.00	
<b>Other religion</b>	Pay & Other Benefits	1.00				1.00				
	Job Security & Representation	0.40**	1.00			0.57**	1.00			
	Work-Life Balance	0.35**	0.10 (0.19)	1.00		0.35**	0.22**	1.00		
	Intrinsic Job Attributes	0.28**	0.04 (0.59)	0.39**	1.00	0.19**	0.03 (0.55)	0.38**	1.00	
<b>No religion</b>	Pay & Other Benefits	1.00				1.00				
	Job Security & Representation	0.38**	1.00			0.46**	1.00			
	Work-Life Balance	0.28**	0.12**	1.00		0.25**	0.13**	1.00		
	Intrinsic Job Attributes	0.18**	-0.02 (0.06)	0.32**	1.00	0.13**	-0.01 (0.44)	0.28**	1.00	

Notes: Estimates adjusted for sampling weights; \* p<0.01, \*\* p<0.001, otherwise p-values denoted in brackets.

## **4.7. Index validation**

Having created the index, in this section I focus on validating my metric. This increases confidence in the measure created and, therefore, the thesis' findings. The robustness checks are undertaken in two ways. First, measures of internal consistency are discussed. This offers insight on how well my variables capture each purported job quality dimension. Second, I compare my index to results obtained from exploratory factor analysis. This provides an important check for my use of equal weights and whether my approach is indeed suitable.

### **4.7.1. Consistency of scales**

Cronbach's alpha (Cronbach, 1951) is typically understood as a measure of internal consistency of a scale. It assesses how closely related a set of variables are and, thus, the extent to which they collectively relate to the same underlying concept. It takes a value between zero and one, with values between 0.6-0.7 considered 'an acceptable level of reliability' (Ursachi, Horodnic and Zait, 2015, p. 681).

Some, however, argue that alpha should not *only* be viewed as a measure of internal consistency. Rather, it 'can be used to confirm whether or not a sample of items is actually unidimensional' (Tavakol and Dennick, 2011, p. 54). This means that a low alpha is not necessarily a cause for concern if the concept being measured is not one-dimensional. If, however, the concept being measured is unidimensional a low value in such a case might require further investigation. For my index, this means, we would expect to find a low score for Dimension 1 (Pay and Other benefits) and Dimension 2 (Job security & Representation) since, as their titles suggest, they are not unidimensional. This is also the case since both dimensions are comprised of three variables each and alpha tends to be biased downwards when the number of constituents is low (Tavakol and Dennick, 2011). In other words, a low alpha for Dimensions 1 and 2 should not be a concern, and is likely to be confirming that the measures are not unidimensional and that they are constituted of few items, rather than being indicative of the scale having low reliability. Conversely, low Cronbach's alpha scores for Dimension 3 (Work-Life Balance) and Dimension 4 (Intrinsic Job

Attributes) which *are* unidimensional and constituted of a larger set of items might be indicative of a potential issue with these measures.

Cronbach's alpha is, however, not without its critics. It has been argued that the statistic is not in fact a measure of internal consistency, rather 'all that alpha can reveal about the "interrelatedness of the items" is their *average* degree of "interrelatedness" provided there are no negative covariances, and keeping in mind that alpha also depends on the number of items in the test (Nunnally, 1978, pp. 227–228). Because this says very little if anything about internal consistency no matter how it is defined, one wonders why the internal consistency interpretation of alpha is so persistent' (Sijtsma, 2009, p. 114 emphasis in original; see also Dunn, Baguley and Brunsden, 2014; Trizano-Hermosilla and Alvarado, 2016). However, given its widespread use, I still report alpha but do so while also reporting the omega coefficient which has been proposed as the preferred alternative and 'a more sensible index of internal consistency' (Dunn, Baguley and Brunsden, 2014, p. 13). This is mainly due to the unrealistic assumption of tau-equivalence - the assumption of 'constant item variances for the true scores' (Dunn, Baguley and Brunsden, 2014, p. 7) - needed for alpha 'to be equivalent to the reliability coefficient' (Trizano-Hermosilla and Alvarado, 2016, p. 1).

The Cronbach's alpha for Dimension 1 - which includes effective gross hourly pay, whether employer runs a pension scheme, and whether pay includes annual increments - is 0.47. Its omega estimate is 0.50. As expected, this score is a bit low. However, for the reasons outlined above along with the fact that the job quality measurement literature is unanimously agreed on a dimension that combines pay and other earnings related benefits (Eurofound, 2002; Gallie, 2007; Muñoz de Bustillo *et al.*, 2011; Cazes, Hijzen and Saint-Martin, 2015; Stuart *et al.*, 2016) the estimate is not a concern. Similar arguments can also be made for Dimension 2, Job Security and Representation, where the coefficient omega is 0.32 (Cronbach's alpha: 0.18). However, as previously noted, for Dimension 3 (Work-life Balance) and Dimension 4 (Intrinsic Job Attributes) the omega values are much more relevant, and low values would be a concern. Fortunately, the omega estimates are 0.68 (Cronbach's alpha: 0.67) and 0.79 (Cronbach's alpha: 0.75), respectively. Assessing all constituent items simultaneously rather than by dimension, the omega coefficient is 0.67 (and

Cronbach's alpha: 0.74). Overall, these results show that the internal consistency of the index is satisfactory.

#### **4.7.2. Exploratory factor analysis**

For the second validation technique I proceed to evaluate my created metric against an index calculated based on exploratory factor analysis (EFA). This sense check offers statistical evidence in favour of the decision to apply equal weights thereby increasing confidence in the index. The EFA results presented here are weighted using analytical weights. This is because Stata does not allow sampling (probability) weights to be applied to EFA analysis. That said, the results of the weighted (Table C1) and unweighted EFA (results available on request) do not differ in any meaningful way, neither do they differ in any substantive way when women and men are analysed separately (results available on request).

Two formal statistical tests justify my use of EFA. At first glance, following Watkins who argues that for EFA to be suitable '[a] sizable number of correlations should exceed  $\pm.30$ ' (2018, p. 226), it would seem that EFA is not appropriate here (results available on request). However, more formal tests such as the Bartlett test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy support the use of EFA. The former 'statistically tests the hypothesis that the correlation matrix contains ones on the diagonal and zeros on the off-diagonals', and the latter communicates 'the ratio of correlations and partial correlations that reflects the extent to which correlations are a function of the variance shared across all variables rather than the variance shared by particular pairs of variables' (Watkins, 2018, p. 226). For the Bartlett test of sphericity the Chi-square is significant at the 1 per cent level, while the KMO statistic of 0.83 is above the required value of 0.7.

Executing a factor analysis (no rotations<sup>21</sup>) to assess loadings for a job quality index among all employees, I find that factor one describes approximately 63 per cent of the variance (Table C1).

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<sup>21</sup> Rotations - oblique or orthogonal - are used to simplify interpretation of the results to make it easier to see a pattern between two or more factors. To be clear, rotations do not change the pattern of the associations, they are

This is a sizeable amount. Furthermore, the correlation - significant at the 1 per cent level - between this factor and our index is 0.75, increasing confidence in our index (Table 4.4). To ensure the high correlation is not driven by the large number of Christian White British or those with no religious affiliation, and that the presence of these groups is not masking different trends among minority religious groups, I evaluate my job quality index using EFA results for each religious group separately. This is necessary to ensure the index is suitable for all religious groups, particularly since no adjustment can be made in factor analysis for sample weights when groups are combined.

The loadings by religious groups show that in each case the first factor explains 62 per cent of the variance for the Christian White British group, 66 per cent for non-White British Christians, 62 per cent for Muslims, 62 per cent for Hindus, 55 per cent for Sikhs, 62 per cent for Other religion, and 63 per cent for those with no religious affiliation (Table C2). Table 4.4 further shows that for each religious group the correlation between the index generated by EFA and my equally-weighted job quality index are very strong among all groups. Muslims display the highest correlation (0.79) and the lowest is associated with Sikhs (0.66). Overall, the factor loadings for factor one are very much in line across (non)religious groups with no meaningful pattern of difference apparent. This is in line with Williams, Zhou and Zou who also find that ‘what is Good Work for one worker is also Good Work for another’ (2020, pp. 34–37).

**Table 4.4.** Correlation between job quality index and extracted factor (combined and by religious affiliation)

	Job quality index (equal weight)
All groups combined	0.7499*
Christian White British only factor	0.7188*
Christian non-White British only factor	0.7738*
Muslim only factor	0.7882*
Hindu only factor	0.7404*
Sikh only factor	0.6585*
Other religion only factor	0.7837*
No religion only factor	0.7563*

Notes: \*  $p < 0.001$

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simply applied to make patterns more obvious. Since I am using only one factor, it does not make sense to apply a rotation. I only use one factor because I am using EFA to compare what an index might look like with unequal weights (i.e. loadings) relative to my equally weighted index.

### **4.7.3. Summary**

Overall, my job quality measure, robust to index validation tests, offers multiple strengths. First, the index is a well-rounded representation of job quality accounting for its multidimensional nature. The structure of the index, its variables and dimensions are strongly rooted in the literature, instilling confidence in its theoretical underpinnings. Following the job quality measurement literature, I have been rigorous in ensuring that the index is concentrated on worker wellbeing and that it maintains a job-only focus, excluding non-relevant information such as characteristics of external labour market conditions. Second, my approach to recoding and normalising the variables is transparent, making the index relatively easy to understand, replicate and critique. This is important for reproducibility of research. My weighting approach is also clearly justified based on both statistical and theoretical arguments. While ultimately the coding of variables and the decision to proceed with equal weights are to some degree inherently subjective and will always be open to debate, the index validation process provides considerable confidence in my index. The results from the internal consistency measures show the job quality dimensions to be satisfactorily captured. Meanwhile, the high correlations between my main index and those generated by exploratory factor analysis, both overall and for each religious group, provide further support for my weighting approach. Third, being created at the individual level, the index offers the flexibility for in-depth analysis between and within sub-groups, thereby meeting an essential requirement for the study's objective of assessing differences in job quality between religious groups.

### **4.8. Conclusion**

This chapter outlined the steps I took to devise a reliable measure of employee job quality. This was the first necessary step to being able to investigate how Muslims and other religious minorities fare in the British labour market from a job quality perspective, and forms an important contribution of my thesis to the literature. The result is a job quality index that: (i) has high face validity, (ii) is appropriately weighted, (iii) is internally consistent, and (iv) is suitable for analysis of a multicultural workforce. Before using the index and its dimensions in my analysis in Chapter



6, I first undertake my investigation of the Muslim penalty in terms of labour force participation. This is the topic of the next chapter.

## **Part III: Analysing differences in job *quantity* and job *quality***

**Chapter 5:** Does the Muslim penalty in the British labour market dissipate after accounting for so-called ‘sociocultural attitudes’?

**Chapter 6:** Does a Muslim penalty in job quality exist and how do other religious minorities fare in the British labour market?

## **5. Chapter 5: Does the Muslim penalty in the British labour market dissipate after accounting for so-called ‘sociocultural attitudes’?<sup>22</sup>**

### **5.1. Introduction**

As outlined in Chapter 1, the thesis takes a two-pronged approach to building a more complete understanding of the Muslim penalty in the British labour market. The first step, which is the focus of this chapter, involves addressing some of the gaps in our understanding of religious inequality in job *quantity*.

Accordingly, this chapter contributes to the literature in two ways. First, it examines differentials in terms of unemployment and inactivity while also accounting for oft-excluded so-called ‘sociocultural variables’ that have been posited as an explanation for Muslims’ poor labour market outcomes. Second, by adopting a more heterogenous reading of Muslims and disarticulating between hitherto included but not disaggregated groups (namely Arabs and British Whites), the chapter investigates whether Muslims who both identify as White but come from different geographical regions experience the Muslim penalty similarly. In doing so, the study provides a deeper understanding to the potential mechanisms driving the Muslim penalty.

The specific research questions previously outlined are:

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<sup>22</sup> As previously noted, this chapter largely reproduces the material previously published in my academic article with *Ethnic and Racial Studies* (Sweida-Metwally, 2022a).

- 1) Does the Muslim penalty, among men and women, dissipate once so-called ‘sociocultural attitudes’ are accounted for? Specifically, are religiosity, traditionalist views, and lower civic participation associated with a higher risk of unemployment and inactivity?
- 2) Do both Muslim groups that identify as White - Arabs and White British people - exhibit a similar risk of being unemployed and inactive relative to White British Christians? In other words, does identifying as White offer equal protection against the Muslim penalty for Muslim Arabs and White British Muslims?

Details on variable selection and recoding, as well as modelling and analytical steps have been provided and discussed in Chapter 3.

## **5.2. Results**

### **5.2.1. Descriptive statistics**

Table 5.1 shows that in the male employed/unemployed sample, it is Christian Black and White mixed Caribbean (72 per cent) and Black Caribbeans with no religious affiliation (73 per cent) who have the lowest employment rates. Meanwhile, Christian White Irish, Christian White Other, Christian Indian, Christian Asian Other, Muslim White British, and Hindu Asian Other display the highest employment rates, all at 99 per cent. In the active/inactive male sample, Christian Black and White mixed Caribbeans are those with the highest inactivity rate (54 per cent), while Christian White Other (4 per cent) and No religion Asian Other (2 per cent) display the lowest. Table 5.1 further shows that in the female employed/unemployed sample, Buddhist Asian Other (72 per cent) and Muslim Pakistani women (79 per cent) exhibit the highest average unemployment rates, while Black Africans with no religious affiliation and White Other who subscribe to ‘other’ religion have the highest employment rate (both at 99 per cent). Meanwhile, among the active/inactive female sample, Muslim Arab (86 per cent), Muslim Pakistani (71 per cent), and Muslim Asian Other (66 per cent) women are the top three groups with the highest rates of inactivity. Those who identify as Other Religion White Other have the lowest (7 per cent).

A detailed statistical description of each of the independent variables by gender and labour market status is available in Appendix 2 (Tables B1, B2, B3 and B4).

**Table 5.1.** Average unemployment and inactivity rates (men and women, percentages)

	Men		Women	
	Unemployed	Inactive	Unemployed	Inactive
Christian White British	5	20	3	29
Christian White Irish	1	22	3	19
Christian White Other	1	4	4	21
Christian Black & White Caribbean Mix	28	54	7	45
Christian Black & White African Mix	*	48	5	26
Christian Asian & White Mix	*	25	3	20
Christian Indian	1	9	12	42
Christian Chinese	*	*	5	44
Christian Asian Other	1	45	8	36
Christian Black Caribbean	21	25	8	22
Christian Black African	22	40	11	32
Christian Other Black	*	*	*	32
Muslim White British	1	11	2	49
Muslim Indian	12	32	11	59
Muslim Pakistani	12	31	21	71
Muslim Bangladeshi	15	37	12	57
Muslim Asian Other	*	*	*	66
Muslim Black African	8	15	20	63
Muslim Arab	16	48	*	86
Hindu Indian	5	17	4	27
Hindu Asian Other	1	6	13	48
Jewish White British	20	25	6	33
Sikh Indian	5	18	12	52
Buddhist White British	*	*	*	29
Buddhist Asian Other	2	20	28	60
Other Religion White British	24	42	11	42
Other Religion White Other	*	*	1	7
Other Religion Black Caribbean	*	*	3	39
No Religion White British	8	21	7	30
No Religion White Irish	3	37	4	28
No Religion White Other	9	18	6	23
No Religion Black & White African Mix	*	*	*	18
No Religion Black & White Caribbean Mix	17	46	3	17
No Religion Asian & White Mix	3	9	7	12
No Religion Indian	14	19	9	27
No Religion Chinese	6	31	2	24
No Religion Asian Other	*	2	4	35
No Religion Black Caribbean	27	36	8	28
No Religion Black African	12	25	1	30
No Religion Arab	12	24	*	*
Other	15	31	20	35
Overall	7	21	6	31

Notes: \* signifies insufficient sample size to form stand-alone group.

### **5.2.2. Multivariate analysis**

Table 5.2 (men) and Table 5.3 (women) examine ethno-religious differences in the risk of being unemployed (Models 1 to 3) and inactive (Models 4 to 6) by gender. In each case, Models 1 and 4 show the risk of unemployment and inactivity, respectively, while adjusting for human capital and demographic factors. Models 2 and 5 include religiosity. Models 3 and 6 adjust for the remaining ‘sociocultural’ variables, notably, so-called ‘isolationist tastes’ and commitment to traditionalism. This stepwise analysis is supported by improvements in AIC, BIC and McFadden Pseudo- $R^2$  (Langer, 2017) estimates of the unadjusted models for both men and women. McFadden Pseudo- $R^2$  for Model 3 is 0.34 (men) and 0.31 (women), while the statistic for Model 6 is 0.49 (men) and 0.47 (women), suggesting very good model fit (Table B7).

#### **5.2.2.1. Unemployment and inactivity among men**

Model 1 (Table 5.2) shows that, after controlling for human capital and demographic factors, all men in Black Christian groups have a substantially higher risk of being unemployed than Christian White British men. Black Caribbeans (4.15) have the greatest risk of unemployment followed by Black Africans (3.99) and Black and White mixed Caribbeans (3.79). No White Christian group nor White British Muslims or Jews display a significantly higher risk of being unemployed relative to White British Christians at the 95 per cent level. While Hindu Indians (1.79) and Sikh Indians (1.36) have a higher likelihood of unemployment, Christian and Muslim Indians do not experience a significantly different risk of unemployment compared to the charter population. All other Muslim groups, however, face a relatively higher risk of unemployment than their Christian White British peers; Muslim Bangladeshi (3.44), Muslim Pakistani (2.65), Muslim Black African (2.55) and Muslim Arab (2.52). The only White group to experience a penalty is No Religion White British (0.41), which is the lowest of all significant coefficients. Bar Indians and Asian and White mix, all non-White ethnic minorities with no religious affiliation display a significantly-higher likelihood of unemployment; Arabs with no religious affiliation (4.54) who are the group with the highest risk of unemployment overall, No Religion Black Caribbean (4.07), No Religion Black Africans (4.02), Chinese with no religious affiliation (3.47), and No religion Black and White mixed Caribbean (2.17). .

**Table 5.2.** Men - Log-odds of being unemployed and inactive

	Unemployed			Inactive		
	Model 1 (Human Capital)	Model 2 (religiosity added)	Model 3 (‘socio-cultural’ variables added)	Model 4 (Human Capital)	Model 5 (religiosity added)	Model 6 (‘socio-cultural’ variables added)
Ethno-religious Group (ref: Christian White British=0)						
Christian White Irish	-0.31 (-3.99; 3.36)	-0.21 (-3.67; 3.26)	0.00 (-3.24; 3.25)	1.97 (0.40; 3.53)	1.97 (0.36; 3.58)	1.98 (0.39; 3.57)
Christian White Other	-2.78 (-8.17; 2.61)	-2.85 (-8.29; 2.60)	-2.81 (-7.84; 2.23)	-1.19 (-2.79; 0.40)	-1.28 (-2.96; 0.41)	-1.23 (-2.93; 0.46)
Christian B&W Caribbean Mix	3.79 (2.07; 5.52)	3.61 (1.91; 5.31)	3.59 (1.89; 5.28)	3.69 (2.04; 5.35)	3.60 (1.94; 5.27)	3.60 (1.94; 5.26)
Christian B&W African Mix	*	*	*	4.96 (1.88; 8.04)	4.79 (1.81; 7.77)	4.82 (1.90; 7.73)
Christian Asian & White Mix	*	*	*	2.71 (1.15; 4.26)	2.68 (1.17; 4.18)	2.48 (0.93; 4.02)
Christian Indian	0.63 (-7.86; 9.12)	0.40 (-9.05; 9.86)	0.50 (-8.30; 9.29)	2.89 (1.65; 4.13)	2.73 (1.45; 4.00)	2.75 (1.48; 4.02)
Christian Asian Other	-2.44 (-6.15; 1.28)	-2.49 (-6.86; 1.88)	-2.39 (-6.56; 1.77)	0.67 (-1.50; 2.83)	0.37 (-1.76; 2.50)	0.37 (-1.75; 2.50)
Christian Black Caribbean	4.15 (2.99; 5.32)	4.27 (3.06; 5.47)	4.25 (3.01; 5.50)	2.03 (0.43; 3.63)	2.11 (0.58; 3.64)	2.06 (0.53; 3.59)
Christian Black African	3.99 (2.74; 5.24)	3.85 (2.59; 5.12)	3.95 (2.66; 5.23)	3.46 (2.03; 4.90)	3.33 (1.92; 4.74)	3.33 (1.94; 4.73)
Muslim White British	-0.17 (-3.55; 3.21)	-0.30 (-3.74; 3.15)	-0.33 (-3.86; 3.20)	-1.73 (-3.88; 0.42)	-1.82 (-3.95; 0.30)	-1.90 (-4.03; 0.24)
Muslim Indian	1.64 (-0.52; 3.79)	1.35 (-0.84; 3.53)	1.12 (-1.08; 3.32)	2.42 (0.96; 3.88)	2.12 (0.59; 3.65)	2.03 (0.47; 3.59)
Muslim Pakistani	2.65 (1.72; 3.58)	2.45 (1.47; 3.44)	2.29 (1.29; 3.29)	2.58 (1.59; 3.57)	2.32 (1.29; 3.35)	2.28 (1.26; 3.30)
Muslim Bangladeshi	3.44 (2.32; 4.57)	3.19 (2.04; 4.33)	3.06 (1.86; 4.25)	3.56 (2.46; 4.67)	3.24 (2.07; 4.40)	3.19 (2.02; 4.37)
Muslim Black African	2.55 (0.40; 4.69)	2.39 (0.27; 4.51)	2.30 (0.13; 4.47)	2.40 (0.64; 4.17)	2.18 (0.47; 3.89)	2.17 (0.44; 3.90)
Muslim Arab	2.52 (0.50; 4.54)	2.35 (0.31; 4.40)	2.25 (0.29; 4.21)	2.14 (0.23; 4.05)	1.85 (-0.11; 3.80)	1.84 (-0.10; 3.78)
Hindu Indian	1.79 (0.66; 2.91)	1.75 (0.62; 2.89)	1.71 (0.54; 2.88)	2.35 (1.31; 3.39)	2.28 (1.23; 3.32)	2.28 (1.24; 3.32)
Hindu Asian Other	0.52 (-0.52; 1.56)	0.64 (-0.46; 1.73)	0.72 (-0.45; 1.90)	0.97 (-0.40; 2.34)	1.20 (-0.16; 2.56)	1.14 (-0.26; 2.54)
Jewish White British	1.86 (-0.37; 4.09)	1.70 (-0.43; 3.82)	1.72 (-0.36; 3.80)	1.46 (-0.54; 3.45)	1.32 (-0.64; 3.27)	1.31 (-0.72; 3.33)
Sikh Indian	1.36 (0.23; 2.50)	1.31 (0.11; 2.50)	1.40 (0.16; 2.64)	2.14 (1.34; 2.94)	2.02 (1.15; 2.89)	1.95 (1.09; 2.81)
Buddhist Asian Other	0.81 (-1.61; 3.23)	1.24 (-1.30; 3.78)	1.08 (-1.52; 3.69)	2.59 (-0.14; 5.32)	2.80 (0.08; 5.52)	2.80 (0.08; 5.52)
Other Religion White British	-1.02 (-2.31; 0.28)	-0.96 (-2.23; 0.31)	-0.95 (-2.26; 0.36)	-0.88 (-2.24; 0.49)	-0.78 (-2.14; 0.57)	-0.80 (-2.15; 0.55)
No Religion White British	0.41 (0.07; 0.75)	0.31 (-0.09; 0.70)	0.29 (-0.11; 0.69)	0.20 (-0.10; 0.49)	0.15 (-0.18; 0.49)	0.14 (-0.19; 0.48)
No Religion White Irish	1.20 (-0.82; 3.22)	1.20 (-0.84; 3.25)	1.45 (-0.56; 3.47)	2.51 (0.43; 4.58)	2.53 (0.43; 4.62)	2.50 (0.44; 4.56)
No Religion White Other	1.55 (-0.01; 3.11)	1.55 (-0.04; 3.13)	1.55 (-0.02; 3.12)	2.19 (1.15; 3.24)	2.27 (1.21; 3.32)	2.25 (1.20; 3.30)
No Religion B&W Caribbean Mix	2.17 (0.27; 4.07)	2.38 (0.51; 4.26)	2.32 (0.44; 4.19)	2.47 (1.02; 3.91)	2.56 (1.11; 4.02)	2.51 (1.04; 3.98)
No Religion Asian & White Mix	0.83 (-1.56; 3.22)	0.66 (-1.71; 3.03)	0.67 (-1.64; 2.97)	1.04 (-0.60; 2.68)	1.02 (-0.66; 2.69)	1.00 (-0.71; 2.71)
No Religion Indian	1.17 (-0.05; 2.40)	1.07 (-0.18; 2.31)	0.96 (-0.33; 2.26)	1.05 (-0.06; 2.16)	0.96 (-0.19; 2.12)	0.88 (-0.29; 2.04)
No Religion Chinese	3.47 (2.46; 4.49)	3.51 (2.47; 4.54)	3.39 (2.35; 4.43)	3.92 (2.89; 4.96)	4.00 (2.93; 5.06)	4.02 (2.95; 5.09)
No Religion Asian Other	*	*	*	1.25 (-1.09; 3.59)	1.29 (-1.03; 3.61)	1.27 (-1.04; 3.58)
No Religion Black Caribbean	4.07 (2.77; 5.37)	4.24 (2.92; 5.56)	4.30 (2.95; 5.65)	3.09 (1.79; 4.38)	3.15 (1.87; 4.43)	3.11 (1.82; 4.41)
No Religion Black African	4.02 (1.54; 6.49)	4.08 (1.35; 6.82)	3.98 (1.29; 6.68)	3.15 (0.65; 5.66)	3.28 (0.64; 5.93)	3.29 (0.63; 5.96)



No Religion Arab	4.54 (2.80; 6.28)	4.55 (2.76; 6.34)	4.53 (2.69; 6.37)	3.80 (1.68; 5.92)	3.92 (1.78; 6.06)	3.96 (1.82; 6.09)
Other	3.14 (2.32; 3.96)	3.16 (2.31; 4.01)	3.17 (2.32; 4.01)	2.57 (1.63; 3.51)	2.51 (1.57; 3.45)	2.50 (1.57; 3.43)
Religion makes difference (ref: No difference=0)						
Great difference		-0.33 (-1.00; 0.35)	-0.35 (-1.03; 0.33)		-0.08 (-0.61; 0.46)	-0.06 (-0.59; 0.48)
Some difference		-0.67 (-1.27; -0.07)	-0.70 (-1.31; -0.09)		-0.48 (-0.89; -0.06)	-0.46 (-0.87; -0.06)
Attendance at religious services (ref: Once a year/never/special occasions=0)						
Once a week or more		0.59 (0.13; 1.06)	0.64 (0.16; 1.12)		0.50 (0.08; 0.92)	0.51 (0.09; 0.93)
At least once a month		0.55 (-0.18; 1.27)	0.58 (-0.14; 1.30)		0.60 (0.09; 1.10)	0.62 (0.10; 1.13)
Husband should earn, wife should stay at home? (ref: Strongly disagree=0)						
Disagree			0.31 (-0.18; 0.81)			-0.12 (-0.45; 0.20)
Neither agree/disagree			0.53 (0.02; 1.04)			-0.06 (-0.46; 0.34)
Agree			0.36 (-0.33; 1.05)			-0.15 (-0.68; 0.38)
Strongly agree			0.05 (-1.32; 1.42)			0.07 (-0.86; 0.99)
Family life suffers if mother works full-time? (ref: Strongly disagree=0)						
Disagree			-0.25 (-0.88; 0.37)			-0.18 (-0.59; 0.24)
Neither agree/disagree			-0.15 (-0.73; 0.43)			-0.34 (-0.77; 0.10)
Agree			-0.08 (-0.72; 0.57)			-0.27 (-0.73; 0.19)
Strongly agree			0.18 (-0.80; 1.16)			-0.03 (-0.70; 0.64)
Civic participation			-0.19 (-0.40; 0.02)			-0.07 (-0.21; 0.06)
$\hat{\sigma}^2(u_{0j})$	16.20 (12.16; 20.24)	16.87 (12.56; 21.18)	16.22 (11.83; 20.61)	19.17 (15.56; 22.78)	19.48 (15.75; 23.20)	19.43 (15.73; 23.14)
Constant	2.00 (-0.75; 4.74)	2.28 (-0.62; 5.19)	1.81 (-1.12; 4.74)	16.61 (14.24; 18.98)	16.78 (14.34; 19.22)	16.90 (14.43; 19.36)
Observations (unweighted)	70,816	70,816	70,816	84,805	84,805	84,805

Notes: 95 per cent confidence interval (CI) in parenthesis; coefficients for level-1 explanatory variables highlighted where CI excludes zero; \* signifies insufficient sample size to form stand-alone group; in addition to religiosity, traditionalists views, and lower civic participation (where applicable), models are also adjusted for age and its curvilinear effect, marital status, education, health, number of children, whether born in the UK, English language proficiency, region, and period effects.

Model 2 additionally adjusts for religiosity. Broadly speaking, there is no major change in the magnitude or significance of the coefficients relative to Model 1 after this adjustment. No Religion Arabs (4.55) remain the group with the highest chance of being unemployed relative to the Christian White British group, those who identify as Black or as mixed Black and White continue to display a higher likelihood of being unemployed irrespective of religious affiliation or lack thereof. Meanwhile, four out of six Muslim groups continue to exhibit a significantly higher likelihood of being unemployed than White British Christians with their size of the coefficients only marginally changed and the order of magnitude retained. The hierarchy is Bangladeshi (3.19), followed by Pakistani (2.45), Black African (2.39) and Arabs (2.35). There is one main development, however. The coefficient for No Religion White British has dropped by a quarter and is no longer significant.

Model 3 additionally adjusts for civic participation and commitment to traditionalism. Overall, adjusting for so-called ‘sociocultural’ variables does not dissipate the increased risk for any of the ethno-religious groups relative to the simpler model, not least Muslims whose coefficients do not appear to have reduced in any noteworthy way. The coefficients have also remained largely unchanged across all models for Black and Black and White mixed groups irrespective of religious affiliation. Hindu Indians also continue to display a significantly higher likelihood of being unemployed than the charter population, but, along with Sikh Indians, this is the smallest in magnitude of all significant coefficients.

Examining inactivity, Model 4 reveals that Black and Black and White mixed groups generally have a higher likelihood of inactivity than White British Christians irrespective of religious affiliation (or lack thereof). Contrary to the case of unemployment, White groups - such as Christian White Irish (1.97), No Religion White Irish (2.51), No religion White Other (2.19) - appear to have a higher chance of inactivity than the reference group. Arabs with no religious affiliation (3.80), Chinese with no religious affiliation (3.92), Christian Indians (2.89), Hindu Indians (2.35) and Sikh Indians (2.14) also appear to have a significantly higher chance of being inactive than the charter population after controlling for human capital and demographic factors.

The same is true for all Muslims, bar the White British group; Arabs (2.14), Indians (2.42), Pakistanis (2.58) and Bangladeshis (3.56).

Model 5 controls for religiosity. Broadly speaking, adjusting for religiosity in Model 5 (marginally) lowers the magnitude of the coefficients for some (e.g. Muslims) more than others (e.g. Christians). Nevertheless, Muslim Bangladeshis (3.24), Muslim Pakistanis (2.32), Muslim Black Africans (2.18), and Muslim Indians (2.12), continue to display a significantly higher average risk of being inactive than the Christian White British group. The confidence interval for Muslim Arabs now includes zero. Moreover, bar the aforementioned exceptions, those who identify with Black groups remain more likely to be inactive be they Christian or aver being of no religious persuasion. In fact, Christian Black and White mixed African men (4.79) exhibit the highest log odds of being inactive relative to their Christian White British peers. They are followed by Chinese men with no religious affiliation (4.00). Overall, identifying as White British irrespective of religion is not associated with a higher chance of inactivity. However, other groups appear to have a significantly higher chance of being inactive despite identifying as White; Christian White Irish (1.97), No Religion White Irish (2.53), and No Religion White Other (2.27). Finally, Model 6 adjusts for the remaining so-called ‘sociocultural’ variables. The results suggest that there is no relationship between a person’s commitment to traditionalism and likelihood of being inactive, nor between the latter and the extent of civic participation. There is virtually no change in the significance or magnitude of the regression coefficients of any ethno-religious group relative to Model 5.

#### **5.2.2.2. Unemployment and inactivity among women**

Model 1 (Table 5.3) shows that, after controlling for human capital and demographic factors, Muslim women generally exhibit the greatest risk of unemployment relative to White British Christian women. Among Muslim women, Pakistanis (3.53) display the highest risk of unemployment, followed by Black Africans (3.21), Indians (2.49), and Bangladeshis (2.19). Among Christians, Indians (3.51) display the greatest risk of unemployment, followed by Black and White mixed Caribbeans (1.80), Black Africans (1.71), Black Caribbeans (1.08), and White Other (1.07). Hindu Indians (1.49) and Hindu Asian Other (3.52) also have a relatively higher likelihood of being unemployed. Jewish, Sikh, Buddhist, and Other Religion groups do not display

significant coefficients. Among those with no religious affiliation, only Indians (1.65), Asian Other (2.08), Black Caribbeans (1.19) and British Whites (0.65) display a significantly higher chance of being unemployed than the reference group.

**Table 5.3.** Women - Log-odds of being unemployed and inactive

	Unemployed			Inactive		
	Model 1 ( <i>Human Capital</i> )	Model 2 ( <i>religiosity added</i> )	Model 3 ( <i>'socio-cultural'</i> <i>variables added</i> )	Model 4 ( <i>Human Capital</i> )	Model 5 ( <i>religiosity added</i> )	Model 6 ( <i>'socio-cultural'</i> <i>variables added</i> )
Ethno-religious Group (ref: Christian White British=0)						
Christian White Irish	1.20 (-0.51; 2.92)	1.20 (-0.51; 2.91)	1.30 (-0.43; 3.03)	0.36 (-0.96; 1.68)	0.35 (-0.97; 1.67)	0.38 (-0.92; 1.68)
Christian White Other	1.07 (0.04; 2.11)	1.08 (0.04; 2.12)	1.05 (0.01; 2.10)	-0.41 (-1.15; 0.33)	-0.42 (-1.16; 0.31)	-0.41 (-1.15; 0.34)
Christian B&W Caribbean Mix	1.80 (0.37; 3.22)	1.80 (0.37; 3.23)	1.69 (0.26; 3.12)	1.76 (0.48; 3.04)	1.73 (0.45; 3.02)	1.72 (0.43; 3.00)
Christian B&W African Mix	-0.17 (-2.43; 2.10)	-0.16 (-2.42; 2.10)	-0.11 (-2.31; 2.09)	0.11 (-1.40; 1.61)	0.07 (-1.44; 1.58)	0.11 (-1.39; 1.61)
Christian Asian & White Mix	0.08 (-3.30; 3.45)	0.07 (-3.30; 3.45)	0.24 (-3.03; 3.52)	0.06 (-1.54; 1.66)	0.04 (-1.56; 1.63)	0.13 (-1.49; 1.75)
Christian Indian	3.51 (1.59; 5.42)	3.53 (1.61; 5.44)	3.65 (1.72; 5.59)	1.78 (0.10; 3.46)	1.74 (0.06; 3.42)	1.75 (0.10; 3.41)
Christian Chinese	1.76 (-1.55; 5.08)	1.77 (-1.55; 5.10)	1.70 (-1.64; 5.05)	-0.58 (-3.11; 1.95)	-0.60 (-3.12; 1.92)	-0.71 (-3.15; 1.74)
Christian Asian Other	1.28 (-0.62; 3.18)	1.31 (-0.61; 3.22)	1.10 (-0.74; 2.95)	-0.01 (-1.76; 1.73)	-0.05 (-1.79; 1.70)	-0.10 (-1.76; 1.56)
Christian Black Caribbean	1.08 (0.26; 1.91)	1.10 (0.24; 1.96)	1.15 (0.31; 1.98)	-0.07 (-0.77; 0.64)	-0.10 (-0.82; 0.61)	-0.03 (-0.73; 0.68)
Christian Black African	1.71 (0.75; 2.67)	1.74 (0.73; 2.75)	1.72 (0.73; 2.71)	0.53 (-0.23; 1.29)	0.49 (-0.28; 1.26)	0.45 (-0.32; 1.23)
Christian Other Black	*	*	*	0.83 (-0.80; 2.46)	0.81 (-0.82; 2.45)	0.77 (-0.90; 2.43)
Muslim White British	-0.25 (-2.79; 2.29)	-0.25 (-2.79; 2.29)	-0.27 (-2.92; 2.38)	0.09 (-1.35; 1.53)	0.09 (-1.35; 1.53)	0.13 (-1.32; 1.58)
Muslim Indian	2.49 (1.20; 3.78)	2.51 (1.20; 3.82)	2.13 (0.82; 3.44)	2.27 (0.99; 3.56)	2.23 (0.94; 3.51)	2.07 (0.75; 3.38)
Muslim Pakistani	3.53 (2.60; 4.45)	3.56 (2.58; 4.53)	3.21 (2.23; 4.18)	4.18 (3.47; 4.88)	4.12 (3.40; 4.83)	3.91 (3.21; 4.62)
Muslim Bangladeshi	2.19 (0.98; 3.40)	2.21 (0.95; 3.47)	2.04 (0.77; 3.32)	3.20 (2.31; 4.08)	3.15 (2.26; 4.04)	2.98 (2.08; 3.87)
Muslim Asian Other	*	*	*	3.26 (-4.81; 11.33)	3.27 (-4.75; 11.29)	3.06 (-4.68; 10.79)
Muslim Black African	3.21 (1.39; 5.03)	3.24 (1.38; 5.09)	2.96 (1.14; 4.77)	2.66 (1.44; 3.88)	2.61 (1.37; 3.84)	2.31 (1.08; 3.53)
Muslim Arab	*	*	*	5.90 (3.82; 7.99)	5.87 (3.79; 7.95)	5.57 (3.60; 7.55)
Hindu Indian	1.49 (0.36; 2.63)	1.49 (0.36; 2.63)	1.31 (0.15; 2.46)	1.14 (0.39; 1.88)	1.11 (0.36; 1.86)	1.06 (0.31; 1.80)
Hindu Asian Other	3.52 (0.91; 6.13)	3.51 (0.90; 6.13)	3.47 (0.88; 6.06)	2.84 (1.13; 4.55)	2.83 (1.12; 4.53)	2.71 (1.02; 4.41)
Jewish White British	0.73 (-1.59; 3.05)	0.74 (-1.59; 3.07)	0.84 (-1.79; 3.46)	0.90 (-0.15; 1.96)	0.88 (-0.17; 1.93)	0.87 (-0.17; 1.90)
Sikh Indian	1.86 (-0.65; 4.36)	1.86 (-0.66; 4.37)	1.66 (-0.92; 4.24)	1.82 (0.89; 2.75)	1.81 (0.88; 2.73)	1.71 (0.77; 2.65)
Buddhist White British	*	*	*	0.79 (-0.49; 2.06)	0.74 (-0.55; 2.02)	0.87 (-0.40; 2.14)
Buddhist Asian Other	1.89 (-0.77; 4.56)	1.92 (-0.75; 4.59)	1.72 (-0.76; 4.21)	2.87 (1.11; 4.63)	2.86 (1.09; 4.62)	2.73 (1.02; 4.44)
Other Religion White British	0.39 (-0.88; 1.65)	0.40 (-0.89; 1.69)	0.53 (-0.73; 1.78)	0.67 (0.01; 1.33)	0.66 (-0.00; 1.32)	0.70 (0.05; 1.35)
Other Religion White Other	-0.74 (-4.27; 2.79)	-0.74 (-4.28; 2.80)	-0.51 (-3.97; 2.95)	-1.82 (-3.46; -0.18)	-1.82 (-3.46; -0.17)	-1.74 (-3.40; -0.08)
Other Religion Black Caribbean	1.19 (-1.52; 3.90)	1.21 (-1.51; 3.94)	1.24 (-1.54; 4.02)	-0.66 (-2.42; 1.10)	-0.70 (-2.47; 1.06)	-0.71 (-2.51; 1.08)
No Religion White British	0.65 (0.28; 1.03)	0.66 (0.26; 1.06)	0.61 (0.21; 1.00)	0.01 (-0.21; 0.22)	0.02 (-0.21; 0.25)	0.02 (-0.21; 0.25)
No Religion White Irish	1.46 (-0.86; 3.77)	1.46 (-0.85; 3.77)	1.60 (-0.75; 3.94)	-0.74 (-3.95; 2.46)	-0.75 (-3.96; 2.47)	-0.63 (-3.93; 2.67)
No Religion White Other	1.18 (-0.35; 2.72)	1.17 (-0.38; 2.72)	1.39 (-0.03; 2.81)	0.53 (-0.34; 1.40)	0.54 (-0.32; 1.41)	0.66 (-0.19; 1.51)
No Religion B&W African Mix	*	*	*	-0.88 (-2.40; 0.64)	-0.89 (-2.42; 0.63)	-0.88 (-2.39; 0.63)

No Religion B&W Caribbean Mix	0.62 (-0.91; 2.15)	0.62 (-0.92; 2.16)	0.52 (-1.00; 2.04)	-0.61 (-1.79; 0.56)	-0.60 (-1.77; 0.57)	-0.51 (-1.72; 0.70)
No Religion Asian & White Mix	0.69 (-2.12; 3.51)	0.70 (-2.12; 3.52)	0.65 (-2.32; 3.63)	-0.67 (-2.18; 0.84)	-0.66 (-2.18; 0.85)	-0.59 (-2.18; 1.01)
No Religion Indian	1.65 (0.35; 2.94)	1.66 (0.37; 2.94)	1.53 (0.26; 2.80)	0.79 (-0.07; 1.65)	0.78 (-0.08; 1.64)	0.72 (-0.14; 1.59)
No Religion Chinese	0.72 (-2.03; 3.47)	0.72 (-2.04; 3.47)	0.41 (-2.41; 3.23)	1.13 (-0.60; 2.87)	1.15 (-0.59; 2.89)	0.98 (-0.76; 2.71)
No Religion Asian Other	2.08 (0.31; 3.84)	2.07 (0.31; 3.84)	1.97 (0.10; 3.83)	3.00 (1.55; 4.46)	3.01 (1.56; 4.47)	2.99 (1.53; 4.45)
No Religion Black Caribbean	1.19 (0.00; 2.37)	1.19 (0.00; 2.37)	1.13 (-0.04; 2.30)	-0.27 (-1.34; 0.79)	-0.26 (-1.33; 0.81)	-0.25 (-1.31; 0.82)
No Religion Black African	-0.50 (-4.12; 3.11)	-0.50 (-4.12; 3.12)	-0.60 (-4.28; 3.09)	-1.33 (-3.76; 1.10)	-1.37 (-3.83; 1.08)	-1.25 (-3.65; 1.15)
Other	3.23 (2.63; 3.82)	3.24 (2.64; 3.84)	3.07 (2.48; 3.67)	1.18 (0.52; 1.84)	1.16 (0.51; 1.82)	1.12 (0.47; 1.76)
Religion makes difference (ref: No difference=0)						
Great difference		-0.03 (-0.56; 0.51)	-0.04 (-0.58; 0.49)		0.11 (-0.21; 0.42)	0.07 (-0.25; 0.38)
Some difference		0.03 (-0.30; 0.36)	0.02 (-0.30; 0.35)		0.04 (-0.17; 0.24)	0.03 (-0.18; 0.23)
Husband should earn, wife should stay at home? (ref: Strongly disagree=0)						
Disagree			0.26 (-0.10; 0.62)			0.26 (0.04; 0.47)
Neither agree/disagree			0.65 (0.21; 1.08)			0.52 (0.24; 0.79)
Agree			1.42 (0.82; 2.01)			1.00 (0.63; 1.36)
Strongly agree			0.95 (-0.33; 2.22)			0.60 (-0.25; 1.46)
Family life suffers if mother works full-time? (ref: Strongly disagree=0)						
Disagree			-0.44 (-1.05; 0.17)			-0.10 (-0.45; 0.24)
Neither agree/disagree			-0.19 (-0.72; 0.34)			-0.00 (-0.35; 0.34)
Agree			-0.41 (-1.01; 0.18)			-0.02 (-0.37; 0.32)
Strongly agree			-0.23 (-0.91; 0.44)			0.29 (-0.15; 0.73)
Civic participation			-0.28 (-0.45; -0.12)			-0.02 (-0.10; 0.06)
$\hat{\sigma}^2(u_{0j})$	9.50 (7.35; 11.66)	9.51 (7.34; 11.68)	8.72 (6.80; 10.64)	13.81 (12.11; 15.51)	13.79 (12.10; 15.49)	13.37 (11.82; 15.13)
Constant	-1.92 (-3.97; 0.13)	-1.94 (-4.00; 0.12)	-1.54 (-3.62; 0.53)	12.73 (11.26; 14.21)	12.69 (11.21; 14.18)	12.62 (11.14; 14.10)
Observations (unweighted)	82,959	82,959	82,959	115,474	115,474	115,474

Notes: 95 per cent confidence interval (CI) in parenthesis; coefficients for level-1 explanatory variables highlighted where CI excludes zero; \* signifies insufficient sample size to form stand-alone group; in addition to religiosity, traditionalists views, and lower civic participation (where applicable), models are also adjusted for age and its curvilinear effect, marital status, education, health, number of children, whether born in the UK, English language proficiency, region, and period effects.

Including religiosity in the models (Model 2) does not alter the significance or magnitude of any of the regression coefficients relative to Model 1. Adjusting for so-called ‘segregationist tendencies’ and commitment to traditionalism in Model 3 has not altered the coefficient or significance of any ethno-religious groups by any considerable amount relative to Model 1. In fact, Muslim women (bar Muslim White British) remain among those with the highest risk of unemployment irrespective of ethnic affiliation. Only Christian Indians (3.65) and Hindu Asian Other (3.47) have a higher likelihood of being unemployed relative to the reference group. The same Black, mixed Black and White, and groups with no religious affiliation discussed in the previous models also continue to exhibit a higher risk of being unemployed with their coefficients remaining broadly unchanged. Only the estimate for Black Caribbeans with no religious affiliation is no longer significant.

Models 4 to 6 in Table 5.3 display the results for when inactivity is the dependent variable. Model 4 shows that after controlling for human capital and demographic factors Muslims display the highest risk of being inactive across the board relative to the Christian White British group. Specifically, Muslims Arabs (5.90) are the group with the highest risk followed by Muslim Pakistanis (4.18), Muslim Bangladeshi (3.20), Muslim Black Africans (2.66) and Muslim Indians (2.27). Only the Asian Other group - No Religion (3.00), Buddhist (2.87), Hindu (2.84) - display a similarly high significant coefficient. Among Muslims, only White British and Asian Other do not display a significant coefficient. Among Christians, only Indians (1.78) and Black and White mixed Caribbeans (1.76) display a significantly higher risk of being inactive. Sikh Indians (1.82), Hindu Indians (1.14), and Other Religion White British (0.67) all display a significantly higher likelihood of being inactive relative to White British Christians.

There is virtually no change to the magnitude of the ethno-religious coefficient estimates or their significance after adjusting for religiosity (Model 5). The final model, Model 6, adjusts for gender attitudes and civic participation. While controlling for these factors reduces the coefficient for women in all Muslim groups relative to Christian White British women, it only does so marginally. Muslim Arab women (5.57) remain the group with the highest likelihood of being inactive relative to White British Christian women, followed by Muslim Pakistanis (3.91) and Muslim Bangladeshis (2.98). Only No Religion Asian Other (2.99) display a similarly high estimate as the

latter. Muslim Black Africans (2.31) and Muslim Indians (2.07) also still display a higher risk of being inactive. The Asian Other group - Buddhist (2.73) and Hindu (2.71) - also have a higher risk relative to the charter population.

### **5.3. Conclusion**

In this chapter, I analysed ethno-religious inequalities in exposure to unemployment and inactivity among men and women in Britain using the first ten waves of UKHLS. The large sample size and data on cultural and religious practices allowed me to assess whether certain so-called ‘sociocultural attitudes’ are plausible mediators for the Muslim penalty. The large dataset also enabled me to distinguish between groups that have not typically been disaggregated in similar studies, such as Arabs, British Whites, Black and White mixed Africans and Black and White mixed Caribbeans, and between ethnic minorities with no religious affiliation.

Overall, the evidence indicates support for the thesis that there is both a religious (Muslim) and colour (Black) penalty at play in the British labour market (Heath and Cheung, 2006; Khattab, 2009; Khattab and Modood, 2015). Confirming previous research (Berthoud and Blekesaune, 2007; Li and Heath, 2020), religion is a much better predictor of unemployment and inactivity for women, whereas for men both colour and religion are important. Adjusting for religiosity, so-called ‘tastes for isolation’ and commitment to traditionalism as potential mediators does not dissipate the Muslim penalty in unemployment or inactivity for either men or women, despite the claim that ‘[a]fter their inclusion in the explanatory model, there are hardly any statistically significant differences left’ (Koopmans, 2016, p. 213). In fact, adjusting for so-called ‘sociocultural variables’ had only a minor effect in reducing the size of the estimates relative to the model that only controlled for human capital and demographic factors, with Muslim men and women consistently among those with the highest risk of being unemployed/inactive. Moreover, the risk of a penalty, particularly in terms of unemployment, remained considerably high for Black African and Black Caribbean men irrespective of whether they subscribed to a faith tradition, providing strong evidence in support of previous research (Khattab and Modood, 2015) which established that the British labour market is hierarchised based on skin colour.



In sum, contrary to Koopmans (2016), this study shows that ‘sociocultural variables’ such as gender attitudes, language proficiency, and the extent of inter- and intra-ethnic social ties are not a convincing source of the unexplained ethno-religious differences in labour market participation and unemployment among Muslim men and women. Instead, this study found that ‘Muslim religiosity and value orientations (...) which sometimes are cited as major individual-level factors hindering socio-economic assimilation turned out to be less consequential’ (Connor and Koenig 2015, 199; see also Khoudja and Platt 2018).

The analyses here also distinguish Arab Muslims and White British Muslims and Arabs with no religious affiliation and White British with no religious affiliation, illustrating notable differences between them and other Muslims on the one hand, and the unreligious on the other. This methodological novelty reveals that, as opposed to existing understandings based on research which combines British and non-British Whites such as Turks and Arabs (Khattab, 2009; Khattab and Modood, 2015), identifying as White - specifically White British - *does* appear to offer protection against the Muslim penalty. Among men and women, White British Muslims do not display a significantly different risk of unemployment and inactivity from the charter population in any of the models. However, non-British Whites, such as Arabs, are not afforded the same protection. Among men, Muslim Arabs display a considerable unemployment penalty, while among women, Muslim Arabs display the highest risk of being inactive relative to the charter population.

Having responded to some key outstanding questions regarding the Muslim penalty from a job *quantity* perspective thereby providing a more complete understanding of its manifestation, the next part of the thesis focuses on investigating whether a Muslim penalty exists from a job *quality* perspective and how other religious minorities fare in that regard.

# **6. Chapter 6: Does a Muslim penalty in job quality exist and how do other religious minorities fare in the British labour market?**

## **6.1. Introduction**

Having advanced my own conceptualisation of job quality in chapter two and created an empirical job quality index in chapter four, this chapter extends the literature in two ways. First, it advances the job quality literature by exploring the extent to which differences in job quality are stratified by religious and ethno-religious groups. Second, by investigating whether a Muslim penalty exists in terms of job quality it extends our understanding of the Muslim penalty beyond the confines of job quantity. In addition to exploring religious differentials in overall job quality and across dimensions, I also investigate differences in job quality within employment areas commonly understood as advantaged/disadvantaged (i.e. part-/full-time work, professional/non-professional occupations, and private/public sector employment), in order to explore the extent to which religious and ethno-religious variations in job quality can be explained by people's concentration in particular employment areas.

Put differently, given the evidence that 'a large fraction of the labour force are employed in very poor-quality work' (Williams, Zhou and Zou, 2020, p. 122), the chapter assess the extent to which this is equally distributed among different religious and ethno-religious groups in Britain. In doing so, it exposes the overall religious hierarchy in the distribution of good quality jobs across different areas of the British labour market. As outlined in Chapter 2, the specific research questions are:

- 1) Is there a religious penalty in job quality? Specifically, is there a Muslim penalty in job quality?

- 2) Do religious and ethno-religious minorities within employment areas which traditionally depict low job quality (i.e. non-professionals, part-timers, private sector workers) experience poorer job quality still relative to White British Christians? Similarly, do religious and ethno-religious minorities experience equally high job quality as members of the Christian White British group when employed in roles which are associated with high job quality (i.e. professionals, full-timers, public sector workers)?
- 3) Can religious and ethno-religious differences in job quality be explained by people's concentration in particular employment areas, namely professional/non-professional occupations, full-/part-time work, and public/private sector employment?

## **6.2. Results**

### **6.2.1. Descriptive statistics**

Table 6.1 (men) and Table 6.2 (women) reveal important employment patterns among different religious groups. They show that in terms of occupational attainment, Sikh men have the highest proportion of workers in non-professional roles while men in the 'other' religion group have the highest proportion of professional workers. Among women, it is Muslims who have a considerably larger fraction in non-professional roles. Christian White British and Hindu women have the highest percentage of professional workers. Muslim women are also the most likely to be in part-time work while Christian non-White British women and Hindu women are more likely to be in full-time employment. Among men, it is Christians (both groups) and Hindus who are more likely to be full-timers while Muslim men are more likely to be in part-time employment. Sikh men are much more likely to be employed in the private sector, while male Christians (both groups), Muslims, and those in the 'other' religion group are more likely to be working in the public sector. Among women, it is Christians (both groups), again, and those affiliated with 'other' religion who are more likely to be public sector workers. Meanwhile, Sikh and Hindu women have the highest proportion of private sector workers. All male minority groups are more likely to be graduates than Christian White British men. Hindu men have the highest proportion while those with no religious

affiliation have the lowest percentage of graduates. Among women, Hindus also exhibit the highest proportion of graduates. Although, all women from a minority religion background, with the exception of Sikhs, have - on average - a higher proportion of graduates than Christian White British people. The latter, along with those who aver having no religious affiliation, have the lowest percentage of graduates.

**Table 6.1.** Men - Descriptive statistics for job quality analytic sample (percentages unless otherwise stated)

Variable	Christian White British	Christian non-White British	Muslim	Hindu	Sikh	Other religion	No religion	Total
Age (mean)	46	42	37	42	40	44	41	42
Occupational class (professional/non-professional)								
Professional	59	56	50	61	48	66	49	52
Contract (full-time/part-time)								
Full-time	94	95	86	93	89	90	93	93
Sector (private/public)								
Private	69	69	69	82	87	69	76	74
Graduate status (graduate/non-graduate)								
Graduate	38	54	50	63	43	57	32	36
Total N (unweighted)	6,586	1,323	1,538	485	292	320	18,078	28,622

Notes: Statistics adjusted for complex survey design.

**Table 6.2.** Women - Descriptive statistics for job quality analytic sample (percentages unless otherwise stated)

Variable	Christian White British	Christian non-White British	Muslim	Hindu	Sikh	Other religion	No religion	Total
Age (mean)	46	43	35	39	40	44	41	43
Occupational class (professional/non-professional)								
Professional	52	52	37	52	45	47	46	48
Contract (full-time/part-time)								
Full-time	65	75	58	76	66	65	67	66
Sector (private/public)								
Private	47	48	56	61	64	44	56	52
Graduate status (graduate/non-graduate)								
Graduate	37	49	46	54	36	48	35	37
Total N (unweighted)	11,252	2,314	1,090	482	319	506	19,193	35,156

Notes: Statistics adjusted for complex survey design.

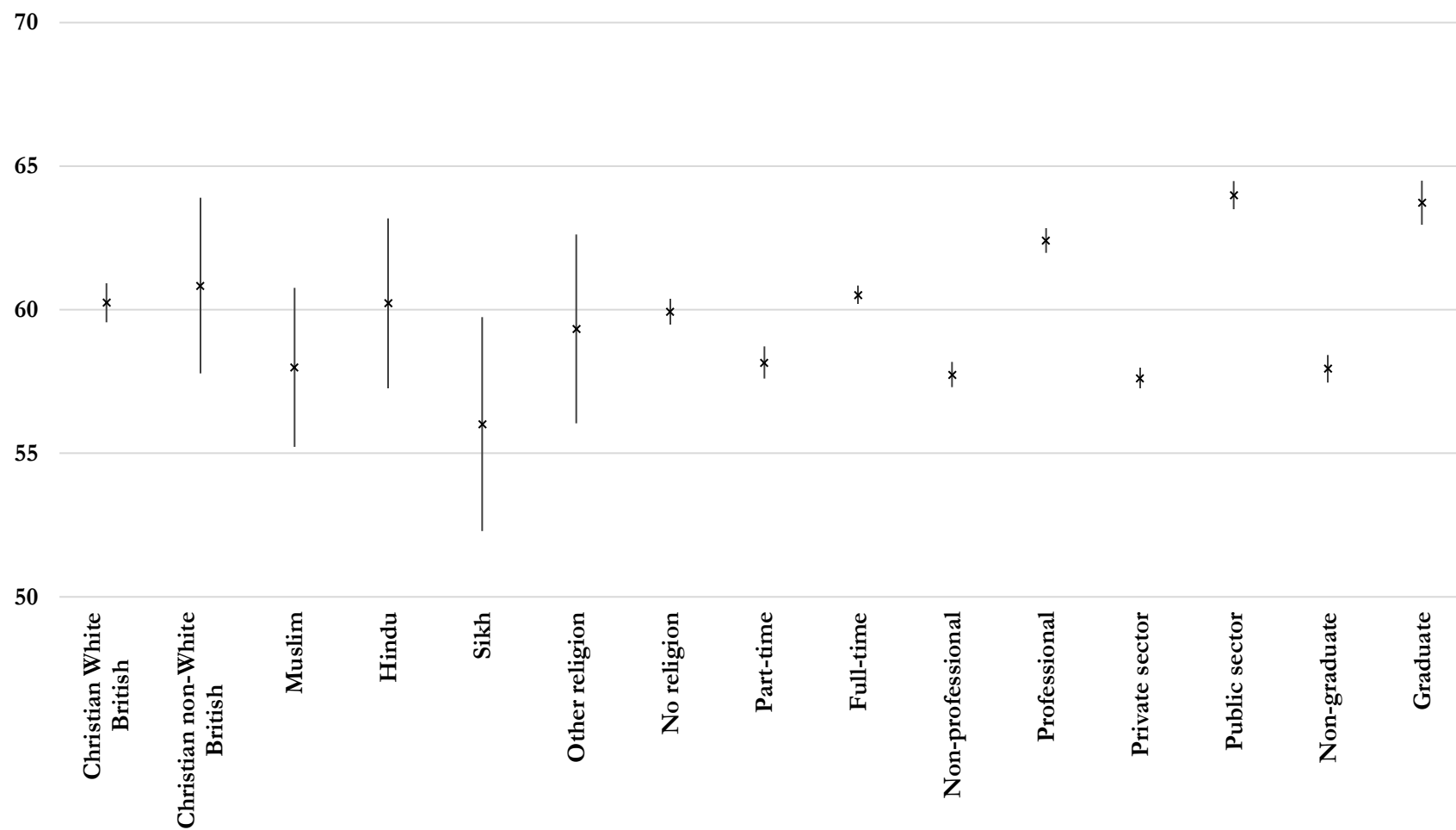
## **6.2.2. Multivariate analysis**

### **6.2.2.1. Mean overall job quality by religious group**

Figure 6.1 displays the predicted mean job quality score by religious background and reveals a previously unknown feature about the distribution of good quality jobs in Britain. Recall that scores have a lower bound of zero and an upper bound of 100, where a higher value signifies better job quality than a lower one and 50 is the middle value. After adjusting for the survey complex design, period effects, and the dataset's hierarchical nature, the evidence shows that different religious groups do not appear to enjoy similar levels of job quality in Britain. On average, non-White British Christians occupy better quality jobs than all. They are followed by Christian White British, Hindus, and those with no religious affiliation who experience a similar job quality level. The Other Religion group exhibits a score that is around one point lower than these three. The two worst performing groups are Muslims and Sikhs whose scores are around three and five points lower than the Christian White British group, respectively.

The graph also confirms already known facts from existing research (Chapter 1). That is, that non-professional, part-time, and private sector work are of relatively low quality, while their opposites, professional, full-time, and public sector work are, on average, relatively better quality jobs. Overall, those in full-time employment enjoy job quality that is nearly two and a half points higher than part-time workers. Equally, being a non-professional is associated with job quality that is nearly five points lower than professional employment. Meanwhile, working in the private sector is associated with a score that is over six points lower than employment in the public sector. Graduates also enjoy a job quality that is nearly six points higher than their non-graduate peers.

**Figure 6.1.** Mean job quality score by employee and employment characteristics



Notes: Statistics adjusted for complex survey design, period effects, and multilevel data structure; vertical lines depict 95 per cent confidence interval.

Table 6.3 presents the scores separately for men and women. The evidence reveals that, among men, non-White British Christians, Hindus and the No religion group all display roughly the same overall job quality score as Christian White Britons. Sikh men display a score that is on average nearly eight points lower than that of White British Christian men. This is the lowest overall score. The Other Religion group and Muslims also display some of the lowest scores but they are still far above that of Sikhs. Among women, it is Muslims, with a score that is on average nearly four points lower than that of White British Christians who display the lowest overall job quality score. They are followed by Sikhs. Meanwhile, Christian non-White British women display the highest score; over one point higher than the Christian White British group. Hindus, people in the ‘other’ religion group, and those with no religious affiliation display a similar score to that of the Christian White British group.

**Table 6.3.** Mean job quality by religious affiliation and gender (no controls)

	<b>Men</b>	<b>Women</b>
<b>Christian White British</b>	60.1 (59.1; 61.2)	60.3 (59.5; 61.1)
<b>Christian non-White British</b>	59.8 (54.2; 65.4)	61.5 (58.5; 64.6)
<b>Muslim</b>	58.8 (54.9; 62.7)	56.7 (54.0; 59.4)
<b>Hindu</b>	60.1 (56.2; 64.1)	60.3 (55.6; 65.0)
<b>Sikh</b>	52.2 (44.9; 59.6)	58.3 (56.3; 60.3)
<b>Other religion</b>	58.4 (54.1; 62.8)	60.3 (55.7; 64.9)
<b>No religion</b>	60.0 (59.4; 60.6)	59.9 (59.3; 60.5)

Notes: Statistics adjusted for complex survey design, periods effects, and multilevel data structure; 95 per cent confidence interval in brackets.

#### **6.2.2.2. Distribution of overall job quality by religious group**

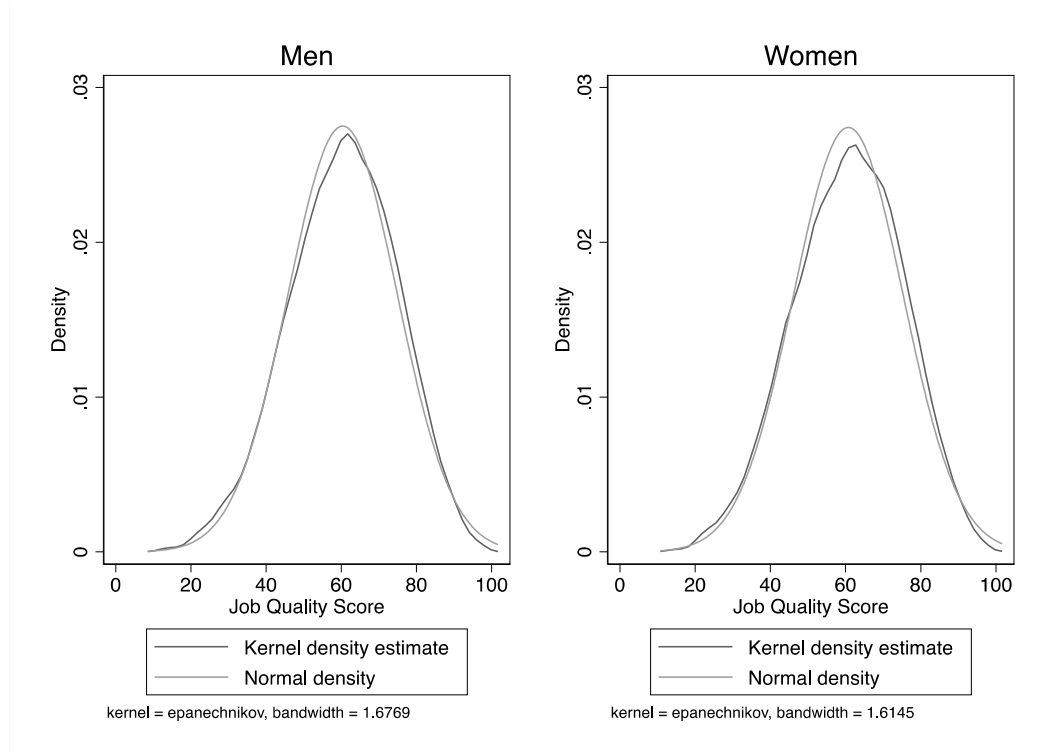
Having discussed the mean as one measure of central tendency, in this section I examine the distribution of job quality across religious groups. This highlights the relative frequency of all possible values. I do this through the Kernel density plot which effectively shows a smooth version of a histogram. I also compare each distribution to a normal one. Normal distributions are the most popular type of distribution with well-known characteristics. They are unimodal with equal values for the mean, mode and median. They are also symmetric with values generally clustering around



the mean.<sup>23</sup> Comparing the distribution of job quality to that of a normal distribution therefore offers a useful point of reference.

Figure 6.2 reveals that job quality is normally distributed in the sample. Figure 6.3 shows that this distribution of jobs broadly applies to both men and women even when looking at distributions separately for each religious group. Although, the distribution among Muslim men and women appears slightly more platykurtic. This suggests that this group has a lower likelihood of extreme values (i.e. thinner tails).

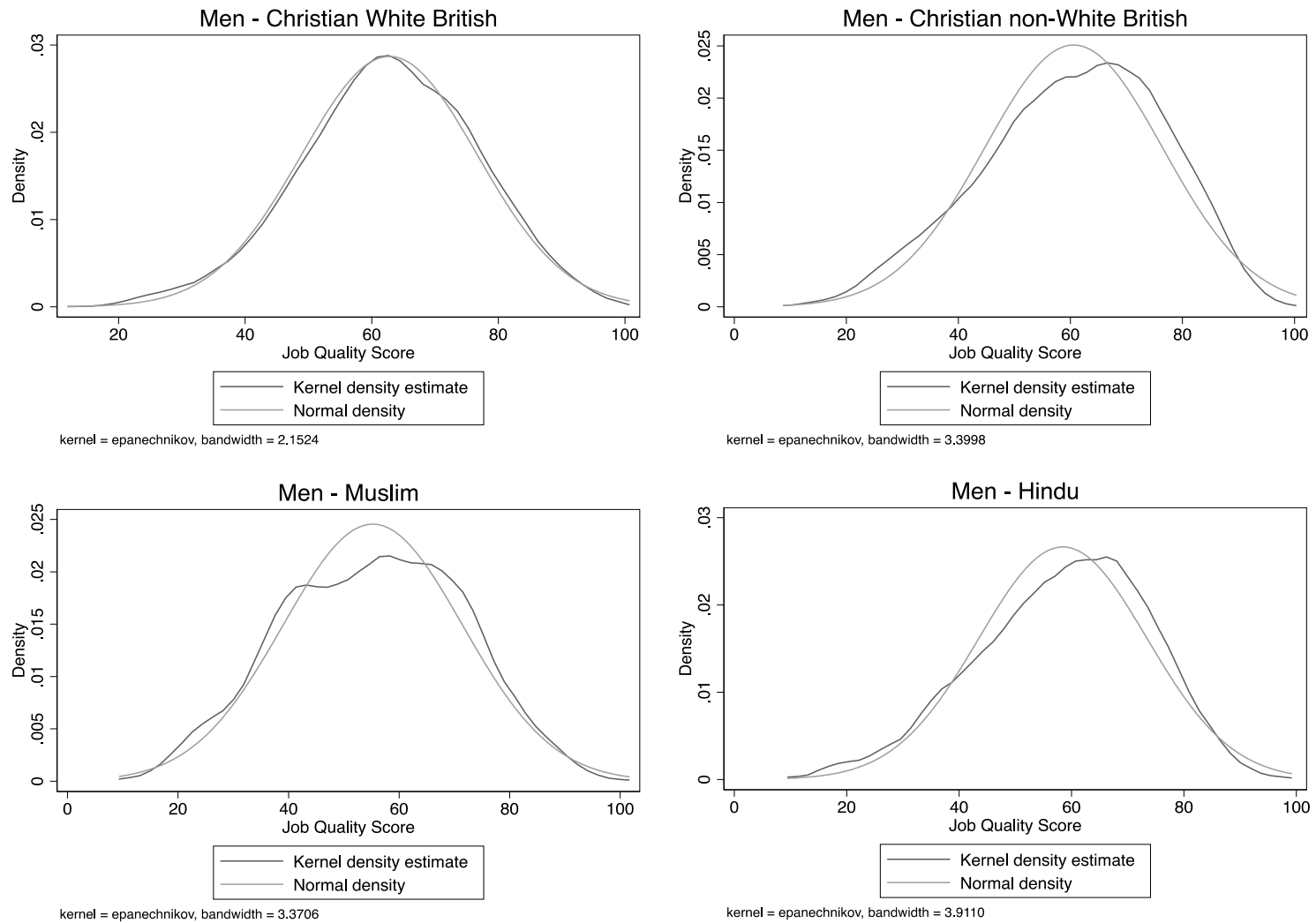
**Figure 6.2.** Distribution of job quality by gender



Notes: Data not adjusted for complex survey design nor for multilevel structure.

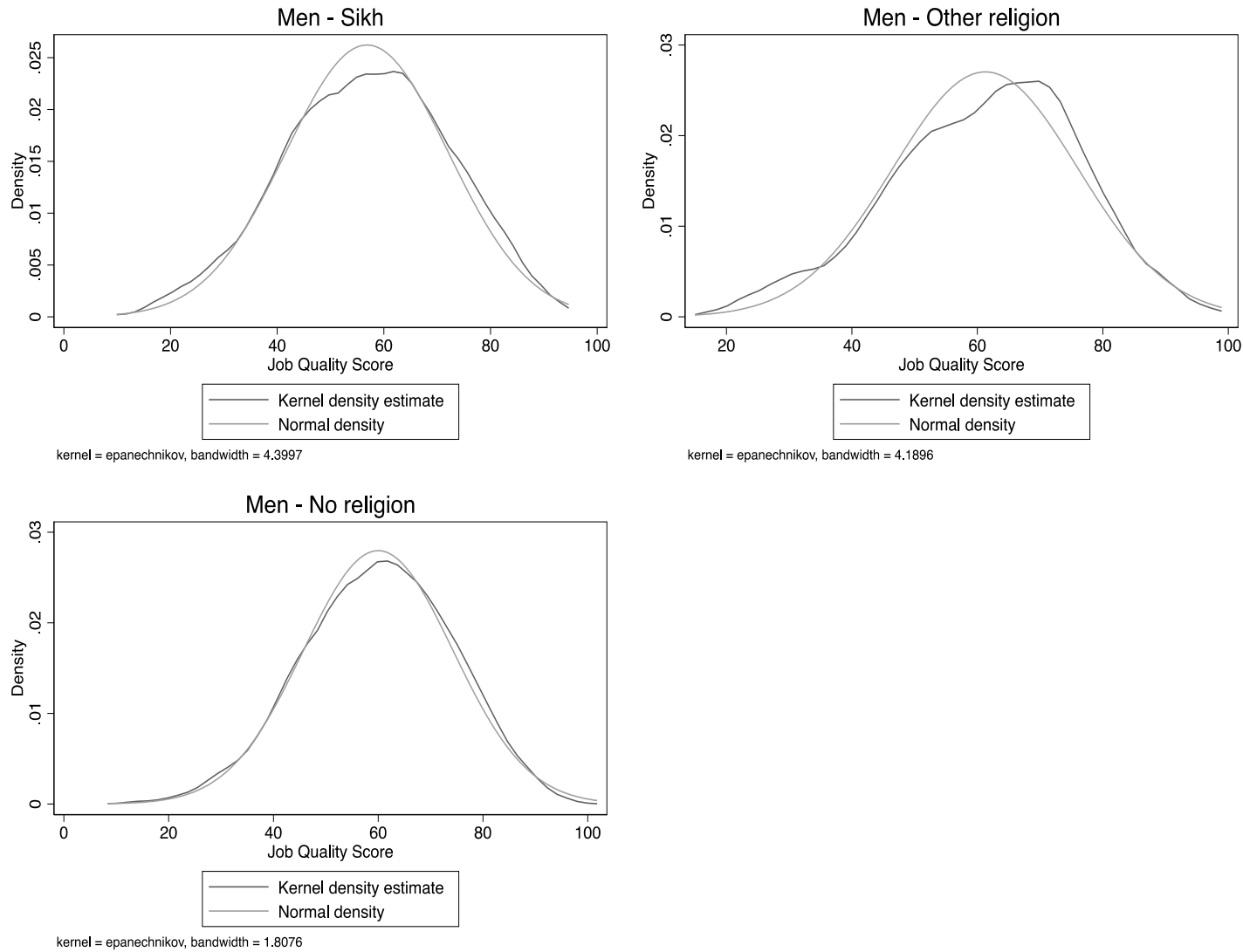
<sup>23</sup> In a normal distribution 68 per cent of observations are within one standard deviation of the mean, 95 percent are within two standard deviations, and 99.7 per cent are within three standard deviations.

**Figure 6.3.** Distribution of job quality by gender and religious affiliation



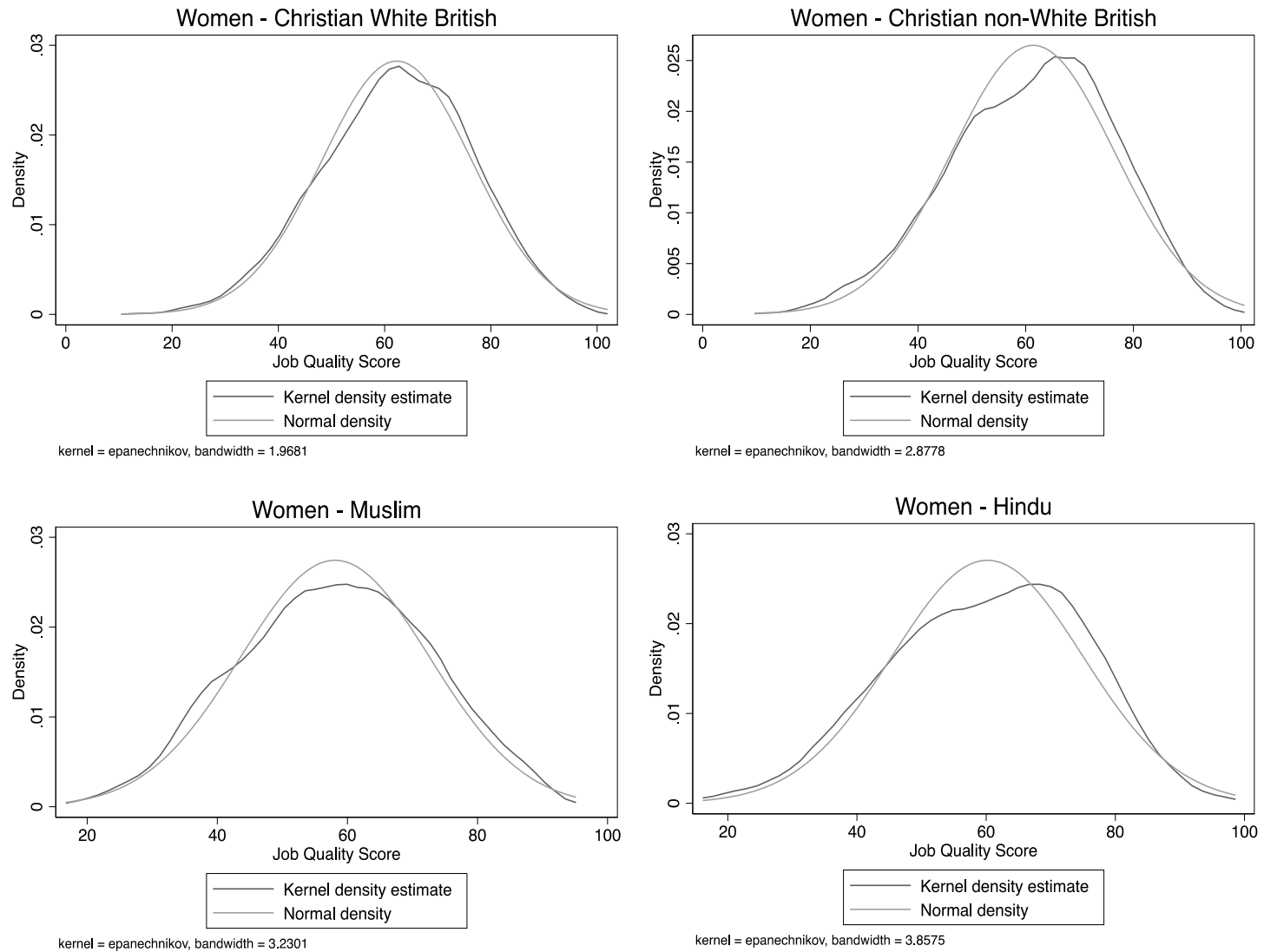
Notes: Data not adjusted for complex survey design nor for multilevel structure.

**Figure 6.3.** Distribution of job quality by gender and religious affiliation (cont)



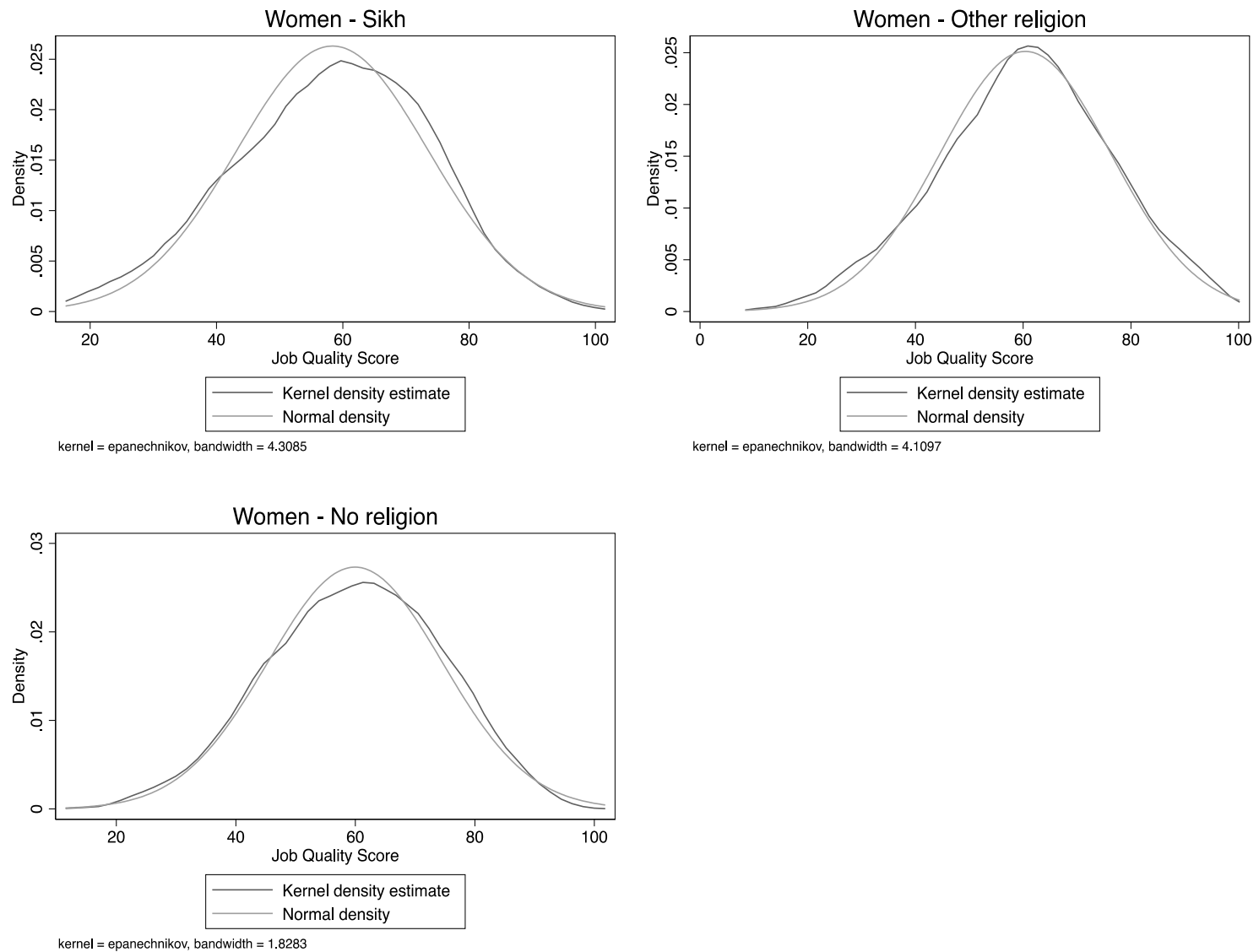
Notes: Data not adjusted for complex survey design nor for multilevel structure.

**Figure 6.3.** Distribution of job quality by gender and religious affiliation (cont)



Notes: Data not adjusted for complex survey design nor for multilevel structure.

**Figure 6.3.** Distribution of job quality by gender and religious affiliation (cont)



Notes: Data not adjusted for complex survey design nor for multilevel structure.

### 6.2.2.3. Religious differences in overall job quality

Table 6.4 shows that after controlling for period effects, age, age-squared, and graduate status, and adjusting for the complex survey design, the most compatible estimated difference for Sikh men relative to Christian White British men is minus eight. For Muslim men it is minus two, with the range marginally including zero. The same is true for men in the ‘other’ religion group. The estimated mean differences for other male groups - Christian non-White British, Hindus, and No religion - are below one with wide confidence intervals. Among females, Muslims display the largest estimated mean difference which is four points lower than that of their Christian White British peers. They are followed by Sikhs who exhibit a difference that is half that, at minus two. The mean differences for Hindus, those in the ‘other’ religion group, and those with no religious affiliation are equal to or below one point with their ranges including zero. Non-White British Christians are the only group with a positive mean difference, but the estimate - which has a wide range that also includes zero - is close to zero.

**Table 6.4.** Mean difference in job quality by religious affiliation

	Men	Women
<b>Christian White British</b>	<i>Ref</i>	<i>Ref</i>
<b>Christian non-White British</b>	-0.9 (-5.1; 3.2)	0.3 (-2.0; 2.7)
<b>Muslim</b>	-2.0 (-4.8; 0.8)	-3.9 (-6.1; -1.6)
<b>Hindu</b>	-0.9 (-3.8; 2.0)	-1.0 (-4.5; 2.5)
<b>Sikh</b>	-8.0 (-13.1; -3.0)	-2.2 (-3.8; -0.6)
<b>Other religion</b>	-1.7 (-4.9; 1.5)	-0.6 (-3.8; 2.7)
<b>No religion</b>	-0.3 (-1.2; 0.6)	-0.4 (-1.2; 0.3)

Notes: Data adjusted for complex survey design & multilevel data structure; analysis controls for period effects, age, age-squared, and graduate status; 95 per cent confidence interval (CI) in parenthesis; highlighted cells indicate CI does not include zero.

Table 6.4 reveals that Christian non-White British women exhibit the highest overall job quality even after controlling for period effects, age, age-squared, and graduate status. Meanwhile, Table 6.5 reveals an additional new and critical insight; the lack of a gender difference in job quality seems particular to the Christian White British, Hindu, and No Religion groups only. Women in these groups also display a higher mean job quality than Muslim and Sikh men as well as men in the ‘other’ religion group.

**Table 6.5.** Mean job quality by religious affiliation and gender (with controls)

	Mean
<b>Christian White British male</b>	60.6 (59.9; 61.4)
<b>Christian White British female</b>	60.6 (60.0; 61.1)
<b>Christian non-White British male</b>	59.7 (55.7; 63.7)
<b>Christian non-White British female</b>	61.0 (58.8; 63.3)
<b>Muslim male</b>	58.5 (55.9; 61.1)
<b>Muslim female</b>	56.8 (54.6; 59.0)
<b>Hindu male</b>	59.6 (56.8; 62.5)
<b>Hindu female</b>	59.5 (56.0; 63.1)
<b>Sikh male</b>	52.6 (47.6; 57.6)
<b>Sikh female</b>	58.3 (56.8; 59.9)
<b>Other religion male</b>	58.9 (55.8; 62.1)
<b>Other religion female</b>	60.0 (56.7; 63.2)
<b>No religion male</b>	60.3 (59.9; 60.7)
<b>No religion female</b>	60.2 (59.8; 60.6)

Notes: Data adjusted for complex survey design & multilevel data structure; analysis controls for period effects, age, age-squared, graduate status, and includes an interaction between gender and religion; 95 per cent confidence interval in brackets.

More specifically, Table 6.6 shows that Muslim men - for whom the confidence interval marginally includes zero - have, on average, a job quality score that is two points lower than Christian White British women, while Sikh men display a difference that is four times that. Men who subscribe to another religion have a score that is also two points lower, although the range is too wide to make any substantive claims about the effect. The negative differences in mean job quality for male Sikhs and Muslims compared to White British Christian women suggest that whatever the pattern of gender inequality in job quality, it is likely moderated by religion. This, along with the findings from Table 6.4, provide a corrective to accounts in the literature (Warren, 2003) that suggest the experiences of job quality of all women are similar by virtue of their gender.

**Table 6.6.** Mean difference in job quality by religious affiliation relative to Christian White British women

	Difference
<b>Christian White British female</b>	<i>Ref</i>
<b>Christian White British male</b>	0.1 (-1.0; 0.8)
<b>Christian non-White British male</b>	-0.8 (-4.9; 3.2)
<b>Christian non-White British female</b>	0.5 (-1.9; 2.9)
<b>Muslim male</b>	-2.1 (-4.7; 0.6)
<b>Muslim female</b>	-3.8 (-6.1; -1.5)
<b>Hindu male</b>	-0.9 (-3.9; 2.0)
<b>Hindu female</b>	-1.0 (-4.6; 2.6)
<b>Sikh male</b>	-7.9 (-13.0; -2.9)
<b>Sikh female</b>	-2.2 (-3.9; -0.6)
<b>Other religion male</b>	-1.6 (-4.9; 1.6)
<b>Other religion female</b>	-0.6 (-3.9; 2.7)
<b>No religion male</b>	-0.3 (-1.0; 0.4)
<b>No religion female</b>	-0.4 (-1.1; 0.4)

Notes: Data adjusted for complex survey design & multilevel data structure; analysis controls for period effects, age, age-squared, graduate status, and includes an interaction between gender and religion; 95 per cent confidence interval (CI) in parenthesis; highlighted cells indicate CI does not include zero.

#### 6.2.2.4. Ethno-religious differentials in overall job quality

So far the study revealed hitherto unknown religious differentials in overall job quality. The data however allow us to break down the results even further to investigate, among groups where there is ethnic heterogeneity - namely, Christians, Muslims, and those with no religious affiliation - if all ethnic groups therein are equally impacted. This is not to suggest that other religious groups, such as Hindus, Sikhs, and Other Religion are homogenous, just that the data do not allow me to model their heterogeneity. Table 6.7 reveals that among men, all mean differences are negative suggesting that Christian White British men experience, on average, better job quality than members of all ethno-religious groups. Sikh men and Chinese men with no religious affiliation have the largest difference in job quality relative to White British Christian men. Both these groups display a score that is nearly nine points lower than White British Christian men, and although the confidence interval includes zero for Chinese men with no religious affiliation, the range of most compatible values is mostly negative. In fact, this more granular analysis shows that the earlier finding that those with no religious affiliation have similar overall job quality to Christian White British men is specific to the only two White groups with no religious affiliation. Black Caribbean



men and men in the 'other' ethnic group describing no religious affiliation both exhibit a job quality score that is more than three points lower than that of White British Christian men. Table 6.7 also shows that Muslim men across all ethnic group exhibit sizable negative mean differences relative to White British Christian men. While these confidence intervals all include zero, the findings for Muslim Bangladeshi men suggest this variation to show marginal significance. Bangladeshi Muslim men have a job quality score that is on average five points lower than that of White British Christian men.

Among women, the picture is less straightforward but in general differences in job quality score for those in minority ethnic and religious groups are negative relative to that of Christian White British women. Again, this suggests that women from a minority ethno-religious background experience on average lower job quality than Christian White British women. Only Christian Indians display a considerably better job quality than White British Christians. However, given their sample size - the smallest of all ethno-religious groups - and the large confidence interval, this finding should not be overemphasised. With the exception of Muslim Bangladeshi women, all female Muslim groups display considerably lower job quality than Christian White British women. With a score that is seven points lower, Muslim women in the 'other' ethnic group exhibit the largest mean difference. They are followed by Muslim Indians and Muslim Pakistanis who display a score that is over four and three points lower, respectively. For Sikh women, the most compatible mean difference is minus two points. Finally, as is the case or men, it is Chinese women with no religious affiliation who exhibit the lowest overall job quality score. It is nearly eight points lower than that of White British Christians.

**Table 6.7.** Mean difference in job quality by ethno-religious affiliation

	<b>Men</b>	<b>Women</b>
<b>Christian White British</b>	<i>Ref</i>	<i>Ref</i>
<b>Christian White Irish</b>	*	0.16 (-12.23; 12.55)
<b>Christian White Other</b>	-3.32 (-9.70; 3.06)	0.33 (-6.65; 7.32)
<b>Christian Black Caribbean</b>	-0.18 (-3.68; 3.32)	-0.43 (-3.23; 2.37)
<b>Christian Black African</b>	-0.28 (-8.38; 7.82)	-1.03 (-3.62; 1.57)
<b>Christian Indian</b>	*	6.54 (1.11; 11.98)
<b>Christian Asian Other</b>	*	0.07 (-4.62; 4.76)
<b>Christian Other</b>	-1.88 (-6.70; 2.93)	-0.80 (-6.17; 4.56)
<b>Muslim Bangladeshi</b>	-5.06 (-10.73; 0.60)	0.48 (-2.80; 3.77)
<b>Muslim Pakistani</b>	-3.07 (-7.39; 1.25)	-3.12 (-5.59; -0.65)
<b>Muslim Indian</b>	-2.96 (-8.45; 2.53)	-4.47 (-8.69; -0.24)
<b>Muslim Other</b>	-1.46 (-6.54; 3.63)	-6.90 (-10.52; -3.28)
<b>Hindu</b>	-2.08 (-4.84; 0.69)	-1.06 (-3.96; 1.84)
<b>Sikh</b>	-8.49 (-11.90; -5.08)	-2.26 (-4.35; -0.18)
<b>Other Religion</b>	-2.09 (-5.73; 1.55)	-0.85 (-3.92; 2.23)
<b>No Religion White British</b>	-0.25 (-1.14; 0.64)	-0.39 (-1.16; 0.39)
<b>No Religion White Other</b>	-0.52 (-4.13; 3.10)	-0.51 (-5.61; 4.59)
<b>No Religion Black Caribbean</b>	-3.25 (-6.27; -0.23)	0.52 (-3.14; 4.18)
<b>No Religion Black African</b>	*	-4.19 (-11.15; 2.78)
<b>No Religion Indian</b>	-2.21 (-6.22; 1.79)	-0.36 (-4.50; 3.78)
<b>No Religion Chinese</b>	-8.84 (-20.53; 2.85)	-7.52 (-10.37; -4.67)
<b>No Religion Other</b>	-3.45 (-7.27; 0.37)	-2.76 (-6.05; 0.52)

Notes: Data adjusted for complex survey design & multilevel data structure; analysis controls for period effects, age, age-squared and graduate status; \* signifies insufficient sample size to form stand-alone group; 95 per cent confidence interval (CI) in parenthesis; highlighted cells indicate CI does not include zero.

#### 6.2.2.5. Differences across job quality dimensions

Table 6.8 exhibits scores by dimension across religious groups. To facilitate visualisation, Figure 6.4 is a graphical representation of the results. It shows that Christian men (both groups) generally outperform their male peers across dimensions. Christian White British men score highest on Dimension 1 (Pay and Other Benefits), while Christian non-White British men display the highest scores for both Dimension 2 (Job Security and Representation) and Dimension 3 (Work-Life Balance). It is only Dimension 4 (Intrinsic Job Attributes) where Christian men are outscored by Hindu men. Female Christians (both groups) also overwhelmingly outscore their female non-Christian colleagues across dimensions on average. Christian non-White British women report the highest score for Dimension 1 (Pay and Other Benefits) and Christian White British women

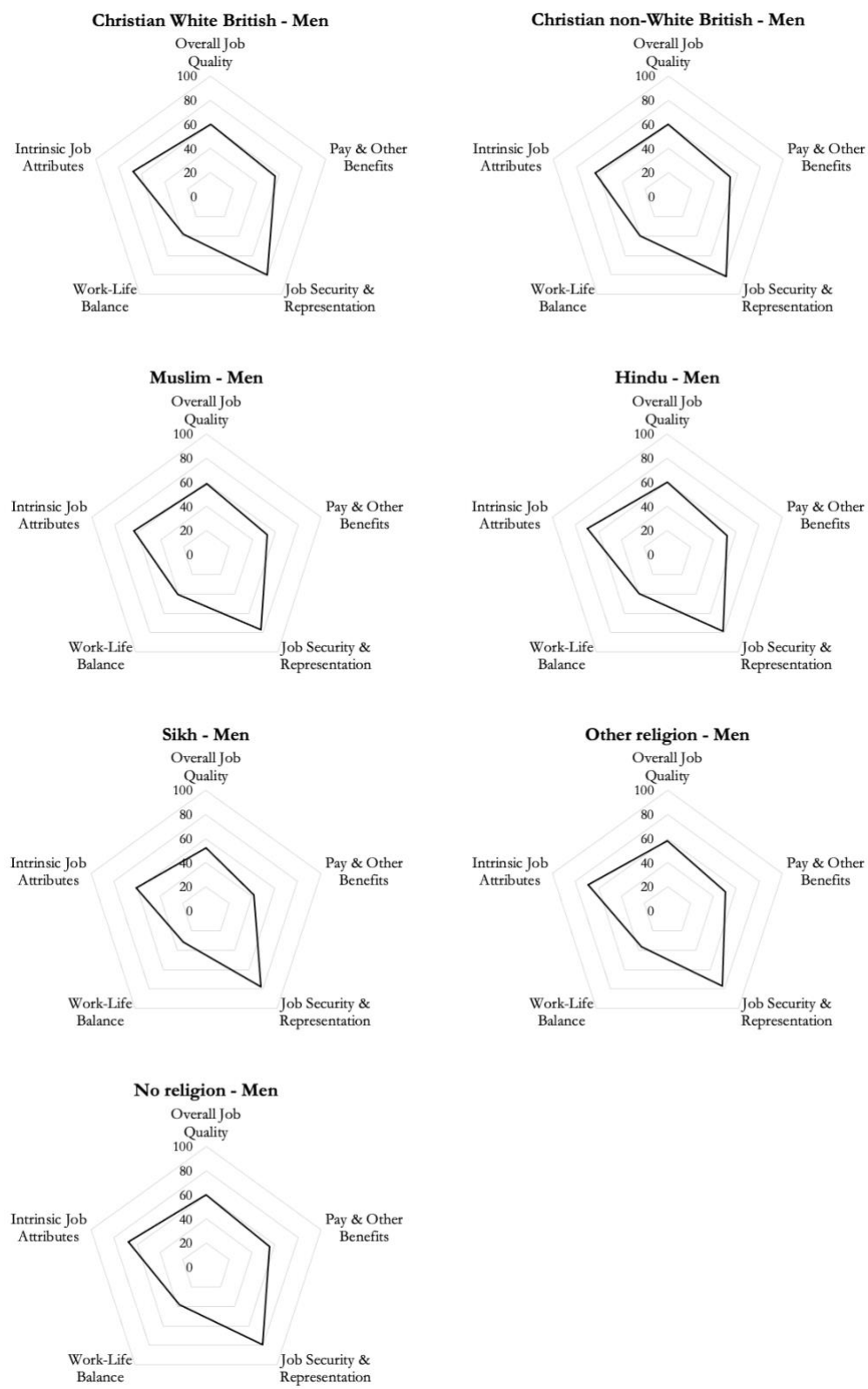
display the highest score across Dimension 2 (Job Security and Representation). That said, their advantage is less absolute. First, female Sikhs have the highest Dimension 4 (Intrinsic Job Attributes) score. Second, Hindus and those affiliated with 'other' religion report the highest scores for Dimension 3 (Work-Life Balance). Third, women who aver having no religious affiliation report a similarly high job quality score for Dimension 2 (Job Security and Representation) as the Christian White British group. Table 6.8 also reveals that for both genders, it is Dimension 2, Job Security and Representation, where all groups display the strongest scores. This is followed by Intrinsic Job Attributes (Dimension 4). Work-Life Balance (Dimension 3) is the area where scores are lowest across the board.

**Table 6.8.** Mean dimension scores by religious affiliation and gender

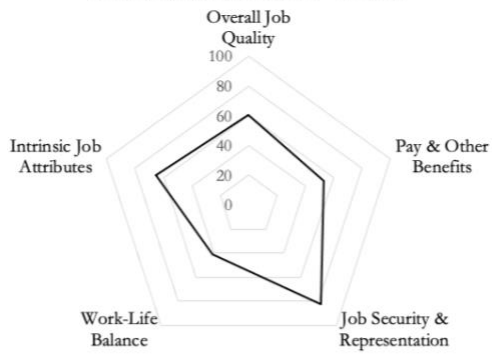
		Men	Women
<b>Christian White British</b>	Pay & Other Benefits	56.0 (54.0; 58.1)	52.9 (51.3; 54.4)
	Job Security & Representation	79.8 (78.4; 81.2)	82.5 (81.4; 83.6)
	Work-Life Balance	38.0 (36.4; 39.5)	40.8 (39.7; 41.9)
	Intrinsic Job Attributes	67.1 (65.2; 68.9)	65.3 (63.9; 66.8)
<b>Christian non-White British</b>	Pay & Other Benefits	53.9 (42.3; 65.6)	58.0 (52.9; 63.0)
	Job Security & Representation	81.7 (78.8; 84.6)	80.9 (77.2; 84.6)
	Work-Life Balance	40.1 (34.3; 46.0)	40.7 (34.9; 46.6)
	Intrinsic Job Attributes	63.9 (57.4; 70.4)	66.0 (61.5; 70.4)
<b>Muslim</b>	Pay & Other Benefits	53.1 (47.4; 58.8)	49.1 (42.7; 55.6)
	Job Security & Representation	77.0 (74.0; 80.0)	78.1 (73.5; 82.8)
	Work-Life Balance	40.3 (35.4; 45.3)	37.0 (33.9; 40.0)
	Intrinsic Job Attributes	63.6 (56.5; 70.6)	63.5 (58.0; 69.1)
<b>Hindu</b>	Pay & Other Benefits	52.2 (43.9; 60.4)	55.7 (47.2; 64.3)
	Job Security & Representation	78.2 (73.6; 82.8)	80.8 (77.7; 84.0)
	Work-Life Balance	39.5 (30.9; 48.1)	41.3 (35.7; 46.8)
	Intrinsic Job Attributes	69.8 (62.5; 77.0)	64.0 (57.4; 70.6)
<b>Sikh</b>	Pay & Other Benefits	41.9 (28.5; 55.4)	47.3 (38.3; 56.2)
	Job Security & Representation	77.5 (72.9; 82.1)	77.7 (71.5; 83.9)
	Work-Life Balance	31.9 (25.7; 38.2)	39.8 (34.4; 45.2)
	Intrinsic Job Attributes	60.9 (49.2; 72.7)	67.8 (58.4; 77.2)
<b>Other religion</b>	Pay & Other Benefits	50.6 (39.7; 61.4)	55.4 (49.4; 61.4)
	Job Security & Representation	76.9 (69.4; 84.5)	80.7 (74.8; 86.6)
	Work-Life Balance	36.9 (29.2; 44.7)	40.6 (32.1; 49.1)
	Intrinsic Job Attributes	69.3 (59.9; 78.7)	64.2 (57.6; 70.9)
<b>No religion</b>	Pay & Other Benefits	55.2 (54.1; 56.4)	52.4 (51.2; 53.5)
	Job Security & Representation	79.1 (78.4; 79.8)	82.0 (81.2; 82.8)
	Work-Life Balance	38.1 (37.3; 38.9)	40.2 (39.3; 41.0)
	Intrinsic Job Attributes	67.5 (66.5; 68.5)	65.0 (64.0; 66.0)

Notes: Statistics adjusted for complex survey design, periods effects, and multilevel data structure; 95 per cent confidence interval in brackets.

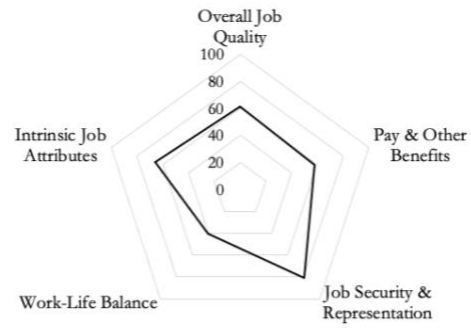
Figure 6.4. Job quality by religious affiliation and gender



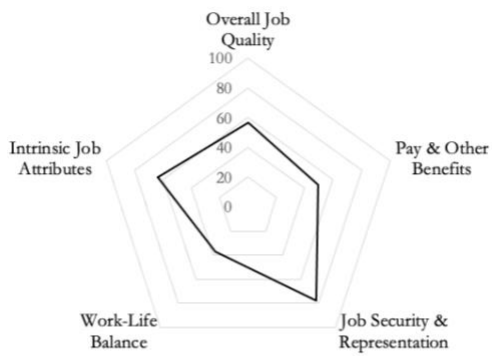
**Christian White British - Women**



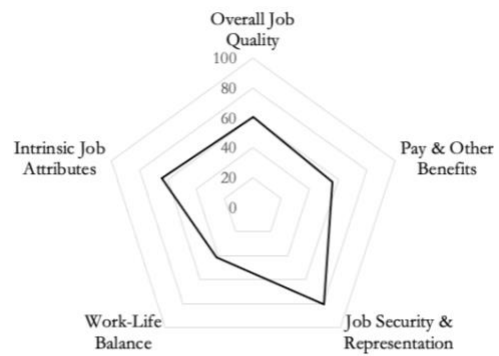
**Christian non-White British - Women**



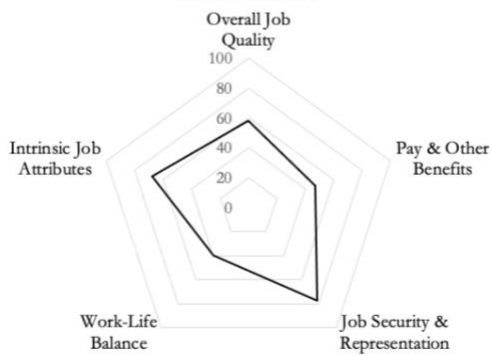
**Muslim - Women**



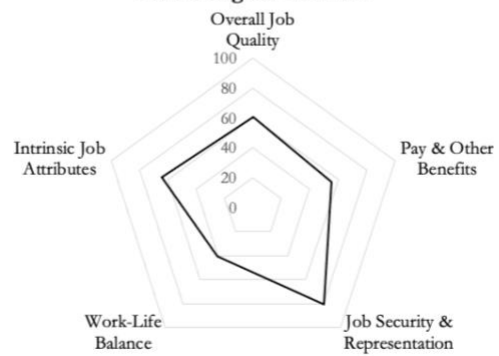
**Hindu - Women**



**Sikh - Women**



**Other religion - Women**



**No religion - Women**

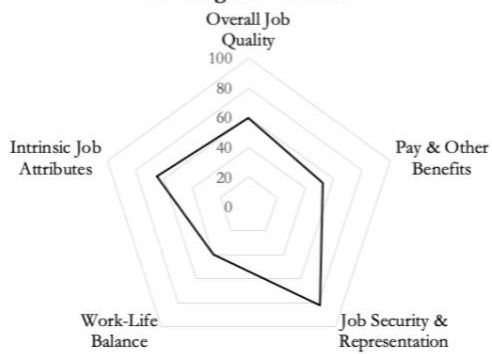


Table 6.9 shows that, among men, while some of the ranges surrounding the estimated coefficients are quite wide, possibly indicating an issue with sample size, they nevertheless tend to be mostly negative. The largest mean differences are associated with Dimension 1 (Pay and Other Benefits). The score for Sikh men is over 15 points lower, on average, than Christian White Britons. Muslim Bangladeshi men are however the most disadvantaged across all groups relative to White British Christians. Their score is 16 points lower than their Christian White British peers. Hindu men, Black Caribbean men with no religious affiliation, and people in the ‘other’ ethnic group with no religious affiliation also exhibit a lower score than White British Christians for Dimension 1. While their estimated difference is minus seven, their penalty is however half that of Muslim Bangladeshis and Sikhs. Sikh men are also the worst performing group in terms of Work-Life Balance (Dimension 3), however, they do not appear worse off in Dimension 2 (Job Security and Representation) or in Dimension 4 (Intrinsic Job Attributes) where their confidence intervals includes zero.

Instead, it is men who identify as Muslim and ‘other’ ethnicity (the largest constituting group being Muslim Black Africans at 34 per cent) who are the most disadvantaged in terms of Job Security and Representation (Dimension 2) relative to Christian White British men. Their score is five points lower than the latter group. With an estimated difference of minus three, the White Other group with no religious affiliation are also worse off relative to Christian White British men, albeit to a lesser extent. Differences in Dimension 4 (Intrinsic Job Attributes) are also relatively large across groups and it is Muslim groups, again, who exhibit the lowest scores relative to the Christian White British group. Muslim Bangladeshi men, again, and Muslim Indian men are the two groups with the largest negative mean difference in score relative to White British Christian men. Their job quality score is seven points lower.

**Table 6.9.** Men - Differences in dimension scores by ethno-religious affiliation

	<b>Dimension 1: Pay &amp; other benefits</b>	<b>Dimension 2: Job security &amp; representation</b>	<b>Dimension 3: Work-life balance</b>	<b>Dimension 4: Intrinsic job attributes</b>
<b>Christian White British</b>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>
<b>Christian White Other</b>	-6.63 (-19.92; 6.66)	-0.47 (-3.48; 2.54)	-2.04 (-9.08; 5.00)	-4.68 (-12.22; 2.86)
<b>Christian Black Carib.</b>	-5.82 (-13.58; 1.94)	0.39 (-4.21; 4.99)	0.00 (-5.23; 5.23)	4.43 (-1.09; 9.94)
<b>Christian Black African</b>	2.27 (-5.05; 9.59)	2.69 (-8.37; 13.76)	-1.62 (-5.38; 2.14)	-4.62 (-15.17; 5.94)
<b>Christian Other</b>	-3.53 (-10.87; 3.81)	0.83 (-3.79; 5.44)	3.69 (-3.31; 10.70)	-7.35 (-15.64; 0.93)
<b>Muslim Bangladeshi</b>	-15.69 (-23.95; -7.43)	-0.43 (-6.96; 6.10)	1.45 (-5.97; 8.87)	-6.62 (-11.28; -1.96)
<b>Muslim Pakistani</b>	-5.29 (-13.43; 2.86)	-1.00 (-3.68; 1.68)	-1.87 (-8.05; 4.31)	-5.46 (-12.43; 1.51)
<b>Muslim Indian</b>	-8.60 (-20.45; 3.25)	0.45 (-6.64; 7.54)	3.40 (-1.01; 7.81)	-7.03 (-13.87; -0.19)
<b>Muslim Other</b>	-0.77 (-6.44; 4.90)	-4.98 (-8.97; -1.00)	2.65 (-3.88; 9.19)	-3.21 (-14.49; 8.07)
<b>Hindu</b>	-7.48 (-13.32; -1.65)	-3.11 (-6.68; 0.45)	-3.08 (-7.81; 1.65)	3.43 (-2.34; 9.21)
<b>Sikh</b>	-15.16 (-20.67; -9.65)	-2.69 (-5.90; 0.51)	-7.27 (-10.72; -3.82)	-6.43 (-14.54; 1.68)
<b>Other Religion</b>	-6.20 (-15.31; 2.92)	-3.08 (-9.81; 3.64)	-2.14 (-8.32; 4.05)	2.64 (-4.95; 10.23)
<b>No Relig White British</b>	-0.89 (-2.74; 0.96)	-0.65 (-1.98; 0.68)	0.16 (-1.21; 1.53)	0.18 (-1.38; 1.74)
<b>No Relig White Other</b>	0.84 (-7.14; 8.83)	-3.10 (-6.14; -0.05)	-1.02 (-6.04; 4.00)	0.82 (-4.63; 6.27)
<b>No Relig Black Carib.</b>	-7.69 (-14.17; -1.22)	-1.35 (-5.65; 2.94)	0.98 (-4.01; 5.98)	-5.17 (-10.50; 0.16)
<b>No Relig Indian</b>	-4.28 (-12.43; 3.86)	-3.04 (-7.43; 1.36)	-7.11 (-14.84; 0.63)	4.17 (-3.75; 12.10)
<b>No Relig Chinese</b>	-11.30 (-30.13; 7.53)	-10.65 (-25.14; 3.85)	-12.45 (-34.75; 9.86)	1.05 (-11.78; 13.88)
<b>No Relig Other</b>	-7.01 (-13.53; -0.49)	-1.44 (-5.21; 2.33)	-5.00 (-10.35; 0.36)	0.09 (-7.16; 7.35)

Notes: Data adjusted for complex survey design & multilevel data structure; analysis controls for period effects, age, age-squared, and graduate status; 95 per cent confidence interval (CI) in parenthesis; highlighted cells indicate CI does not include zero.

Among women, the more granular analysis in Table 6.10 shows that it is Muslim Pakistani women and Muslim Indian women who are the two groups with the lowest scores across the board for Dimension 1 (Pay and Other benefits). Their scores are eight and nine points lower compared to Christian White British women. Women in the ‘other’ ethnic group (the largest group, 37 per cent, therein being those who identify as ‘any other mixed’ or ‘Asian and White mixed’) who have no religious affiliation also exhibit a score that is eight points lower than Christian White British women. The estimate associated with Dimension 1 for Sikh women is minus six and is marginally significant.



**Table 6.10.** Women - Differences in dimension scores by ethno-religious affiliation

	<b>Dimension 1: Pay &amp; other benefits</b>	<b>Dimension 2: Job security &amp; representation</b>	<b>Dimension 3: Work-life balance</b>	<b>Dimension 4: Intrinsic job attributes</b>
<b>Christian White British</b>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>
<b>Christian White Irish</b>	6.12 (-6.35; 18.58)	6.03 (-19.15; 31.21)	-4.75 (-9.31; -0.20)	-4.19 (-14.54; 6.16)
<b>Christian White Other</b>	1.10 (-7.85; 10.04)	-7.19 (-11.58; -2.79)	2.75 (-9.96; 15.45)	1.81 (-5.90; 9.51)
<b>Christian Black Carib.</b>	4.30 (-0.22; 8.83)	-1.40 (-4.17; 1.38)	-3.12 (-6.13; -0.10)	-1.69 (-6.35; 2.97)
<b>Christian Black African</b>	0.10 (-4.67; 4.87)	0.61 (-2.80; 4.02)	-4.44 (-7.61; -1.28)	-1.04 (-5.67; 3.59)
<b>Christian Indian</b>	5.52 (-4.69; 15.74)	6.75 (1.21; 12.28)	-0.39 (-7.10; 6.32)	10.31 (0.31; 20.31)
<b>Christian Asian Other</b>	-2.78 (-11.52; 5.96)	-3.04 (-9.90; 3.83)	-2.43 (-7.19; 2.33)	9.74 (3.80; 15.68)
<b>Christian Other</b>	6.28 (-1.71; 14.28)	-7.22 (-16.31; 1.87)	5.42 (-9.92; 20.76)	-7.92 (-16.93; 1.09)
<b>Muslim Bangladeshi</b>	-0.19 (-7.53; 7.16)	-0.53 (-5.59; 4.52)	0.26 (-5.17; 5.70)	2.28 (-2.49; 7.06)
<b>Muslim Pakistani</b>	-8.01 (-13.12; -2.90)	-0.70 (-3.90; 2.50)	-4.02 (-7.05; -0.99)	0.14 (-4.06; 4.33)
<b>Muslim Indian</b>	-9.45 (-17.16; -1.73)	-5.51 (-13.90; 2.87)	-5.27 (-11.19; 0.65)	1.62 (-5.21; 8.46)
<b>Muslim Other</b>	-4.42 (-11.71; 2.87)	-6.99 (-13.81; -0.16)	-6.93 (-10.76; -3.10)	-8.58 (-17.99; 0.84)
<b>Hindu</b>	0.76 (-5.21; 6.74)	-2.88 (-5.88; 0.11)	-1.13 (-4.77; 2.51)	-1.48 (-5.66; 2.71)
<b>Sikh</b>	-5.73 (-11.97; 0.51)	-5.51 (-8.36; -2.67)	-2.01 (-6.11; 2.09)	2.87 (-2.19; 7.93)
<b>Other Religion</b>	0.88 (-3.50; 5.26)	-3.06 (-7.52; 1.40)	-0.41 (-5.99; 5.18)	-1.51 (-6.28; 3.26)
<b>No Relig White British</b>	-0.35 (-1.88; 1.17)	-0.31 (-1.41; 0.79)	-0.60 (-1.71; 0.50)	-0.43 (-2.00; 1.13)
<b>No Relig White Other</b>	-0.71 (-8.21; 6.79)	-6.48 (-10.08; -2.87)	3.29 (-6.04; 12.61)	-0.71 (-7.02; 5.61)
<b>No Relig Black Carib.</b>	0.60 (-5.36; 6.56)	-1.88 (-5.69; 1.93)	2.08 (-1.72; 5.88)	-0.05 (-5.21; 5.11)
<b>No Relig Black African</b>	-2.29 (-14.96; 10.39)	5.12 (-0.54; 10.78)	-4.89 (-11.54; 1.76)	-12.05 (-23.20; -0.91)
<b>No Relig Indian</b>	-0.25 (-7.62; 7.12)	-2.49 (-5.70; 0.73)	-3.04 (-8.92; 2.85)	3.02 (-3.72; 9.77)
<b>No Relig Chinese</b>	-3.74 (-9.92; 2.45)	-11.42 (-16.26; -6.57)	-6.11 (-10.59; -1.64)	-6.27 (-11.76; -0.77)
<b>No Relig Other</b>	-7.51 (-12.65; -2.37)	-0.21 (-5.95; 5.53)	-3.51 (-8.11; 1.09)	1.16 (-3.83; 6.15)

Notes: Data adjusted for complex survey design & multilevel data structure; analysis controls for period effects, age, age-squared, and graduate status; 95 per cent confidence interval (CI) in parenthesis; highlighted cells indicate CI does not include zero.

Table 6.10 also shows that among women the estimated differences relative to the Christian White British group are mostly negative for Dimension 2 (Job Security and Representation). It also shows considerable differences in how these variances are distributed across ethno-religious groups. Chinese women with no religious affiliation display the largest estimated mean difference with a job score that is over 11 points lower than White British Christian women. Meanwhile, among Muslim women, it is Muslims in the ‘other’ ethnic group - the highest proportion of which are Muslim Black Africans (32 per cent) - who display the largest mean difference. Their job quality score is seven points lower than Christian White British women. Christian White Other display a comparable mean difference, while White Other women with no religious affiliation also exhibit

lower job quality. Their Dimension 2 score, like that of Sikh women, is over six points lower than their Christian White British peers.

With regard to Dimension 3 (Work-Life Balance), among Muslims, only Muslim Bangladeshi women appear to display a mean score that is close to zero. All other female Muslim groups - Muslim Other, and Muslim Indians, and Muslims Pakistanis - exhibit a job quality score that are lower than that of Christian White British women in the range of four to seven points. The estimate for Muslim Indians is marginally significant. There are also considerable differences among those who have no religious affiliation and Christian non-White British people. Specifically, Table 6.10 shows that, after Muslim women in the 'other' ethnic group, Chinese women with no religious affiliation exhibit the largest negative mean difference relative to female White British Christians. Meanwhile, Christian Black African, Christian White Irish and Christian Black Caribbean women all display scores that are between three and five points lower than Christian White British women.

In terms of Dimension 4 (Intrinsic Job Attributes), Table 6.10 shows that, again, it is Chinese women with no religious affiliation who display one of the largest mean differences relative to White British Christian women. Although, with a job quality that is 12 points lower than Christian White Britons, the coefficient for Black African females with no religious affiliation is nearly double that of Chinese women with no religious affiliation. Muslim women in the 'other' group, for whom, as discussed, Black Africans form the largest single proportion (32 per cent), display a job quality score that is nearly nine points lower than White British Christian women. While the range of values does include zero, it only does so marginally. Christian Indian and Christian Asian Other women display considerably larger job quality scores than the Christian White British group, although as previously discussed this result should not be overemphasised given the large confidence interval which is likely due to small sample size.

#### **6.2.2.6. Differences in job quality by employment type**

To understand whether differences in job quality can be explained by factors related to people's employment profile this section examines the extent to which job quality inequalities change when employment characteristics are adjusted for. The employment types I adjust for are (i)

professional/non-professional occupations, (ii) full-/part-time work, and (iii) public/private sector employment. As previously discussed, these are areas where job quality is known to differ and are associated with being of high/low quality. This analysis therefore shows whether all groups benefit equally from better job quality when occupying ‘good’ quality jobs, and/or if they are similarly disadvantaged when in ‘poor’ quality roles.

#### 6.2.2.6.1. Occupational class

In general, religious and ethno-religious differences in job quality are not explained by variations in the extent to which people in different groups are concentrated in professional or non-professional employment. Comparing differences based on religious affiliation among male professionals, non-White British Christians display a job quality that is three points higher than that of White British Christians (Table 6.11). This suggests that men from this group benefit from improved job quality more than their White British co-religionists when in professional occupations. Table 6.11 also shows that the relative mean differences to be close to zero for Muslims, Hindus and men with no religious affiliation. Table 6.12, which looks at differences across ethno-religious groups, reveals that the mean difference for Muslim men, irrespective of ethnicity, is close to zero. This suggests that the overall Muslim coefficient is not masking any intra-group variation and that for Muslim men there are no differences in job quality within professional occupations relative to Christian White British men.

**Table 6.11.** Differences in job quality by occupational class, gender and religious affiliation

	Professional		Non-professional	
	Men	Women	Men	Women
<b>Christian White British</b>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>
<b>Christian non-White British</b>	2.8 (0.5; 5.2)	-0.3 (-2.3; 1.6)	-6.3 (-13.7; 1.1)	-0.2 (-3.2; 2.8)
<b>Muslim</b>	0.1 (-3.7; 3.9)	-3.7 (-7.2; -0.3)	-2.9 (-5.2; -0.5)	-2.5 (-5.0; 0.1)
<b>Hindu</b>	0.0 (-3.7; 3.8)	-3.2 (-7.1; 0.7)	-2.1 (-7.4; 3.2)	3.9 (1.3; 6.5)
<b>Sikh</b>	-7.3 (-16.7; 2.1)	-1.3 (-4.2; 1.6)	-7.5 (-11.8; -3.2)	-2.8 (-4.7; -1.0)
<b>Other religion</b>	-2.6 (-6.5; 1.3)	4.6 (1.8; 7.4)	-0.7 (-5.2; 3.7)	-4.0 (7.6; -0.4)
<b>No religion</b>	-0.1 (-1.2; 1.0)	0.0 (-1.0; 1.0)	-0.4 (-1.7; 0.9)	-0.9 (-1.9; 0.1)

Notes: Data adjusted for complex survey design & multilevel data structure; analysis controls for period effects, age, age-squared, graduate status, and includes an interaction between occupational class and religion; 95 per cent confidence interval (CI) in parenthesis; highlighted cells indicate CI does not include zero.

**Table 6.12.** Differences in job quality by occupational class, gender and ethno-religious affiliation

	Professional		Non-professional	
	Men	Women	Men	Women
<b>Christian White British</b>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>
<b>Christian White Irish</b>	*	-2.6 (-7.6; 2.4)	*	0.8 (-17.7; 19.3)
<b>Christian White Other</b>	1.0 (-2.1; 4.1)	-2.3 (-5.5; 0.8)	-7.2 (-17.2; 2.7)	-1.1 (-6.2; 3.9)
<b>Christian Black Caribbean</b>	2.6 (-1.3; 6.5)	0.6 (-2.6; 3.8)	-3.5 (-8.0; 1.1)	-1.1 (-4.1; 1.9)
<b>Christian Black African</b>	3.1 (-0.1; 6.4)	1.8 (-0.5; 4.1)	-7.8 (-17.2; 1.5)	-2.6 (-6.2; 1.0)
<b>Christian Indian</b>	*	6.7 (0.9; 12.6)	*	1.4 (-11.5; 14.3)
<b>Christian Asian Other</b>	*	0.4 (-4.0; 4.8)	*	1.6 (-5.3; 8.5)
<b>Christian Other</b>	3.8 (-0.6; 8.1)	-0.1 (-2.8; 2.7)	-5.8 (-12.7; 1.1)	-2.7 (-11.5; 6.2)
<b>Muslim Bangladeshi</b>	0.3 (-4.5; 5.2)	0.2 (-5.0; 5.3)	-8.5 (-12.5; -4.5)	2.3 (-1.4; 5.9)
<b>Muslim Pakistani</b>	-0.3 (-6.8; 6.3)	-2.7 (-6.4; 1.1)	-4.4 (-7.4; -1.4)	-1.1 (-4.1; 1.9)
<b>Muslim Indian</b>	-0.1 (-5.2; 4.9)	-5.1 (-8.5; -1.7)	-3.2 (-11.7; 5.2)	-2.1 (-7.0; 2.9)
<b>Muslim Other</b>	-0.2 (-6.2; 5.8)	-5.7 (-11.0; -0.5)	1.8 (-2.4; 6.1)	-8.0 (-10.3; -5.7)
<b>Hindu</b>	-1.8 (-5.4; 1.8)	-2.3 (-5.4; 0.7)	-2.8 (-7.8; 2.1)	3.1 (0.3; 6.0)
<b>Sikh</b>	-7.8 (-10.9; -4.8)	-0.7 (-4.0; 2.6)	-7.8 (-12.3; -3.4)	-3.8 (-6.1; -1.5)
<b>Other Religion</b>	-3.1 (-7.5; 1.3)	4.6 (1.8; 7.5)	-0.6 (-5.4; 4.2)	-4.7 (-8.3; -1.1)
<b>No Religion White British</b>	0.0 (-1.2; 1.1)	0.0 (-1.1; 1.1)	-0.4 (-1.7; 0.8)	-0.8 (-1.8; 0.2)
<b>No Religion White Other</b>	-0.2 (-2.6; 2.2)	-2.2 (-5.2; 0.7)	0.6 (-7.1; 8.3)	-0.6 (-5.1; 3.9)
<b>No Religion Black Caribbean</b>	-2.6 (-6.3; 1.0)	4.4 (-0.4; 9.2)	-3.7 (-7.9; 0.5)	-2.4 (-7.0; 2.2)
<b>No Religion Black African</b>	*	2.2 (-1.6; 5.9)	*	-9.6 (-19.0; -0.1)
<b>No Religion Indian</b>	-3.7 (-8.2; 0.9)	2.9 (-2.7; 8.4)	-1.7 (-7.7; 4.3)	-2.9 (-6.3; 0.5)
<b>No Religion Chinese</b>	-6.3 (-17.4; 4.8)	-6.7 (-11.1; -2.4)	-10.2 (-16.7; -3.6)	-8.2 (-12.5; -3.9)
<b>No Religion Other</b>	-1.8 (-5.9; 2.3)	-1.3 (-4.1; 1.4)	-0.5 (-5.1; 4.1)	-4.6 (-9.2; 0.1)

Notes: Data adjusted for complex survey design & multilevel data structure; analysis controls for period effects, age, age-squared, and graduate status, and includes an interaction between occupational class and ethno-religious group; \* signifies insufficient sample size to form stand-alone group; 95 per cent confidence interval (CI) in parenthesis; highlighted cells indicate CI does not include zero.

By contrast, among men with no religious affiliation, Table 6.12 shows that the non-White groups appear worse off than the White groups relative to White British Christians. Chinese men with no religious affiliation display the largest mean difference, which is six points lower than that of the Christian White British men, although the wide confidence interval might suggest an issue with sample size. Still, the range of estimated differences is mostly negative. The same is true for Indians with no religious affiliation whose mean difference is minus four points relative to White British Christian men. Table 6.12 also shows that it is Christian Black Caribbeans and Christian Black Africans in particular who are advantaged among the Christian non-White British group.

Although, the range of possible estimates does include zero, but only just for Christian Black Africans. Finally, the job quality score for Sikh professional men is eight points lower than their Christian White British peers. This suggests that differences in job quality cannot be explained by differences in professional status for this group.

Among female professionals, Table 6.11 reveals that even after adjusting for occupational class, it is Muslims, with a job quality score that is four points lower than White British Christians, who experience the lowest job quality. This indicates that differences in job quality persist for Muslim women even within professional occupations. However, Table 6.12 reveals important intra-group heterogeneity. While the mean difference for Muslim Bangladeshis is close to zero, Muslim women in the 'other' ethnic group (the highest proportion of which - 32 per cent - are Muslim Black Africans) and Muslim Indian women are those who are particularly worse off. Their job quality scores are six and five points lower, respectively, than that of the Christian White British group, suggesting that - on average - women from those groups do not benefit to the same extent from improved job quality as White British Christian women when in professional occupations. Muslim Pakistani female professionals also experience job quality that is three points lower than White British Christians, although their confidence interval includes zero. Meanwhile, the difference between Sikh professional women and White British Christian female professionals is estimated to be close to zero. Female Chinese professionals with no religious affiliation exhibit the lowest job quality score relative to their Christian White British peers. They display a score that is seven points lower. By comparison, Christian Indian professional women exhibit the highest job quality score relative to their White British Christians peers.

Among non-professional women, Table 6.12 also shows important variations among Muslims. Among non-professionals, it is Muslim women in the 'other' ethnic group who are, again, particularly worse off with a score that is eight points lower than their Christian White British peers. The difference in score for Sikh non-professional women relative to Christian White British non-professional women is half that. Among those with no religious affiliation, Chinese non-professional women also display a score that is eight points lower than Christian White British non-professional women. However, it is Black African non-professional women with no religious affiliation who, on average, appear to experience the lowest job quality with a score ten points

lower than Christian White British non-professional women. This suggests that for all these groups differences in job quality cannot be explained by differences in professional/non-professional status. Female Hindu non-professionals are the only group who appear advantaged in terms of job quality relative to White British Christians. Their score is three points higher than their female White British Christian peers.

Among male non-professionals, it is again respondents of Chinese ethnicity with no religious affiliation who appear to experience the poorest job quality relative to the Christian White British group, with a score that is estimated to be ten points lower. Black Caribbean non-professional men with no religious affiliation also exhibit a lower job quality score than Christian White British non-professional men, although, at four points lower the drop is considerably smaller than it is for Chinese people with no religious affiliation. Meanwhile, Muslim Bangladeshis and Muslims Pakistanis (who are not worse off as professionals) appear disadvantaged when in non-professional occupations relative to White British Christians. Their scores are nearly nine and four points lower, respectively. This indicates that differences in job quality persist for these groups even within non-professional occupations. As with professionals, Sikh men in non-professional roles exhibit a job quality score that is, on average, eight points lower than that of their Christian White British peers. All non-White Christian British groups display a negative mean differences. However, the large confidence intervals prohibit us from drawing any firm conclusions about any of these groups.

#### 6.2.2.6.2. *Part-time/full-time status*

Overall, religious and ethno-religious differences in job quality remain even after accounting for variations in the extent to which people in different groups are concentrated in full- or part-time work. Table 6.13 indicates that differences in job quality persist for Sikh men and women within full-time occupations. Sikh men in full-time roles display a job quality score that is on average nine points lower than their White British Christian peers, while Sikh women in full-time occupations exhibit a job quality score that is on average three points lower than their White British Christian peers. The same is also true for Muslim men and women, albeit to a lesser extent. Their job quality scores are on average two points lower, although both estimates are only marginally significant. Among female part-timers, it is Muslims followed by non-White British Christians

who experience considerably lower job quality relative to White British Christians. Table 6.13 shows that both their scores are approximately five points lower than the Christian White British group. This suggests that members of these groups appear to experience worse average job quality still compared to White British Christians when in already poor quality work. Table 6.13 also shows that Muslim male part-timers display a job quality score that is on average four points lower than that of their Christian White British peers. Although the confidence interval includes zero suggesting that there are no differences in job quality within part-time occupations, the range of estimates is mostly negative.

**Table 6.13.** Differences in job quality by part-time/full-time status, gender and religious affiliation

	Full-time		Part-time	
	Men	Women	Men	Women
<b>Christian White British</b>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>
<b>Christian non-White British</b>	-0.8 (-5.1; 3.4)	1.4 (-1.5; 4.3)	-3.7 (-9.7; 2.3)	-4.6 (-7.3; -1.9)
<b>Muslim</b>	-1.8 (-4.2; 0.6)	-2.1 (-4.7; 0.5)	-4.3 (-10.1; 1.5)	-5.3 (-8.3; -2.4)
<b>Hindu</b>	-0.2 (-3.0; 2.6)	-0.6 (-5.0; 3.8)	-11.7 (-18.3; -5.1)	-1.0 (-5.2; 3.3)
<b>Sikh</b>	-8.6 (-13.7; -3.6)	-2.5 (-4.6; -0.4)	-1.4 (-8.6; 5.8)	-1.6 (-3.9; 0.8)
<b>Other religion</b>	-1.3 (-4.5; 2.0)	-0.9 (-5.0; 3.2)	-8.8 (-15.1; -2.5)	1.9 (-2.2; 6.1)
<b>No religion</b>	-0.5 (-1.3; 0.4)	-0.3 (-1.2; 0.6)	2.3 (-2.0; 6.6)	-1.3 (-2.5; -0.1)

Notes: Data adjusted for complex survey design & multilevel data structure; analysis controls for period effects, age, age-squared, graduate status, and includes an interaction between part-time/full-time status and religion; 95 per cent confidence interval (CI) in parenthesis; highlighted cells indicate CI does not include zero.

The more granular analysis in Table 6.14 reveals that, among female Muslim full-timers, Muslim Indians and Muslims in the ‘other’ ethnic group are the two groups most disadvantaged, on average. Their scores are approximately six points lower than their White British Christian peers indicating that accounting for part-/full-time status cannot explain the difference in job quality for these Muslim groups. Table 6.14 also shows that, among male full-timers, Muslims in the ‘other’ ethnic group are the ones with lowest job quality score on average. It is three points lower. While the range includes zero, it only does so marginally. While this group is ethnically heterogenous, it is worth noting that the largest single ethnicity therein is Muslim Black African (34 per cent). While all other Muslim groups display a negative coefficient, their confidence intervals are too wide to draw any firm conclusions. Meanwhile, Chinese people with no religious affiliation, men and women, again, exhibit the largest negative mean difference among full-timers. The former have a

score that is nine points lower on average, while the latter a score that is eight points lower. While the range of estimates for men includes zero, I nevertheless note that the range is generally negative.

**Table 6.14.** Differences in job quality by part-time/full-time status, gender and ethno-religious affiliation

	Full-time		Part-time	
	Men	Women	Men	Women
<b>Christian White British</b>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>
<b>Christian White Irish</b>	*	4.7 (-8.2; 17.6)	*	-2.4 (-8.9; 4.1)
<b>Christian White Other</b>	-3.7 (-9.9; 2.5)	2.8 (-5.5; 11.1)	-0.7 (-13.5; 12.1)	-7.5 (-12.4; -2.5)
<b>Christian Black Caribbean</b>	0.9 (-2.5; 4.4)	-1.0 (-4.3; 2.2)	-10.5 (-18.4; -2.7)	-3.0 (-5.7; -0.3)
<b>Christian Black African</b>	2.3 (-2.7; 7.2)	-0.4 (-3.1; 2.3)	-4.8 (-12.4; 2.8)	-6.6 (-10.4; -2.8)
<b>Christian Indian</b>	*	5.8 (0.3; 11.4)	*	-1.1 (-11.2; 9.0)
<b>Christian Asian Other</b>	*	-1.3 (-6.0; 3.4)	*	-0.3 (-13.2; 12.6)
<b>Christian Other</b>	-1.6 (-6.4; 3.3)	-0.7 (-6.2; 4.9)	-2.9 (-12.6; 6.9)	-4.9 (-10.0; 0.1)
<b>Muslim Bangladeshi</b>	-0.6 (-5.4; 4.2)	2.0 (-1.5; 5.5)	-8.8 (-14.8; -2.8)	0.1 (-6.4; 6.6)
<b>Muslim Pakistani</b>	-2.3 (-6.9; 2.4)	-0.5 (-3.0; 2.0)	-6.1 (-12.3; 0.2)	-5.5 (-8.7; -2.2)
<b>Muslim Indian</b>	-1.8 (-6.9; 3.2)	-5.6 (-8.8; -2.4)	0.3 (-9.2; 9.9)	-2.9 (-9.3; 3.5)
<b>Muslim Other</b>	-2.9 (-6.3; 0.4)	-5.7 (-9.7; -1.6)	-1.3 (-8.1; 5.5)	-8.9 (-11.5; -6.4)
<b>Hindu</b>	-1.2 (-3.9; 1.6)	-0.8 (-4.2; 2.7)	-12.3 (-19.1; -5.5)	-1.9 (-5.6; 1.8)
<b>Sikh</b>	-9.0 (-12.4; -5.5)	-2.5 (-5.2; 0.1)	-2.0 (-9.6; 5.5)	-2.5 (-5.4; 0.4)
<b>Other Religion</b>	-1.6 (-5.2; 2.1)	-1.2 (-4.9; 2.4)	-8.8 (-15.2; -2.3)	1.7 (-2.4; 5.8)
<b>No Religion White British</b>	-0.4 (-1.3; 0.5)	-0.3 (-1.2; 0.6)	2.5 (-2.1; 7.1)	-1.3 (-2.5; 0.0)
<b>No Religion White Other</b>	-0.8 (-4.5; 2.9)	1.5 (-4.3; 7.2)	-1.4 (-14.1; 11.2)	-4.8 (-9.1; -0.6)
<b>No Religion Black Caribbean</b>	-1.5 (-4.5; 1.5)	1.4 (-3.0; 5.7)	-9.3 (-17.2; -1.3)	-1.1 (-5.3; 3.2)
<b>No Religion Black African</b>	*	-5.3 (-13.3; 2.7)	*	4.4 (-0.5; 9.3)
<b>No Religion Indian</b>	-2.1 (-5.9; 1.7)	-0.3 (-5.6; 5.1)	-10.5 (-21.9; 0.9)	-4.6 (-8.1; -1.0)
<b>No Religion Chinese</b>	-9.0 (-20.5; 2.5)	-8.3 (-11.3; -5.3)	-7.0 (-14.0; 0.0)	-6.8 (-16.7; 3.1)
<b>No Religion Other</b>	-3.3 (-6.8; 0.2)	-3.8 (-7.4; -0.3)	-2.5 (-9.6; 4.7)	-1.3 (-4.9; 2.3)

Notes: Data adjusted for complex survey design & multilevel data structure; analysis controls for period effects, age, age-squared, graduate status and includes an interaction between part-time/full-time status and ethno-religious group; \* signifies insufficient sample size to form stand-alone group; 95 per cent confidence interval (CI) in parenthesis; grey cells indicate CI does not include zero.

Table 6.14 also reveals important intra-group heterogeneity among Muslim male part-timers. In this case, it is Muslim Bangladeshis followed by Muslim Pakistanis who display a considerably lower score compared to Christian White British male part-timers. The estimate for Muslim Pakistanis, whose range marginally includes zero, is of six points. The coefficient is two thirds that of Muslim Bangladeshis. Table 6.14 also shows important variation among Muslim female part-



timers. While the estimate for part-time Muslim Bangladeshi women is close to zero, Muslim women in the 'other' ethnic group and Muslim Pakistani female part-timers display large mean differences. Their scores are nine and six points lower, respectively. This suggests that differences in job quality cannot be explained by differences in part-time status for these Muslim groups. Among male and female non-White British Christians, Christian Black Caribbeans part-timers appear particularly worse off relative to Christian White Britons. For men their job quality is approximately eleven points lower, while for women it is three points lower. With an estimated difference of minus seven points, Christian Black African female part-timers also appear to experience poorer job quality still when in putatively low quality work relative to Christian White British employees. This indicates that for these ethno-religious groups differences in job quality within part-time occupations remain. Table 6.14 also shows that Christian White Other female part-time workers experience worse job quality than their Christian White British peers. The mean difference stands at minus eight.

Hindu men appear as the group with the lowest relative job quality score among male part-time workers. Table 6.14 reveals their score to be twelve points lower than their Christian White British compatriots. Such a drop in job quality is not reflected among female Hindu part-time workers. Unusually, Sikhs - both genders - do not feature among the most disadvantaged groups when evaluating differences among part-time workers. Although, among women their job quality score is about three points lower than White British Christians with a range that only marginally includes zero. While the analysis by religious group suggests that male part-timers who have no religious association do not experience job quality that is significantly different than their Christian White British peers, Table 6.14 shows important within group heterogeneity. Men in part-time occupations who identify as Black Caribbean and as having no religious affiliation, and those who identify as Chinese and as having no religious affiliation both display considerably lower job quality scores (by nine and seven points, respectively) than the Christian White British group.

#### 6.2.2.6.3. *Sector*

Generally, religious and ethno-religious differences in job quality are not explained by variations in the concentration of private and public sector work. Table 6.15 reveals that among men, a

surprising finding transpires. After displaying lower job quality in nearly every other part of the analysis Sikh men employed in the public sector appear to enjoy superior job quality than their Christian White British colleagues. The increase is considerable too; the estimated difference is over six points. Conversely, Sikh women exhibit a job quality score that is two points lower than Christian White British female employees, although this is marginally significant. Table 6.15 also shows that while the overall coefficient for male Muslim public sector workers is close to zero, for female Muslim public sector workers, variances in job quality remain even after accounting for sectoral differences. Muslims are the only group among female public sector workers to experience poorer job quality. They display a job quality score that is on average four points lower than Christian White British female public sector workers.

Among private sector workers too Muslim women appear to be the only group who experience lower job quality on average relative to Christian White British women. While the confidence interval does (marginally) include zero, they display a mean difference in job quality that is approximately two points lower than female Christian White British private sector workers (Table 6.15). This suggests that differences in job quality cannot be explained by sector differences and that whether in public or private sector employment, Muslim women experience lower job quality still relative to their Christian White British female peers, on average. Male Muslim private sector workers also exhibit a job quality score that is lower than their Christian White British peers. Theirs is a score that is nearly four points lower. Sikh male private sector employees also display considerably lower job quality. With an estimate nine points lower relative to White British Christian male private sector workers, their difference is more than double that of their Muslim male peers.

**Table 6.15.** Differences in job quality by sector, gender and religious affiliation

	Private sector		Public sector	
	Men	Women	Men	Women
<b>Christian White British</b>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>
<b>Christian non-White British</b>	-1.1 (-4.6; 2.4)	-0.2 (-3.2; 2.8)	1.5 (-1.4; 4.4)	0.7 (-2.5; 3.9)
<b>Muslim</b>	-3.5 (-6.3; -0.7)	-1.8 (-4.2; 0.6)	-0.6 (-4.3; 3.1)	-3.8 (-6.4; -1.1)
<b>Hindu</b>	-1.1 (-4.3; 2.1)	-0.4 (-5.0; 4.3)	3.0 (-1.6; 7.7)	0.4 (-4.6; 5.3)
<b>Sikh</b>	-9.1 (-14.0; -4.2)	-0.6 (-2.8; 1.6)	6.5 (1.4; 11.6)	-2.3 (-5.3; 0.8)
<b>Other religion</b>	-0.6 (-3.8; 2.5)	0.0 (-3.5; 3.4)	-2.7 (-11.3; 6.0)	-0.8 (-6.8; 5.2)
<b>No religion</b>	-0.5 (-1.5; 0.5)	0.2 (-0.8; 1.2)	-0.5 (-1.9; 0.9)	-0.6 (-1.6; 0.4)

Notes: Results adjusted for complex survey design & multilevel data structure; analysis controls for period effects, age, age-squared, graduate status, and includes an interaction between sector and religion; 95 per cent confidence interval (CI) in parenthesis; grey cells indicate CI does not include zero.

The more granular analysis in Table 6.16 shows significant ethnic heterogeneity among Muslim men suggesting that the overall Muslim coefficient discussed above is masking important intra-group variation. Male Muslim Pakistani public sector workers appear to experience lower job quality than their Christian White British peers. Their score is six points lower. Meanwhile, the average mean difference for Muslim men in the ‘other’ ethnic groups is likely no different from zero. Muslim Pakistani female public sector employees also exhibit a job quality score that is six points lower than their Christian White British peers. Female Muslim Indian public sector workers are also considerably disadvantaged. Their job quality score, which is approximately ten points lower than their Christian White British peers, reflects the largest estimated difference across the board. This suggests that differences in job quality experienced by certain Muslim groups – male and female – cannot, once again, be explained by differences in employment characteristics. Chinese women with no religious affiliation employed in the public sector exhibit an estimate that is, on average, eight points lower than their Christian White British peers. Among men, however, Chinese people who aver having no religious affiliation are not worse off relative to White British Christians when employed in the public sector. On the other hand, male Indians and Black Caribbeans with no religious affiliation appear considerably disadvantaged. Their job quality scores when working in the public sector are seven and eight points lower than Christian White Britons, respectively.

**Table 6.16.** Differences in job quality by sector, gender and ethno-religious affiliation

	Private sector		Public sector	
	Men	Women	Men	Women
<b>Christian White British</b>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>	<i>Ref</i>
<b>Christian White Irish</b>	*	11.2 (-6.4; 28.9)	*	-6.7 (-15.0; 1.6)
<b>Christian White Other</b>	-1.9 (-6.4; 2.7)	-2.1 (-5.4; 1.1)	1.2 (-2.7; 5.0)	4.1 (-7.4; 15.5)
<b>Christian Black Caribbean</b>	0.6 (-3.7; 4.9)	-1.1 (-5.9; 3.8)	-0.3 (-7.0; 6.4)	-0.6 (-3.4; 2.2)
<b>Christian Black African</b>	-0.5 (-11.5; 10.5)	-1.7 (-5.0; 1.7)	-0.7 (-5.1; 3.7)	-2.5 (-5.1; 0.2)
<b>Christian Indian</b>	*	-4.0 (-15.3; 7.4)	*	3.9 (-0.8; 8.6)
<b>Christian Asian Other</b>	*	2.2 (-3.4; 7.8)	*	0.3 (-4.7; 5.4)
<b>Christian Other</b>	-2.1 (-7.7; 3.6)	-9.0 (-13.9; -4.1)	-2.9 (-8.1; 2.2)	4.7 (0.2; 9.3)
<b>Muslim Bangladeshi</b>	-8.7 (-12.3; -5.0)	-0.4 (-4.9; 4.0)	1.4 (-7.5; 10.3)	0.3 (-3.9; 4.4)
<b>Muslim Pakistani</b>	-1.8 (-6.6; 3.1)	-1.0 (-3.6; 1.7)	-5.8 (-9.3; -2.3)	-5.8 (-9.1; -2.5)
<b>Muslim Indian</b>	-4.0 (-10.8; 2.7)	-0.5 (-3.9; 2.9)	-1.0 (-4.8; 2.8)	-9.5 (-16.2; -2.8)
<b>Muslim Other</b>	-3.0 (-7.2; 1.2)	-3.5 (-8.3; 1.4)	0.0 (-5.6; 5.5)	-3.6 (-8.0; 0.8)
<b>Hindu</b>	-0.7 (-3.5; 2.1)	0.8 (-2.7; 4.3)	-1.9 (-7.9; 4.0)	-1.3 (-5.1; 2.5)
<b>Sikh</b>	-9.0 (-11.8; -6.1)	0.9 (-2.0; 3.7)	6.1 (0.9; 11.2)	-2.3 (-5.4; 0.8)
<b>Other Religion</b>	-0.6 (-4.2; 2.9)	-0.6 (-4.3; 3.1)	-3.2 (-12.3; 5.8)	-0.4 (-4.9; 4.1)
<b>No Religion White British</b>	-0.4 (-1.4; 0.6)	0.3 (-0.8; 1.3)	-0.4 (-1.9; 1.1)	-0.6 (-1.7; 0.4)
<b>No Religion White Other</b>	0.4 (-2.3; 3.2)	-1.5 (-5.1; 2.1)	-3.3 (-6.9; 0.3)	1.7 (-6.7; 10.1)
<b>No Religion Black Caribbean</b>	-2.1 (-5.7; 1.5)	0.6 (-6.0; 7.1)	-8.3 (-14.5; -2.1)	1.0 (-2.4; 4.3)
<b>No Religion Black African</b>	*	-10.4 (-18.9; -1.9)	*	0.0 (-2.9; 3.0)
<b>No Religion Indian</b>	0.2 (-4.2; 4.6)	3.9 (-1.2; 8.9)	-7.2 (-13.2; -1.3)	-6.7 (-15.4; 1.9)
<b>No Religion Chinese</b>	-10.9 (-23.7; 1.9)	-7.1 (-11.0; -3.1)	0.8 (-4.3; 6.0)	-7.9 (-13.1; -2.8)
<b>No Religion Other</b>	-3.7 (-8.1; 0.8)	-2.2 (-6.8; 2.4)	-4.2 (-10.5; 2.1)	-1.4 (-4.3; 1.5)

Notes: Data adjusted for complex survey design & multilevel data structure; analysis controls for period effects, age, age-squared, and graduate status, and includes an interaction between sector and ethno-religious group; \* signifies insufficient sample size to form stand-alone group; Male-only Private Sector model does not control for age-squared as model does not converge; 95 per cent confidence interval (CI) in parenthesis; grey cells indicate CI does not include zero.

Among Muslim male private sector employees, it is Muslim Bangladeshi men who exhibit the largest mean difference. Their score is nine points lower than that of Christian White British private sector employees (Table 6.16). Interestingly, this group is not disadvantaged as public sector workers. Conversely, Muslim Pakistani men who are considerably worse off as public sector employees relative to their Christian White British peers, are not disadvantaged as private sector workers. This finding indicates important differences between Pakistanis and Bangladeshis, suggesting that the common practice of combining both groups in ethnic penalty research is inappropriate. Sikh men working in the private sector experience a similarly large drop in job quality as Muslim Bangladeshis relative to Christian White British men. The estimate for Sikh

women working in the private sector relative to their Christian White British peers is, however, close to zero.

Among female private sector workers more generally, it is Black Africans with no religious affiliation who display the largest mean difference in job quality relative to White British Christians (Table 6.16). They experience a job quality level which is ten points lower. Christian Other women also experience a considerable drop in job quality when in private sector jobs relative to the Christian Whiter British group. The same is true for Chinese women with no religious affiliation employed in the private sector who, once again, are among those with the lowest job quality relative to Christian White Britons. This indicates that for all these groups, differences in job quality cannot be explained by the extent to which people in different groups are concentrated in private and public sector employment. Chinese men with no religious affiliation also appear to experience considerably lower job quality still when in private sector roles relative to Christian White British men. Although, the range of values in the confidence interval is broad and includes zero.

#### **6.2.2.7. Accounting for employment characteristics concurrently**

Having analysed religious and ethno-religious differences in job quality by employment type, this section extends the analysis by studying how distinct characteristics work together in forming job quality differences. In doing so, this analysis adds a deeper understanding of the inequalities revealed in the previous section. First, I evaluate differences by religious affiliation while concomitantly controlling for age, age-squared, period effects, graduate status, occupational class, part-/full-time status, sector, as well as including a three-way interaction between religious identity, occupational class, and sector. Second, I evaluate differences by ethno-religious affiliation while controlling for the same group of variables but excluding the three-way interaction. This is because, as discussed in Chapter 3 (Data and Methods), sample size considerations do not allow me to run such a complex model when using ethno-religious affiliation as the explanatory variable of interest.

#### 6.2.2.7.1. *Analysis by religious affiliation*

The additional depth provided by the analysis in this section is insightful, and the findings surprising. While the earlier analysis reveals that, among male professionals, Sikhs are the group who experience the most important negative mean differences relative to Christian White British men, Table 6.17 shows that this is likely entirely driven by Sikh professionals in the *private sector*. Their job quality score is eleven points lower than that of Christian White British men employed in the private sector. Meanwhile, the estimated coefficient for public sector professional Sikhs is close to zero, although the large confidence intervals are a reminder that this finding should not be overemphasised. The previous analysis also established that among male non-professionals, religious minorities are particularly worse off relative to their Christian White British peers. However, again, this more granular analysis shows that it is principally in the *private sector* that male religious minorities in non-professional occupations experience lower job quality. The estimated difference for Muslim non-professional men in the private sector is four points lower whereas for those in the public sector it is positive (although, the range is too wide to draw any firm conclusions). Sikh male non-professionals in the private sector also experience a job quality score that is six points lower than Christian White British men, while - notwithstanding the broad confidence interval - the estimate for public sector employees is positive. It is worth pointing out that for non-professional Christian non-White British male employees, their disadvantage relative to White British Christians seems to apply to both the public and private sectors. That said, the intervals in both cases include zero, but only marginally in the public sector.

**Table 6.17.** Differences in job quality by religious affiliation (full model incl. 3-way interaction)

	Men	Women
Christian non-White British Non-professional Private sector	-3.1 (-8.4; 2.2)	-1.2 (-4.1; 1.7)
Christian non-White British Non-professional Public sector	-4.6 (-9.4; 0.1)	-2.1 (-5.2; 0.9)
Christian non-White British Professional Private sector	1.8 (-2.1; 5.6)	2.6 (-1.1; 6.3)
Christian non-White British Professional Public sector	-0.3 (-4.9; 4.3)	0.9 (-1.5; 3.3)
Muslim Non-professional Private sector	-3.8 (-7.4; -0.2)	-3.5 (-6.3; -0.7)
Muslim Non-professional Public sector	1.5 (-4.2; 7.2)	-2.5 (-5.3; 0.2)
Muslim Professional Private sector	-2.3 (-5.8; 1.3)	-2.2 (-6.8; 2.3)
Muslim Professional Public sector	-1.7 (-5.8; 2.4)	-3.3 (-7.0; 0.5)
Hindu Non-professional Private sector	-3.4 (-8.5; 1.7)	1.1 (-3.9; 6.1)
Hindu Non-professional Public sector	3.6 (-5.3; 12.4)	1.9 (-1.5; 5.3)
Hindu Professional Private sector	-0.7 (-3.6; 2.2)	-1.5 (-7.0; 4.1)
Hindu Professional Public sector	2.9 (-2.0; 7.9)	-2.0 (-10.4; 6.4)
Sikh Non-professional Private sector	-6.4 (-11.6; -1.3)	-1.6 (-5.7; 2.5)
Sikh Non-professional Public sector	4.8 (-4.2; 13.8)	-1.3 (-9.3; 6.8)
Sikh Professional Private sector	-11.0 (-18.1; -4.0)	0.0 (-6.2; 6.2)
Sikh Professional Public sector	-0.5 (-7.1; 6.1)	-7.8 (-13.7; -2.0)
Other religion Non-professional Private sector	-6.0 (-15.4; 3.5)	-4.6 (-8.3; -0.9)
Other religion Non-professional Public sector	4.0 (-9.6; 17.7)	-2.3 (-8.8; 4.3)
Other religion Professional Private sector	-0.5 (-4.5; 3.5)	2.0 (-2.8; 6.9)
Other religion Professional Public sector	-4.7 (-13.1; 3.8)	3.6 (-0.5; 7.7)
No religion Non-professional Private sector	-1.0 (-2.3; 0.4)	-1.0 (-2.1; 0.2)
No religion Non-professional Public sector	0.2 (-1.9; 2.4)	-1.0 (-2.3; 0.2)
No religion Professional Private sector	-0.2 (-1.3; 0.9)	-0.2 (-1.5; 1.1)
No religion Professional Public sector	0.6 (-1.1; 2.3)	0.4 (-0.7; 1.5)

Notes: Differences are relative to Christian White British in the same occupational class and sector; results adjusted for age, age-squared, graduate status, part-time/full-time status, and includes a three-way interaction between religious affiliation, occupational status and sector; 95 per cent confidence interval (CI) in parenthesis; grey cells indicate CI does not include zero.

Conversely, among women, notwithstanding the fact that female non-professionals in the ‘other’ religion group employed in the private sector exhibit a job quality score that is five points lower than their Christian White British peers, an overarching private sector disadvantage is not apparent. For some, the *public sector* is actually where they are worse off. For example, Sikh professional public sector female workers have a job quality score relative to White British Christian women that is eight points lower, whereas the same estimate for private sector female workers is virtually nil (although, the range of most compatible values is very broad). On the other hand, Muslim women seem to experience disadvantage in both sectors and irrespective of whether they are in non-professional or professional occupations. Among female Muslim non-professionals, the

estimated mean difference for private sector and public sector workers is nearly four points and three points lower, respectively. While the range around the public sector estimate does include zero it only does so very marginally. Among female Muslim professionals, it is two and three points lower. Again, the range for both of these includes zero but the public sector confidence interval again only does so marginally.

In sum, this more granular analysis which adjusts for demographic characteristics and distinct work features concurrently reveals that the religious penalty for men is more acute in the private sector rather than the public sector. This finding applied to both professional and non-professionals workers. On the other hand, for women, their religious penalty appeared in both sectors, with some evidence that for Muslim and Sikh professionals their disadvantage is possibly intensified in the public sector. Overall, for Muslims and Sikhs - men and women - differences in job quality cannot be explained by a range of employee or employment characteristics.

#### 6.2.2.7.2. *Analysis by ethno-religious affiliation*

Table 6.18 shows that even after adjusting for demographic variables and all three work characteristics, Muslim Bangladeshi and Sikh men still exhibit some the largest differences in job quality relative to Christian White British men. The score for the former is five points lower while that of the latter is seven points lower. The estimates for Muslim Pakistanis and those in the ‘other’ ethnic group and who identify as having no religious affiliation (the single largest ethnic group therein are Black Africans, 16 per cent) is also negative but nearly half that of Muslim Bangladeshi men. While the confidence interval does include zero, it only does so marginally. Moreover, the range of estimates are mostly negative, suggesting that disadvantage is likely associated with this group. Black Caribbean men with no religious affiliation also appear to experience a job quality score that is three points lower than that of Christian White British males.

For women, Muslim groups are also among those displaying the largest mean difference. However, unlike the case for men, it is not Muslim Bangladeshis but Muslim women in the ‘other’ ethnic group (the majority of whom are Black African, 32 per cent) and Muslim Pakistanis who exhibit the largest mean differences relative to Christian White British women. The difference for Muslim



women in the ‘other’ ethnic group of six points is nearly two times that of Muslim Pakistanis. Muslim Indians also display a coefficient of minus four suggesting that they are also considerably disadvantaged relative to Christian White Britons. While the confidence interval does include zero, it only does so very marginally which suggests that this group is probably worse off. This indicates that differences in job quality experienced by most female Muslim groups cannot be explained by a range of employment characteristics and broadly remain irrespective of ethnic background. Meanwhile, Chinese women with no religious affiliation display the largest overall mean difference with a job quality score that is seven points lower than that of Christian White British women.

**Table 6.18.** Differences in job quality by ethno-religious affiliation (full model)

	<b>Men</b>	<b>Women</b>
<b>Christian White British</b>	<i>Ref</i>	<i>Ref</i>
<b>Christian White Irish</b>	*	0.8 (-10.0; 11.6)
<b>Christian White Other</b>	-2.7 (-8.3; 2.9)	-0.1 (-5.4; 5.3)
<b>Christian Black Caribbean</b>	-0.9 (-4.4; 2.6)	-0.7 (-3.0; 1.7)
<b>Christian Black African</b>	0.0 (-7.7; 7.7)	-1.0 (-3.2; 1.3)
<b>Christian Indian</b>	*	3.2 (-4.1; 10.5)
<b>Christian Asian Other</b>	*	0.5 (-3.9; 4.8)
<b>Christian Other</b>	-2.2 (-6.7; 2.4)	-1.1 (-5.4; 3.3)
<b>Muslim Bangladeshi</b>	-4.9 (-9.1; -0.7)	0.8 (-2.2; 3.8)
<b>Muslim Pakistani</b>	-3.2 (-7.2; 0.9)	-2.7 (-4.9; -0.5)
<b>Muslim Indian</b>	-2.9 (-7.8; 2.0)	-3.7 (-8.0; 0.7)
<b>Muslim Other</b>	-1.9 (-5.6; 1.8)	-5.5 (-8.1; -2.9)
<b>Hindu</b>	-1.5 (-4.0; 1.0)	0.0 (-2.5; 2.5)
<b>Sikh</b>	-7.2 (-10.3; -4.1)	-1.4 (-3.2; 0.4)
<b>Other Religion</b>	-1.7 (-5.0; 1.7)	-0.4 (-3.1; 2.2)
<b>No Religion White British</b>	-0.3 (-1.2; 0.5)	-0.4 (-1.1; 0.3)
<b>No Religion White Other</b>	-0.3 (-3.6; 3.0)	-0.5 (-4.2; 3.3)
<b>No Religion Black Caribbean</b>	-3.1 (-6.2; -0.1)	0.8 (-2.4; 4.1)
<b>No Religion Black African</b>	*	-4.2 (-10.2; 1.8)
<b>No Religion Indian</b>	-1.4 (-5.1; 2.3)	0.1 (-3.3; 3.4)
<b>No Religion Chinese</b>	-8.0 (-17.9; 1.9)	-6.9 (-9.7; -4.1)
<b>No Religion Other</b>	-3.4 (-7.1; 0.3)	-2.7 (-5.5; 0.2)

Notes: Data adjusted for complex survey design & multilevel structure; analysis controls for age, age-squared, graduate status, occupational class, part-time/full-time status, sector, and period effects; 95 per cent confidence interval (CI) in parenthesis; grey cells indicate CI does not include zero.

### 6.3. Conclusion

In this chapter I build on previous findings to advance an original perspective which offers additional depth of understanding regarding the nature of religious and ethno-religious inequalities in the British labour market. Specifically, I show that the Muslim penalty - and ethnic and religious disparities more broadly - are not only visible in job *quantity* but also exist from a job *quality* perspective.

First, the analysis reveals that White British Christian women not only experience similar job quality to White British Christian men but actually outperform minority religion men, particularly Sikhs. Meanwhile, Christian non-White British women have a higher job quality score than all male groups, including White British Christians. Although, the large confidence intervals for some categories means we can be more confident that this applies to Muslims and Sikhs than it does to other groups. This indicates that contrary to current understandings among some researchers, women as a whole are not worse/better off by virtue of their gender but, rather, that differences are likely moderated by religion.

Second, workers do not all benefit from improved job quality to the same extent when in high quality jobs. Religious minority groups likely benefit to a lesser extent than their Christian White British peers when in professional, full-time, and public sector occupations. Among women, the penalty likely applies to (i) Muslims and Hindus in professional roles; (ii) Muslims and Sikhs in full-time roles; and (iii) Muslims and Sikhs in public sector jobs. Among men, it is likely particular to (i) Sikhs in professional occupations; and (ii) Muslims and Sikhs in full-time work.

Third, religious minority groups experience lower job quality still relative to White British Christians when in poor quality occupations, such as non-professional, part-time, and private sector roles. Among women, this likely applies to (i) Muslim, Sikh and Other Religion non-professionals; (ii) non-White British Christians, Muslims, and Sikhs in part-time roles; and (iii) Muslims in private sector employment. Among men, the penalty likely applies to (i) Sikhs, Muslims, and non-White British Christian non-professionals; (ii) Muslims, Hindus and Other Religion part-time workers; and (iii) Muslim and Sikh private sector workers.

From an overarching religious perspective, it is therefore apparent that Muslims (especially women) and Sikhs (especially men) are the two groups most consistently disadvantaged relative to White British Christians, both overall and across the different work areas. While Hindus are also disadvantaged relative to White British Christians in some instances, they (men and women) are so in considerably fewer instances than Muslims and Sikhs. Muslim and Sikh women are likely worse off in virtually every employment area: the only exception I find is for female Sikhs in professional and private sector jobs. Meanwhile, male Muslims and Sikhs experience lower job quality relative to Christians in many situations. The exceptions are: (i) Muslims in professional occupations; (ii) Sikhs in part-time work; and (iii) Sikhs and Muslims in the public sector. In fact, the only area, for men, where members of a minority religion are likely better off relative to the Christian White British group is among public sector workers, but this is reserved to Sikhs, and possibly also to Hindus. However, given their sample size, particularly for Sikh men, we should be careful not to overemphasize this result.<sup>24</sup> This is because ‘when only few people belonging to a minority group have a [public sector] job, the advantageous characteristics (whether observed or unobserved) of those with a [public sector] job are likely to’ amplify the differences (Longhi and Brynin, 2017, p. 29). Among women, the only areas where members of minority religions do better than White British Christians, on average, are: (i) members of an Other Religion in professional occupations; and (ii) Hindus in non-professional employment. It is a sobering finding that Muslim women - and likely also Sikh women - do not benefit from public sector work in the same way as Christian White British women given the public sector equality duty which requires that public sector employers support the advancement of equal opportunities among people with protected characteristics as defined by the Equality Act 2010. By including a three-way interaction between religious affiliation, occupational class and sector, the findings also indicated that the disadvantage experienced by people from a religious minority background in all probability varies by employment area. This suggests that a ‘one-size fits all’ strategy to attenuate religious inequalities in job quality is unlikely to be effective.

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<sup>24</sup> Public sector sample sizes (unweighted): 46 (male Sikhs), 131 (females Sikhs), 83 (male Hindus), 172 (females Hindus).

The more in-depth analysis from an ethno-religious perspective reveals the consistency and extent to which Chinese people (especially women) with no religious affiliation are disadvantaged in all employment areas relative to White British Christians. There is only one instance where this is likely not the case: Chinese women with no religious affiliation in part-time employment do not appear to be worse off relative to Christian White British women. Examining the four specific job quality dimensions in turn, Pay and Other Benefits is the only dimension where they do not appear disadvantaged. This is an important finding in light of the long held view in ethnic penalty research that Chinese people are among the most privileged workers from among ethnic minorities from a job *quantity* perspective (Modood *et al.*, 1997; Heath, McMahon and Roberts, 2000; Heath and Cheung, 2006; Li and Heath, 2020).

My finding also provides a potential corrective to the ONS pilot study (previously discussed) which found, based on a very narrow conceptualisation of job quality, that Chinese people are among the most privileged minorities in terms of work quality (ONS, 2019). It also gives more context to the finding that Chinese women display ‘lower than average levels of insecurity’ (Florisson, 2022, p. 18), which constitutes only one aspect of job quality.<sup>25</sup> Importantly, as is the case for most Muslim groups (especially women) and Sikhs (especially men), my study shows that Chinese women with no religious affiliation continue to display lower job quality scores relative to White British Christians, even after adjusting for socio-demographic and employment characteristics. This indicates that the penalties cannot be explained by differences in socio-demographic and employment characteristics.

Ethnic differences among Christian women are also evident. Non-White British Christian women do not generally appear disadvantaged relative to Christian White Britons when in putatively high quality jobs (i.e. professional, full-time, and public sector employment). However, when in putatively low quality jobs, Christian non-White British women *do* appear to experience poorer job quality still. Specifically, among part-timers, Christian Black Caribbean women, Christian White Other women, and Christian Black African women, all exhibit lower job quality than Christian White British women. This is an important finding because the prevailing view in the

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<sup>25</sup> There was an insufficient sample size to evaluate Chinese men as a standalone group in Florisson’s (2022) study.

literature is that Christian Black Caribbean women tend to be among the less penalised from a job *quantity* perspective relative to White British women.

With the exception of the finding that Christian Black Caribbean male part-time workers experience worse job quality than Christian White Britons, the general finding is that Christian non-White British men are not generally worse off whether in putatively high or low quality jobs. Meanwhile, non-White British Christian men appear to benefit more by being in putatively high quality jobs in some instances than White British Christian men. For example, among male professionals, Christian Other and Christian Black African men both likely enjoy higher job quality than Christian White British men. Again, these are significant findings and add context to the current understanding in the ethnic penalty literature which finds Christian Black African and Christian Black Caribbean men to be the most penalised male groups from a job *quantity* perspective.

My findings therefore question the extent of economic inclusion of visible ethnic and religious minorities. They suggest that being in work does not eliminate the disadvantage - consistent across a variety of employment types - faced by certain religious minorities. In addition to barriers to employment, Muslims and Sikhs who do find a job likely continue to face inequality whilst in the job. For men, their disadvantage was particular to the private sector and, in the case of Muslims, was specific to non-professionals. Among Sikhs, however, disadvantage was related to both professional and non-professional employment. Conversely, for Sikh women it is specifically in the public sector and when in professional roles that they appear to be most penalised. However, for Muslim women evidence suggests that they are disadvantaged as professionals and non-professionals and whether in public or private sector employment, with the exception of perhaps professionals in the private sector. This suggests that the Muslim penalty in job quality is strongest for Muslim women. The findings also showed that, with the exception of Muslim Bangladeshi women, the penalty in job quality holds irrespective of ethnicity. Among Muslim men, however, it was specifically Muslim Pakistanis and Muslim Bangladeshis who are disadvantaged.

# **Part IV: Making sense of the results**

## **Chapter 7: Discussion and conclusions**

## 7. Chapter 7: Discussion and conclusions

In this thesis, I provided a deeper understanding of how Muslims and other minority group members are disadvantaged in the British labour market. I found no evidence that a purported desire for ‘social separateness’, poor fluency in English, high religiosity, or conservative gender attitudes explained the higher likelihood of Muslims being unemployed or economically inactive. I also found that identifying as White only offers protection against the Muslim penalty if one is White British. Arabs, who identify as White, continue to display a considerable penalty in terms of participation, which is as high as - and among women sometimes higher than - Muslim Black Africans. The study also revealed that Christian White Britons and British Whites with no religious affiliation enjoy the best job quality, while Muslims (especially women) and Sikhs (especially men) are, on average, generally in the poorest quality jobs. These differences could not be explained by a host of worker or work characteristics.

### **7.1. A deeper understanding of Muslims’ and other religious and ethno-religious minorities’ labour market experience in Britain**

How does this thesis advance our current understanding of ethnic and religious inequalities? The study showed that the penalties faced by certain religious minority workers in their search for employment, namely Muslims (particularly women) and Sikhs (particularly men), do not end once they land a job. Instead, they are faced with another penalty in the form of experiencing significantly poorer job quality than Christian White British colleagues when in work. For some religious minorities in particular then, their experience with employment represents a series of cumulating disadvantages born out of a collection of lacks: a lack of equal access to education as they prepare to enter the labour market (Shiner and Modood, 2002), a lack of equal opportunity in accessing the salariat (Chapter 5), and, as Chapter 6 has shown, a lack of occupying jobs of equal quality compared to those of the charter population even when they are successful in obtaining employment.

What's more, this study revealed that so-called 'sociocultural attitudes' are not a convincing source of the unexplained ethno-religious differences in labour market participation and unemployment among Muslim men and women. This suggests that the argument that Muslims' 'problematic norms' are the main barrier to them finding work appears to be more of an ideological position than an evidence based conclusion. Indeed, arguments along those lines trivialise the reality Muslims face in the world of work while also failing to acknowledge the complexities of how racism works and how it manifests itself in an intradisciplinary way (Essed, 1991). This only serves to reify these inequalities in access to work by delaying work to attenuate them and adds to the multifarious ways Muslims are disadvantaged as poor labour market outcomes impact various facets of an individual's life (e.g. housing, education, health).

Importantly, the study also showed that while identifying as White British appeared not to be associated with a Muslim penalty, others who identify as White (e.g. Arabs) *are* associated with disadvantage in access to work. If White British Muslims are not being racialised as Muslim but continue to be perceived as White, this might explain why they appear to evade penalisation. However, this seems unlikely given evidence that British White reverts experience anti-Muslim racism after undergoing a 're-racialisation' process from White to 'white Paki' (Moosavi, 2015, p. 44). It is therefore more likely that White British Muslims are penalised but have better resources - accumulated during periods where they are beneficiaries of white privilege - with which to counter their adversity (Zwysen, Di Stasio and Heath, 2020). There are two takeaways from this. One is an understanding that the drivers of the Muslim penalty are multidimensional, and relate to religion, colour *and country of origin*, with any one dimension of difference being 'enough' for someone inclined to be prejudiced. In that sense, my study offers a correction to accounts that identifying as White is, in and of itself, a protection against the Muslim penalty. The second is an understanding that how one is racialised has a more important effect on labour market outcomes than how one self-identifies. In short, it is more important to be perceived as White than to think of oneself as White to be afforded protection against the Muslim penalty. In other words, how Muslims perceive themselves is less important than how they are perceived (Karlsen and Nazroo, 2002). So, while Arabs and others might consider themselves White, many people in Britain do not.



The evidence that Arab men with no religious affiliation are among those with the largest likelihood of unemployment/inactivity, even above that of Muslim Arabs, further supports this point. They might not identify as Muslim but, in line with evidence that in Britain ‘employers discriminate against applicants originating from countries with a substantial Muslim population’ (Di Stasio *et al.*, 2021, p. 16; see also Fundamental Rights Agency, 2017) even when they do not signal affiliation with Islam, Arabs with no religious affiliation are still being racialised as Muslim. Evidence that Christians from the *same* country who do disclose their religion do not experience lower call back rates is persuasive evidence that the discrimination is targeted at Muslims (Di Stasio *et al.*, 2021). From this perspective, the fact that Muslim Arab men have a lower penalty than their co-ethnics with no religious affiliation could be indicative of the importance of religious bonding capital for labour market inclusion among Muslims. In this case, affiliation with Islam would, ironically, help mitigate the effects of the Muslim penalty.

A further novel contribution made by the study is that it underscores the necessity of intersectional research by ethno-religious affiliation and across employment areas to develop a deeper understanding of people’s labour market experience, and to consequently propose more effective ways of reducing inequalities. More specifically, the findings that (i) Sikh men are advantaged in the public sector but likely disadvantaged as private sector workers; (ii) Muslim Bangladeshi men are disadvantaged as private sector workers but not as public sector workers; (iii) Hindu women are likely underprivileged as professionals but privileged when in non-professional occupations; (iv) Hindu men are likely considerably disadvantaged as part-time workers but not as full-timers; and, (v) Muslim Pakistani women are disadvantaged when in part-time work but not as full-time workers highlights the importance of studying labour market inequality across distinct employment areas. Indeed, this study shows that to the extent that advantage in one work area negates a disadvantage in another, combining these (as most research does) could suggest there is no difference relative to the charter population when it's actually that it works in different directions for different workers. The evidence that for male religious minorities, professionals and non-professionals, their penalty is more severe in the private rather than the public sector, and that there is some evidence that for female Muslim and Sikh professionals their disadvantage might be increased in the public sector, further reinforces this point.

In a similar vein, the oppositional findings among Muslim Pakistanis and Muslims Bangladeshis in some instances highlights the inappropriateness of combining both groups despite it being common practice in ethnic penalty research. The findings that: (i) among male and female public sector workers Muslim Bangladeshis likely experience similar job quality to the Christian White British group but that Muslim Pakistanis are considerably disadvantaged; (ii) Muslim Bangladeshi men are underprivileged in the private sector relative to White British Christians but Muslim Pakistani men are likely not; and (iii) female Muslim Pakistani part-timers are likely worse off relative to Christian White Britons while Muslims Bangladeshi women are not, evidences this point.

Importantly, contrary to my initial hypothesis, disadvantage from a job *quantity* perspective does not necessarily translate into disadvantage from a job *quality* perspective, and vice versa. This point is underscored by the findings that: (i) Muslim Indians - especially women - display lower job quality scores across a range of employment areas despite the dominant understanding that Muslim Indians tend to be less penalised, if at all, from a job quantity perspective (Khattab *et al.*, 2011; Khattab and Modood, 2015); (ii) Christian Black African and Christian Black Caribbean men and women, even after accounting for employment characteristics, do not necessarily experience overall poor job quality relative to Christian White British men/women; and (iii) Chinese people (particularly women) with no religious affiliation are among the most disadvantaged from a job *quality* perspective in the British labour market despite Chinese people being considered among the most advantaged from a job *quantity* perspective.

My thesis therefore emphasises the importance of ethnic and religious penalty research adopting a more rounded understanding of what constitutes labour market inequality. One that does not stop at evaluating differentials in terms of access to work but goes beyond this to account for differences within work. Furthermore, the current understanding in the literature that Chinese people are among the most advantaged from a job quality perspective (ONS, 2019) when a narrow understanding of job quality is adopted, highlights the need to adopt a multidimensional conceptualisation of job quality when evaluating ethno-religious labour market inequalities in work. With that in mind, my index makes a new and important methodological contribution to the literature by offering researchers a statistically robust job quality measure suitable for application

in a multicultural workforce. This finding also suggests that studies of job quantity differentials might be overlooking important religious heterogeneity among Chinese people. Most research that includes Chinese people does not account for religious heterogeneity within the group. Instead, it combines Christian Chinese and Chinese people with no religious affiliation, who might display considerable differences in resources, skills and/or human capital characteristics, into one category. This is plausible given that Chinese migrants who originated from Hong Kong (circa 1997) ‘tended to be highly skilled and educated’ (Cheung & Heath, 2007: 511) and appear to be disproportionality Christian (*The Economist*, 2022). Meanwhile, it might be that Chinese migrants with no religious affiliation have a weaker skills profile. My findings in Table B2 and Table B4 which show Christian Chinese women to have a stronger education profile and English language proficiency than Chinese women with no religious affiliation, and the finding that Chinese men with no religious affiliation have a relatively high risk of unemployment (Table 5.2) could lend support to this view. Research should also be alive to the fact that people of Chinese ethnicity averring they have no religion might mean something different to a White Briton describing themselves as having no religion, which might have important implications for how culturally distant Chinese people with no religious affiliation are perceived.

Finally, the findings in this thesis tell us how policies aimed at improving job quality should be targeted for maximum effect. More specifically, my analysis by dimensions reveals that while disadvantage in job quality tends to be cumulative - i.e. a low score in one area tends to be associated with a low score in another dimension - differences in scores across dimensions by ethno-religious group show that a one size fits all policy to improve job quality is unlikely to be successful. This granular research can therefore help policymakers identify specific areas to improve job quality and reduce ethno-religious inequality therein, including the Muslim penalty. Among men, the latter especially impacts non-professionals in the private sector. As for women, the Muslim penalty is apparent across occupational class and sector (with the exception of female Muslim professionals in the private sector) and, apart from Bangladeshi women, is experienced irrespective of ethnicity. This makes the Muslim penalty particularly serious for women.

## **7.2. Discrimination thesis: Explaining the Muslim penalty in job quality**

The existence of a Muslim penalty does not necessarily imply that discrimination is taking place. Statistical survey analysis like mine can only ascertain whether - and not why - minority groups exhibit poorer labour market outcomes than the majority reference group. However, the patterns of inequality found in this study provide a convincing argument that discrimination is likely an important driver of the revealed disparities, especially when analysed in context of existing research on societal attitudes and employer decision-making processes. Specifically, evidence on the prevalence of anti-Muslim views in British society (discussed in Chapter 1), and the permanence of ethnic and religious discrimination in the British labour market (Heath and Di Stasio, 2019), including a recent poll that found that 69 per cent of UK Muslims reported experiencing Islamophobia at work (Wazir, 2022), combined with research indicating that employers are not purely rational *homo economicus* consistently maximising profit and productivity as the economic literature posits, but that emotions play a considerable role in their hiring decisions (Rivera, 2015, 2020), strongly suggest that discrimination such as Islamophobia - which Sikhs are also victims of (Sian, 2017; Jhutti-Johal and Singh, 2019) - is likely an important driver of the differentials found here. There are various ways discrimination can translate into Muslims (and Sikhs) having relatively poorer job quality than the charter population, and it is likely that they all play a role to varying degrees; no one causal mechanism should be taken as the sole explanation. Indeed, given racism's multifaceted reach and pervasive nature (discussed in Chapter 2), it would not be reasonable to subscribe to a singular causal mechanism.

One way discrimination translates into job quality inequalities is through 'ethnic gatekeeping' (Harris and Ogbonna, 2016). This occurs when majority group managers gatekeep promotion opportunities (which are generally associated with improved job quality) based on ethnic and religious group membership. By this logic, those who are perceived as most culturally distant from White British Christians, and secularised Christians, would experience relatively lower job quality. The fact that, in my study, Muslim women and Sikh men - both groups carrying more obvious markers of their faith (Sikh men through the turban; Muslim women through the hijab and more modest clothing) making them seemingly more visibly culturally distant - were found to be the most penalised groups, provides empirical evidence to substantiate this argument. The fact that Pakistanis and Middle Eastern immigrants - overwhelmingly Muslim - have also been found to be particularly at risk of 'ethnic gatekeeping' lends further support to this argument (Harris and

Ogbonna, 2016). The practice could be driven by overt racism, although this is much harder to capture because legislation outlawing overt racism might lead some to explain their actions using more covert reasoning. Alternatively, ‘ethnic gatekeeping’ could also be driven by majority group members ‘fears of losing special privileges’ (Rivera, 2020, p. 221) and a desire to protect their advantage.

Leader-Member Exchange theory provides another causal mechanism: ‘through engaging in different types of social exchanges, leaders differentiate in the way they treat their followers leading to different quality relationships between the leader and each follower’ (Martin et al., 2018, p. 151) which in turn leads to better promotions opportunities for the subordinates (Erdogan and Bauer, 2015). In such a case it could be that Muslims and Sikhs, who perhaps do not consume alcohol and attend social gatherings often taking place in bars and pubs (both religions prohibit the consumption of intoxicants such as smoking and alcohol), are viewed as more culturally distant from the majority. This perception can be used to justify discriminatory behaviour and lead to manager-employee relationships which are of lower quality. The fact that my findings show that among Muslims it is mainly women and among Sikhs it is particularly men, both of whom are often more visibly culturally different than the majority, would support this argument.

Status based theories also provide a window into how discrimination can lead to the differentials uncovered in my analysis. Like statistical discrimination (discussed in Chapter 2), the idea is that employers deduce productivity using one of the markers of the employee’s group membership. For example, given Muslims’ comparatively high unemployment rate, employers using religion as a proxy might deduce this reflects a lack of productivity and therefore not promote or hire members of that group, further reifying such inequalities. My findings of a Muslim penalty both in terms of job *quantity* and job *quality*, especially among women, would substantiate this view. Contrary to statistical discrimination, status-based theories do not view proxying based on group markers as an efficient way of dealing with information asymmetry, but rather as an avenue for expressing bias. This is because, according to status-based theories, perceptions of groups are ‘driven by widely shared cultural beliefs and cognitive associations that are durable, resistant to change, and often decoupled from real group differences’ (Rivera, 2020, p. 220) and are neither evolving nor an accurate reflection of productivity (as statistical discrimination theorists posit). Evidence that

employers exceptionalise minority success stories and do not re-evaluate their views (Pager and Karafin, 2009) would lend support to this position, as would the fact that discrimination against ‘South Asians’ and Black people in the British labour market has remained relatively constant since the late 1960s (Heath and Di Stasio, 2019).

Of course, individuals matter, but structures matter too (discussed in Chapter 2). Institutional hiring practices based on ‘cultural fit’ (Rivera, 2012) risk validating and perpetuating bias as companies overwhelmingly hire people from similar cultural backgrounds. That said, ‘far fewer specify which types of similarities to use in selection and how to measure fit (Cubiks 2013). As a result, employers often measure P-O [person-organisation] fit through similarity to the self, especially via similarities in backgrounds, hobbies, and self-presentation styles only tangentially related to the job’ (Rivera, 2020, p. 224). In a society like Britain, which is growing more secular (Woodhead, 2016) and therefore possibly less tolerant of religion (Karpov and Svensson, 2020), Muslims, who exhibit relatively high levels of religiosity (Murad, 2020), and for whom religion is an important marker of identity (Modood et al., 1997), risk losing out on senior roles that are associated with better overall job quality.

From this perspective, it is likely that implicit discrimination (Bertrand, Chugh and Mullainathan, 2005) is also taking place in addition to managers actively promoting people that are similar to them. As such, it is a more diffuse sense that members of some groups are not the right fit, do not have the right set of interests (e.g. particular hobbies) or would not appeal to clients or colleagues perhaps because of their dress (e.g. hijab/turban). Being implicit does not necessarily make it any less damaging, not least because such type of discrimination can be harder to identify than expressions of overt discrimination. Similarly, it might be that promotion opportunities *are* in fact offered ‘equally’ but that institutions are set up in a way that these benefits best suit Christian/secularised Christian preferences and similarly non-oppositional lifestyles. In that sense, it is not only that managers actively promote only people like them, but that people might also hear about better-quality job opportunities through networks that are developed through ways (e.g. social gatherings in bar and pubs) that disadvantage Muslims.

With that in mind, “[p]ositing that discrimination is likely to be playing only a ‘distant role by affecting sociocultural determinants’ (Koopmans 2016, 214) does not acknowledge the complexities of how racism works and how it manifests itself in an intradisciplinary way (Essed, 1991)” (Sweida-Metwally, 2022a, p. 382). In not recognising the reality of racism’s multifaceted structural nature and tentacular influence in every step of minorities’ labour market experience, “there is a risk of taking ‘Muslim behaviour’ as ‘an analytical concept’ and therefore ‘what needs to be represented as a social process and explained is reconstructed as a social fact that can be used to explain other social facts’ (Miles and Brown 2003, 91). In such a case ‘adaptations [to anticipated or experienced discrimination such as where to live or with whom friendships to forge] can easily be coded as choices rather than constraints, as characteristics to be controlled for in estimates of discrimination rather than included as one part of that estimate’ (Pager and Shepherd 2008, 199–200)” (Sweida-Metwally, 2022a, p. 382). One such strategy could be that in anticipation of discrimination, or fear of possible discrimination, certain minorities avoid applying to certain jobs and industries, resulting in occupational segregation. This is “the equivalent of what in Northern Ireland was called the ‘chill factor’” (Heath and Martin, 2013, p. 1006). In that sense, it might be posited that religious minorities experience poor job quality in part due to the industries they are employed in. Further research is needed to test this hypothesis, and, if found to be true, investigating why Muslims and Sikhs are over-represented in industries which have a lower average overall job quality level would be necessary. Are they choosing poorer quality jobs for lack of a better alternative that fits with other lifestyle choices? If so, it would be important to understand why they need to choose between poorer working conditions and the ability to pursue their perception of the good life.

However, if anti-Muslim racism is a driver then why do Muslim male groups, especially those in putatively superior quality jobs such as professional occupations, not appear to be disadvantaged in terms of job quality to the same extent as Muslim women, relative to White British Christians? The seeming incongruence between these findings and the evidence from discrimination research is likely explained by the resources available to different groups and the strategies they adopt to respond to explicit and implicit discrimination (Modood and Khattab, 2016). More specifically, ethno-religious penalties ‘depend both on supply-side factors - differences in minorities’ search strategy and (un)observed characteristics - and on demand-side factors - hiring decisions of

employers' (Zwysen, Di Stasio and Heath, 2020, p. 2). Discrimination is an example of the latter, while the ways in which groups respond to it can be understood as accounting for the former. Indeed, minorities are not passive actors with no agency. They have different resources and coping mechanisms to deal with discrimination. Those with access to higher quality jobs (e.g. graduates, professionals) might adopt different search strategies, and it might be easier for them to know how to 'whiten their cv' and appearance at work (Kang et al., 2016) for example through dress, changing their name and/or accent. This might explain why it is Muslim women and Sikh men - the genders that carry more obvious signs of their respective faiths (hijab/turban), which may make it more difficult for them to avoid stigmatisation and 'whiten' their appearance - that are more penalised relative to their male/female co-religionists.

Moreover, in a male-dominated society where men occupy more senior roles overall (Eurostat, 2020), Muslim men might also possess more opportunities to build more effective social networks than Muslim women, in particular if the latter prefer building female-to-female bonding/bridging ties. This could then mean Muslim women have relatively 'weaker' social networks upon which to rely when faced with discrimination. Similarly, those in higher quality jobs (e.g. professionals) might also possess more opportunities to build more effective bonding and bridging capital (Putnam, 2000) than their non-professional counterparts. Having relatively weaker social networks than their professional Muslim male peers upon which to rely - for example when faced with discrimination - could in turn lead non-professional Muslim male workers to a strategy of casting 'a wider net and apply to any job, including jobs below one's skill levels' (Zwysen, Di Stasio and Heath, 2020, p. 13). This would result in them occupying poorer quality jobs than similarly qualified members of the charter populations. This would explain why I find that Muslim male non-professionals appear penalised from a job quality perspective while their professional counterparts do not. The intersectionality between various facets of a woman's identity (Crenshaw, 1991), such as, religion and gender, also means that Muslim women do not only have to contend with Islamophobia in the work place, but also with the interaction between the latter and misogyny further amplifying the faith-based discrimination they face. This is a privilege Muslim men do not have to contend with. This means that Muslim women likely find it harder to capitalise to the same extent as their male co-religionists when also in professional occupations. This would explain why



Muslim female professionals appear penalised from a job quality standpoint in my analysis while Muslim male professionals do not.

In short, if Muslim women face greater discrimination than Muslim men, and both genders have different resources (e.g. social networks) and coping strategies (which also vary by occupational class) to deal with discrimination, this might explain why Muslim men - especially those in high occupational classes - appear less penalised in terms of job quality than Muslim women. A similar rationale might explain why ethnic minorities belonging to the dominant Christian and non-religious groups experience lower job quality than their White peers in poor quality jobs, but are not visibly penalised when occupying superior quality jobs.

### **7.3. Limitations and strengths**

My study makes a number of important contributions to Muslim penalty research, and the ethno-religious inequality scholarship more broadly. Nonetheless, there are a number of data limitations which should be kept in mind when interpreting the findings. First, with regard to the analysis of job quantity differentials, '[s]ome ethno-religious groups have a small sample size, and it would therefore be beneficial to repeat a similar study with a larger dataset, such as the Census or Labour Force Survey, and compare the findings. Exploiting larger datasets might also offer the possibility of creating a Christian Arab group, which would allow testing of whether' (Sweida-Metwally, 2022a, pp. 383–384) Christian Arabs who identify as White are also penalised or whether they evade penalisation by not being racialised a Muslim perhaps because of their name. 'That said, these datasets do not offer similarly rich information on social and religious attitudes and practices as UKHLS, so there is a trade-off' (Sweida-Metwally, 2022a, p. 384). Second, using larger datasets might also allow for analysis to be broken down by industry. This could be helpful and provide insights into whether ethno-religious minorities are more likely to face difficulties accessing certain occupations versus others. It would also provide insight on the extent to which the general probability of inactivity and unemployment is masking sectoral heterogeneity. Unfortunately, the relevant information in the survey was too partial to be included in my analysis. Similarly, evaluating religious and ethno-religious differences in job quantity across work areas, such as between full-/part-time and private/public sector workers, could also be beneficial. Third, my

analysis provides an average rate of unemployment and inactivity over the past ten years. However, it would be useful to see how these likelihoods fluctuate from year to year, particularly given evidence that ethnic minorities face hyper-cyclical levels of unemployment (Li and Heath, 2008; Khattab and Johnston, 2013). This is the notion that in a recession, minorities lose their job at a faster rate than majority group members, while during economic expansions they are employed at a faster rate. This type of analysis was not undertaken here because part-objective of the study was to investigate groups (e.g. Muslim Arabs) that have traditionally been difficult to capture for sample size reasons. Data was therefore combined over years to overcome this issue. Disaggregating these groups while also studying cyclical patterns was not possible because groups exhibited too small a sample size at yearly intervals to provide reliable results. The LFS and Census data are likely better datasets for such exploration.

As for my investigation into job *quality* differentials, one limitation is that the analysis by occupational class distinguished between professional and non-professional groups, which are rather broad categories. Given that ‘NS-SEC categories may obscure deeper structures of inequality within classes, it is also necessary to examine the pattern at the most detailed level of occupational classification’ (Williams, Zhou and Zou, 2020, p. 78). This was not possible here given the limited sample size among religious and ethno-religious groups. However, with the Labour Force Survey (which collects data on ethnicity and religion) piloting the collection of (some) job quality data (ONS, 2019) and the transformation of the survey potentially paving the way for more efficient data collection (Irvine, White and Diffley, 2018), this type of analysis might be possible in the not so distant future. My analysis is also limited by the job quality indicators available in UKHLS, meaning that some areas (i.e. Work-Life Balance) might be more accurately measured than others. Moreover, certain dimensions, namely related to health and safety, have not been captured in this analysis because this information is not available. In a similar vein, it is also important to note that ethnicity is only asked once in the survey when participants first enter the study. However, there is evidence that ethnicity is not stable but changes over time (Simpson, Warren and Jivraj, 2015). Furthermore, it is important to remember that the study is focused on analysing outcomes, and so employer decision making is not captured in my study. Further research, including data collection but also ethnographic work within companies to empirically understand employer’s evaluative process with regard to not only promotions and hiring decisions,

but also dismissals, demotions, disciplinaries and pay cut decisions would significantly enhance our understanding of labour market sorting. Indeed, religious and ethno-religious stratification and inequality at work is as much about the distribution of benefits and rewards and barriers to access to these as it is about their dispossession.

It is also important to consider that findings of this research might possibly underestimate the extent of religious and ethnic inequality in job quality. This is because the job quality information collected in surveys - and used here - focus on theory that is White Christian - and to a certain extent male - centric. In other words, the variables used are based on job quality generally from a White Christian male perspective. As such, it is likely that my study does not capture aspects of job quality important to racialised minorities. These might include whether (i) a workplace has a prayer room onsite and if an employer makes it easy for Muslims to pray their daily prayers at work; (ii) there is diversity in leadership roles; (iii) ethnic and religious minority staff groups exists; (iv) there are clear processes for reporting incidences of racism; (v) Muslims have the option of attending Friday prayer through an extend lunch hour without being financially penalised; (vi) an employer allows religious minorities to take religious holidays off and accommodates for the fact that these dates might not necessarily be known in advance (e.g. Eid because Muslims follow a lunar calendar). These are all aspects which might be important for minorities and inform their decision about taking up specific employment and whether they consider their job to be of good quality or not. However, since this information is not relevant to White Christian and secular men, job quality theory does not consider these factors and the data is therefore not collected by any survey. As such, investigating how job quality is conceptualised among minorities and how they differ between them and relative to the majority White Christian and secular groups will form an important part of my next research project. Put differently, through qualitative research, I hope to extend the current work by investigating the aspects of job quality that are important to ethnic and religious minorities' conceptualisation of the latter and which therefore need to be taken into account if we are serious about improving job quality for all.

It might be argued that another limitation of my study is that it does not account for intergenerational differences, especially given improvements observed for second-generation non-White ethnic minorities, particularly in terms of occupational attainment (Cheung and Heath, 2007;

Li and Heath, 2016). However, it is worth noting that the evidence on this matter is inconclusive, with some studies finding no such intergenerational improvements (Cheung, 2014). To clarify, my analysis of penalties in terms of access to work does include a control variable for whether a person was born in the UK, and I find that men born outside the UK are *less* likely to be unemployed or inactive than those born in the UK (Table B5). This may be due to selection bias due to Britain's selective migration requirements. For women, the effect size of the variable is not only insignificant at the 5 per cent level but is also close to zero (Table B6). Notwithstanding the existing complexity of these models, the sample size for men and women was not large enough to include a two-way interaction to reliably investigate whether ethno-religious affiliation moderated this effect.

In contrast, my analysis of job quality differentials does not account for generational effects. This is because the purpose of the analysis is not to explain differences by applying a number of controls. Rather, my aim was to elucidate on a type of inequality that has been hitherto ignored, with religious penalties understood within the context of structural racism (rather than from a methodological individualist perspective). As such, I do not include a control variable for UK birth, which is often used as a proxy for whether a person holds a foreign qualification and has labour market experience from outside the UK. Distinguishing between foreign and UK qualifications by employers is, as Virdee puts it, a means to delegitimise the 'certified cultural capital' of ethnic minorities (Virdee, 2010, p. 70) and to justify their poorer outcomes, in a time where more overt forms of racist exclusion are illegal. This argument is particularly compelling given how extensive Islamophobia is in British society (discussed in Chapter 1). For example, given that 69 per cent of Muslims in the UK averred experiencing Islamophobia at work (Wazir, 2022), it seems an implausible proposition that anti-Muslim sentiment targets only first-generation Muslims. From a methodological perspective, it would have also been difficult to divide the data to reliably measure generational differences for sample size reasons, especially given the final model using religion as the explanatory variable of interest already included a three-way interaction.

Still, my analyses provide important new insights regarding labour market stratification of job quantity differentials by ethno-religious background. The findings question the "hypothesis that the Muslim penalty is a result of so-called 'sociocultural attitudes' such as religiosity, 'tastes for

isolation' and a commitment to traditionalism on the part of Muslims. Hence, the study shows that rather than a focus on alleged 'oppositional' norms and behaviours that problematize the faith and essentialize an ethnically heterogeneous group of people, attenuating ethnic and religious inequalities will require - in large part but not exclusively - addressing both systemic anti-Black and anti-Muslim racism, of which country of origin prejudice is likely an important dimension" (Sweida-Metwally, 2022a, p. 384). 'This highlights important heterogeneity in the causal mechanisms driving the Muslim penalty, showing that this complexity needs to be understood to clarify how the penalty operates differently for men and women from diverse ethnic backgrounds' (Sweida-Metwally, 2022a, p. 384).

Additionally, the thesis advances a new multidimensional conceptualisation of job quality which is strongly rooted in the literature, and represented in an empirically validated index. The index is a reproducible and practical way to measure good work in Britain. By investigating, for the first time, the extent to which variances in job quality are differentiated by religious and ethno-religious identity across distinct worker and work characteristics, the study brought together hitherto independent disciplines, namely the job quality and ethnic penalty scholarship. In doing so, the thesis makes a significant empirical contribution to both the job quality and ethnic penalty literatures. The findings that Muslims and Sikhs continue to face disadvantage once in work, but that Black African and Black Caribbean men do not necessarily experience a job quality disadvantage, while Chinese people (especially women) with no religious affiliation are likely penalised, advances the current understanding of ethnic and religious labour market inequalities in important ways.

The study's strength also rests on the quality of the survey and its multiple methodological novelties. The findings are based on UKHLS, which is the largest panel study of its kind worldwide, thereby allowing me to analyse more niche ethno-religious categories. The exceptional quality of this survey, thanks to the team at the Institute for Social and Economic Research at the University of Essex, gives further confidence in the results. Further methodological contributions include the fact that the study exploits the dataset in new ways by tactically deploying a rich combination of advanced quantitative techniques including index creation and measurement, multilevel (logistic and linear) modelling, exploratory factor analysis, complex survey data analysis and weighting.

Finally, the thesis not only outlines practical policy solutions, but also makes a theoretical contribution by locating the Muslim penalty within the broader historical exclusion of Muslims from the British national story as well as proposing a roadmap to remedy this. The thesis will close with this discussion.

#### **7.4. The roadmap to a more inclusive society**

In this final section of the thesis, I propose a number of solutions to attenuate the Muslim penalty and other religious inequalities in the British labour market. I do this by putting forward a number of practical workplace policy recommendations that offer a more immediate remedy to the challenges faced. However, I also argue that these measures will have limited success in a society like Britain where national identity has always been conceptualised in opposition to Islam, and offer a roadmap towards building a more inclusive society. Indeed, a strategy to tackle racism that ignores its structural nature and focuses only on its individual manifestations assuming that unconscious bias is the main expression of racism is ineffectual and dangerous because ‘it effectively exonerates governments, institutions, organisations’ (Bourne, 2019 quoted in Shankley and Rhodes, 2020, p. 212) and implies that religious and ethnic inequalities are inescapable and not by design.

Evidence indicates that contrary to the widespread economic narrative, employers are not rational agents that seek to maximise human capital and profit. Emotions like ‘chemistry’, ‘fit’, ‘gut feeling’, ‘excitement’, and ‘liking’ (Rivera, 2015, see also 2020) play a vital role and can even weigh more in hiring decisions than actual skill (Rivera, 2012, p. 1018). While there can be benefits to this approach if it leads to creating a more pleasant work environment thereby boosting employer and employee work satisfaction, there is a significant increase in the risk of reifying inequalities to the advantage of the majority group (Rivera, 2012). With that in mind, and the fact that it is unrealistic to suggest we will completely eliminate people’s feelings from decision making processes, it is worth outlining some solutions to regulate the practice and limit the risk of bias entrenching religious and ethno-religious inequalities. This is not an exhaustive set of recommendations. Rather, I have proposed these five recommendations because they are relatively easy for any company to immediately implement, they involve little to no cost, and have the

potential to make considerable impact. My recommendations should be understood as complementing existing suggestions, particular those proposed by the Commission on the Future of Multi-ethnic Britain (CMEB, 2000), some of which were discussed in Chapter 2.

- i. *Ensure recruiters and HR professionals have enough time to review applications and CVs.* Research indicates that when under-time pressure, people are more likely to pick CVs with White-sounding names (Bertrand, Chugh and Mullainathan, 2005). An obvious, and low-cost solution for firms is therefore to ensure recruiters are allocated sufficient time to review applications for hiring and promotions.
- ii. *Meaningful staff training on explicit and especially implicit bias.* Following the view from the Commission on the Future of Multi-ethnic Britain report that workers generally ‘do not understand the concept of institutional racism, and do not know what they themselves can do to address it’ (CMEB, 2000, p. 75) this suggestion is about ensuring training is not about simply ‘raising awareness’. Rather, training should focus on educating on the different types of racisms, and to communicate to the public what is already well-known in academia, namely that ‘race’ is a socially constructed concept. Training would include explaining the different ways racisms can be manifest - direct/indirect, explicit/implicit, and individual/institutional - their pervasive societal impact, and their causal mechanisms. A particular focus should be on the more subtle forms such as implicit bias and more complex notions such as institutional racism. This can then form the basis of more practical training on how to mitigate racist and discriminatory practices that entrench societal inequalities, especially among people who would otherwise not consider themselves to be racist.
- iii. *Diversity in recruitment, promotion, and dismissal panels.* Evidence shows that a sense of similarity is important in fostering likeability, which in turn ‘has direct and indirect effects on decision making’ (Rivera, 2020, p. 224). As such, having a diverse panel can help provide a more equitable space and attenuate implicit bias in recruitment. That said, this should not be tokenistic demographic representation but should focus on substantive cultural similarity, especially given evidence that ‘perceptions of similarity do not neatly correspond to shared demography’ (Rivera, 2020, p. 225). A consequence of this is that decisions are made by a

group of people rather than one or two persons. This gives space for rationales to be checked and blind spots to be challenged, and also leads to a more transparent thinking process for whether to hire/promote/dismiss a candidate. This does however involve a considerable emotional, physical and mental cost on people from a minority background who effectively assume the role of ‘racism educator’ especially as the number of committees and the demand on them grows. Organisations should be aware of this.

- iv. *Standardised interviews.* Research shows that in unstructured interviews recruiters tend to focus more on emotions and individual connections than on the job requirements (Rivera, 2020). These type of interviews therefore offer more of an opportunity to focus on social habits (Bertrand, Chugh and Mullainathan, 2005) with interview questions more likely driven by employer likes and dislikes or a conversation on hobbies and extracurricular. This is more likely to benefit majority group members. With that in mind, structured interviews with set standardised questions can keep the employer’s focus on job-specific requirements and skills, and improve candidate comparability. Eliminating unstructured interviews can not only considerably reduce the implicit bias in the hiring and promotion process but also improve output since it has been found that such types of interviews ‘are notoriously poor predictors of job performance’ (Rivera, 2020, p. 226) and are significantly unreliable (Dana, Dawes and Peterson, 2013).
- v. *Diversify recruitment pipelines.* Research shows that due to bias in the education system, people from an ethnic minority background are more likely to attend new universities while their White peers are more likely to attend more prestigious older universities (Shiner and Modood, 2002). Recruiters should therefore move beyond targeting the traditional Russell Group universities to expanding their pool of graduate recruits. Relatedly, since multinationals increasingly hire graduates who have undertaken an internship with them, companies should not only ensure such schemes are advertised at a range of universities but also ensure placements are fully funded to be attractive to minority group members, such as Muslims, who are more likely than White Britons to live in poorer households (Ali *et al.*, 2015; Heath, Li and Woerner-Powell, 2018).



However, these workplace recommendations, while necessary, are insufficient to tackle the Muslim penalty. This is because the issue is bigger than the labour market. It is a broader conceptual one that relates to how people in Britain understand what it means to be British, what is viewed as culturally ‘normal’ and what is not. Putting in place policies to limit employer emotions in the decision making process is therefore a short term solution that will remain lacklustre if societal views of what it means to ‘culturally fit in’ persist to adopt so-called ‘Judeo-Christian’ and secularised Christian ways of life as the benchmark. The more effective and durable solution is then to re-evaluate the perceptions that form the basis upon which employers form their emotions to make important decision about people’s livelihoods.

One way British society can do this is to revisit their commitment to relegating religion to the private sphere (Modood, 2019b). While there has been increased acceptance of colour as a marker of identity, there has been resistance to confer upon religion the same honour (Modood, 2005). This is the case despite empirical evidence from nearly 30 years ago highlighting the importance of religion to minorities’ identities, especially for Muslims (Modood *et al.*, 1997). To continuously reject how a sizeable proportion of the British population wishes to be identified and to not recognise their ‘mode of being’ (Modood, 2005, p. 104) under the pretext of preserving a neutral public space is damaging and reifies the marginalisation of an already side-lined group. Not only is there no such thing as a ‘neutral public space’ since such spaces reflect the dominant culture and religion (Parekh, 2005; Laborde, 2008), but the delineation between what constitutes private/public divide is counter-intuitive and arbitrary. As Modood cogently puts it,

“We thus have a mixed-up situation where secular multiculturalists may argue that the sex lives of individuals - traditionally, a core area of liberal privacy - is a legitimate feature of political identities and public discourse, and seem to generally welcome the sexualisation of culture, while on the other hand, religion - a key source of communal identity in traditional non-liberal societies - is to be regarded as a private matter, perhaps as a uniquely private matter.” (2019b, p. 122)

This last point is an important one. Religion transcends time and cultures as a defining feature of how many societies have - and continue to - create their shared identity. To push it out of the public

sphere, the space it has occupied for most of human existence, is unworkable. One might argue that British society is already accommodating of religion, especially relative to the French model which is overtly anti-Muslim (Laborde, 2008). A reflection of this would be the passing of the Equality Act 2010 which makes it illegal to discriminate based on religion in the workplace, or even the exemption, since 1989, for Sikhs from wearing hard hats on construction sites. Not overlooking the time it took for discrimination against workers based on religion to be illegal and the relatively meek legal obligations it begets, my point is at higher level than this. Policies like the Equality Act 2010 are but a band-aid solution as long as Britain does not reassess its imagined identity which forms the basis of its exclusionary mindsets. Islam has been conceptualised as the quintessential threat to Christian Europe for more than 1400 years (Rodinson, 1987; Esposito, 1999), with variations in the othering process over that time (Kumar, 2012). However, the increasingly visible Muslim presence has created a ‘paradox’; they are the other but they are also here and are British (Ramadan, 2017). This ‘paradox’ has created an identity crisis for Britain which has, in recent times, pushed it to clasp ‘with increasing intensity to a time-honoured conviction about what it is not’ (Murad, 2020, p. 49).

As such, the government passing the Equality Act 2010 and other anti-racist laws while refusing to officially engage with the Muslim Council of Britain, the largest umbrella of Muslim organisations in the UK, and continuing to peddle overt and covert anti-Muslim messaging will do little to bring about the shift in thinking that is needed to deal with implicit and explicit bias. Examples of such anti-Muslim narrative include: (i) Theresa May, then Home Secretary, championing the ‘hostile environment’ - initially proposed in 2007 by the then Labour Minister for Immigration - that juxtaposes an insidious ‘other’ against a magnanimous ‘self’ being taken advantage of; (ii) Prime Minister Boris Johnson caricaturing niqabi women as ‘letter boxes’ and ‘bank robbers’ which corresponded with an increase in attacks against Muslim women (BBC, 2018; Parveen, 2019); (iii) Michael Gove, the first chairman of Policy Exchange, an organisation that has helped shape the narrative of Muslims being a suspect community ‘urging that Muslims should be obliged to sign up to a set of beliefs that fell within a state prescribed remit’ (Osborne, 2022, p. 288), later holding multiple ministerial roles; (iv) David Cameron, then Prime Minister, who spoke of ‘a swarm of people coming across the Mediterranean’ (BBC, 2015); (v) the Trojan Horse affair which was premised on the idea of Muslims being a fifth column wanting to take over English

schools (Oborne, 2022, p. 312); (vi) the Prevent strategy which promotes the narrative of ‘all Muslims as potential extremist/enemies’ (McGhee, 2008 quoted in Karlsen and Nazroo, 2014, p. 371); and, (vii) more recently, Suella Braverman, when Home Secretary, speaking of an ‘invasion’ of migrants on the southern shores of the UK (Macaskill, 2022). These occurrences are not exceptions, these are manifestations, reworking centuries-old tropes that have been around since the birth of Islam (Daniel, 1960), of the fact that Islamophobia is central to British identity, and exemplify the ‘intensification and banalization of Islamophobic sentiment, policy and practice in Britain, alongside the increased targeting, both violent and mundane, of British Muslims’ (Alexander, 2017, p. 13).

National media also plays an important role in perpetuating this ‘Islamophobic sentiment’ and reminding society what British identity is supposedly *not* (Said, 1981). Those identifying with Islam are often represented as violent and “in-tension with the UK and ‘the West’, rather than integrated” (Baker, Gabrielatos and McEnery, 2013, p. 275) because of a perceived notion that their values are immiscible with way of life in Britain (Moore, Mason and Lewis, 2008, p. 3; Sian, Law and Sayyid, 2012). Even amidst the so-called ‘refugee crisis’ - when migrants were already suffering resentment (Esses, Medianu and Lawson, 2013; Parker, 2015) - Muslim refugees were specifically singled out by European leaders (Madziva, 2015), and portrayed in the media as a particular threat to European social cohesion (Müller, 2018). In short, the age-old trope of “Muslims as a ‘collective problem’ who threaten the very fabric of British society” (Frost, 2008, p. 574) persists. Abuse against Muslims also rehearse the same old racist motifs that have been worked and re-worked in European Christian discourse for over a millennium (Daniel, 1960). These centre around themes of paedophilia, terrorism, and other ‘insulting/derogatory remarks about Islam and expressions of confidence by the perpetrator that no punishment will follow’ (Atta, 2019, p. 6).

#### **7.4.1. What does introspection look like?**

An internal dialogue means Britain acknowledging that for over a thousand years anti-Muslimness has been integral to the formation of British identity, to the point where “the most insignificant event remotely connected with a cultural or even a culinary trait, or the most spectacular terrorist

attack, calls into question and reconfirms the ‘impossibility of integration’” (Ramadan, 2017, p. 99). This is not to suggest that there has been a single constant and uniform British national identity over time; the tensions between Wales, Ireland, Scotland and England prove this not to be the case. However, the unity of all four countries in responding to the British imperial project ‘with enthusiasm’ (CMEB, 2000, p. 22) is a reminder that irrespective of internal conflicts there was still a shared belief in their superiority over the other, including Muslims. This anti-Muslim sentiment is an enduring feature; “[i]n 2004 Frits Bolkestein, EU internal market commissioner, was voicing a very widespread sentiment when he cried that if Turkey joined the EU, ‘the liberation of Vienna [from an Ottoman siege] in 1683 would have been in vain’. The UK’s 2016 Brexit convulsion was [also] energized by claims that Turkey would join the EU” (Murad, 2020, p. 21). Recognising that Islamophobia is central to the formation of British identity can help us address our explicit and implicit bias. The outcome of this is, as Bhikhu Parekh has argued for many years, a revising of how Britain conceptualises its national identity (CMEB, 2000) or what Modood refers to as ‘pluralistic thickening’ (Modood, 2019a, p. 239). However, I argue that this should not be understood as a concession from the majority to the minority group but rather the righting of a wrong: the wrong being the distorted Western narrative that has allowed European countries, including Britain, to create an imagined identity divorced from reality that has erased from its memory, not only the vital role Islam and Muslims have played in creating today’s Britain, but the fact that what is understood as ‘western civilisation’ was actually born in the Middle East.

In addition to the introduction of new ideas to political thought, Muslim engagement with Greek philosophy, by polymaths like al-Kindi, al-Ghazali, and al-Razi, was an important step in Europe’s, and therefore Britain’s intellectual advancement. One such example are the translation initiatives during the Abbasid caliphate of Greek philosophy which ‘somehow migrated West, rather than remaining in their places of origin in Antioch, Ephesus, Cyrene and Alexandria. Even though he was Aristotle’s master-interpreter, the Saracen remained an interloper and an upstart’ (Murad, 2020, p. 15). Muslim rule in Al-Andalus for 800 years which saw advancements in a range of areas including medicine, chemistry, mathematics, astronomy, and agriculture in a period ‘characterized by *convivencia*, or coexistence in relative peace’ (Kumar, 2012, p. 12) while Europe stagnated in the early middle ages, a period of substantial economic and intellectual decline is another such example. In fact, Europe’s Renaissance in the 14<sup>th</sup> century would not have happened without the

Islamic Golden Age providing the intellectual and scientific basis which Renaissance thinkers took forth (Kumar, 2012). This influence continued well beyond, persisting to the present day. Examples include Islam's influence on 'Locke's great contribution to Western political philosophy' (Murad, 2020, p. 18), to the revolutionary study of society advanced by Ibn Khaldun, to Muslims' pioneering work in healthcare and to the establishment of higher education systems which Britain still draws on today. Islam's influence on Britain - and Europe - can be seen across many other areas and there is insufficient space to elaborate on all of these. It is however worth mentioning one more given its visible impact on iconic Christian symbols. Gothic architecture borrowed considerably from Islamic civilisation and left its mark on buildings like Westminster Abbey, Notre Dame Cathedral, and the Patriarchal Cathedral Basilica of Saint Mark (Darke, 2020).

In this way, we see that Muslims, like the Romans and Hellenic and Hellenistic Greeks before them, are, and continue to be, integral architects of Britain's intellectual, cultural and socio-economic landscape. Islam is a European religion as Christianity and Judaism are, all of which are semitic religions with roots in the same geographical region - a fact often seemingly forgotten when othering Muslims. In the same way, Christianity is as much a Middle Eastern religion. The difference is that in the Middle East and North Africa, this is the mainstream position and not a radical statement to make. The role of Islam in Britain, and Europe more broadly, past and present, is however not socially recognised in the West, if at all known (Goody, 2004). Instead, tropes such as rationality and peace being antithetical to the 'Muslim mind' and Muslims being 'the enemy within' (Warsi, 2017; see also Osborne, 2022) endure across British society.

In short, anti-discrimination laws and workplace policies are important, as is the drive for religion to be positively recognised in the public sphere. However, to succeed, these measures need to fit within a broader understanding that what is necessary is not only a 'thickening' of the national identity but rather normative change through a complete internal revaluation of British self-perception (Ramadan, 2017). In that sense, what I am advancing is a combination of the proposals advocated by Ramadan (2017) and Modood (2019a, 2019b). On the one hand, I agree with the latter on the importance of 'thickening' of what it means to be British and disagree with the former that '[i]t is not a question of including the other' (Ramadan, 2017, pp. 102–103). However, I argue that to include the other in an effective and meaningful manner necessitates a British re-

examination of its own identity. In that sense, the ‘thickening’ should not be understood as concession or a process of cultural exchange, but rather of adopting a more historically accurate understanding of what it means to be British. In that regard, I agree with Ramadan that “[t]he ‘moderation’ that Modood calls for has little hope unless we are able to deal with the question of perceptions and projections with regard to Islam, to Muslims, to their values and to their ways of belonging to Western societies” (2017, p. 99). With evidence of entrenched Islamophobia in the Conservative and Labour party, and anti-Muslim rhetoric and far-right narratives normalised across Europe at the supranational and national levels, this internal dialogue is needed now more than ever.

Any re-evaluation of the prevailing, harmful and distorted, narrative, needs to follow a top-down approach bringing together a range of actors including the government, academics, policymakers, and the media. It will also require an introspection among British Muslims of their identity. One which leads to a more confident Muslim identity and assuredness that their connection to Britain - and Europe - is not as foreign as has been made out to be. But this is not a meeting of equals. There is a deep power imbalance in revisiting national identity and so the majority has more to do in forging a more accurate and inclusive self-perception, not least because it is they who originally erased Muslims from the national story.

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# Appendix 1

**Table A1.** UKHLS variable used to measure job quality

Dimension	Measure	UKHLS (variable name & text)
<b>Dimension 1: Pay and other benefits</b>	a. Effective gross hourly pay	<p><b>paygu_dv</b> <i>Usual gross pay per month (derived variable)</i></p> <p><b>jbhrs</b> <i>Thinking about your (main) job, how many hours, excluding overtime and meal breaks, are you expected to work in a normal week?</i></p> <p><b>jbot</b> <i>And how many hours overtime do you usually work in a normal week?</i></p>
	b. Other benefits	<p><b>jbpen</b> <i>Does your present employer offer a pension scheme or superannuation scheme for which you are eligible? [Yes / No]</i></p> <p><b>jbrise</b> <i>Some people can normally expect their pay to rise every year by moving to the next point on the scale, as well as receiving negotiated pay rises. Are you paid on this type of incremental scale? [Yes / No]</i></p>
<b>Dimension 2: Job Security and Representation</b>	a. Job security	<p><b>jbterm1</b> <i>Leaving aside your own personal intentions and circumstances, is your job? [A permanent job / Or is there some way that it is not permanent]</i></p> <p><b>jbsec</b> <i>I would like you to think about your employment prospects over the next 12 months. Thinking about losing your job by being sacked, laid-off, made redundant or not having your contract renewed, how likely do you think it is that you will lose your job during the next 12 months? [Very likely / Likely / Unlikely / Very unlikely]</i></p>
	b. Representation	<p><b>tujbpl</b> <i>Is there a trade union, or a similar body such as a staff association, recognised by your management for negotiating pay or conditions for the people doing your sort of job in your workplace? [Yes / No]</i></p>
<b>Dimension 3: Work-Life Balance</b>	a. Flexibility and scheduling	<p><i>I would like to ask about working arrangements at the place where you work. Which of the following arrangements are available at your workplace:</i></p> <p><b>jbflex2</b> <i>Working term-time only? [Yes / No]</i></p> <p><b>jbflex3</b> <i>job sharing? [Yes / No]</i></p> <p><b>jbflex4</b> <i>Flexi-time? [Yes / No]</i></p>

		<p><b>jbflex5</b> <i>Working compressed hours? [Yes / No]</i></p> <p><b>jbflex7</b> <i>To work from home on a regular basis? [Yes / No]</i></p> <p><b>jbflex8</b> <i>Other flexible working arrangements? [Yes / No]</i></p> <p><b>jbfxinf</b> <i>Aside from any formal arrangements for flexible working you have, are you able to vary your working hours on an informal basis, for example by re-arranging your start or finish times if you need to? [Yes / No / Sometimes]</i></p>
	b. Working hours: duration & autonomy	<p><b>jbhrs</b> <i>Thinking about your (main) job, how many hours, excluding overtime and meal breaks, are you expected to work in a normal week?</i></p> <p><b>jbot</b> <i>And how many hours overtime do you usually work in a normal week?</i></p> <p><b>wkaut5</b> <i>In your current job, how much influence do you have over...The time you start or finish your working day?[A lot / Some / A little / None]</i></p>
<b>Dimension 4: Intrinsic job attributes</b>	a. Worker discretion	<p><b>wkaut1</b> <i>In your current job, how much influence do you have over...What tasks you do in your job?[A lot / Some / A little / None]</i></p> <p><b>wkaut2</b> <i>In your current job, how much influence do you have over... The pace at which you work?[A lot / Some / A little / None]</i></p> <p><b>wkaut3</b> <i>In your current job, how much influence do you have over... How you do your work?[A lot / Some / A little / None]</i></p> <p><b>wkaut4</b> <i>In your current job, how much influence do you have over... The order in which you carry out tasks? A lot / Some / A little / None]</i></p>
	b. Training and development opportunities	<p><b>jbxpchb</b> <i>Even though you would not like this to happen, do... / Do you think this [taking up work related training] actually will happen in the coming twelve months? [Yes / No]</i></p>

## Appendix 2

**Table B1.** Men - Distribution of variables used in analysis of unemployment (percentages unless otherwise stated)

Variable	CWB	CWI	CWO	CBWC	CI	CAO	CBC	CBA	MWB	MI	MP
Unemployed	5	1	1	28	1	1	21	22	1	12	12
Age (mean)	45	42	39	39	42	38	44	38	32	37	37
Marital status											
Single	19	15	25	47	0	53	44	28	41	33	26
Married/Cohabiting	75	84	71	46	100	47	44	68	57	62	74
Divorced/Separated/Widowed	7	1	4	7	0	0	12	5	2	5	1
Education											
Degree or higher	33	55	59	50	35	39	14	34	28	18	41
Other higher degree	13	12	4	2	43	4	10	12	11	8	12
Secondary education	45	33	19	35	22	40	59	52	61	57	30
Other qualification	6	0	11	14	0	14	10	2	0	6	11
No qualification	3	0	7	0	0	3	7	0	0	11	7
Health concerns?											
Yes	29	22	16	11	13	25	29	5	9	24	17
Responsible for children under 16?											
Resp. for 0 child	99	95	97	99	100	98	98	100	98	97	98
Resp. for 1 child	1	5	2	1	0	2	2	0	2	3	1
Resp. for 2 children	0	0	0	0	0	0	1	0	0	0	1
Resp. for 3+ children	0	0	1	0	0	0	0	0	0	0	0
Born in UK?											
Yes	100	43	9	90	0	7	79	8	100	45	48
Difficulties with English language?											
Yes	0	0	18	0	18	3	0	0	0	24	16
Region											
Rest of England	82	19	60	70	53	27	30	34	99	44	79
London	8	51	24	30	22	73	70	60	1	56	20
Wales	4	0	0	0	18	0	0	0	0	0	1
Scotland	7	30	16	0	7	0	0	6	0	0	0
Religion makes difference											
Great difference	19	15	33	36	79	60	32	81	66	73	69
Some difference	56	78	57	31	20	40	54	19	19	27	26
No difference	24	8	10	33	2	0	14	0	15	0	6
Attendance at religious services											
Once a week or more	18	46	26	36	73	82	7	73	73	85	65

At least once a month	9	12	21	0	7	11	14	12	1	10	17
Once a year/never/special occasions	73	43	53	64	21	7	79	15	26	5	18
Husband should earn, wife should stay at home?											
Strongly disagree	23	25	16	16	27	12	15	16	9	9	3
Disagree	37	35	39	11	51	72	35	28	58	28	22
Neither agree/disagree	29	24	28	26	12	13	36	25	25	28	29
Agree	9	16	14	24	10	0	10	22	8	15	33
Strongly agree	2	0	3	22	0	3	3	10	0	20	13
Family life suffers if mother works full-time?											
Strongly disagree	10	10	4	4	20	4	6	11	1	13	1
Disagree	31	14	23	17	37	49	37	14	45	7	17
Neither agree/disagree	31	29	36	21	8	26	29	40	32	34	26
Agree	22	44	31	28	25	10	26	28	17	20	40
Strongly agree	5	3	6	31	10	11	2	7	5	26	16
Civic participation (mean)	1.4	1.5	1.0	1.5	1.6	1.8	1.3	1.4	1.3	0.4	0.8
Number of observations (unweighted)	18,033	235	946	162	206	205	496	847	106	433	1,897

Notes: Descriptive statistics adjusted for complex survey design. Christian White British [CWB], Christian White Irish [CWI], Christian White Other [CWO], Christian Black & White Caribbean Mix [CBWC], Christian Indian [CI], Christian Asian Other [CAO], Christian Black Caribbean [CBC], Christian Black African [CBA], Muslim White British [MWB], Muslim Indian [MI], Muslim Pakistani [MP].

**Table B1.** Men - Distribution of variables used in analysis of unemployment (percentages unless otherwise stated) (cont)

Variable	MB	MBA	MA	HI	HAO	JWB	SI	BAO	ORWB	NRWB	NRWI
Unemployed	15	8	16	5	1	20	5	2	24	8	3
Age (mean)	40	44	34	41	36	37	36	41	38	40	50
Marital status											
Single	18	4	27	26	11	61	28	6	39	29	10
Married/Cohabiting	80	95	71	74	89	39	72	94	57	66	64
Divorced/Separated/Widowed	2	2	2	1	0	0	0	0	4	5	26
Education											
Degree or higher	36	51	52	64	72	100	35	68	27	29	61
Other higher degree	9	29	5	10	9	0	10	0	25	11	2
Secondary education	24	8	18	16	19	0	26	14	36	49	37
Other qualification	12	13	0	4	0	0	0	17	8	7	0
No qualification	19	0	25	6	0	0	28	0	4	5	0
Health concerns?											
Yes	33	11	25	14	15	77	7	9	43	24	20
Responsible for children under 16?											
Resp. for 0 child	98	100	97	100	100	100	100	100	99	99	94
Resp. for 1 child	2	0	3	0	0	0	0	0	0	1	4
Resp. for 2 children	0	0	0	0	0	0	0	0	1	0	2
Resp. for 3+ children	0	0	0	0	0	0	0	0	0	0	0
Born in UK?											
Yes	26	12	24	27	21	100	57	0	100	100	53
Difficulties with English language?											
Yes	26	0	19	5	54	0	14	19	0	0	0
Region											
Rest of England	28	49	47	28	9	15	42	0	82	78	66
London	72	51	50	65	91	85	58	100	10	8	27
Wales	0	0	3	0	0	0	0	0	0	5	0
Scotland	0	0	0	7	0	0	0	0	8	9	6
Religion makes difference											
Great difference	77	82	61	32	25	72	53	7	42	1	0
Some difference	17	12	33	52	68	28	43	79	44	22	33
No difference	6	6	6	16	7	0	4	14	14	77	67
Attendance at religious services											
Once a week or more	71	53	65	19	5	81	42	0	29	0	0
At least once a month	13	24	23	28	31	13	32	3	7	1	6
Once a year/never/special occasions	16	24	13	54	64	7	26	97	64	99	94
Husband should earn, wife should stay at home?											

Strongly disagree	11	11	12	14	68	21	20	0	9	28	30
Disagree	14	15	29	46	15	5	27	34	38	39	47
Neither agree/disagree	39	35	23	21	16	74	23	48	44	25	12
Agree	16	39	35	10	1	0	25	17	9	6	9
Strongly agree	21	0	1	9	0	0	5	0	0	2	1
Family life suffers if mother works full-time?											
Strongly disagree	6	7	0	3	54	12	13	0	3	12	1
Disagree	17	13	24	23	9	13	23	6	13	34	47
Neither agree/disagree	17	34	32	33	19	69	20	11	55	33	21
Agree	39	36	30	25	17	5	37	20	18	17	27
Strongly agree	21	10	13	15	1	0	7	63	11	4	4
Civic participation (mean)	0.8	1.4	1.4	1.1	1.0	1.9	0.9	0.9	1.1	0.9	1.6
Number of observations (unweighted)	1,117	282	177	1,103	199	123	689	111	369	37,574	171

Notes: Descriptive statistics adjusted for complex survey design. Muslim Bangladeshi [MB], Muslim Black African [MBA], Muslim Arab [MA], Hindu Indian [HI], Hindu Asian Other [HAO], Jewish White British [JWB], Sikh Indian [SI], Buddhist Asian Other [BAO], Other Religion White British [ORWB], No Religion White British [NRWB], No Religion White Irish [NRWI].

**Table B1.** Men - Distribution of variables used in analysis of unemployment (percentages unless otherwise stated) (cont)

Variable	NRWO	NRBWC	NRAW	NRI	NRC	NRBC	NRBA	NRA	OTHER	Total
Unemployed	9	17	3	14	6	27	12	12	15	7
Age (mean)	38	34	37	36	36	42	37	43	41	41
Marital status										
Single	24	43	47	41	59	67	66	35	34	26
Married/Cohabiting	76	57	53	57	40	24	34	63	63	69
Divorced/Separated/Widowed	1	1	0	3	2	9	0	2	3	5
Education										
Degree or higher	42	23	59	73	95	8	57	19	54	33
Other higher degree	12	10	12	0	0	4	9	6	6	11
Secondary education	23	63	28	20	5	61	35	43	25	45
Other qualification	23	4	0	3	0	9	0	0	10	7
No qualification	0	0	0	4	0	18	0	32	4	4
Health concerns?										
Yes	23	13	26	12	5	36	10	24	28	25
Responsible for children under 16?										
Resp. for 0 child	96	99	100	100	99	99	100	100	99	99
Resp. for 1 child	1	1	0	0	1	1	0	0	1	1
Resp. for 2 children	4	0	0	0	0	0	0	0	0	0
Resp. for 3+ children	0	0	0	0	0	0	0	0	0	0
Born in UK?										
Yes	17	96	82	66	33	71	12	17	60	91
Difficulties with English language?										
Yes	30	0	0	2	18	0	0	31	3	2
Region										
Rest of England	58	77	43	42	67	71	10	50	51	75
London	26	23	37	58	27	29	81	50	34	13
Wales	3	0	21	0	0	0	0	0	2	4
Scotland	13	0	0	0	6	0	9	0	13	8
Religion makes difference										
Great difference	1	0	5	10	1	7	23	0	21	12
Some difference	20	37	12	33	25	27	25	12	50	34
No difference	79	63	83	57	73	66	52	88	29	55
Attendance at religious services										
Once a week or more	0	0	0	8	1	0	12	0	18	10
At least once a month	0	3	5	4	0	2	11	0	10	5
Once a year/never/special occasions	100	97	95	87	99	98	77	100	72	85
Husband should earn, wife should stay at home?										

Strongly disagree	26	15	53	37	13	32	49	3	34	26
Disagree	44	23	32	31	31	29	12	47	25	37
Neither agree/disagree	14	56	1	22	38	29	37	34	26	27
Agree	14	1	11	8	19	6	2	0	14	8
Strongly agree	2	5	3	2	0	3	0	16	1	2
Family life suffers if mother works full-time?										
Strongly disagree	15	15	32	18	14	4	40	0	11	11
Disagree	38	10	13	31	22	65	10	32	24	32
Neither agree/disagree	15	49	43	32	33	18	29	8	32	32
Agree	30	19	3	17	30	10	21	48	22	20
Strongly agree	2	8	10	2	0	3	0	12	11	5
Civic participation (mean)	0.9	0.9	1.1	0.8	0.9	0.6	0.4	2.0	1.0	1.1
Number of observations (unweighted)	916	251	226	407	288	488	162	100	2,497	70,816

Notes: Descriptive statistics adjusted for complex survey design. No Religion White Other [NRWO], No Religion Black & White Caribbean Mix [NRBWC], No Religion Asian & White Mix [NRAW], No Religion Indian [NRI], No Religion Chinese [NRC], No Religion Black Caribbean [NRBC], No Religion Black African [NRBA], No Religion Arab [NRA], Other [OTHER].



**Table B2.** Women - Distribution of variables used in analysis of unemployment (percentages unless otherwise stated)

Variable	CWB	CWI	CWO	CBWC	CBWA	CAW	CI	CC
Unemployed	3	3	4	7	5	3	12	5
Age (mean)	45	48	40	36	41	36	41	44
Marital status								
Single	14	19	14	64	20	55	7	6
Married/Cohabiting	73	70	79	31	41	38	93	60
Divorced/Separated/Widowed	13	11	7	5	40	7	0	35
Education								
Degree or higher	33	40	52	27	3	56	20	50
Other higher degree	17	25	18	3	24	17	57	28
Secondary education	40	27	14	68	61	13	23	22
Other qualification	7	6	13	2	11	15	0	0
No qualification	4	2	3	0	0	0	0	0
Health concerns?								
Yes	30	24	16	22	37	20	10	25
Number of children responsible for								
Resp. for 0 child	61	61	50	68	31	75	18	53
Resp. for 1 child	18	15	19	7	22	13	14	12
Resp. for 2 children	17	23	26	24	33	12	58	35
Resp. for 3+ children	5	2	5	1	14	0	11	0
Born in UK?								
Yes	100	32	12	75	53	68	10	34
Difficulties with English language?								
Yes	0	0	16	0	0	0	1	0
Region								
Rest of England	82	45	65	54	57	78	57	85
London	7	49	26	46	43	22	11	11
Wales	3	4	5	0	0	0	23	4
Scotland	8	2	4	0	0	0	9	0
Religion makes difference to life?								
Great difference	18	26	36	34	65	39	82	38
Some difference	59	68	52	62	35	46	18	33
No difference	23	6	13	5	0	15	0	28
Husband should earn, wife should stay at home?								
Strongly disagree	31	22	32	45	4	50	58	34
Disagree	39	47	38	42	37	38	8	21
Neither agree/disagree	21	27	22	10	56	10	27	35
Agree	7	3	5	3	2	2	3	11
Strongly agree	2	1	4	0	0	0	4	0

Family life suffers if mother works full-time?								
Strongly disagree	12	11	9	39	3	11	13	0
Disagree	31	17	34	18	24	51	44	9
Neither agree/disagree	27	35	22	14	14	13	13	53
Agree	24	30	27	13	59	23	6	28
Strongly agree	6	7	9	15	0	2	24	10
Civic participation (mean)	1.3	1.5	1.0	1.2	1.0	0.6	2.2	1.4
Number of observations (unweighted)	28,160	446	1,400	307	163	129	203	103

Notes: Descriptive statistics adjusted for complex survey design. Christian White British [CWB], Christian White Irish [CWI], Christian White Other [CWO], Christian Black & White Caribbean Mix [CBWC], Christian Black & White African Mix [CBWA], Christian Asian & White Mix [CAW], Christian Indian [CI], Christian Chinese [CC].

**Table B2.** Women - Distribution of variables used in analysis of unemployment (percentages unless otherwise stated) (cont)

Variable	CAO	CBC	CBA	MWB	MI	MP	MB	MBA	HI	HAO
Unemployed	8	8	11	2	11	21	12	20	4	13
Age (mean)	46	45	42	45	37	35	31	37	40	45
Marital status										
Single	10	48	26	15	15	24	33	11	11	0
Married/Cohabiting	64	37	53	47	74	57	60	80	87	94
Divorced/Separated/Widowed	25	15	21	38	11	19	7	8	3	6
Education										
Degree or higher	44	41	45	33	32	27	43	29	44	43
Other higher degree	5	14	21	26	5	2	2	9	18	23
Secondary education	30	36	27	33	49	48	39	47	31	35
Other qualification	13	7	3	3	2	15	10	9	4	0
No qualification	8	2	4	5	13	7	6	6	4	0
Health concerns?										
Yes	12	34	18	44	15	15	12	9	11	10
Responsible for children under 16?										
Resp. for 0 child	75	59	26	46	46	48	62	17	48	38
Resp. for 1 child	14	24	24	20	25	17	16	17	21	20
Resp. for 2 children	11	15	26	29	20	21	9	37	27	14
Resp. for 3+ children	0	2	24	5	9	13	13	29	4	27
Born in UK?										
Yes	1	66	15	100	48	38	54	10	35	18
Difficulties with English language?										
Yes	9	0	19	0	4	24	19	15	4	9
Region										
Rest of England	43	23	49	79	66	74	18	20	50	68
London	57	77	51	21	34	24	82	80	49	32
Wales	0	0	0	0	0	1	0	0	1	0
Scotland	0	0	0	0	0	1	0	0	0	0
Religion makes difference										
Great difference	67	67	84	20	69	82	68	84	35	43
Some difference	25	26	15	55	27	18	32	16	55	51
No difference	8	7	1	25	4	1	0	0	10	6
Husband should earn, wife should stay at home?										
Strongly disagree	12	40	18	15	16	19	32	0	33	6
Disagree	34	37	33	33	23	25	34	39	27	78
Neither agree/disagree	27	13	37	52	18	23	13	22	28	8
Agree	18	6	6	0	22	29	13	13	7	0
Strongly agree	8	4	7	0	20	6	7	26	5	8

Family life suffers if mother works full-time?										
Strongly disagree	10	24	11	6	9	10	19	0	6	3
Disagree	31	28	28	16	3	8	28	24	21	18
Neither agree/disagree	11	25	34	50	41	23	7	27	29	12
Agree	24	17	19	21	27	33	31	3	29	51
Strongly agree	23	6	8	6	20	25	15	45	15	16
Civic participation (mean)	1.1	1.2	1.4	1.1	0.6	0.5	0.6	0.8	0.8	0.6
Number of observations (unweighted)	339	1,435	1,372	150	281	1,234	708	291	987	205

Notes: Descriptive statistics adjusted for complex survey design. Christian Asian Other [CAO], Christian Black Caribbean [CBC], Christian Black African [CBA], Muslim White British [MWB], Muslim Indian [MI], Muslim Pakistani [MP], Muslim Bangladeshi [MB], Muslim Black African [MBA], Hindu Indian [HI], Hindu Asian Other [HAO].

**Table B2.** Women - Distribution of variables used in analysis of unemployment (percentages unless otherwise stated) (cont)

Variable	JWB	SI	BAO	ORWB	ORWO	ORBC	NRWB	NRWI	NRWO	NRBWC
Unemployed	6	12	28	11	1	3	7	4	6	3
Age (mean)	47	36	39	42	39	47	39	46	44	32
Marital status										
Single	20	38	0	27	6	43	28	36	24	60
Married/Cohabiting	58	52	92	55	78	51	62	57	67	38
Divorced/Separated/Widowed	22	10	8	18	16	6	10	7	9	2
Education										
Degree or higher	39	50	24	30	48	40	30	38	68	24
Other higher degree	42	12	2	24	15	29	13	16	18	13
Secondary education	7	33	11	36	24	31	48	45	12	60
Other qualification	13	0	18	6	5	0	5	0	3	3
No qualification	0	6	45	4	9	0	4	0	0	0
Health concerns?										
Yes	20	8	12	53	22	8	26	9	17	31
Responsible for children under 16?										
Resp. for 0 child	62	61	54	66	36	79	61	75	58	86
Resp. for 1 child	21	17	34	21	52	4	19	14	21	11
Resp. for 2 children	13	20	11	10	12	16	16	11	21	1
Resp. for 3+ children	5	3	2	4	0	0	4	0	0	2
Born in UK?										
Yes	100	65	0	100	6	56	100	14	11	99
Difficulties with English language?										
Yes	0	1	72	0	0	0	0	0	7	0
Region										
Rest of England	34	53	36	71	75	45	80	90	51	77
London	60	47	22	13	10	55	8	0	35	20
Wales	0	0	0	10	4	0	4	0	7	0
Scotland	5	0	42	6	10	0	8	10	7	3
Religion makes difference										
Great difference	44	29	76	58	30	88	1	3	4	1
Some difference	42	64	15	28	59	12	22	36	31	37
No difference	14	7	8	14	11	0	76	61	65	62
Husband should earn, wife should stay at home?										
Strongly disagree	48	45	2	27	42	40	38	56	51	59
Disagree	24	27	19	37	29	28	35	28	36	27
Neither agree/disagree	15	20	61	29	14	20	21	16	10	14
Agree	0	6	19	7	14	12	5	0	3	1
Strongly agree	12	2	0	0	0	0	2	0	0	0

Family life suffers if mother works full-time?										
Strongly disagree	4	29	5	9	7	26	17	19	23	35
Disagree	35	26	7	28	43	19	33	44	33	43
Neither agree/disagree	29	14	81	36	13	31	30	14	19	19
Agree	19	19	4	19	24	20	16	16	20	4
Strongly agree	14	12	4	8	14	2	4	6	4	0
Civic participation (mean)	1.6	0.9	0.3	1.4	1.2	1.8	0.8	0.8	1.0	0.5
Number of observations (unweighted)	203	679	146	553	123	100	36,204	135	1,118	399

Notes: Descriptive statistics adjusted for complex survey design. Jewish White British [JWB], Sikh Indian [SI], Buddhist Asian Other [BAO], Other Religion White British [ORWB], Other Religion White Other [ORWO], Other Religion Black Caribbean [ORBC], No Religion White British [NRWB], No Religion White Irish [NRWI], No Religion White Other [NRWO], No Religion Black and White mix Caribbean [NRBWC].

**Table B2.** Women - Distribution of variables used in analysis of unemployment (percentages unless otherwise stated) (cont)

Variable	NRAW	NRI	NRC	NRAO	NRBC	NRBA	OTHER	Total
Unemployed	7	9	2	4	8	1	20	6
Age (mean)	36	39	43	42	43	36	37	41
Marital status								
Single	54	36	9	21	54	74	46	24
Married/Cohabiting	43	55	77	73	38	7	42	65
Divorced/Separated/Widowed	2	9	14	6	8	19	11	11
Education								
Degree or higher	38	56	29	41	30	57	36	33
Other higher degree	13	12	23	7	16	43	11	15
Secondary education	32	13	24	41	46	0	39	42
Other qualification	18	12	0	10	6	0	8	6
No qualification	0	6	24	0	2	0	6	4
Health concerns?								
Yes	17	13	12	20	36	30	36	27
Responsible for children under 16?								
Resp. for 0 child	74	47	48	60	74	36	67	61
Resp. for 1 child	22	31	33	10	15	12	14	19
Resp. for 2 children	4	14	19	29	10	46	13	17
Resp. for 3+ children	0	8	0	1	1	7	6	4
Born in UK?								
Yes	49	68	37	12	70	39	68	91
Difficulties with English language?								
Yes	0	2	26	16	0	0	5	1
Region								
Rest of England	41	46	72	69	31	34	58	76
London	59	48	28	25	69	66	27	13
Wales	0	2	0	5	0	0	3	4
Scotland	0	4	0	0	0	0	12	7
Religion makes difference								
Great difference	1	15	0	7	12	35	28	14
Some difference	20	34	47	32	45	22	39	37
No difference	79	52	53	61	43	43	34	49
Husband should earn, wife should stay at home?								
Strongly disagree	44	23	25	37	33	25	30	35
Disagree	45	28	28	20	44	64	31	36
Neither agree/disagree	3	34	22	37	15	4	27	21
Agree	0	5	25	6	5	6	9	6
Strongly agree	9	9	0	0	3	0	3	2

Family life suffers if mother works full-time?								
Strongly disagree	8	5	5	28	19	10	16	15
Disagree	9	16	28	16	41	33	29	31
Neither agree/disagree	42	26	42	21	23	35	30	28
Agree	29	37	24	32	12	13	19	20
Strongly agree	11	16	1	3	5	9	7	6
Civic participation (mean)	0.5	0.9	0.3	0.8	0.8	1.0	0.8	1.0
Number of observations (unweighted)	179	326	227	192	526	136	3,800	82,959

Notes: Descriptive statistics adjusted for complex survey design. No Religion Asian & White Mix [NRAW], No Religion Indian [NRI], No Religion Chinese [NRC], No Religion Asian Other [NRAO], No Religion Black Caribbean [NRBC], No Religion Black African [NRBA], Other [OTHER].



**Table B3.** Men - Distribution of variables used in analysis of inactivity (percentages unless otherwise stated)

Variable	CWB	CWI	CWO	CBWC	CBWA	CAW	CI	CAO	CBC
Inactive	20	22	4	54	48	25	9	45	25
Age (mean)	45	45	40	34	33	37	43	30	44
Marital status									
Single	22	28	25	63	61	35	3	72	45
Married/Cohabiting	70	70	71	29	38	64	97	28	42
Divorced/Separated/Widowed	7	2	3	9	1	1	0	0	13
Education									
Degree or higher	31	51	58	32	37	73	40	22	14
Other higher degree	12	9	4	5	0	11	39	4	10
Secondary education	45	30	20	44	63	16	21	53	59
Other qualification	7	9	11	19	0	0	0	8	10
No qualification	5	2	7	0	0	0	0	13	8
Health concerns?									
Yes	32	36	17	18	24	30	16	14	32
Responsible for children under 16?									
Resp. for 0 child	99	96	97	99	100	100	100	99	97
Resp. for 1 child	1	4	2	1	0	0	0	1	1
Resp. for 2 children	0	0	0	0	0	0	0	0	1
Resp. for 3+ children	0	0	1	0	0	0	0	0	0
Born in UK?									
Yes	100	52	10	94	61	47	0	4	78
Difficulties with English language?									
Yes	0	0	17	0	1	0	16	2	0
Region									
Rest of England	82	29	59	70	57	56	50	27	30
London	7	48	25	30	43	44	27	73	70
Wales	4	0	0	0	0	0	16	0	0
Scotland	7	24	16	0	0	0	6	0	0
Religion makes difference									
Great difference	20	21	32	25	46	34	76	57	34
Some difference	55	72	57	44	50	60	21	38	53
No difference	25	7	11	31	4	6	3	6	13
Attendance at religious services									
Once a week or more	18	49	26	28	22	24	72	78	7
At least once a month	9	9	21	6	46	5	6	12	14
Once a year/never/special occasions	73	42	53	67	32	70	22	10	79
Husband should earn, wife should stay at home?									
Strongly disagree	22	29	16	27	27	18	27	9	14

	Disagree	36	30	39	13	2	38	51	70	35
	Neither agree/disagree	30	21	27	17	56	32	13	19	38
	Agree	10	15	14	22	16	9	9	0	10
	Strongly agree	2	5	3	21	0	3	0	2	4
Family life suffers if mother works full-time?										
	Strongly disagree	9	12	4	12	3	2	19	2	6
	Disagree	31	19	23	18	5	31	34	63	39
	Neither agree/disagree	32	29	36	17	75	30	10	21	28
	Agree	22	38	31	32	17	6	25	7	24
	Strongly agree	6	2	6	22	0	31	12	6	3
Civic participation (mean)		1.4	1.4	1.0	1.2	1.3	1.5	1.7	1.9	1.2
Number of observations (unweighted)		22,049	300	1,079	219	111	116	233	252	625

Notes: Descriptive statistics adjusted for complex survey design. Christian White British [CWB], Christian White Irish [CWI], Christian White Other [CWO], Christian B&W Caribbean Mix [CBWC], Christian B&W African Mix [CBWA], Christian Asian & White Mix [CAW], Christian Indian [CI], Christian Asian Other [CAO], Christian Black Caribbean [CBC].

**Table B3.** Men - Distribution of variables used in analysis of inactivity (percentages unless otherwise stated) (cont)

Variable	CBA	MWB	MI	MP	MB	MBA	MA	HI	HAO	JWB
Inactive	40	11	32	31	37	15	48	17	6	25
Age (mean)	36	32	36	35	36	43	29	40	36	37
Marital status										
Single	42	46	41	38	35	6	57	31	15	63
Married/Cohabiting	54	52	55	62	64	93	42	68	85	37
Divorced/Separated/Widowed	4	2	4	0	2	1	1	2	0	0
Education										
Degree or higher	29	35	18	35	32	53	48	56	73	95
Other higher degree	11	11	6	9	7	26	3	9	9	0
Secondary education	52	54	62	40	33	9	34	23	18	4
Other qualification	7	0	5	10	12	12	0	5	0	1
No qualification	0	0	10	6	17	0	15	6	0	0
Health concerns?										
Yes	10	8	28	17	30	11	17	14	13	74
Responsible for children under 16?										
Resp. for 0 child	100	98	98	98	98	100	98	100	100	100
Resp. for 1 child	0	2	2	1	1	0	2	0	0	0
Resp. for 2 children	0	0	0	1	0	0	0	0	0	0
Resp. for 3+ children	0	0	0	0	1	0	0	0	0	0
Born in UK?										
Yes	10	100	50	54	39	14	54	28	18	100
Difficulties with English language?										
Yes	6	0	20	15	21	0	11	5	58	0
Region										
Rest of England	39	99	38	77	34	45	28	31	9	18
London	53	1	62	21	66	55	70	63	91	83
Wales	0	0	0	2	0	0	2	0	0	0
Scotland	8	0	0	0	0	0	0	6	0	0
Religion makes difference										
Great difference	82	66	60	69	76	84	62	30	24	67
Some difference	18	21	38	26	19	11	34	56	71	28
No difference	0	14	2	5	5	5	3	15	5	5
Attendance at religious services										
Once a week or more	75	75	86	66	76	55	78	17	5	74
At least once a month	12	1	7	15	12	23	13	30	35	17
Once a year/never/special occasions	13	25	7	20	12	22	9	53	60	9
Husband should earn, wife should stay at home?										
Strongly disagree	13	9	9	4	11	12	9	13	71	23

	Disagree	25	52	36	23	11	20	18	42	14	7
	Neither agree/disagree	26	32	26	30	39	32	35	26	14	68
	Agree	23	7	15	31	22	36	37	10	1	1
	Strongly agree	13	0	15	11	17	0	1	8	0	0
Family life suffers if mother works full-time?											
	Strongly disagree	15	1	10	1	5	6	0	4	58	12
	Disagree	16	41	10	20	23	12	14	21	9	17
	Neither agree/disagree	40	39	44	24	19	38	57	35	16	65
	Agree	21	15	16	39	36	33	22	25	16	6
	Strongly agree	8	5	20	16	18	11	8	14	1	0
Civic participation (mean)		1.4	1.3	0.4	0.9	0.7	1.4	1.1	1.0	1.0	1.9
Number of observations (unweighted)		1,093	141	533	2,429	1,435	376	247	1,295	244	150

Notes: Descriptive statistics adjusted for complex survey design. Christian Black African [CBA], Muslim White British [MWB], Muslim Indian [MI], Muslim Pakistani [MP], Muslim Bangladeshi [MB], Muslim Black African [MBA], Muslim Arab [MA], Hindu Indian [HI], Hindu Asian Other [HAO], Jewish White British [JWB].

**Table B3.** Men - Distribution of variables used in analysis of inactivity (percentages unless otherwise stated) (cont)

Variable	SI	BAO	ORWB	NRWB	NRWI	NRWO	NRBWC	NRAW	NRI	NRC
Inactive	18	20	42	21	37	18	46	9	19	31
Age (mean)	36	38	39	40	50	39	29	37	37	33
Marital status										
Single	32	23	40	33	32	28	62	49	39	67
Married/Cohabiting	67	77	55	62	46	71	37	50	58	32
Divorced/Separated/Widowed	0	0	5	5	22	1	1	0	3	1
Education										
Degree or higher	33	74	27	27	42	42	17	58	70	74
Other higher degree	11	0	20	10	23	11	6	12	2	0
Secondary education	32	12	30	49	25	23	72	30	21	26
Other qualification	0	14	13	7	10	25	5	0	2	0
No qualification	25	0	11	6	0	0	0	0	4	0
Health concerns?										
Yes	8	8	52	27	47	25	17	26	14	6
Responsible for children under 16?										
Resp. for 0 child	100	100	99	99	96	96	100	100	100	99
Resp. for 1 child	0	0	0	1	3	1	1	0	0	1
Resp. for 2 children	0	0	1	0	1	3	0	0	0	0
Resp. for 3+ children	0	0	0	0	0	0	0	0	0	0
Born in UK?										
Yes	55	0	100	100	42	17	96	81	66	31
Difficulties with English language?										
Yes	12	16	0	0	0	27	0	0	2	28
Region										
Rest of England	41	0	84	78	79	57	85	44	43	62
London	57	100	11	8	17	27	15	37	56	33
Wales	1	0	0	5	0	3	0	20	0	0
Scotland	0	0	6	9	4	12	0	0	1	5
Religion makes difference										
Great difference	53	6	46	1	6	2	0	3	11	1
Some difference	42	83	42	23	36	21	42	13	33	23
No difference	5	11	12	76	57	77	58	84	56	76
Attendance at religious services										
Once a week or more	45	0	33	0	5	0	0	0	9	1
At least once a month	30	3	5	1	6	0	3	3	4	0
Once a year/never/special occasions	25	97	61	99	89	100	97	97	87	99
Husband should earn, wife should stay at home?										
Strongly disagree	19	0	14	29	28	25	25	50	36	12

	Disagree	27	46	35	38	52	44	30	36	30	27
	Neither agree/disagree	22	40	42	25	10	15	35	1	24	33
	Agree	29	14	8	6	6	14	1	10	9	29
	Strongly agree	4	0	1	2	5	2	9	2	2	0
Family life suffers if mother works full-time?											
	Strongly disagree	12	0	4	13	22	15	16	30	17	10
	Disagree	21	5	11	33	38	38	25	13	30	24
	Neither agree/disagree	23	27	56	33	17	17	32	45	33	35
	Agree	35	17	20	17	20	28	17	4	16	31
	Strongly agree	9	52	9	4	3	3	11	8	4	0
Civic participation (mean)											
		0.9	0.7	1.1	0.9	1.2	0.9	0.8	1.2	0.8	0.7
Number of observations (unweighted)											
		803	122	477	44,820	209	1,046	345	265	492	353

Notes: Descriptive statistics adjusted for complex survey design. Sikh Indian [SI], Buddhist Asian Other [BAO], Other Religion White British [ORWB], No Religion White British [NRWB], No Religion White Irish [NRWI], No Religion White Other [NRWO], No Religion Black & White Caribbean Mix [NRBWC], No Religion Asian & White Mix [NRAW], No Religion Indian [NRI], No Religion Chinese [NRC].

**Table B3.** Men - Distribution of variables used in analysis of inactivity (percentages unless otherwise stated) (cont)

Variable		NRAO	NRBC	NRBA	NRA	OTHER	Total
Inactive		2	46	25	24	31	21
Age (mean)		40	38	36	45	42	41
Marital status							
	Single	13	76	71	30	31	31
	Married/Cohabiting	87	17	29	54	64	64
	Divorced/Separated/Widowed	0	7	0	16	5	5
Education							
	Degree or higher	87	7	48	30	47	31
	Other higher degree	0	6	8	5	6	11
	Secondary education	13	60	44	37	30	46
	Other qualification	0	12	0	0	11	7
	No qualification	0	15	0	28	6	6
Health concerns?							
	Yes	12	42	13	34	29	28
Responsible for children under 16?							
	Resp. for 0 child	100	99	98	100	96	99
	Resp. for 1 child	0	1	2	0	3	1
	Resp. for 2 children	0	0	0	0	0	0
	Resp. for 3+ children	0	0	0	0	0	0
Born in UK?							
	Yes	22	77	25	15	56	91
Difficulties with English language?							
	Yes	0	0	0	26	4	2
Region							
	Rest of England	12	65	16	57	44	75
	London	88	35	75	43	40	13
	Wales	0	0	2	0	3	4
	Scotland	0	0	8	0	13	8
Religion makes difference							
	Great difference	0	7	25	0	26	12
	Some difference	62	21	31	10	47	34
	No difference	38	73	44	90	27	54
Attendance at religious services							
	Once a week or more	0	0	10	0	19	11
	At least once a month	0	1	9	0	15	5
	Once a year/never/special occasions	100	99	81	100	66	84
Husband should earn, wife should stay at home?							
	Strongly disagree	7	38	51	3	37	26

Family life suffers if mother works full-time?	Disagree	23	27	10	42	24	36
	Neither agree/disagree	70	24	37	42	19	27
	Agree	0	9	2	0	17	9
	Strongly agree	0	2	0	14	3	3
	Strongly disagree	4	3	43	0	7	11
	Disagree	21	68	8	27	27	31
	Neither agree/disagree	10	16	30	15	32	32
	Agree	35	10	18	48	26	20
	Strongly agree	30	2	0	10	9	5
	Civic participation (mean)	1.1	0.6	0.4	1.8	1.1	1.0
Number of observations (unweighted)		163	590	198	120	1,875	84,805

Notes: Descriptive statistics adjusted for complex survey design. No Religion Asian Other [NRAO], No Religion Black Caribbean [NRBC], No Religion Black African [NRBA], No Religion Arab [NRA], Other [OTHER].



**Table B4.** Women - Distribution of variables used in analysis of inactivity (percentages unless otherwise stated)

Variable	CWB	CWI	CWO	CBWC	CBWA	CAW	CI	CC	CAO	CBC
Inactive	29	19	21	45	26	20	42	14	36	22
Age (mean)	46	48	39	33	38	35	41	43	48	44
Marital status										
Single	16	17	12	66	30	57	9	5	7	53
Married/Cohabiting	71	73	81	30	38	34	87	63	72	34
Divorced/Separated/Widowed	13	10	7	4	31	8	4	32	20	13
Education										
Degree or higher	28	41	46	23	3	50	26	54	37	36
Other higher degree	16	21	15	3	26	19	37	25	3	13
Secondary education	41	29	17	71	62	17	35	20	20	37
Other qualification	8	5	13	2	9	14	2	0	15	8
No qualification	6	4	8	1	0	0	0	0	25	6
Health concerns?										
Yes	34	27	19	29	29	18	20	22	19	35
Responsible for children under 16?										
Resp. for 0 child	64	63	43	61	39	79	28	48	81	60
Resp. for 1 child	15	13	22	7	18	11	16	12	11	22
Resp. for 2 children	15	22	28	25	32	10	47	40	8	15
Resp. for 3+ children	6	2	7	7	11	0	9	0	0	2
Born in UK?										
Yes	100	35	11	83	49	69	12	30	1	63
Difficulties with English language?										
Yes	0	0	21	0	0	0	3	0	6	0
Region										
Rest of England	82	52	61	55	61	79	64	86	52	23
London	7	41	30	44	39	21	15	10	48	77
Wales	4	5	4	0	0	0	15	3	0	0
Scotland	8	1	5	1	0	0	6	0	0	0
Religion makes difference										
Great difference	18	28	37	31	58	38	84	44	73	66
Some difference	57	66	51	65	42	49	14	30	21	27
No difference	24	7	12	4	0	12	2	26	5	7
Husband should earn, wife should stay at home?										
Strongly disagree	28	21	29	39	3	50	43	30	8	41
Disagree	37	45	34	34	44	38	19	19	26	33
Neither agree/disagree	24	30	23	23	51	10	21	32	36	13
Agree	8	3	9	5	2	3	2	18	23	9
Strongly agree	2	1	5	0	0	0	15	0	6	4

Family life suffers if mother works full-time?										
Strongly disagree	12	10	8	33	2	10	10	0	18	23
Disagree	29	16	29	15	25	54	32	8	29	28
Neither agree/disagree	28	35	24	17	25	10	13	57	10	25
Agree	25	28	29	25	48	24	19	26	27	18
Strongly agree	7	10	10	9	0	2	26	9	16	6
Civic participation (mean)	1.2	1.4	0.9	0.9	1.0	0.6	1.7	1.6	1.0	1.2
Number of observations (unweighted)	39,241	566	1,828	495	191	187	281	124	475	1,854

Notes: Descriptive statistics adjusted for complex survey design. Christian White British [CWB], Christian White Irish [CWI], Christian White Other [CWO], Christian Black & White Caribbean Mix [CBWC], Christian Black & White African Mix [CBWA], Christian Asian & White Mix [CAW], Christian Indian [CI], Christian Chinese [CC], Christian Asian Other [CAO], Christian Black Caribbean [CBC].

**Table B4.** Women - Distribution of variables used in analysis of inactivity (percentages unless otherwise stated) (cont)

Variable	CBA	COB	MWB	MI	MP	MB	MAO	MBA	MA	HI
Inactive	32	32	49	59	71	57	66	63	86	27
Age (mean)	40	49	45	34	35	33	43	35	34	39
Marital status										
Single	34	22	21	24	19	27	0	24	20	15
Married/Cohabiting	47	65	58	68	68	65	100	67	71	82
Divorced/Separated/Widowed	19	13	21	8	13	8	0	9	9	3
Education										
Degree or higher	38	53	21	30	23	24	0	17	43	41
Other higher degree	23	20	14	7	1	1	100	6	3	16
Secondary education	32	23	44	47	44	42	0	37	28	32
Other qualification	2	4	4	1	13	9	0	16	14	5
No qualification	5	0	18	16	20	24	0	24	12	6
Health concerns?										
Yes	19	35	52	25	25	17	0	19	13	14
Responsible for children under 16?										
Resp. for 0 child	30	47	47	46	37	51	34	19	32	52
Resp. for 1 child	24	18	23	18	14	15	13	15	19	20
Resp. for 2 children	24	20	27	27	23	13	13	24	10	24
Resp. for 3+ children	23	15	3	10	26	20	39	42	40	4
Born in UK?										
Yes	16	66	100	43	36	43	66	8	23	34
Difficulties with English language?										
Yes	19	0	0	18	33	35	0	21	33	7
Region										
Rest of England	50	29	76	54	71	21	100	32	32	48
London	50	71	15	43	24	79	0	68	68	51
Wales	0	0	9	3	1	0	0	0	0	1
Scotland	0	0	0	0	4	0	0	0	0	0
Religion makes difference										
Great difference	82	23	38	74	82	66	26	87	43	40
Some difference	17	77	45	21	17	32	39	10	48	52
No difference	1	0	16	6	1	2	34	3	10	8
Husband should earn, wife should stay at home?										
Strongly disagree	15	16	18	12	11	20	0	1	18	31
Disagree	32	33	22	20	23	28	34	24	8	26
Neither agree/disagree	39	51	55	29	22	17	59	27	38	29
Agree	7	0	1	14	29	25	7	22	25	9
Strongly agree	7	0	3	26	14	11	0	27	11	5

Family life suffers if mother works full-time?										
Strongly disagree	11	8	13	9	7	10	0	2	0	10
Disagree	32	23	9	2	10	23	34	12	9	21
Neither agree/disagree	30	35	52	36	23	15	0	39	13	27
Agree	20	24	23	35	38	39	20	8	59	29
Strongly agree	8	10	3	17	22	12	46	39	18	13
Civic participation (mean)	1.3	1.2	0.9	0.5	0.5	0.6	0.5	0.4	0.5	0.7
Number of observations (unweighted)	1,985	165	246	638	3,465	1,915	146	635	299	1,464

Notes: Descriptive statistics adjusted for complex survey design. Christian Black African [CBA], Christian Other Black [COB], Muslim White British [MWB], Muslim Indian [MI], Muslim Pakistani [MP], Muslim Bangladeshi [MB], Muslim Asian Other [MAO], Muslim Black African [MBA], Muslim Arab [MA], Hindu Indian [HI].

**Table B4.** Women - Distribution of variables used in analysis of inactivity (percentages unless otherwise stated) (cont)

Variable	HAO	JWB	SI	BWB	BAO	ORWB	ORWO	ORBC	NRWB	NRWI
Inactive	48	33	52	29	60	42	7	39	30	28
Age (mean)	40	48	37	47	43	44	40	42	39	48
Marital status										
Single	16	16	37	36	7	27	6	65	30	47
Married/Cohabiting	80	64	54	36	74	53	77	31	60	47
Divorced/Separated/Widowed	4	19	9	28	19	20	17	4	10	5
Education										
Degree or higher	37	33	31	69	17	26	48	24	25	50
Other higher degree	15	32	13	14	1	21	20	18	11	13
Secondary education	48	23	42	14	12	41	25	23	50	35
Other qualification	0	11	5	2	10	7	5	0	6	0
No qualification	0	0	9	0	59	6	2	35	7	2
Health concerns?										
Yes	15	19	22	61	28	64	21	17	30	26
Responsible for children under 16?										
Resp. for 0 child	49	56	67	85	71	70	40	52	61	81
Resp. for 1 child	24	18	15	10	20	17	47	3	18	11
Resp. for 2 children	12	14	15	5	8	9	12	45	16	8
Resp. for 3+ children	15	12	2	0	1	3	0	0	5	0
Born in UK?										
Yes	27	100	52	100	0	100	7	36	100	32
Difficulties with English language?										
Yes	13	0	12	0	83	0	5	0	0	0
Region										
Rest of England	60	37	48	80	41	76	79	28	80	90
London	40	59	52	4	17	8	8	72	7	0
Wales	0	0	0	3	0	10	5	0	5	2
Scotland	0	4	0	13	43	5	8	0	9	7
Religion makes difference										
Great difference	43	49	37	83	80	57	25	93	2	3
Some difference	54	36	56	12	11	30	64	7	22	30
No difference	3	15	6	5	8	13	11	0	76	67
Husband should earn, wife should stay at home?										
Strongly disagree	5	36	32	65	1	25	45	24	35	68
Disagree	67	21	29	6	11	32	25	19	34	24
Neither agree/disagree	13	17	25	29	68	33	15	12	22	8
Agree	10	2	8	0	16	9	15	45	7	0
Strongly agree	6	24	6	0	4	0	0	0	3	0

Family life suffers if mother works full-time?										
Strongly disagree	2	3	17	26	3	6	8	16	17	18
Disagree	29	30	25	30	5	24	45	12	31	35
Neither agree/disagree	8	26	22	27	80	40	15	19	30	27
Agree	40	18	28	13	4	21	16	51	17	16
Strongly agree	21	23	9	4	9	9	15	1	5	4
Civic participation (mean)	0.5	1.8	0.6	2.0	0.2	1.3	1.2	1.5	0.8	1.0
Number of observations (unweighted)	343	289	1,030	169	218	906	142	124	49,432	156

Notes: Descriptive statistics adjusted for complex survey design. Hindu Asian Other [HAO], Jewish White British [JWB ], Sikh Indian [SI], Buddhist White British [BWB], Buddhist Asian Other [BAO], Other Religion White British [ORWB], Other Religion White Other [ORWO], Other Religion Black Caribbean [ORBC], No Religion White British [NRWB], No Religion White Irish [NRWI].

**Table B4.** Women - Distribution of variables used in analysis of inactivity (percentages unless otherwise stated) (cont)

Variable	NRWO	NRBWC	NRBWA	NRAW	NRI	NRC	NRAO	NRBC	NRBA	OTHER	Total
Inactive	23	17	18	12	27	24	35	28	30	35	31
Age (mean)	45	32	36	35	36	43	41	45	35	38	41
Marital status											
Single	21	60	49	53	44	12	19	48	82	44	25
Married/Cohabiting	70	38	30	44	46	77	74	43	6	48	63
Divorced/Separated/Widowed	9	2	22	2	10	11	7	9	13	8	11
Education											
Degree or higher	61	21	6	36	46	25	44	26	39	38	28
Other higher degree	19	11	35	12	11	21	7	14	29	14	13
Secondary education	13	65	59	35	24	26	36	42	32	34	45
Other qualification	5	3	0	16	12	0	7	14	0	7	7
No qualification	3	0	0	0	7	28	5	4	0	7	7
Health concerns?											
Yes	20	31	31	17	18	14	22	44	49	32	31
Responsible for children under 16?											
Resp. for 0 child	56	85	87	72	57	43	57	71	54	59	61
Resp. for 1 child	19	10	3	24	25	37	15	17	8	17	17
Resp. for 2 children	25	1	11	4	11	19	27	11	33	18	16
Resp. for 3+ children	0	3	0	0	8	0	1	1	4	5	6
Born in UK?											
Yes	14	99	60	47	65	31	11	69	59	46	91
Difficulties with English language?											
Yes	8	0	0	1	3	32	17	0	0	8	2
Region											
Rest of England	54	77	96	45	57	76	68	33	49	44	76
London	34	20	4	55	38	24	26	67	51	39	13
Wales	6	0	0	0	2	0	6	0	0	0	4
Scotland	5	3	0	0	3	0	0	0	0	17	8
Religion makes difference											
Great difference	4	1	11	1	16	3	5	9	28	32	15
Some difference	30	34	48	22	36	40	26	47	37	43	37
No difference	66	65	42	77	48	57	69	44	35	25	48
Husband should earn, wife should stay at home?											
Strongly disagree	45	63	18	42	29	21	33	29	44	29	32
Disagree	37	24	47	47	27	24	16	42	45	30	34
Neither agree/disagree	13	12	32	3	34	19	35	22	7	27	23
Agree	5	0	4	0	5	36	14	5	4	11	8

Strongly agree	1	0	0	8	6	0	2	2	0	3	3
Family life suffers if mother works full-time?											
Strongly disagree	21	34	4	8	13	4	22	16	20	13	14
Disagree	35	42	41	9	13	26	15	40	31	29	29
Neither agree/disagree	20	17	41	42	25	42	31	26	23	27	29
Agree	18	7	11	31	36	28	28	13	19	21	21
Strongly agree	5	0	4	10	12	1	4	5	6	9	7
Civic participation (mean)	1.0	0.5	0.8	0.5	0.8	0.2	0.8	0.8	1.1	0.9	0.9
Number of observations (unweighted)	1,392	559	115	274	405	301	282	713	206	2,218	115,474

Notes: Descriptive statistics adjusted for complex survey design. No Religion White Other [NRWO], No Religion Black & White Caribbean Mix [NRBWC], No Religion Black & White African Mix [NRBWA], No Religion Asian & White Mix [NRAW], No Religion Indian [NRI], No Religion Chinese [NRC], No Religion Asian Other [NRAO], No Religion Black Caribbean [NRBC], No Religion Black African [NRBA], Other [OTHER].



**Table B5.** Men - Log-odds of being unemployed and inactive (full model)

	Unemployed			Inactive		
	Model 1 ( <i>Human Capital</i> )	Model 2 ( <i>religiosity added</i> )	Model 3 ( <i>'socio-cultural'</i> <i>variables added</i> )	Model 4 ( <i>Human Capital</i> )	Model 5 ( <i>religiosity added</i> )	Model 6 ( <i>'socio-cultural'</i> <i>variables</i> <i>added</i> )
Ethno-religious Group (ref: Christian White British=0)						
Christian White Irish	-0.31 (-3.99; 3.36)	-0.21 (-3.67; 3.26)	0.00 (-3.24; 3.25)	1.97 (0.40; 3.53)	1.97 (0.36; 3.58)	1.98 (0.39; 3.57)
Christian White Other	-2.78 (-8.17; 2.61)	-2.85 (-8.29; 2.60)	-2.81 (-7.84; 2.23)	-1.19 (-2.79; 0.40)	-1.28 (-2.96; 0.41)	-1.23 (-2.93; 0.46)
Christian B&W Caribbean Mix	3.79 (2.07; 5.52)	3.61 (1.91; 5.31)	3.59 (1.89; 5.28)	3.69 (2.04; 5.35)	3.60 (1.94; 5.27)	3.60 (1.94; 5.26)
Christian B&W African Mix	*	*	*	4.96 (1.88; 8.04)	4.79 (1.81; 7.77)	4.82 (1.90; 7.73)
Christian Asian & White Mix	*	*	*	2.71 (1.15; 4.26)	2.68 (1.17; 4.18)	2.48 (0.93; 4.02)
Christian Indian	0.63 (-7.86; 9.12)	0.40 (-9.05; 9.86)	0.50 (-8.30; 9.29)	2.89 (1.65; 4.13)	2.73 (1.45; 4.00)	2.75 (1.48; 4.02)
Christian Asian Other	-2.44 (-6.15; 1.28)	-2.49 (-6.86; 1.88)	-2.39 (-6.56; 1.77)	0.67 (-1.50; 2.83)	0.37 (-1.76; 2.50)	0.37 (-1.75; 2.50)
Christian Black Caribbean	4.15 (2.99; 5.32)	4.27 (3.06; 5.47)	4.25 (3.01; 5.50)	2.03 (0.43; 3.63)	2.11 (0.58; 3.64)	2.06 (0.53; 3.59)
Christian Black African	3.99 (2.74; 5.24)	3.85 (2.59; 5.12)	3.95 (2.66; 5.23)	3.46 (2.03; 4.90)	3.33 (1.92; 4.74)	3.33 (1.94; 4.73)
Muslim White British	-0.17 (-3.55; 3.21)	-0.30 (-3.74; 3.15)	-0.33 (-3.86; 3.20)	-1.73 (-3.88; 0.42)	-1.82 (-3.95; 0.30)	-1.90 (-4.03; 0.24)
Muslim Indian	1.64 (-0.52; 3.79)	1.35 (-0.84; 3.53)	1.12 (-1.08; 3.32)	2.42 (0.96; 3.88)	2.12 (0.59; 3.65)	2.03 (0.47; 3.59)
Muslim Pakistani	2.65 (1.72; 3.58)	2.45 (1.47; 3.44)	2.29 (1.29; 3.29)	2.58 (1.59; 3.57)	2.32 (1.29; 3.35)	2.28 (1.26; 3.30)
Muslim Bangladeshi	3.44 (2.32; 4.57)	3.19 (2.04; 4.33)	3.06 (1.86; 4.25)	3.56 (2.46; 4.67)	3.24 (2.07; 4.40)	3.19 (2.02; 4.37)
Muslim Black African	2.55 (0.40; 4.69)	2.39 (0.27; 4.51)	2.30 (0.13; 4.47)	2.40 (0.64; 4.17)	2.18 (0.47; 3.89)	2.17 (0.44; 3.90)
Muslim Arab	2.52 (0.50; 4.54)	2.35 (0.31; 4.40)	2.25 (0.29; 4.21)	2.14 (0.23; 4.05)	1.85 (-0.11; 3.80)	1.84 (-0.10; 3.78)
Hindu Indian	1.79 (0.66; 2.91)	1.75 (0.62; 2.89)	1.71 (0.54; 2.88)	2.35 (1.31; 3.39)	2.28 (1.23; 3.32)	2.28 (1.24; 3.32)
Hindu Asian Other	0.52 (-0.52; 1.56)	0.64 (-0.46; 1.73)	0.72 (-0.45; 1.90)	0.97 (-0.40; 2.34)	1.20 (-0.16; 2.56)	1.14 (-0.26; 2.54)
Jewish White British	1.86 (-0.37; 4.09)	1.70 (-0.43; 3.82)	1.72 (-0.36; 3.80)	1.46 (-0.54; 3.45)	1.32 (-0.64; 3.27)	1.31 (-0.72; 3.33)
Sikh Indian	1.36 (0.23; 2.50)	1.31 (0.11; 2.50)	1.40 (0.16; 2.64)	2.14 (1.34; 2.94)	2.02 (1.15; 2.89)	1.95 (1.09; 2.81)
Buddhist Asian Other	0.81 (-1.61; 3.23)	1.24 (-1.30; 3.78)	1.08 (-1.52; 3.69)	2.59 (-0.14; 5.32)	2.80 (0.08; 5.52)	2.80 (0.08; 5.52)
Other Religion White British	-1.02 (-2.31; 0.28)	-0.96 (-2.23; 0.31)	-0.95 (-2.26; 0.36)	-0.88 (-2.24; 0.49)	-0.78 (-2.14; 0.57)	-0.80 (-2.15; 0.55)
No Relig White British	0.41 (0.07; 0.75)	0.31 (-0.09; 0.70)	0.29 (-0.11; 0.69)	0.20 (-0.10; 0.49)	0.15 (-0.18; 0.49)	0.14 (-0.19; 0.48)
No Relig White Irish	1.20 (-0.82; 3.22)	1.20 (-0.84; 3.25)	1.45 (-0.56; 3.47)	2.51 (0.43; 4.58)	2.53 (0.43; 4.62)	2.50 (0.44; 4.56)
No Relig White Other	1.55 (-0.01; 3.11)	1.55 (-0.04; 3.13)	1.55 (-0.02; 3.12)	2.19 (1.15; 3.24)	2.27 (1.21; 3.32)	2.25 (1.20; 3.30)
No Relig B&W Caribbean Mix	2.17 (0.27; 4.07)	2.38 (0.51; 4.26)	2.32 (0.44; 4.19)	2.47 (1.02; 3.91)	2.56 (1.11; 4.02)	2.51 (1.04; 3.98)
No Relig Asian & White Mix	0.83 (-1.56; 3.22)	0.66 (-1.71; 3.03)	0.67 (-1.64; 2.97)	1.04 (-0.60; 2.68)	1.02 (-0.66; 2.69)	1.00 (-0.71; 2.71)
No Relig Indian	1.17 (-0.05; 2.40)	1.07 (-0.18; 2.31)	0.96 (-0.33; 2.26)	1.05 (-0.06; 2.16)	0.96 (-0.19; 2.12)	0.88 (-0.29; 2.04)
No Relig Chinese	3.47 (2.46; 4.49)	3.51 (2.47; 4.54)	3.39 (2.35; 4.43)	3.92 (2.89; 4.96)	4.00 (2.93; 5.06)	4.02 (2.95; 5.09)
No Relig Asian Other	*	*	*	1.25 (-1.09; 3.59)	1.29 (-1.03; 3.61)	1.27 (-1.04; 3.58)
No Relig Black Caribbean	4.07 (2.77; 5.37)	4.24 (2.92; 5.56)	4.30 (2.95; 5.65)	3.09 (1.79; 4.38)	3.15 (1.87; 4.43)	3.11 (1.82; 4.41)
No Relig Black African	4.02 (1.54; 6.49)	4.08 (1.35; 6.82)	3.98 (1.29; 6.68)	3.15 (0.65; 5.66)	3.28 (0.64; 5.93)	3.29 (0.63; 5.96)
No Relig Arab	4.54 (2.80; 6.28)	4.55 (2.76; 6.34)	4.53 (2.69; 6.37)	3.80 (1.68; 5.92)	3.92 (1.78; 6.06)	3.96 (1.82; 6.09)

Other	3.14 (2.32; 3.96)	3.16 (2.31; 4.01)	3.17 (2.32; 4.01)	2.57 (1.63; 3.51)	2.51 (1.57; 3.45)	2.50 (1.57; 3.43)
Age	-0.39 (-0.54; -0.24)	-0.39 (-0.54; -0.24)	-0.37 (-0.52; -0.22)	-1.14 (-1.27; -1.01)	-1.14 (-1.27; -1.01)	-1.14 (-1.27; -1.01)
Age <sup>2</sup>	0.00 (0.00; 0.01)	0.00 (0.00; 0.01)	0.00 (0.00; 0.01)	0.01 (0.01; 0.02)	0.01 (0.01; 0.02)	0.01 (0.01; 0.02)
Marital status (ref: Single=0)						
Married/Cohabiting	-1.20 (-1.70; -0.70)	-1.21 (-1.71; -0.71)	-1.21 (-1.70; -0.71)	-1.21 (-1.61; -0.81)	-1.20 (-1.61; -0.79)	-1.20 (-1.61; -0.79)
Divorced/Separated/Widowed	-0.37 (-0.94; 0.19)	-0.36 (-0.92; 0.20)	-0.41 (-0.97; 0.16)	-0.51 (-1.01; -0.01)	-0.48 (-0.98; 0.03)	-0.46 (-0.97; 0.04)
Education (ref: Degree or higher=0)						
Other higher degree	0.20 (-0.78; 1.19)	0.16 (-0.88; 1.21)	0.08 (-1.00; 1.16)	1.04 (0.35; 1.73)	1.03 (0.33; 1.74)	1.02 (0.32; 1.73)
Secondary education	0.48 (-0.12; 1.08)	0.41 (-0.20; 1.02)	0.34 (-0.27; 0.95)	1.37 (0.93; 1.81)	1.38 (0.93; 1.83)	1.37 (0.91; 1.82)
Other qualification	1.64 (0.88; 2.41)	1.61 (0.85; 2.37)	1.49 (0.71; 2.27)	1.87 (1.08; 2.65)	1.89 (1.10; 2.67)	1.86 (1.07; 2.65)
No qualification	2.62 (1.73; 3.51)	2.60 (1.67; 3.52)	2.43 (1.47; 3.40)	3.32 (2.52; 4.13)	3.35 (2.52; 4.18)	3.31 (2.47; 4.15)
Health concerns? (ref: Yes=0)						
No	-0.53 (-0.83; -0.23)	-0.53 (-0.83; -0.23)	-0.53 (-0.83; -0.23)	-0.66 (-0.87; -0.46)	-0.67 (-0.87; -0.46)	-0.66 (-0.87; -0.46)
Children (ref: responsible for 0 children under 16=0)						
Resp. for 1 child	0.36 (-0.45; 1.18)	0.23 (-0.62; 1.08)	0.16 (-0.71; 1.04)	0.43 (-0.11; 0.98)	0.39 (-0.17; 0.96)	0.42 (-0.17; 1.00)
Resp. for 2 children	0.12 (-1.41; 1.64)	-0.01 (-1.47; 1.45)	0.02 (-1.41; 1.45)	0.66 (-0.71; 2.02)	0.56 (-0.79; 1.91)	0.58 (-0.75; 1.92)
Resp. for 3+children	2.20 (-1.34; 5.74)	2.37 (-1.54; 6.29)	2.33 (-1.76; 6.41)	5.73 (3.76; 7.69)	5.96 (3.91; 8.02)	5.99 (3.94; 8.03)
Born in UK? (ref: Yes=0)						
No	-1.28 (-1.98; -0.59)	-1.42 (-2.13; -0.71)	-1.47 (-2.19; -0.75)	-1.27 (-1.89; -0.64)	-1.37 (-2.01; -0.74)	-1.38 (-2.01; -0.75)
Difficulties with English language? (ref: No=0)						
Yes	0.74 (-0.30; 1.78)	0.70 (-0.35; 1.74)	0.67 (-0.38; 1.71)	0.07 (-0.88; 1.02)	-0.02 (-0.98; 0.93)	-0.04 (-1.00; 0.92)
Region (ref: London=0)						
Rest of England	0.03 (-0.43; 0.48)	0.04 (-0.41; 0.49)	0.07 (-0.39; 0.53)	0.16 (-0.38; 0.70)	0.19 (-0.36; 0.74)	0.18 (-0.36; 0.73)
Wales	-0.02 (-1.10; 1.06)	0.02 (-1.06; 1.11)	0.13 (-0.90; 1.17)	0.36 (-0.51; 1.24)	0.45 (-0.46; 1.35)	0.45 (-0.46; 1.35)
Scotland	0.18 (-0.46; 0.82)	0.16 (-0.47; 0.78)	0.22 (-0.41; 0.85)	0.57 (-0.16; 1.30)	0.58 (-0.15; 1.31)	0.56 (-0.17; 1.29)
Wave (ref: Wave 1=0)						
Wave 2	-0.32 (-0.73; 0.09)	-0.32 (-0.73; 0.09)	-0.32 (-0.74; 0.09)	-0.22 (-0.48; 0.04)	-0.22 (-0.48; 0.04)	-0.22 (-0.48; 0.04)
Wave 3	0.03 (-0.44; 0.50)	0.02 (-0.45; 0.49)	0.01 (-0.46; 0.48)	-0.03 (-0.34; 0.27)	-0.04 (-0.34; 0.27)	-0.04 (-0.35; 0.27)
Wave 4	-0.21 (-0.67; 0.25)	-0.24 (-0.70; 0.23)	-0.26 (-0.71; 0.19)	-0.20 (-0.52; 0.13)	-0.20 (-0.53; 0.12)	-0.21 (-0.53; 0.12)
Wave 5	-0.65 (-1.17; -0.13)	-0.67 (-1.20; -0.15)	-0.70 (-1.21; -0.19)	-0.50 (-0.86; -0.15)	-0.51 (-0.86; -0.16)	-0.52 (-0.87; -0.16)
Wave 6	-0.86 (-1.41; -0.31)	-0.88 (-1.42; -0.34)	-0.91 (-1.45; -0.38)	-0.62 (-0.99; -0.25)	-0.63 (-1.00; -0.26)	-0.64 (-1.01; -0.27)
Wave 7	-1.14 (-1.68; -0.59)	-1.16 (-1.70; -0.62)	-1.21 (-1.75; -0.66)	-0.80 (-1.18; -0.41)	-0.80 (-1.19; -0.42)	-0.82 (-1.20; -0.43)
Wave 8	-0.96 (-1.50; -0.43)	-1.01 (-1.56; -0.46)	-1.05 (-1.60; -0.51)	-0.75 (-1.13; -0.37)	-0.77 (-1.16; -0.39)	-0.79 (-1.17; -0.40)
Wave 9	-1.40 (-1.99; -0.80)	-1.44 (-2.04; -0.83)	-1.49 (-2.09; -0.89)	-0.91 (-1.31; -0.51)	-0.93 (-1.34; -0.53)	-0.96 (-1.36; -0.55)
Wave 10	-1.54 (-2.12; -0.97)	-1.59 (-2.17; -1.00)	-1.61 (-2.20; -1.03)	-1.05 (-1.47; -0.63)	-1.07 (-1.50; -0.64)	-1.10 (-1.52; -0.67)
Religion makes difference (ref: No difference=0)						

Great difference	-0.33 (-1.00; 0.35)	-0.35 (-1.03; 0.33)		-0.08 (-0.61; 0.46)	-0.06 (-0.59; 0.48)	
Some difference	-0.67 (-1.27; -0.07)	-0.70 (-1.31; -0.09)		-0.48 (-0.89; -0.06)	-0.46 (-0.87; -0.06)	
Attendance at religious services (ref: Once a year/never/special occasions=0)						
Once a week or more	0.59 (0.13; 1.06)	0.64 (0.16; 1.12)		0.50 (0.08; 0.92)	0.51 (0.09; 0.93)	
At least once a month	0.55 (-0.18; 1.27)	0.58 (-0.14; 1.30)		0.60 (0.09; 1.10)	0.62 (0.10; 1.13)	
Husband should earn, wife should stay at home? (ref: Strongly disagree=0)						
Disagree		0.31 (-0.18; 0.81)			-0.12 (-0.45; 0.20)	
Neither agree/disagree		0.53 (0.02; 1.04)			-0.06 (-0.46; 0.34)	
Agree		0.36 (-0.33; 1.05)			-0.15 (-0.68; 0.38)	
Strongly agree		0.05 (-1.32; 1.42)			0.07 (-0.86; 0.99)	
Family life suffers if mother works full-time? (ref: Strongly disagree=0)						
Disagree		-0.25 (-0.88; 0.37)			-0.18 (-0.59; 0.24)	
Neither agree/disagree		-0.15 (-0.73; 0.43)			-0.34 (-0.77; 0.10)	
Agree		-0.08 (-0.72; 0.57)			-0.27 (-0.73; 0.19)	
Strongly agree		0.18 (-0.80; 1.16)			-0.03 (-0.70; 0.64)	
Civic participation		-0.19 (-0.40; 0.02)			-0.07 (-0.21; 0.06)	
$\hat{\sigma}^2(u_{0i})$	16.20 (12.16; 20.24)	16.87 (12.56; 21.18)	16.22 (11.83; 20.61)	19.17 (15.56; 22.78)	19.48 (15.75; 23.20)	19.43 (15.73; 23.14)
Constant	2.00 (-0.75; 4.74)	2.28 (-0.62; 5.19)	1.81 (-1.12; 4.74)	16.61 (14.24; 18.98)	16.78 (14.34; 19.22)	16.90 (14.43; 19.36)
Observations (unweighted)	70,816	70,816	70,816	84,805	84,805	84,805

Notes: 95 per cent confidence interval (CI) in parenthesis; coefficients for level-1 explanatory variables highlighted where CI excludes zero; \* signifies insufficient sample size to form stand-alone group.

**Table B6.** Women - Log-odds of being unemployed and inactive (full model)

	Unemployed			Inactive		
	Model 1 ( <i>Human Capital</i> )	Model 2 ( <i>religiosity added</i> )	Model 3 ( <i>'socio-cultural'</i> <i>variables added</i> )	Model 4 ( <i>Human Capital</i> )	Model 5 ( <i>religiosity added</i> )	Model 6 ( <i>'socio-cultural'</i> <i>variables added</i> )
Ethno-religious Group (ref: Christian White British=0)						
Christian White Irish	1.20 (-0.51; 2.92)	1.20 (-0.51; 2.91)	1.30 (-0.43; 3.03)	0.36 (-0.96; 1.68)	0.35 (-0.97; 1.67)	0.38 (-0.92; 1.68)
Christian White Other	1.07 (0.04; 2.11)	1.08 (0.04; 2.12)	1.05 (0.01; 2.10)	-0.41 (-1.15; 0.33)	-0.42 (-1.16; 0.31)	-0.41 (-1.15; 0.34)
Christian B&W Caribbean Mix	1.80 (0.37; 3.22)	1.80 (0.37; 3.23)	1.69 (0.26; 3.12)	1.76 (0.48; 3.04)	1.73 (0.45; 3.02)	1.72 (0.43; 3.00)
Christian B&W African Mix	-0.17 (-2.43; 2.10)	-0.16 (-2.42; 2.10)	-0.11 (-2.31; 2.09)	0.11 (-1.40; 1.61)	0.07 (-1.44; 1.58)	0.11 (-1.39; 1.61)
Christian Asian & White Mix	0.08 (-3.30; 3.45)	0.07 (-3.30; 3.45)	0.24 (-3.03; 3.52)	0.06 (-1.54; 1.66)	0.04 (-1.56; 1.63)	0.13 (-1.49; 1.75)
Christian Indian	3.51 (1.59; 5.42)	3.53 (1.61; 5.44)	3.65 (1.72; 5.59)	1.78 (0.10; 3.46)	1.74 (0.06; 3.42)	1.75 (0.10; 3.41)
Christian Chinese	1.76 (-1.55; 5.08)	1.77 (-1.55; 5.10)	1.70 (-1.64; 5.05)	-0.58 (-3.11; 1.95)	-0.60 (-3.12; 1.92)	-0.71 (-3.15; 1.74)
Christian Asian Other	1.28 (-0.62; 3.18)	1.31 (-0.61; 3.22)	1.10 (-0.74; 2.95)	-0.01 (-1.76; 1.73)	-0.05 (-1.79; 1.70)	-0.10 (-1.76; 1.56)
Christian Black Caribbean	1.08 (0.26; 1.91)	1.10 (0.24; 1.96)	1.15 (0.31; 1.98)	-0.07 (-0.77; 0.64)	-0.10 (-0.82; 0.61)	-0.03 (-0.73; 0.68)
Christian Black African	1.71 (0.75; 2.67)	1.74 (0.73; 2.75)	1.72 (0.73; 2.71)	0.53 (-0.23; 1.29)	0.49 (-0.28; 1.26)	0.45 (-0.32; 1.23)
Christian Other Black	*	*	*	0.83 (-0.80; 2.46)	0.81 (-0.82; 2.45)	0.77 (-0.90; 2.43)
Muslim White British	-0.25 (-2.79; 2.29)	-0.25 (-2.79; 2.29)	-0.27 (-2.92; 2.38)	0.09 (-1.35; 1.53)	0.09 (-1.35; 1.53)	0.13 (-1.32; 1.58)
Muslim Indian	2.49 (1.20; 3.78)	2.51 (1.20; 3.82)	2.13 (0.82; 3.44)	2.27 (0.99; 3.56)	2.23 (0.94; 3.51)	2.07 (0.75; 3.38)
Muslim Pakistani	3.53 (2.60; 4.45)	3.56 (2.58; 4.53)	3.21 (2.23; 4.18)	4.18 (3.47; 4.88)	4.12 (3.40; 4.83)	3.91 (3.21; 4.62)
Muslim Bangladeshi	2.19 (0.98; 3.40)	2.21 (0.95; 3.47)	2.04 (0.77; 3.32)	3.20 (2.31; 4.08)	3.15 (2.26; 4.04)	2.98 (2.08; 3.87)
Muslim Asian Other	*	*	*	3.26 (-4.81; 11.33)	3.27 (-4.75; 11.29)	3.06 (-4.68; 10.79)
Muslim Black African	3.21 (1.39; 5.03)	3.24 (1.38; 5.09)	2.96 (1.14; 4.77)	2.66 (1.44; 3.88)	2.61 (1.37; 3.84)	2.31 (1.08; 3.53)
Muslim Arab	*	*	*	5.90 (3.82; 7.99)	5.87 (3.79; 7.95)	5.57 (3.60; 7.55)
Hindu Indian	1.49 (0.36; 2.63)	1.49 (0.36; 2.63)	1.31 (0.15; 2.46)	1.14 (0.39; 1.88)	1.11 (0.36; 1.86)	1.06 (0.31; 1.80)
Hindu Asian Other	3.52 (0.91; 6.13)	3.51 (0.90; 6.13)	3.47 (0.88; 6.06)	2.84 (1.13; 4.55)	2.83 (1.12; 4.53)	2.71 (1.02; 4.41)
Jewish White British	0.73 (-1.59; 3.05)	0.74 (-1.59; 3.07)	0.84 (-1.79; 3.46)	0.90 (-0.15; 1.96)	0.88 (-0.17; 1.93)	0.87 (-0.17; 1.90)
Sikh Indian	1.86 (-0.65; 4.36)	1.86 (-0.66; 4.37)	1.66 (-0.92; 4.24)	1.82 (0.89; 2.75)	1.81 (0.88; 2.73)	1.71 (0.77; 2.65)
Buddhist White British	*	*	*	0.79 (-0.49; 2.06)	0.74 (-0.55; 2.02)	0.87 (-0.40; 2.14)
Buddhist Asian Other	1.89 (-0.77; 4.56)	1.92 (-0.75; 4.59)	1.72 (-0.76; 4.21)	2.87 (1.11; 4.63)	2.86 (1.09; 4.62)	2.73 (1.02; 4.44)
Other Religion White British	0.39 (-0.88; 1.65)	0.40 (-0.89; 1.69)	0.53 (-0.73; 1.78)	0.67 (0.01; 1.33)	0.66 (-0.00; 1.32)	0.70 (0.05; 1.35)
Other Religion White Other	-0.74 (-4.27; 2.79)	-0.74 (-4.28; 2.80)	-0.51 (-3.97; 2.95)	-1.82 (-3.46; -0.18)	-1.82 (-3.46; -0.17)	-1.74 (-3.40; -0.08)
Other Religion Black Caribbean	1.19 (-1.52; 3.90)	1.21 (-1.51; 3.94)	1.24 (-1.54; 4.02)	-0.66 (-2.42; 1.10)	-0.70 (-2.47; 1.06)	-0.71 (-2.51; 1.08)
No Relig White British	0.65 (0.28; 1.03)	0.66 (0.26; 1.06)	0.61 (0.21; 1.00)	0.01 (-0.21; 0.22)	0.02 (-0.21; 0.25)	0.02 (-0.21; 0.25)
No Relig White Irish	1.46 (-0.86; 3.77)	1.46 (-0.85; 3.77)	1.60 (-0.75; 3.94)	-0.74 (-3.95; 2.46)	-0.75 (-3.96; 2.47)	-0.63 (-3.93; 2.67)
No Relig White Other	1.18 (-0.35; 2.72)	1.17 (-0.38; 2.72)	1.39 (-0.03; 2.81)	0.53 (-0.34; 1.40)	0.54 (-0.32; 1.41)	0.66 (-0.19; 1.51)
No Relig B&W African Mix	*	*	*	-0.88 (-2.40; 0.64)	-0.89 (-2.42; 0.63)	-0.88 (-2.39; 0.63)
No Relig B&W Caribbean Mix	0.62 (-0.91; 2.15)	0.62 (-0.92; 2.16)	0.52 (-1.00; 2.04)	-0.61 (-1.79; 0.56)	-0.60 (-1.77; 0.57)	-0.51 (-1.72; 0.70)

No Relig Asian & White Mix	0.69 (-2.12; 3.51)	0.70 (-2.12; 3.52)	0.65 (-2.32; 3.63)	-0.67 (-2.18; 0.84)	-0.66 (-2.18; 0.85)	-0.59 (-2.18; 1.01)
No Relig Indian	1.65 (0.35; 2.94)	1.66 (0.37; 2.94)	1.53 (0.26; 2.80)	0.79 (-0.07; 1.65)	0.78 (-0.08; 1.64)	0.72 (-0.14; 1.59)
No Relig Chinese	0.72 (-2.03; 3.47)	0.72 (-2.04; 3.47)	0.41 (-2.41; 3.23)	1.13 (-0.60; 2.87)	1.15 (-0.59; 2.89)	0.98 (-0.76; 2.71)
No Relig Asian Other	2.08 (0.31; 3.84)	2.07 (0.31; 3.84)	1.97 (0.10; 3.83)	3.00 (1.55; 4.46)	3.01 (1.56; 4.47)	2.99 (1.53; 4.45)
No Relig Black Caribbean	1.19 (0.00; 2.37)	1.19 (0.00; 2.37)	1.13 (-0.04; 2.30)	-0.27 (-1.34; 0.79)	-0.26 (-1.33; 0.81)	-0.25 (-1.31; 0.82)
No Relig Black African	-0.50 (-4.12; 3.11)	-0.50 (-4.12; 3.12)	-0.60 (-4.28; 3.09)	-1.33 (-3.76; 1.10)	-1.37 (-3.83; 1.08)	-1.25 (-3.65; 1.15)
Other	3.23 (2.63; 3.82)	3.24 (2.64; 3.84)	3.07 (2.48; 3.67)	1.18 (0.52; 1.84)	1.16 (0.51; 1.82)	1.12 (0.47; 1.76)
Age	-0.17 (-0.27; -0.06)	-0.17 (-0.27; -0.06)	-0.16 (-0.27; -0.06)	-0.95 (-1.04; -0.87)	-0.95 (-1.04; -0.87)	-0.95 (-1.04; -0.87)
Age <sup>2</sup>	0.00 (0.00; 0.00)	0.00 (0.00; 0.00)	0.00 (0.00; 0.00)	0.01 (0.01; 0.01)	0.01 (0.01; 0.01)	0.01 (0.01; 0.01)
Marital status (ref: Single=0)						
Married/Cohabiting	-1.44 (-1.93; -0.95)	-1.44 (-1.93; -0.96)	-1.44 (-1.91; -0.97)	-0.50 (-0.87; -0.12)	-0.50 (-0.87; -0.12)	-0.52 (-0.89; -0.15)
Divorced/Separated/Widowed	-0.33 (-0.81; 0.15)	-0.33 (-0.81; 0.15)	-0.35 (-0.83; 0.12)	-0.45 (-0.83; -0.08)	-0.45 (-0.83; -0.08)	-0.48 (-0.85; -0.10)
Education (ref: Degree or higher=0)						
Other higher degree	0.61 (0.08; 1.13)	0.61 (0.08; 1.13)	0.47 (-0.03; 0.96)	1.21 (0.87; 1.56)	1.21 (0.87; 1.55)	1.16 (0.81; 1.50)
Secondary education	1.51 (1.08; 1.93)	1.51 (1.08; 1.93)	1.16 (0.74; 1.57)	2.09 (1.81; 2.36)	2.09 (1.81; 2.37)	1.98 (1.69; 2.27)
Other qualification	2.51 (1.90; 3.13)	2.52 (1.89; 3.14)	2.04 (1.41; 2.68)	2.97 (2.49; 3.45)	2.98 (2.50; 3.46)	2.80 (2.31; 3.29)
No qualification	3.65 (2.88; 4.42)	3.65 (2.88; 4.42)	3.11 (2.33; 3.88)	4.29 (3.72; 4.86)	4.30 (3.73; 4.87)	4.09 (3.49; 4.68)
Health concerns? (ref: Yes=0)						
No	-0.55 (-0.82; -0.28)	-0.55 (-0.82; -0.28)	-0.57 (-0.83; -0.30)	-0.60 (-0.75; -0.44)	-0.59 (-0.75; -0.44)	-0.59 (-0.74; -0.43)
Children (ref: responsible for 0 children under 16=0)						
Resp. for 1 child	0.34 (-0.13; 0.82)	0.34 (-0.14; 0.82)	0.35 (-0.11; 0.82)	1.35 (1.03; 1.67)	1.35 (1.03; 1.67)	1.32 (1.00; 1.65)
Resp. for 2 children	0.49 (-0.01; 0.99)	0.49 (-0.01; 0.99)	0.48 (-0.01; 0.97)	2.33 (1.98; 2.69)	2.33 (1.98; 2.68)	2.30 (1.94; 2.65)
Resp. for 3+children	1.05 (0.35; 1.75)	1.05 (0.35; 1.74)	1.02 (0.37; 1.67)	3.80 (3.30; 4.31)	3.80 (3.30; 4.30)	3.75 (3.25; 4.26)
Born in UK? (ref: Yes=0)						
No	-0.06 (-0.56; 0.43)	-0.06 (-0.56; 0.44)	-0.16 (-0.66; 0.35)	0.21 (-0.24; 0.67)	0.21 (-0.25; 0.66)	0.14 (-0.31; 0.59)
Difficulties with English language? (ref: No=0)						
Yes	0.87 (0.08; 1.66)	0.87 (0.09; 1.66)	0.73 (-0.06; 1.52)	1.06 (0.13; 2.00)	1.06 (0.12; 1.99)	0.99 (0.06; 1.91)
Region (ref: London=0)						
Rest of England	-0.43 (-0.87; 0.00)	-0.44 (-0.87; 0.00)	-0.39 (-0.83; 0.04)	0.06 (-0.33; 0.46)	0.06 (-0.33; 0.46)	0.09 (-0.31; 0.49)
Wales	-0.18 (-0.93; 0.58)	-0.18 (-0.93; 0.57)	-0.13 (-0.87; 0.61)	0.38 (-0.19; 0.95)	0.38 (-0.19; 0.96)	0.44 (-0.12; 0.99)
Scotland	0.04 (-0.73; 0.82)	0.04 (-0.73; 0.82)	0.01 (-0.74; 0.75)	0.46 (-0.08; 0.99)	0.46 (-0.08; 1.00)	0.47 (-0.06; 1.00)
Wave (ref: Wave 1=0)						
Wave 2	-0.06 (-0.38; 0.26)	-0.06 (-0.38; 0.26)	-0.04 (-0.36; 0.27)	0.08 (-0.08; 0.23)	0.08 (-0.08; 0.23)	0.08 (-0.08; 0.23)
Wave 3	0.01 (-0.34; 0.36)	0.01 (-0.34; 0.36)	0.01 (-0.34; 0.36)	0.07 (-0.11; 0.25)	0.07 (-0.11; 0.25)	0.07 (-0.11; 0.25)
Wave 4	-0.18 (-0.56; 0.21)	-0.18 (-0.56; 0.21)	-0.18 (-0.57; 0.21)	-0.07 (-0.26; 0.13)	-0.06 (-0.26; 0.13)	-0.06 (-0.25; 0.14)
Wave 5	-0.36 (-0.77; 0.06)	-0.36 (-0.77; 0.06)	-0.36 (-0.78; 0.06)	-0.11 (-0.32; 0.11)	-0.10 (-0.32; 0.11)	-0.10 (-0.31; 0.12)
Wave 6	-0.41 (-0.82; 0.01)	-0.41 (-0.82; 0.01)	-0.42 (-0.84; -0.00)	-0.14 (-0.37; 0.09)	-0.14 (-0.37; 0.09)	-0.13 (-0.37; 0.10)

Wave 7	-0.54 (-1.02; -0.05)	-0.54 (-1.02; -0.05)	-0.56 (-1.04; -0.07)	-0.18 (-0.42; 0.06)	-0.18 (-0.42; 0.06)	-0.17 (-0.41; 0.08)
Wave 8	-0.90 (-1.37; -0.44)	-0.90 (-1.37; -0.43)	-0.91 (-1.38; -0.45)	-0.29 (-0.53; -0.06)	-0.29 (-0.52; -0.05)	-0.28 (-0.52; -0.04)
Wave 9	-0.78 (-1.25; -0.31)	-0.78 (-1.25; -0.31)	-0.83 (-1.30; -0.36)	-0.36 (-0.62; -0.09)	-0.35 (-0.61; -0.09)	-0.34 (-0.61; -0.08)
Wave 10	-0.70 (-1.19; -0.21)	-0.70 (-1.19; -0.20)	-0.70 (-1.18; -0.22)	-0.32 (-0.60; -0.04)	-0.31 (-0.60; -0.03)	-0.27 (-0.55; 0.01)
Religion makes difference (ref: No difference=0)						
Great difference		-0.03 (-0.56; 0.51)	-0.04 (-0.58; 0.49)		0.11 (-0.21; 0.42)	0.07 (-0.25; 0.38)
Some difference		0.03 (-0.30; 0.36)	0.02 (-0.30; 0.35)		0.04 (-0.17; 0.24)	0.03 (-0.18; 0.23)
Husband should earn, wife should stay at home? (ref: Strongly disagree=0)						
Disagree			0.26 (-0.10; 0.62)			0.26 (0.04; 0.47)
Neither agree/disagree			0.65 (0.21; 1.08)			0.52 (0.24; 0.79)
Agree			1.42 (0.82; 2.01)			1.00 (0.63; 1.36)
Strongly agree			0.95 (-0.33; 2.22)			0.60 (-0.25; 1.46)
Family life suffers if mother works full-time? (ref: Strongly disagree=0)						
Disagree			-0.44 (-1.05; 0.17)			-0.10 (-0.45; 0.24)
Neither agree/disagree			-0.19 (-0.72; 0.34)			-0.00 (-0.35; 0.34)
Agree			-0.41 (-1.01; 0.18)			-0.02 (-0.37; 0.32)
Strongly agree			-0.23 (-0.91; 0.44)			0.29 (-0.15; 0.73)
Civic participation			-0.28 (-0.45; -0.12)			-0.02 (-0.10; 0.06)
$\sigma^2(u_{0i})$	9.50 (7.35; 11.66)	9.51 (7.34; 11.68)	8.72 (6.80; 10.64)	13.81 (12.11; 15.51)	13.79 (12.10; 15.49)	13.37 (11.82; 15.13)
Constant	-1.92 (-3.97; 0.13)	-1.94 (-4.00; 0.12)	-1.54 (-3.62; 0.53)	12.73 (11.26; 14.21)	12.69 (11.21; 14.18)	12.62 (11.14; 14.10)
Observations (unweighted)	82,959	82,959	82,959	115,474	115,474	115,474

Notes: 95 per cent confidence interval (CI) in parenthesis; coefficients for level-1 explanatory variables highlighted where CI excludes zero; \* signifies insufficient sample size to form stand-alone group.

**Table B7.** Akaike's information criterion, Bayesian information criterion and McFadden Pseudo-R<sup>2</sup> of the unadjusted models

	<b>Model</b>		<b>N</b>	<b>ll(model)</b>	<b>df</b>	<b>AIC</b>	<b>BIC</b>	<b>McFadden Pseudo-R<sup>2</sup></b>
Men	Unemployment	1	70,816	-12513.42	58	25142.84	25674.58	0.3341
		2	70,816	-12506.52	62	25137.03	25705.44	0.3344
		3	70,816	-12437.76	71	25017.52	25668.44	0.3381
	Inactivity	4	84,805	-23083	61	46287.99	46858.22	0.4872
		5	84,805	-23078.28	65	46286.56	46894.19	0.4873
		6	84,805	-23051.84	74	46251.68	46943.44	0.4879

Notes: BIC uses N = number of observation

	<b>Model</b>		<b>N</b>	<b>ll(model)</b>	<b>df</b>	<b>AIC</b>	<b>BIC</b>	<b>McFadden Pseudo-R<sup>2</sup></b>
Women	Unemployment	1	82,959	-13400.9	62	26925.79	27504.01	0.3049
		2	82,959	-13398.51	64	26925.02	27521.89	0.3050
		3	82,959	-13293	73	26732	27412.8	0.3105
	Inactivity	4	115,474	-38399.11	67	76932.23	77579.23	0.4707
		5	115,474	-38396.18	69	76930.37	77596.68	0.4707
		6	115,474	-38277.85	78	76711.71	77464.94	0.4724

Notes: BIC uses N = number of observation

# Appendix 3

**Table C1.** Factor loadings for 21 survey items (all religious groups combined, weighted)

Variable	Factor1	Factor2	Uniqueness
Effective gross hourly pay (item 1)	<b>0.40</b>	0.18	0.68
Employer runs a pension scheme (item 2)	0.15	0.37	0.68
Pay includes annual increments (item 3)	0.13	0.33	0.77
Likely lose job in next 12 months (item 4)	0.06	-0.00	0.87
Contract type (item 5)	0.06	-0.00	0.86
Employment conditions negotiated by union (item 6)	0.04	0.50	0.60
Term-time (item 7)	0.13	0.36	0.74
Job sharing (item 8)	0.28	<b>0.46</b>	0.64
Flexi-time (item 9)	<b>0.44</b>	0.34	0.62
Compressed hours (item 10)	0.39	<b>0.41</b>	0.62
Work from home (item 11)	<b>0.48</b>	0.25	0.60
Other flexible arrangements (item 12)	0.32	0.18	0.82
Hours (item 13)	0.03	0.15	0.95
Informal flex. (item 14)	<b>0.50</b>	0.03	0.59
Overtime hrs (item 15)	-0.12	-0.05	0.91
Autonomy over work hours (item 16)	<b>0.66</b>	-0.05	0.48
Autonomy over job tasks (item 17)	<b>0.63</b>	-0.32	0.46
Autonomy over work pace (item 18)	<b>0.62</b>	-0.35	0.46
Autonomy over work manner (item 19)	<b>0.68</b>	-0.35	0.35
Autonomy over task order (item 20)	<b>0.67</b>	-0.30	0.42
Work related training (item 21)	0.13	0.14	0.90
Eigenvalue	3.38	1.73	
Variance explained (%)	63%	32%	
Total variance (%)		95%	

Notes: Only factors with Eigenvalue above 1 retained; no rotation applied; loadings larger than 0.4 in bold.  
 LR test:  $\chi^2(210)=230000$ ,  $\text{Prb}(\chi^2) < 0.001$ . Number of observations=54,361; number of parameters=153.



**Table C2.** Factor loadings for 21 survey items by religious group (weighted)**a. Christian White British**

Variable	Factor1	Factor2	Uniqueness
Effective gross hourly pay (item 1)	0.37	0.16	0.70
Employer runs a pension scheme (item 2)	0.09	0.38	0.69
Pay includes annual increments (item 3)	0.07	0.35	0.77
Likely lose job in next 12 months (item 4)	0.04	-0.01	0.87
Contract type (item 5)	0.06	-0.01	0.87
Employment conditions negotiated by union (item 6)	-0.03	<b>0.53</b>	0.57
Term-time (item 7)	0.11	<b>0.40</b>	0.72
Job sharing (item 8)	0.25	<b>0.48</b>	0.65
Flexi-time (item 9)	<b>0.44</b>	0.34	0.60
Compressed hours (item 10)	0.39	0.43	0.60
Work from home (item 11)	<b>0.48</b>	0.24	0.59
Other flexible arrangements (item 12)	0.34	0.16	0.82
Hours (item 13)	-0.01	0.13	0.95
Informal flex. (item 14)	0.51	0.01	0.58
Overtime hrs (item 15)	-0.12	-0.06	0.89
Autonomy over work hours (item 16)	<b>0.68</b>	-0.04	0.45
Autonomy over job tasks (item 17)	<b>0.64</b>	-0.28	0.46
Autonomy over work pace (item 18)	<b>0.63</b>	-0.31	0.47
Autonomy over work manner (item 19)	<b>0.67</b>	-0.32	0.36
Autonomy over task order (item 20)	<b>0.66</b>	-0.26	0.43
Work related training (item 21)	0.12	0.17	0.89
Eigenvalue	3.38	1.74	
Variance explained (%)	62%	32%	
Total variance (%)		94%	

Notes: Only factors with Eigenvalue above 1 retained; no rotation applied; loadings larger than 0.4 in bold.  
 LR test:  $\chi^2(210)=69000$ ,  $\text{Prob}(\chi^2) < 0.001$ . Number of observations=15,877; number of parameters=153.

## b. Christian non-White British

Variable	Factor1	Factor2	Uniqueness
Effective gross hourly pay (item 1)	0.37	0.29	0.66
Employer runs a pension scheme (item 2)	0.30	<b>0.42</b>	0.60
Pay includes annual increments (item 3)	0.22	0.36	0.74
Likely lose job in next 12 months (item 4)	0.10	0.04	0.86
Contract type (item 5)	0.12	0.06	0.85
Employment conditions negotiated by union (item 6)	0.08	<b>0.52</b>	0.61
Term-time (item 7)	0.07	0.23	0.83
Job sharing (item 8)	0.26	0.40	0.68
Flexi-time (item 9)	<b>0.43</b>	0.26	0.66
Compressed hours (item 10)	0.35	0.31	0.67
Work from home (item 11)	<b>0.43</b>	0.21	0.64
Other flexible arrangements (item 12)	0.32	0.17	0.83
Hours (item 13)	-0.01	0.14	0.95
Informal flex. (item 14)	<b>0.51</b>	0.01	0.57
Overtime hrs (item 15)	-0.16	-0.11	0.90
Autonomy over work hours (item 16)	<b>0.65</b>	-0.13	0.48
Autonomy over job tasks (item 17)	<b>0.65</b>	-0.32	0.44
Autonomy over work pace (item 18)	<b>0.66</b>	-0.32	0.43
Autonomy over work manner (item 19)	<b>0.72</b>	-0.31	0.33
Autonomy over task order (item 20)	<b>0.74</b>	-0.22	0.37
Work related training (item 21)	0.18	0.13	0.88
Eigenvalue	3.62	1.53	
Variance explained (%)	66%	28%	
Total variance (%)		94%	

Notes: Only factors with Eigenvalue above 1 retained; no rotation applied; loadings larger than 0.4 in bold.  
 LR test:  $\chi^2(210)=12000$ ,  $\text{Prob}(\chi^2) < 0.001$ . Number of observations=2,779; number of parameters=153.

### c. Muslim

Variable	Factor1	Factor2	Uniqueness
Effective gross hourly pay (item 1)	0.34	0.21	0.72
Employer runs a pension scheme (item 2)	0.30	0.35	0.63
Pay includes annual increments (item 3)	0.24	0.22	0.77
Likely lose job in next 12 months (item 4)	0.07	0.06	0.87
Contract type (item 5)	0.04	0.04	0.82
Employment conditions negotiated by union (item 6)	0.17	0.39	0.68
Term-time (item 7)	0.19	0.26	0.77
Job sharing (item 8)	0.25	0.38	0.64
Flexi-time (item 9)	<b>0.43</b>	0.38	0.64
Compressed hours (item 10)	0.37	0.38	0.65
Work from home (item 11)	<b>0.43</b>	0.33	0.63
Other flexible arrangements (item 12)	0.30	0.22	0.79
Hours (item 13)	0.00	0.07	0.87
Informal flex. (item 14)	<b>0.49</b>	0.11	0.59
Overtime hrs (item 15)	-0.18	-0.05	0.88
Autonomy over work hours (item 16)	<b>0.62</b>	-0.06	0.51
Autonomy over job tasks (item 17)	<b>0.61</b>	-0.39	0.46
Autonomy over work pace (item 18)	<b>0.62</b>	<b>-0.41</b>	0.42
Autonomy over work manner (item 19)	<b>0.71</b>	-0.39	0.32
Autonomy over task order (item 20)	<b>0.67</b>	-0.36	0.40
Work related training (item 21)	0.21	0.17	0.82
Eigenvalue	3.39	1.68	
Variance explained (%)	62%	31%	
Total variance (%)		92%	

Notes: Only factors with Eigenvalue above 1 retained; no rotation applied; loadings larger than 0.4 in bold.  
 LR test:  $\chi^2(210) = 7726.76$ ,  $\text{Prob}(\chi^2) = <0.001$ . Number of observations=1,789; number of parameters=165.

#### d. Hindu

Variable	Factor1	Factor2	Uniqueness
Effective gross hourly pay (item 1)	<b>0.42</b>	0.16	0.67
Employer runs a pension scheme (item 2)	0.21	0.36	0.64
Pay includes annual increments (item 3)	0.22	0.27	0.72
Likely lose job in next 12 months (item 4)	0.06	0.06	0.86
Contract type (item 5)	0.07	0.06	0.88
Employment conditions negotiated by union (item 6)	0.08	<b>0.40</b>	0.63
Term-time (item 7)	0.08	0.26	0.79
Job sharing (item 8)	0.17	<b>0.44</b>	0.67
Flexi-time (item 9)	0.38	0.34	0.62
Compressed hours (item 10)	0.25	<b>0.49</b>	0.62
Work from home (item 11)	0.31	0.23	0.73
Other flexible arrangements (item 12)	0.20	0.23	0.80
Hours (item 13)	0.04	0.22	0.84
Informal flex. (item 14)	<b>0.40</b>	0.09	0.61
Overtime hrs (item 15)	-0.16	-0.08	0.87
Autonomy over work hours (item 16)	<b>0.64</b>	-0.13	0.50
Autonomy over job tasks (item 17)	<b>0.66</b>	-0.29	0.46
Autonomy over work pace (item 18)	<b>0.70</b>	-0.25	0.40
Autonomy over work manner (item 19)	<b>0.79</b>	-0.27	0.25
Autonomy over task order (item 20)	<b>0.78</b>	-0.14	0.34
Work related training (item 21)	0.15	0.12	0.86
Eigenvalue	3.44	1.45	
Variance explained (%)	62%	26%	
Total variance (%)		88%	

Notes: Only factors with Eigenvalue above 1 retained; no rotation applied; loadings larger than 0.4 in bold.  
 LR test:  $\chi^2(210) = 3597.34$ ,  $\text{Prob}(\chi^2) = <0.001$ . Number of observations=806; number of parameters=176.

**e. Sikh**

Variable	Factor1	Factor2	Uniqueness
Effective gross hourly pay (item 1)	0.24	0.37	0.65
Employer runs a pension scheme (item 2)	0.01	<b>0.53</b>	0.60
Pay includes annual increments (item 3)	0.07	0.36	0.75
Likely lose job in next 12 months (item 4)	0.08	0.11	0.82
Contract type (item 5)	0.06	0.17	0.75
Employment conditions negotiated by union (item 6)	-0.08	<b>0.49</b>	0.60
Term-time (item 7)	0.09	0.37	0.71
Job sharing (item 8)	0.11	<b>0.44</b>	0.69
Flexi-time (item 9)	0.22	<b>0.41</b>	0.63
Compressed hours (item 10)	0.18	<b>0.42</b>	0.61
Work from home (item 11)	0.23	0.24	0.66
Other flexible arrangements (item 12)	0.16	0.18	0.84
Hours (item 13)	-0.06	0.20	0.87
Informal flex. (item 14)	<b>0.40</b>	0.13	0.67
Overtime hrs (item 15)	-0.06	-0.21	0.86
Autonomy over work hours (item 16)	<b>0.62</b>	-0.13	0.50
Autonomy over job tasks (item 17)	<b>0.76</b>	-0.14	0.39
Autonomy over work pace (item 18)	<b>0.73</b>	-0.19	0.39
Autonomy over work manner (item 19)	<b>0.82</b>	-0.09	0.27
Autonomy over task order (item 20)	<b>0.82</b>	-0.14	0.26
Work related training (item 21)	0.21	0.14	0.80
Eigenvalue	3.30	1.82	
Variance explained (%)	55%	30%	
Total variance (%)		85%	

Notes: Only factors with Eigenvalue above 1 retained; no rotation applied; loadings larger than 0.4 in bold.  
 LR test:  $\chi^2(210) = 2263.61$ ,  $\text{Prob}(\chi^2) = <0.001$ . Number of observations=472; number of parameters=153.

## f. Other religion

Variable	Factor1	Factor2	Uniqueness
Effective gross hourly pay (item 1)	<b>0.48</b>	0.08	0.63
Employer runs a pension scheme (item 2)	0.25	0.33	0.66
Pay includes annual increments (item 3)	0.23	<b>0.48</b>	0.60
Likely lose job in next 12 months (item 4)	0.08	-0.01	0.87
Contract type (item 5)	0.09	-0.03	0.83
Employment conditions negotiated by union (item 6)	0.13	<b>0.59</b>	0.49
Term-time (item 7)	0.14	0.36	0.71
Job sharing (item 8)	0.37	<b>0.43</b>	0.59
Flexi-time (item 9)	<b>0.51</b>	0.30	0.55
Compressed hours (item 10)	<b>0.46</b>	<b>0.44</b>	0.53
Work from home (item 11)	<b>0.58</b>	0.11	0.54
Other flexible arrangements (item 12)	0.34	0.13	0.76
Hours (item 13)	0.07	0.12	0.89
Informal flex. (item 14)	<b>0.57</b>	-0.05	0.54
Overtime hrs (item 15)	-0.12	0.00	0.87
Autonomy over work hours (item 16)	<b>0.66</b>	-0.20	0.43
Autonomy over job tasks (item 17)	<b>0.60</b>	-0.33	0.47
Autonomy over work pace (item 18)	<b>0.65</b>	-0.33	0.39
Autonomy over work manner (item 19)	<b>0.68</b>	-0.33	0.34
Autonomy over task order (item 20)	<b>0.68</b>	-0.30	0.38
Work related training (item 21)	0.12	0.12	0.90
Eigenvalue	3.96	1.80	
Variance explained (%)	62%	28%	
Total variance (%)		90%	

Notes: Only factors with Eigenvalue above 1 retained; no rotation applied; loadings larger than 0.4 in bold.  
 LR test:  $\chi^2(210) = 3586.97$ ,  $\text{Prob}(\chi^2) = <0.001$ . Number of observations=686; number of parameters=165.

g. **No religion**

Variable	Factor1	Factor2	Uniqueness
Effective gross hourly pay (item 1)	<b>0.41</b>	0.18	0.67
Employer runs a pension scheme (item 2)	0.16	0.35	0.68
Pay includes annual increments (item 3)	0.14	0.31	0.78
Likely lose job in next 12 months (item 4)	0.06	-0.01	0.87
Contract type (item 5)	0.06	-0.01	0.86
Employment conditions negotiated by union (item 6)	0.05	<b>0.49</b>	0.61
Term-time (item 7)	0.14	0.35	0.75
Job sharing (item 8)	0.28	<b>0.46</b>	0.64
Flexi-time (item 9)	<b>0.45</b>	0.35	0.62
Compressed hours (item 10)	0.39	<b>0.41</b>	0.63
Work from home (item 11)	<b>0.48</b>	0.26	0.60
Other flexible arrangements (item 12)	0.31	0.19	0.82
Hours (item 13)	0.05	0.15	0.94
Informal flex. (item 14)	<b>0.50</b>	0.04	0.60
Overtime hrs (item 15)	-0.12	-0.04	0.92
Autonomy over work hours (item 16)	<b>0.65</b>	-0.04	0.48
Autonomy over job tasks (item 17)	<b>0.63</b>	-0.34	0.46
Autonomy over work pace (item 18)	<b>0.61</b>	-0.37	0.47
Autonomy over work manner (item 19)	<b>0.68</b>	-0.37	0.35
Autonomy over task order (item 20)	<b>0.66</b>	-0.32	0.42
Work related training (item 21)	0.13	0.12	0.90
Eigenvalue	3.37	1.75	
Variance explained (%)	63%	33%	
Total variance (%)		96%	

Notes: Only factors with Eigenvalue above 1 retained; no rotation applied; loadings larger than 0.4 in bold.  
 LR test:  $\chi^2(210) = 140000$ ,  $\text{Prob}(\chi^2) < 0.001$ . Number of observations=31,952; number of parameters=153.

# Appendix 4

## Results by employment type by religion & ethno-religious affiliation unadjusted for multiple comparisons

**Table D1.** Model of job quality by religious affiliation (Table 6.4)

	Men	Women
Religious Group (ref: Christian White British=0)		
Christian Other	-0.92 (-5.09; 3.24)	0.35 (-1.99; 2.69)
Muslim	-2.00 (-4.85; 0.84)	-3.85 (-6.09; -1.61)
Hindu	-0.90 (-3.84; 2.03)	-0.96 (-4.46; 2.54)
Sikh	-8.03 (-13.05; -3.02)	-2.24 (-3.84; -0.63)
Other religion	-1.71 (-4.95; 1.52)	-0.57 (-3.80; 2.66)
No religion	-0.28 (-1.15; 0.59)	-0.43 (-1.16; 0.30)
Wave (ref: wave=2)		
Wave 4	0.25 (-0.19; 0.69)	-0.33 (-0.74; 0.07)
Wave 6	2.22 (1.70; 2.74)	0.93 (0.47; 1.39)
Wave 8	2.53 (1.98; 3.08)	1.37 (0.88; 1.87)
Wave 10	3.19 (2.61; 3.78)	2.04 (1.49; 2.58)
Age	1.26 (1.00; 1.52)	1.38 (1.15; 1.62)
Age2	-0.01 (-0.02; -0.01)	-0.02 (-0.02; -0.01)
Graduate status (ref: non-graduate=0)		
Graduate	5.13 (3.62; 6.64)	5.03 (3.86; 6.21)
$\sigma^2_{u0}$	145.54 (139.92; 151.15)	145.22 (140.28; 150.16)
$\sigma^2_e$	46.37 (44.31; 48.43)	50.47 (48.83; 52.11)
Constant	30.72 (25.50; 35.95)	29.16 (24.58; 33.74)
Observations (unweighted)	28,622	35,156

Notes: Data adjusted for complex survey design & multilevel data structure; 95 per cent confidence interval (CI) in brackets; coefficients for level-1 explanatory variables highlighted where CI excludes zero.



**Table D2.** Model of job quality by ethno-religious affiliation (Table 6.7)

	Men	Women
Ethno-religious Group (ref: Christian White British=0)		
Christian White Irish	*	0.16 (-12.23; 12.55)
Christian White Other	-3.32 (-9.70; 3.06)	0.33 (-6.65; 7.32)
Christian Black Caribbean	-0.18 (-3.68; 3.32)	-0.43 (-3.23; 2.37)
Christian Black African	-0.28 (-8.38; 7.82)	-1.03 (-3.62; 1.57)
Christian Indian	*	6.54 (1.11; 11.98)
Christian Asian Other	*	0.07 (-4.62; 4.76)
Christian Other	-1.88 (-6.70; 2.93)	-0.80 (-6.17; 4.56)
Muslim Bangladeshi	-5.06 (-10.73; 0.60)	0.48 (-2.80; 3.77)
Muslim Pakistani	-3.07 (-7.39; 1.25)	-3.12 (-5.59; -0.65)
Muslim Indian	-2.96 (-8.45; 2.53)	-4.47 (-8.69; -0.24)
Muslim Other	-1.45 (-6.54; 3.63)	-6.90 (-10.52; -3.28)
Hindu	-2.08 (-4.84; 0.69)	-1.06 (-3.96; 1.84)
Sikh	-8.49 (-11.90; -5.08)	-2.26 (-4.34; -0.18)
Other Religion	-2.09 (-5.73; 1.55)	-0.85 (-3.92; 2.22)
No Religion White British	-0.25 (-1.14; 0.64)	-0.38 (-1.16; 0.39)
No Religion White Other	-0.52 (-4.13; 3.09)	-0.51 (-5.61; 4.59)
No Religion Black Caribbean	-3.25 (-6.27; -0.23)	0.52 (-3.14; 4.18)
No Religion Black African	*	-4.19 (-11.15; 2.78)
No Religion Indian	-2.21 (-6.22; 1.79)	-0.36 (-4.50; 3.78)
No Religion Chinese	-8.84 (-20.53; 2.85)	-7.52 (-10.37; -4.67)
No Religion Other	-3.45 (-7.27; 0.37)	-2.76 (-6.05; 0.52)
Wave (ref: wave=2)		
Wave 4	0.25 (-0.21; 0.72)	-0.34 (-0.76; 0.09)
Wave 6	2.23 (1.68; 2.78)	0.93 (0.45; 1.40)
Wave 8	2.54 (1.96; 3.12)	1.36 (0.84; 1.88)
Wave 10	3.22 (2.60; 3.84)	2.02 (1.45; 2.59)
Age	1.26 (0.98; 1.54)	1.39 (1.15; 1.63)
Age2	-0.01 (-0.02; -0.01)	-0.02 (-0.02; -0.01)
Graduate status (ref: non-graduate=0)		
Graduate	5.23 (3.56; 6.91)	5.08 (3.89; 6.27)
$\sigma^2_{u0}$	145.24 (139.28; 151.21)	145.20 (140.02; 150.39)
$\sigma^2_e$	46.35 (44.37; 48.33)	50.45 (48.76; 52.14)
Constant	31.00 (25.45; 36.54)	29.06 (24.33; 33.80)
Observations (unweighted)	28,622	35,156

Notes: Data adjusted for complex survey design & multilevel data structure. \* signifies insufficient sample size to form stand-alone group; 95 per cent confidence interval (CI) in brackets; coefficients for level-1 explanatory variables highlighted where CI excludes zero.

**Table D3.** Men - Model of job quality dimensions by religious affiliation (Table 6.8)

	Dimension 1: Pay and Other Benefits	Dimension 2: Job Security and Representation	Dimension 3: Work-Life Balance	Dimension 4: Intrinsic Job Attributes
Religious Group (ref: Christian White British=0)				
Christian Other	-3.23 (-11.72; 5.25)	1.74 (-0.65; 4.13)	1.54 (-3.01; 6.10)	-3.94 (-8.94; 1.07)
Muslim	-4.16 (-8.43; 0.11)	-2.67 (-5.11; -0.24)	1.87 (-1.89; 5.63)	-4.73 (-10.02; 0.55)
Hindu	-5.56 (-11.68; 0.55)	-1.82 (-5.34; 1.71)	0.62 (-5.75; 6.99)	1.61 (-3.77; 6.98)
Sikh	-14.46 (-23.46; -5.46)	-2.28 (-5.71; 1.15)	-6.20 (-10.81; -1.59)	-6.77 (-15.30; 1.76)
Other religion	-5.46 (-13.56; 2.65)	-2.76 (-8.57; 3.05)	-1.17 (-6.85; 4.52)	2.13 (-4.69; 8.95)
No religion	-0.93 (-2.66; 0.79)	-0.71 (-1.94; 0.52)	0.08 (-1.21; 1.38)	0.21 (-1.39; 1.80)
Wave (ref: wave=2)				
Wave 4	-0.69 (-1.62; 0.24)	-0.08 (-0.62; 0.46)	0.68 (0.03; 1.32)	1.07 (0.17; 1.96)
Wave 6	3.53 (2.48; 4.59)	0.22 (-0.42; 0.87)	2.14 (1.37; 2.91)	2.99 (1.99; 3.98)
Wave 8	8.39 (7.29; 9.49)	-0.49 (-1.15; 0.17)	0.26 (-0.53; 1.05)	1.94 (0.89; 2.98)
Wave 10	11.56 (10.38; 12.73)	-0.69 (-1.49; 0.12)	0.81 (-0.03; 1.65)	1.07 (-0.01; 2.15)
Age	2.12 (1.60; 2.64)	0.85 (0.49; 1.21)	0.68 (0.34; 1.03)	1.39 (0.94; 1.84)
Age2	-0.02 (-0.03; -0.02)	-0.01 (-0.01; -0.00)	-0.01 (-0.01; -0.00)	-0.02 (-0.02; -0.01)
Graduate status (ref: non-graduate=0)				
Graduate	11.16 (8.45; 13.88)	0.75 (-1.74; 3.25)	6.16 (4.60; 7.73)	4.14 (1.92; 6.35)
$\hat{\sigma}^2_{u0}$	497.61 (480.88; 514.33)	258.17 (250.83; 265.52)	252.68 (241.69; 263.66)	396.63 (379.78; 413.48)
$\hat{\sigma}^2_c$	204.43 (197.61; 211.25)	76.08 (71.28; 80.88)	104.55 (99.60; 109.50)	183.17 (175.60; 190.73)
Constant	2.40 (-7.96; 12.75)	60.19 (53.04; 67.33)	20.49 (13.80; 27.17)	39.87 (30.99; 48.76)
Observations (unweighted)	28,622	28,622	28,622	28,622

Notes: Data adjusted for complex survey design & multilevel data structure.; 95 per cent confidence interval (CI) in brackets; coefficients for level-1 explanatory variables highlighted where CI excludes zero.

**Table D4.** Women - Model of job quality dimensions by religious affiliation (Table 6.8)

	Dimension 1: Pay and Other Benefits	Dimension 2: Job Security and Representation	Dimension 3: Work-Life Balance	Dimension 4: Intrinsic Job Attributes
Religious Group (ref: Christian White British=0)				
Christian Other	3.42 (-0.42; 7.26)	-2.11 (-4.99; 0.77)	-0.74 (-5.11; 3.64)	-0.17 (-3.73; 3.39)
Muslim	-4.10 (-8.76; 0.55)	-3.78 (-7.28; -0.27)	-4.11 (-6.64; -1.59)	-2.83 (-7.15; 1.50)
Hindu	1.08 (-5.15; 7.32)	-2.02 (-4.48; 0.43)	-0.32 (-4.49; 3.85)	-2.47 (-7.44; 2.50)
Sikh	-5.64 (-11.85; 0.57)	-4.65 (-9.15; -0.15)	-1.25 (-5.36; 2.86)	1.91 (-5.04; 8.86)
Other religion	1.44 (-2.89; 5.78)	-2.10 (-6.41; 2.20)	-0.55 (-6.74; 5.63)	-1.61 (-6.46; 3.24)
No religion	-0.42 (-1.88; 1.04)	-0.38 (-1.40; 0.65)	-0.63 (-1.68; 0.43)	-0.46 (-1.93; 1.01)
Wave (ref: wave=2)				
Wave 4	-2.01 (-2.78; -1.24)	-0.36 (-0.90; 0.17)	0.23 (-0.36; 0.82)	0.78 (-0.06; 1.63)
Wave 6	0.89 (-0.05; 1.84)	-0.30 (-0.91; 0.31)	0.79 (0.12; 1.46)	2.34 (1.42; 3.25)
Wave 8	5.24 (4.22; 6.25)	-1.09 (-1.79; -0.39)	-0.69 (-1.38; -0.00)	2.01 (1.06; 2.96)
Wave 10	9.29 (8.22; 10.36)	-1.46 (-2.24; -0.67)	-0.20 (-0.98; 0.57)	0.49 (-0.57; 1.54)
Age	2.28 (1.84; 2.73)	1.19 (0.86; 1.52)	1.06 (0.77; 1.36)	0.99 (0.57; 1.41)
Age2	-0.02 (-0.03; -0.02)	-0.01 (-0.02; -0.01)	-0.01 (-0.02; -0.01)	-0.01 (-0.02; -0.01)
Graduate status (ref: non-graduate=0)				
Graduate	11.12 (8.73; 13.50)	3.56 (1.93; 5.20)	3.22 (1.72; 4.72)	3.39 (1.66; 5.12)
$\hat{\sigma}_{u0}^2$	511.17 (494.76; 527.57)	255.47 (248.60; 262.35)	252.33 (242.96; 261.70)	373.10 (359.76; 386.43)
$\hat{\sigma}_e^2$	212.71 (206.34; 219.08)	88.07 (83.77; 92.38)	112.88 (108.83; 116.94)	217.16 (210.16; 224.15)
Constant	-2.63 (-11.50; 6.23)	54.62 (48.25; 61.00)	18.54 (12.68; 24.40)	46.04 (37.68; 54.39)
Observations (unweighted)	35,156	35,156	35,156	35,156

Notes: Data adjusted for complex survey design & multilevel data structure; 95 per cent confidence interval (CI) in brackets; coefficients for level-1 explanatory variables highlighted where CI excludes zero.

**Table D5.** Men - Model of job quality dimensions by ethno-religious affiliation (Table 6.9)

	Dimension 1: Pay and Other Benefits	Dimension 2: Job Security and Representation	Dimension 3: Work-Life Balance	Dimension 4: Intrinsic Job Attributes
Ethno-religious Group (ref: Christian White British=0)				
Christian White Irish	-6.63 (-19.92; 6.66)	-0.47 (-3.48; 2.54)	-2.04 (-9.08; 5.00)	-4.68 (-12.22; 2.86)
Christian White Other	-5.82 (-13.58; 1.94)	0.39 (-4.21; 4.99)	-0.00 (-5.23; 5.23)	4.43 (-1.09; 9.94)
Christian Black Caribbean	2.27 (-5.05; 9.58)	2.69 (-8.37; 13.76)	-1.62 (-5.38; 2.14)	-4.62 (-15.17; 5.94)
Christian Black African	-3.53 (-10.87; 3.81)	0.83 (-3.79; 5.44)	3.69 (-3.31; 10.70)	-7.35 (-15.64; 0.93)
Christian Indian	-15.69 (-23.95; -7.43)	-0.43 (-6.96; 6.10)	1.45 (-5.97; 8.87)	-6.62 (-11.28; -1.95)
Christian Asian Other	-5.29 (-13.43; 2.86)	-1.00 (-3.68; 1.68)	-1.87 (-8.05; 4.31)	-5.46 (-12.43; 1.51)
Christian Other	-8.60 (-20.45; 3.25)	0.45 (-6.64; 7.54)	3.40 (-1.01; 7.81)	-7.03 (-13.87; -0.19)
Muslim Bangladeshi	-0.77 (-6.43; 4.90)	-4.98 (-8.96; -1.00)	2.65 (-3.88; 9.19)	-3.21 (-14.49; 8.07)
Muslim Pakistani	-7.48 (-13.32; -1.64)	-3.11 (-6.68; 0.45)	-3.08 (-7.81; 1.65)	3.43 (-2.34; 9.21)
Muslim Indian	-15.16 (-20.67; -9.65)	-2.69 (-5.90; 0.51)	-7.27 (-10.72; -3.82)	-6.43 (-14.54; 1.68)
Muslim Other	-6.20 (-15.31; 2.92)	-3.08 (-9.81; 3.64)	-2.14 (-8.32; 4.05)	2.64 (-4.95; 10.23)
Hindu	-0.89 (-2.74; 0.96)	-0.65 (-1.98; 0.67)	0.16 (-1.21; 1.53)	0.18 (-1.38; 1.74)
Sikh	0.84 (-7.14; 8.83)	-3.10 (-6.14; -0.05)	-1.02 (-6.04; 4.00)	0.82 (-4.63; 6.27)
Other Religion	-7.69 (-14.16; -1.22)	-1.35 (-5.65; 2.94)	0.98 (-4.01; 5.97)	-5.17 (-10.50; 0.16)
No Religion White British	-4.28 (-12.43; 3.86)	-3.04 (-7.43; 1.35)	-7.11 (-14.84; 0.63)	4.17 (-3.75; 12.10)
No Religion White Other	-11.30 (-30.12; 7.53)	-10.65 (-25.14; 3.84)	-12.45 (-34.75; 9.86)	1.05 (-11.77; 13.88)
No Religion Black Caribbean	-7.01 (-13.53; -0.49)	-1.44 (-5.21; 2.33)	-5.00 (-10.35; 0.35)	0.09 (-7.16; 7.35)
Wave (ref: wave=2)				
Wave 4	-0.68 (-1.67; 0.32)	-0.08 (-0.66; 0.49)	0.68 (-0.01; 1.37)	1.07 (0.15; 2.00)
Wave 6	3.55 (2.44; 4.67)	0.22 (-0.47; 0.91)	2.14 (1.32; 2.97)	2.99 (1.96; 4.03)
Wave 8	8.43 (7.26; 9.61)	-0.50 (-1.20; 0.20)	0.27 (-0.58; 1.12)	1.96 (0.88; 3.03)
Wave 10	11.62 (10.37; 12.88)	-0.70 (-1.56; 0.15)	0.83 (-0.07; 1.74)	1.09 (-0.02; 2.21)
Age	2.11 (1.56; 2.67)	0.85 (0.47; 1.23)	0.69 (0.32; 1.06)	1.38 (0.91; 1.85)
Age2	-0.02 (-0.03; -0.02)	-0.01 (-0.01; -0.00)	-0.01 (-0.01; -0.00)	-0.02 (-0.02; -0.01)
Graduate status (ref: non-graduate=0)				
Graduate	11.27 (8.35; 14.18)	0.87 (-1.93; 3.67)	6.40 (4.68; 8.12)	4.10 (1.74; 6.45)
$\sigma^2_{u0}$	496.12 (478.41; 513.83)	258.38 (250.51; 266.25)	252.60 (240.69; 264.52)	397.05 (379.35; 414.74)
$\sigma^2_e$	204.31 (197.17; 211.45)	76.05 (71.07; 81.03)	104.45 (99.19; 109.72)	183.08 (175.29; 190.88)
Constant	2.99 (-8.07; 14.06)	60.10 (52.51; 67.69)	20.75 (13.59; 27.90)	40.11 (30.79; 49.42)
Observations	28,622	28,622	28,622	28,622

Notes: Data adjusted for complex survey design & multilevel data structure; 95 per cent confidence interval (CI) in brackets; coefficients for level-1 explanatory variables highlighted where CI excludes zero.

**Table D6.** Women - Model of job quality dimensions by ethno-religious affiliation (Table 6.10)

	Dimension 1: Pay and Other Benefits	Dimension 2: Job Security and Representation	Dimension 3: Work-Life Balance	Dimension 4: Intrinsic Job Attributes
Ethno-religious Group (ref: Christian White British=0)				
Christian White Irish	6.12 (-6.35; 18.58)	6.03 (-19.15; 31.21)	-4.75 (-9.30; -0.20)	-4.19 (-14.54; 6.15)
Christian White Other	1.10 (-7.85; 10.04)	-7.18 (-11.58; -2.79)	2.74 (-9.96; 15.45)	1.81 (-5.90; 9.51)
Christian Black Caribbean	4.30 (-0.22; 8.83)	-1.40 (-4.17; 1.38)	-3.12 (-6.13; -0.10)	-1.69 (-6.35; 2.97)
Christian Black African	0.10 (-4.67; 4.87)	0.61 (-2.80; 4.02)	-4.44 (-7.61; -1.28)	-1.04 (-5.67; 3.59)
Christian Indian	5.52 (-4.69; 15.73)	6.75 (1.21; 12.28)	-0.39 (-7.09; 6.32)	10.31 (0.31; 20.31)
Christian Asian Other	-2.78 (-11.52; 5.96)	-3.04 (-9.90; 3.83)	-2.43 (-7.19; 2.33)	9.74 (3.80; 15.68)
Christian Other	6.28 (-1.71; 14.28)	-7.22 (-16.31; 1.87)	5.42 (-9.92; 20.76)	-7.92 (-16.93; 1.09)
Muslim Bangladeshi	-0.19 (-7.53; 7.16)	-0.53 (-5.59; 4.52)	0.26 (-5.17; 5.70)	2.28 (-2.49; 7.05)
Muslim Pakistani	-8.01 (-13.12; -2.90)	-0.70 (-3.90; 2.50)	-4.02 (-7.05; -0.99)	0.14 (-4.06; 4.33)
Muslim Indian	-9.45 (-17.16; -1.73)	-5.51 (-13.90; 2.87)	-5.27 (-11.19; 0.65)	1.62 (-5.21; 8.46)
Muslim Other	-4.42 (-11.71; 2.87)	-6.99 (-13.81; -0.16)	-6.93 (-10.76; -3.10)	-8.57 (-17.99; 0.84)
Hindu	0.76 (-5.21; 6.74)	-2.88 (-5.87; 0.11)	-1.13 (-4.77; 2.51)	-1.48 (-5.66; 2.71)
Sikh	-5.73 (-11.97; 0.51)	-5.51 (-8.36; -2.67)	-2.01 (-6.11; 2.09)	2.87 (-2.19; 7.92)
Other Religion	0.88 (-3.50; 5.26)	-3.06 (-7.52; 1.40)	-0.41 (-5.99; 5.18)	-1.51 (-6.28; 3.26)
No Religion White British	-0.35 (-1.88; 1.17)	-0.31 (-1.41; 0.79)	-0.60 (-1.70; 0.50)	-0.43 (-2.00; 1.13)
No Religion White Other	-0.71 (-8.21; 6.79)	-6.48 (-10.08; -2.87)	3.28 (-6.04; 12.61)	-0.71 (-7.02; 5.61)
No Religion Black Caribbean	0.60 (-5.36; 6.56)	-1.88 (-5.69; 1.93)	2.08 (-1.72; 5.88)	-0.05 (-5.21; 5.11)
No Religion Black African	-2.29 (-14.96; 10.39)	5.12 (-0.54; 10.78)	-4.89 (-11.54; 1.76)	-12.05 (-23.20; -0.90)
No Religion Indian	-0.25 (-7.62; 7.12)	-2.49 (-5.70; 0.73)	-3.04 (-8.92; 2.85)	3.02 (-3.72; 9.77)
No Religion Chinese	-3.74 (-9.92; 2.44)	-11.42 (-16.26; -6.57)	-6.11 (-10.59; -1.64)	-6.27 (-11.76; -0.77)
No Religion Other	-7.51 (-12.65; -2.37)	-0.21 (-5.95; 5.52)	-3.51 (-8.11; 1.09)	1.16 (-3.83; 6.15)
Wave (ref: wave=2)				
Wave 4	-2.01 (-2.82; -1.20)	-0.36 (-0.92; 0.20)	0.23 (-0.38; 0.84)	0.78 (-0.09; 1.65)
Wave 6	0.90 (-0.09; 1.88)	-0.30 (-0.93; 0.33)	0.78 (0.09; 1.47)	2.33 (1.38; 3.28)
Wave 8	5.25 (4.19; 6.31)	-1.10 (-1.83; -0.38)	-0.71 (-1.42; 0.01)	1.98 (1.00; 2.97)
Wave 10	9.29 (8.17; 10.41)	-1.46 (-2.29; -0.64)	-0.23 (-1.04; 0.57)	0.46 (-0.63; 1.56)
Age	2.29 (1.82; 2.75)	1.20 (0.86; 1.54)	1.07 (0.76; 1.37)	0.99 (0.56; 1.43)
Age2	-0.02 (-0.03; -0.02)	-0.01 (-0.02; -0.01)	-0.01 (-0.02; -0.01)	-0.01 (-0.02; -0.01)
Graduate status (ref: non-graduate=0)				
Graduate	11.18 (8.80; 13.57)	3.66 (2.02; 5.30)	3.22 (1.64; 4.80)	3.43 (1.66; 5.20)
$\hat{\sigma}^2_{u0}$	510.99 (494.01; 527.97)	254.43 (247.23; 261.63)	253.30 (243.13; 263.46)	373.25 (359.31; 387.19)
$\hat{\sigma}^2_e$	212.63 (206.04; 219.22)	88.02 (83.53; 92.50)	112.78 (108.61; 116.96)	217.01 (209.85; 224.17)
Constant	-2.51 (-11.77; 6.75)	54.44 (47.80; 61.09)	18.47 (12.49; 24.46)	45.81 (37.11; 54.51)
Observations	35,156	35,156	35,156	35,156

Notes: Data adjusted for complex survey design & multilevel data structure; 95 per cent confidence interval in brackets; grey cells indicate CI does not include zero.

**Table D7.** Model of job quality by occupational class, gender and religious affiliation (Table 6.11)

	Men professional	Men non-professional	Women professional	Women non-professional
Religious Group (ref: Christian White British=0)				
Christian Other	2.83 (0.48; 5.18)	-6.31 (-13.68; 1.05)	-0.33 (-2.25; 1.58)	-0.21 (-3.22; 2.80)
Muslim	0.12 (-3.69; 3.92)	-2.86 (-5.24; -0.48)	-3.75 (-7.23; -0.27)	-2.47 (-5.03; 0.08)
Hindu	0.04 (-3.72; 3.81)	-2.13 (-7.43; 3.18)	-3.21 (-7.09; 0.66)	3.92 (1.33; 6.52)
Sikh	-7.28 (-16.68; 2.13)	-7.51 (-11.83; -3.19)	-1.29 (-4.23; 1.65)	-2.81 (-4.66; -0.97)
Other religion	-2.60 (-6.50; 1.29)	-0.75 (-5.21; 3.71)	4.64 (1.85; 7.42)	-3.99 (-7.57; -0.42)
No religion	-0.07 (-1.15; 1.01)	-0.42 (-1.73; 0.89)	0.01 (-1.02; 1.05)	-0.90 (-1.87; 0.07)
Wave (ref: wave=2)				
Wave 4	0.09 (-0.46; 0.64)	0.83 (0.13; 1.52)	-0.02 (-0.51; 0.47)	-0.09 (-0.70; 0.51)
Wave 6	1.61 (1.00; 2.23)	3.45 (2.62; 4.28)	0.80 (0.24; 1.37)	1.47 (0.77; 2.17)
Wave 8	1.00 (0.36; 1.63)	4.71 (3.82; 5.59)	0.44 (-0.19; 1.07)	2.72 (1.98; 3.45)
Wave 10	1.92 (1.21; 2.64)	4.90 (3.92; 5.88)	0.82 (0.14; 1.50)	3.83 (3.01; 4.66)
Age	1.22 (0.86; 1.57)	0.93 (0.53; 1.32)	0.98 (0.65; 1.32)	1.17 (0.87; 1.47)
Age2	-0.01 (-0.02; -0.01)	-0.01 (-0.02; -0.01)	-0.01 (-0.01; -0.01)	-0.01 (-0.02; -0.01)
Graduate status (ref: non-graduate=0)				
Graduate	3.24 (1.71; 4.76)	3.36 (0.37; 6.35)	1.38 (-0.05; 2.82)	3.09 (1.64; 4.54)
$\sigma^2_{u_0}$	120.31 (114.55; 126.07)	156.11 (148.34; 163.88)	124.86 (119.25; 130.47)	147.59 (141.46; 153.71)
$\sigma^2_c$	37.47 (35.51; 39.42)	46.07 (42.83; 49.32)	40.14 (38.29; 41.99)	46.43 (44.27; 48.60)
Constant	36.26 (28.83; 43.68)	34.27 (26.57; 41.96)	44.29 (37.46; 51.12)	30.33 (24.57; 36.09)
Observations (unweighted)	14,619	14,003	16,793	18,363

Notes: Data adjusted for complex survey design & multilevel data structure; 95 per cent confidence interval (CI) in brackets; coefficients for level-1 explanatory variables highlighted where CI excludes zero.

**Table D8.** Model of job quality by occupational class, gender and ethno-religious affiliation (Table 6.12)

	Men professional	Men non-professional	Women professional	Women non-professional
Ethno-religious Group (ref: Christian White British=0)				
Christian White Irish	*	*	-2.62 (-7.62; 2.38)	0.80 (-17.75; 19.35)
Christian White Other	0.98 (-2.11; 4.07)	-7.23 (-17.21; 2.74)	-2.35 (-5.48; 0.78)	-1.13 (-6.18; 3.92)
Christian Black Caribbean	2.62 (-1.26; 6.50)	-3.46 (-8.04; 1.12)	0.61 (-2.63; 3.85)	-1.10 (-4.09; 1.89)
Christian Black African	3.14 (-0.11; 6.39)	-7.84 (-17.16; 1.48)	1.80 (-0.52; 4.13)	-2.59 (-6.22; 1.03)
Christian Indian	*	*	6.75 (0.91; 12.58)	1.41 (-11.50; 14.32)
Christian Asian Other	*	*	0.39 (-4.05; 4.84)	1.62 (-5.29; 8.53)
Christian Other	3.77 (-0.57; 8.11)	-5.82 (-12.71; 1.08)	-0.07 (-2.82; 2.68)	-2.67 (-11.54; 6.20)
Muslim Bangladeshi	0.34 (-4.50; 5.19)	-8.46 (-12.45; -4.47)	0.16 (-4.99; 5.32)	2.26 (-1.43; 5.94)
Muslim Pakistani	-0.29 (-6.84; 6.27)	-4.44 (-7.44; -1.44)	-2.68 (-6.44; 1.08)	-1.12 (-4.12; 1.88)
Muslim Indian	-0.14 (-5.18; 4.91)	-3.25 (-11.72; 5.22)	-5.08 (-8.46; -1.70)	-2.06 (-7.04; 2.91)
Muslim Other	-0.19 (-6.17; 5.79)	1.83 (-2.39; 6.06)	-5.72 (-10.96; -0.49)	-8.04 (-10.33; -5.74)
Hindu	-1.81 (-5.44; 1.82)	-2.85 (-7.83; 2.14)	-2.35 (-5.38; 0.68)	3.14 (0.29; 5.98)
Sikh	-7.83 (-10.86; -4.80)	-7.83 (-12.26; -3.40)	-0.72 (-4.02; 2.58)	-3.76 (-6.05; -1.46)
Other Religion	-3.10 (-7.51; 1.31)	-0.58 (-5.36; 4.20)	4.64 (1.80; 7.49)	-4.74 (-8.35; -1.13)
No Religion White British	-0.02 (-1.17; 1.12)	-0.42 (-1.67; 0.82)	0.02 (-1.06; 1.10)	-0.81 (-1.83; 0.21)
No Religion White Other	-0.17 (-2.57; 2.23)	0.64 (-7.05; 8.34)	-2.22 (-5.17; 0.74)	-0.62 (-5.13; 3.90)
No Religion Black Caribbean	-2.63 (-6.27; 1.02)	-3.71 (-7.93; 0.51)	4.42 (-0.37; 9.22)	-2.39 (-7.01; 2.22)
No Religion Black African	*	*	2.16 (-1.55; 5.86)	-9.55 (-19.03; -0.08)
No Religion Indian	-3.69 (-8.24; 0.85)	-1.71 (-7.75; 4.32)	2.87 (-2.66; 8.39)	-2.89 (-6.26; 0.48)
No Religion Chinese	-6.28 (-17.36; 4.81)	-10.15 (-16.68; -3.63)	-6.74 (-11.09; -2.39)	-8.16 (-12.45; -3.86)
No Religion Other	-1.80 (-5.88; 2.27)	-0.48 (-5.07; 4.10)	-1.35 (-4.10; 1.40)	-4.55 (-9.24; 0.14)
Wave (ref: wave=2)				
Wave 4	0.09 (-0.47; 0.66)	0.83 (0.12; 1.54)	-0.03 (-0.53; 0.48)	-0.09 (-0.71; 0.53)
Wave 6	1.62 (0.97; 2.27)	3.46 (2.60; 4.31)	0.80 (0.21; 1.38)	1.46 (0.75; 2.18)
Wave 8	1.01 (0.34; 1.68)	4.73 (3.81; 5.64)	0.43 (-0.21; 1.08)	2.70 (1.94; 3.46)
Wave 10	1.94 (1.19; 2.69)	4.93 (3.93; 5.93)	0.80 (0.10; 1.51)	3.81 (2.96; 4.66)
Age	1.22 (0.84; 1.59)	0.93 (0.52; 1.33)	0.99 (0.65; 1.33)	1.18 (0.88; 1.49)
Age2	-0.01 (-0.02; -0.01)	-0.01 (-0.02; -0.01)	-0.01 (-0.02; -0.01)	-0.01 (-0.02; -0.01)
Graduate status (ref: non-graduate=0)				
Graduate	3.34 (1.69; 4.99)	3.42 (0.12; 6.71)	1.41 (0.07; 2.75)	3.20 (1.67; 4.72)
$\sigma^2_{u0}$	120.42 (114.41; 126.42)	155.33 (147.32; 163.34)	124.69 (118.98; 130.39)	147.68 (141.28; 154.07)
$\sigma^2_e$	37.44 (35.40; 39.48)	46.05 (43.24; 48.86)	40.12 (38.22; 42.01)	46.38 (44.18; 48.58)
Constant	36.43 (28.63; 44.23)	34.47 (26.56; 42.38)	44.11 (37.09; 51.14)	30.16 (24.32; 36.00)
Observations (unweighted)	14,619	14,003	16,793	18,363

Notes: Data adjusted for complex survey design & multilevel data structure. \* signifies insufficient sample size to form stand-alone group; 95 per cent confidence interval (CI) in brackets; coefficients for level-1 explanatory variables highlighted where CI excludes zero.

**Table D9.** Model of job quality by part-time/full-time status, gender and religious affiliation (Table 6.13)

	Men full-time	Men part-time	Women full-time	Women part-time
Religious Group (ref: Christian White British=0)				
Christian Other	-0.83 (-5.09; 3.43)	-3.72 (-9.73; 2.29)	1.37 (-1.52; 4.26)	-4.56 (-7.25; -1.87)
Muslim	-1.81 (-4.22; 0.60)	-4.30 (-10.13; 1.52)	-2.12 (-4.74; 0.50)	-5.33 (-8.25; -2.42)
Hindu	-0.21 (-3.05; 2.64)	-11.67 (-18.29; -5.06)	-0.57 (-4.98; 3.85)	-0.97 (-5.21; 3.27)
Sikh	-8.62 (-13.66; -3.58)	-1.40 (-8.57; 5.76)	-2.49 (-4.61; -0.38)	-1.55 (-3.95; 0.84)
Other religion	-1.26 (-4.48; 1.95)	-8.77 (-15.06; -2.48)	-0.89 (-4.98; 3.21)	1.92 (-2.25; 6.10)
No religion	-0.47 (-1.35; 0.41)	2.32 (-2.01; 6.64)	-0.33 (-1.21; 0.55)	-1.31 (-2.51; -0.12)
Wave (ref: wave=2)				
Wave 4	0.36 (-0.09; 0.81)	0.29 (-1.61; 2.19)	-0.29 (-0.81; 0.23)	-0.58 (-1.25; 0.09)
Wave 6	2.35 (1.83; 2.88)	2.36 (-0.13; 4.86)	0.81 (0.24; 1.38)	0.32 (-0.49; 1.13)
Wave 8	2.60 (2.05; 3.15)	3.72 (0.74; 6.70)	1.20 (0.57; 1.84)	0.95 (0.10; 1.81)
Wave 10	3.22 (2.63; 3.82)	6.03 (2.29; 9.76)	1.71 (1.06; 2.36)	1.18 (0.19; 2.16)
Age	1.09 (0.81; 1.37)	1.22 (0.09; 2.35)	1.20 (0.91; 1.49)	1.07 (0.68; 1.45)
Age2	-0.01 (-0.02; -0.01)	-0.01 (-0.03; 0.00)	-0.01 (-0.02; -0.01)	-0.01 (-0.02; -0.01)
Graduate status (ref: non-graduate=0)				
Graduate	5.29 (3.89; 6.69)	10.89 (4.38; 17.41)	4.90 (3.63; 6.18)	4.45 (2.43; 6.48)
$\hat{\sigma}^2_{u0}$	139.90 (134.55; 145.25)	186.06 (166.73; 205.38)	144.19 (138.32; 150.07)	158.64 (151.00; 166.27)
$\hat{\sigma}^2_e$	44.90 (42.81; 46.98)	24.16 (19.83; 28.49)	44.05 (42.19; 45.90)	38.43 (36.13; 40.72)
Constant	35.01 (29.41; 40.61)	18.80 (-2.11; 39.72)	34.28 (28.57; 40.00)	32.77 (25.22; 40.33)
Observations (unweighted)	26,456	2,166	23,401	11,755

Notes: Data adjusted for complex survey design & multilevel data structure. \* signifies insufficient sample size to form stand-alone group; 95 per cent confidence interval (CI) in brackets; coefficients for level-1 explanatory variables highlighted where CI excludes zero.



**Table D10.** Model of job quality by part-time/full-time status, gender and ethno-religious affiliation (Table 6.14)

	Men full-time	Men part-time	Women full-time	Women part-time
Ethno-religious Group (ref: Christian White British=0)				
Christian White Irish	*	*	4.68 (-8.23; 17.59)	-2.38 (-8.87; 4.11)
Christian White Other	-3.68 (-9.91; 2.54)	-0.69 (-13.47; 12.09)	2.82 (-5.45; 11.08)	-7.45 (-12.37; -2.53)
Christian Black Caribbean	0.91 (-2.53; 4.35)	-10.55 (-18.42; -2.68)	-1.04 (-4.32; 2.24)	-3.00 (-5.66; -0.35)
Christian Black African	2.28 (-2.67; 7.24)	-4.78 (-12.39; 2.82)	-0.40 (-3.12; 2.31)	-6.59 (-10.42; -2.75)
Christian Indian	*	*	5.84 (0.31; 11.37)	-1.13 (-11.22; 8.97)
Christian Asian Other	*	*	-1.29 (-6.02; 3.43)	-0.32 (-13.24; 12.60)
Christian Other	-1.55 (-6.39; 3.29)	-2.86 (-12.59; 6.88)	-0.66 (-6.23; 4.91)	-4.91 (-9.97; 0.14)
Muslim Bangladeshi	-0.63 (-5.42; 4.15)	-8.79 (-14.83; -2.75)	1.98 (-1.51; 5.46)	0.11 (-6.36; 6.58)
Muslim Pakistani	-2.26 (-6.89; 2.37)	-6.06 (-12.30; 0.19)	-0.54 (-3.04; 1.96)	-5.46 (-8.68; -2.24)
Muslim Indian	-1.84 (-6.91; 3.23)	0.33 (-9.21; 9.87)	-5.61 (-8.84; -2.38)	-2.91 (-9.31; 3.48)
Muslim Other	-2.94 (-6.30; 0.41)	-1.33 (-8.12; 5.46)	-5.66 (-9.71; -1.61)	-8.92 (-11.47; -6.37)
Hindu	-1.17 (-3.90; 1.55)	-12.27 (-19.09; -5.46)	-0.75 (-4.21; 2.71)	-1.88 (-5.60; 1.84)
Sikh	-8.96 (-12.39; -5.54)	-2.04 (-9.56; 5.47)	-2.52 (-5.18; 0.15)	-2.52 (-5.40; 0.35)
Other Religion	-1.57 (-5.19; 2.06)	-8.77 (-15.21; -2.33)	-1.23 (-4.89; 2.42)	1.70 (-2.39; 5.79)
No Religion White British	-0.43 (-1.31; 0.46)	2.46 (-2.13; 7.05)	-0.28 (-1.21; 0.65)	-1.25 (-2.50; -0.00)
No Religion White Other	-0.80 (-4.49; 2.89)	-1.42 (-14.09; 11.25)	1.48 (-4.29; 7.25)	-4.82 (-9.06; -0.58)
No Religion Black Caribbean	-1.50 (-4.51; 1.51)	-9.26 (-17.25; -1.27)	1.38 (-2.97; 5.73)	-1.05 (-5.29; 3.18)
No Religion Black African	*	*	-5.29 (-13.26; 2.67)	4.40 (-0.45; 9.25)
No Religion Indian	-2.07 (-5.88; 1.74)	-10.51 (-21.91; 0.89)	-0.26 (-5.64; 5.13)	-4.59 (-8.13; -1.04)
No Religion Chinese	-8.99 (-20.45; 2.46)	-7.04 (-14.04; -0.05)	-8.32 (-11.30; -5.34)	-6.84 (-16.74; 3.07)
No Religion Other	-3.33 (-6.85; 0.18)	-2.49 (-9.63; 4.66)	-3.82 (-7.35; -0.29)	-1.31 (-4.89; 2.26)
Wave (ref: wave=2)				
Wave 4	0.36 (-0.10; 0.83)	0.28 (-1.63; 2.19)	-0.29 (-0.83; 0.24)	-0.58 (-1.27; 0.11)
Wave 6	2.35 (1.80; 2.91)	2.37 (-0.17; 4.90)	0.80 (0.21; 1.39)	0.31 (-0.52; 1.15)
Wave 8	2.60 (2.01; 3.18)	3.75 (0.63; 6.87)	1.19 (0.54; 1.83)	0.95 (0.06; 1.83)
Wave 10	3.23 (2.61; 3.86)	6.08 (2.16; 10.01)	1.68 (1.00; 2.35)	1.16 (0.15; 2.18)
Age	1.09 (0.79; 1.38)	1.21 (0.02; 2.40)	1.20 (0.90; 1.50)	1.07 (0.68; 1.47)
Age2	-0.01 (-0.02; -0.01)	-0.01 (-0.03; 0.00)	-0.01 (-0.02; -0.01)	-0.01 (-0.02; -0.01)
Graduate status (ref: non-graduate=0)				
Graduate	5.40 (3.86; 6.94)	10.87 (3.99; 17.75)	4.95 (3.59; 6.31)	4.54 (2.89; 6.18)
$\sigma^2_{u0}$	140.05 (134.35; 145.76)	181.24 (162.65; 199.83)	144.71 (138.38; 151.05)	158.09 (150.37; 165.81)
$\sigma^2_e$	44.86 (42.89; 46.83)	24.14 (19.66; 28.62)	43.99 (42.10; 45.87)	38.41 (36.07; 40.76)
Constant	35.11 (29.23; 41.00)	19.68 (-2.28; 41.64)	34.21 (28.37; 40.05)	32.62 (24.84; 40.40)
Observations (unweighted)	26,456	2,166	23,401	11,755

Notes: Data adjusted for complex survey design & multilevel data structure. \* signifies insufficient sample size to form stand-alone group; 95 per cent confidence interval (CI) in brackets; coefficients for level-1 explanatory variables highlighted where CI excludes zero.

**Table D11.** Model of job quality by sector, gender and religious affiliation (Table 6.15)

	Men private sector	Men public sector	Women private sector	Women public sector
Religious Group (ref: Christian White British=0)				
Christian Other	-1.08 (-4.58; 2.43)	1.53 (-1.37; 4.43)	-0.20 (-3.24; 2.84)	0.72 (-2.46; 3.90)
Muslim	-3.54 (-6.35; -0.73)	-0.60 (-4.32; 3.13)	-1.79 (-4.23; 0.65)	-3.76 (-6.42; -1.10)
Hindu	-1.08 (-4.28; 2.12)	3.05 (-1.62; 7.71)	-0.36 (-4.98; 4.27)	0.38 (-4.57; 5.33)
Sikh	-9.12 (-14.03; -4.20)	6.52 (1.41; 11.63)	-0.61 (-2.79; 1.57)	-2.25 (-5.34; 0.83)
Other religion	-0.63 (-3.80; 2.54)	-2.68 (-11.33; 5.97)	-0.00 (-3.45; 3.44)	-0.80 (-6.80; 5.21)
No religion	-0.54 (-1.54; 0.46)	-0.47 (-1.89; 0.95)	0.21 (-0.82; 1.23)	-0.63 (-1.62; 0.35)
Wave (ref: wave=2)				
Wave 4	0.41 (-0.10; 0.92)	0.19 (-0.59; 0.97)	0.02 (-0.58; 0.61)	-0.22 (-0.76; 0.32)
Wave 6	3.22 (2.63; 3.81)	-0.19 (-1.14; 0.75)	2.36 (1.68; 3.04)	0.12 (-0.48; 0.72)
Wave 8	3.53 (2.89; 4.16)	0.19 (-0.73; 1.12)	3.31 (2.58; 4.04)	0.29 (-0.33; 0.90)
Wave 10	4.07 (3.38; 4.75)	1.54 (0.53; 2.56)	3.98 (3.20; 4.76)	1.03 (0.33; 1.72)
Age	1.08 (0.80; 1.36)	0.85 (0.36; 1.35)	1.07 (0.76; 1.37)	1.08 (0.76; 1.41)
Age2	-0.01 (-0.02; -0.01)	-0.01 (-0.02; -0.00)	-0.01 (-0.02; -0.01)	-0.01 (-0.02; -0.01)
Graduate status (ref: non-graduate=0)				
Graduate	4.72 (3.10; 6.34)	2.18 (0.44; 3.92)	4.44 (3.07; 5.80)	3.20 (1.67; 4.73)
$\hat{\sigma}_{u0}^2$	133.85 (128.27; 139.44)	131.28 (122.10; 140.46)	128.57 (122.90; 134.23)	130.14 (123.48; 136.80)
$\hat{\sigma}_e^2$	42.32 (40.18; 44.46)	34.01 (31.44; 36.59)	43.15 (41.19; 45.11)	41.29 (39.33; 43.25)
Constant	32.35 (26.73; 37.97)	49.14 (39.00; 59.27)	30.63 (24.80; 36.46)	42.83 (36.06; 49.59)
Observations (unweighted)	21,236	7,386	18,249	16,907

Notes: Data adjusted for complex survey design & multilevel data structure. \* signifies insufficient sample size to form stand-alone group; 95 per cent confidence interval (CI) in brackets; coefficients for level-1 explanatory variables highlighted where CI excludes zero.

**Table D12.** Model of job quality by sector, gender and ethno-religious affiliation (Table 6.16)

	Men private sector	Men public sector	Women private sector	Women public sector
Ethno-religious Group (ref: Christian White British=0)				
Christian White Irish	*	*	11.21 (-6.44; 28.86)	-6.69 (-15.01; 1.63)
Christian White Other	-1.87 (-6.40; 2.67)	1.15 (-2.74; 5.04)	-2.14 (-5.35; 1.06)	4.06 (-7.42; 15.54)
Christian Black Caribbean	0.62 (-3.67; 4.91)	-0.33 (-7.02; 6.36)	-1.09 (-5.94; 3.77)	-0.60 (-3.44; 2.23)
Christian Black African	-0.49 (-11.53; 10.55)	-0.70 (-5.06; 3.67)	-1.65 (-5.02; 1.71)	-2.45 (-5.06; 0.16)
Christian Indian	*	*	-3.96 (-15.30; 7.37)	3.91 (-0.77; 8.59)
Christian Asian Other	*	*	2.21 (-3.36; 7.79)	0.32 (-4.74; 5.39)
Christian Other	-2.05 (-7.69; 3.58)	-2.93 (-8.06; 2.20)	-8.98 (-13.85; -4.10)	4.74 (0.22; 9.26)
Muslim Bangladeshi	-8.66 (-12.28; -5.04)	1.44 (-7.47; 10.34)	-0.42 (-4.88; 4.03)	0.25 (-3.92; 4.42)
Muslim Pakistani	-1.76 (-6.61; 3.08)	-5.80 (-9.28; -2.32)	-0.97 (-3.59; 1.65)	-5.78 (-9.07; -2.50)
Muslim Indian	-4.03 (-10.75; 2.69)	-0.99 (-4.76; 2.78)	-0.46 (-3.86; 2.93)	-9.51 (-16.17; -2.85)
Muslim Other	-3.00 (-7.22; 1.22)	-0.04 (-5.61; 5.52)	-3.46 (-8.31; 1.39)	-3.63 (-8.03; 0.77)
Hindu	-0.66 (-3.46; 2.14)	-1.95 (-7.87; 3.98)	0.76 (-2.74; 4.26)	-1.27 (-5.07; 2.53)
Sikh	-8.97 (-11.82; -6.11)	6.09 (0.95; 11.23)	0.87 (-1.95; 3.70)	-2.31 (-5.40; 0.79)
Other Religion	-0.63 (-4.17; 2.91)	-3.24 (-12.27; 5.79)	-0.60 (-4.30; 3.10)	-0.43 (-4.94; 4.08)
No Religion White British	-0.37 (-1.35; 0.61)	-0.37 (-1.89; 1.14)	0.26 (-0.81; 1.32)	-0.62 (-1.65; 0.41)
No Religion White Other	0.42 (-2.32; 3.17)	-3.30 (-6.85; 0.25)	-1.48 (-5.09; 2.13)	1.71 (-6.70; 10.13)
No Religion Black Caribbean	-2.08 (-5.68; 1.51)	-8.30 (-14.49; -2.12)	0.56 (-5.99; 7.12)	0.96 (-2.42; 4.34)
No Religion Black African	*	*	-10.40 (-18.86; -1.94)	0.02 (-2.91; 2.95)
No Religion Indian	0.16 (-4.22; 4.55)	-7.23 (-13.18; -1.29)	3.88 (-1.19; 8.94)	-6.73 (-15.36; 1.91)
No Religion Chinese	-10.89 (-23.72; 1.94)	0.84 (-4.32; 6.01)	-7.08 (-11.03; -3.14)	-7.92 (-13.08; -2.77)
No Religion Other	-3.66 (-8.10; 0.78)	-4.20 (-10.52; 2.12)	-2.19 (-6.81; 2.43)	-1.39 (-4.31; 1.52)
Wave (ref: wave=2)				
Wave 4	0.27 (-0.26; 0.80)	0.20 (-0.60; 1.00)	0.02 (-0.58; 0.63)	-0.22 (-0.77; 0.34)
Wave 6	3.04 (2.43; 3.65)	-0.17 (-1.14; 0.79)	2.37 (1.67; 3.06)	0.12 (-0.50; 0.74)
Wave 8	3.27 (2.61; 3.94)	0.22 (-0.72; 1.17)	3.31 (2.56; 4.06)	0.28 (-0.36; 0.91)
Wave 10	3.70 (3.00; 4.40)	1.57 (0.53; 2.61)	3.98 (3.18; 4.79)	1.00 (0.29; 1.72)
Age	0.06 (0.03; 0.09)	0.85 (0.34; 1.36)	1.07 (0.76; 1.39)	1.09 (0.76; 1.42)
Age <sup>2</sup>	*	-0.01 (-0.02; -0.00)	-0.01 (-0.02; -0.01)	-0.01 (-0.02; -0.01)
Graduate status (ref: non-graduate=0)				
Graduate	5.59 (3.77; 7.40)	2.27 (0.46; 4.08)	4.52 (3.09; 5.95)	3.18 (1.70; 4.65)
$\sigma^2_{u0}$	138.23 (132.17; 144.30)	131.32 (121.93; 140.71)	129.69 (123.53; 135.84)	131.00 (123.62; 138.39)
$\sigma^2_e$	42.58 (40.58; 44.59)	33.96 (31.33; 36.58)	43.04 (41.05; 45.02)	41.21 (39.22; 43.19)
Constant	51.44 (49.67; 53.21)	49.66 (39.15; 60.18)	30.57 (24.59; 36.55)	42.73 (35.78; 49.69)
Observations (unweighted)	21,236	7,386	18,249	16,907

Notes: Data adjusted for complex survey design & multilevel data structure. \* signifies insufficient sample size to form stand-alone group; 95 per cent confidence interval (CI) in brackets; coefficients for level-1 explanatory variables highlighted where CI excludes zero.

**Table D13.** Full model incl. 3-way interaction of job quality by religious affiliation (Table 6.17)

	Men	Women
Religious Group (ref: Christian White British=0)		
Christian Other	-3.10 (-8.37; 2.17)	-1.20 (-4.12; 1.72)
Muslim	-3.79 (-7.35; -0.23)	-3.51 (-6.28; -0.74)
Hindu	-3.41 (-8.54; 1.73)	1.10 (-3.93; 6.12)
Sikh	-6.43 (-11.57; -1.29)	-1.59 (-5.70; 2.51)
Other religion	-5.97 (-15.40; 3.47)	-4.58 (-8.27; -0.90)
No religion	-0.99 (-2.35; 0.38)	-0.97 (-2.10; 0.16)
Professional? (ref: No=0)		
Yes	2.68 (1.14; 4.23)	3.79 (2.40; 5.17)
Interaction: Religion x Professional		
Christian Other x Professional	4.89 (0.40; 9.38)	3.81 (-0.47; 8.10)
Muslim x Professional	1.52 (-3.78; 6.83)	1.26 (-4.32; 6.85)
Hindu x Professional	2.75 (-2.89; 8.40)	-2.57 (-9.48; 4.34)
Sikh x Professional	-4.60 (-13.02; 3.83)	1.63 (-6.89; 10.14)
Other religion x Professional	5.46 (-4.24; 15.17)	6.63 (0.74; 12.52)
No religion x Professional	0.76 (-0.83; 2.35)	0.76 (-0.89; 2.41)
Sector (ref: Private=0)		
Public	5.64 (3.17; 8.11)	6.43 (5.12; 7.73)
Interaction: Religion x Sector		
Christian Other x Sector	-1.51 (-6.72; 3.70)	-0.95 (-4.37; 2.48)
Muslim x Sector	5.27 (-0.34; 10.88)	0.96 (-2.25; 4.18)
Hindu x Sector	6.99 (-0.34; 14.32)	0.81 (-4.99; 6.61)
Sikh x Sector	11.22 (3.03; 19.41)	0.34 (-10.65; 11.33)
Other religion x Sector	10.00 (-9.49; 29.48)	2.31 (-4.13; 8.75)
No religion x Sector	1.23 (-1.30; 3.77)	-0.06 (-1.61; 1.48)
Interaction: Professional x Sector		
Professional x Public	-1.08 (-3.74; 1.58)	-0.56 (-2.27; 1.15)
Interaction: Religion x Professional x Sector		
Christian Other x Professional x Public	-0.58 (-6.28; 5.12)	-0.75 (-5.47; 3.97)
Muslim x Professional x Public	-4.70 (-11.08; 1.68)	-1.97 (-8.50; 4.56)
Hindu x Professional x Public	-3.40 (-12.21; 5.42)	-1.38 (-8.35; 5.59)
Sikh x Professional x Public	-0.72 (-11.54; 10.10)	-8.21 (-19.74; 3.32)
Other religion x Professional x Public	-14.16 (-34.88; 6.55)	-0.72 (-9.29; 7.84)
No religion x Professional x Public	-0.40 (-3.26; 2.46)	0.65 (-1.45; 2.75)
Wave (ref: wave=2)		
Wave 4	0.30 (-0.14; 0.73)	-0.22 (-0.62; 0.19)
Wave 6	2.32 (1.81; 2.84)	1.05 (0.60; 1.50)
Wave 8	2.65 (2.11; 3.19)	1.50 (1.02; 1.97)
Wave 10	3.34 (2.77; 3.91)	2.23 (1.72; 2.75)
Age	1.02 (0.76; 1.27)	1.06 (0.85; 1.27)
Age2	-0.01 (-0.01; -0.01)	-0.01 (-0.01; -0.01)
Graduate status (ref: non-graduate=0)		
Graduate	3.73 (2.37; 5.09)	2.73 (1.71; 3.75)
Full or part-time? (ref: Full- time=0)		
Part-time	-2.23 (-3.45; -1.00)	-1.54 (-2.09; -1.00)
$\hat{\sigma}_{u0}^2$	118.94 (113.71; 124.16)	108.54 (104.22; 112.86)
$\hat{\sigma}_e^2$	45.16 (43.23; 47.08)	48.34 (46.84; 49.84)
Constant	34.14 (29.01; 39.28)	33.27 (29.10; 37.43)
Observations (unweighted)	28,622	35,156

Notes: Data adjusted for complex survey design & multilevel data structure. \* signifies insufficient sample size to form stand-alone group; 95 per cent confidence interval (CI) in brackets; coefficients for level-1 explanatory variables highlighted where CI excludes zero.

**Table D14.** Full model of job quality by ethno-religious affiliation (Table 6.18)

	Men	Women
Ethno-religious Group (ref: Christian White British=0)		
Christian White Irish	*	0.83 (-10.69; 12.34)
Christian White Other	-2.74 (-8.34; 2.86)	-0.06 (-5.77; 5.66)
Christian Black Caribbean	-0.93 (-4.43; 2.57)	-0.65 (-3.10; 1.80)
Christian Black African	0.02 (-7.66; 7.70)	-0.97 (-3.31; 1.36)
Christian Indian	*	3.23 (-1.66; 8.12)
Christian Asian Other	*	0.45 (-3.53; 4.44)
Christian Other	-2.19 (-6.74; 2.36)	-1.08 (-5.68; 3.53)
Muslim Bangladeshi	-4.89 (-9.09; -0.69)	0.81 (-2.40; 4.03)
Muslim Pakistani	-3.16 (-7.17; 0.85)	-2.67 (-4.85; -0.49)
Muslim Indian	-2.93 (-7.83; 1.97)	-3.65 (-7.96; 0.66)
Muslim Other	-1.90 (-5.56; 1.77)	-5.47 (-8.22; -2.72)
Hindu	-1.50 (-4.03; 1.04)	0.00 (-2.45; 2.45)
Sikh	-7.19 (-10.26; -4.13)	-1.40 (-3.18; 0.37)
Other Religion	-1.66 (-5.03; 1.70)	-0.44 (-3.19; 2.32)
No Religion White British	-0.33 (-1.18; 0.52)	-0.38 (-1.11; 0.35)
No Religion White Other	-0.27 (-3.57; 3.04)	-0.47 (-4.41; 3.47)
No Religion Black Caribbean	-3.13 (-6.19; -0.08)	0.82 (-2.54; 4.19)
No Religion Black African	*	-4.22 (-10.56; 2.11)
No Religion Indian	-1.39 (-5.12; 2.34)	0.05 (-3.47; 3.57)
No Religion Chinese	-7.99 (-17.87; 1.88)	-6.91 (-9.91; -3.91)
No Religion Other	-3.41 (-7.11; 0.28)	-2.68 (-5.70; 0.34)
Wave (ref: wave=2)		
Wave 4	0.33 (-0.13; 0.79)	-0.22 (-0.64; 0.20)
Wave 6	2.35 (1.81; 2.90)	1.03 (0.57; 1.50)
Wave 8	2.68 (2.11; 3.26)	1.47 (0.98; 1.97)
Wave 10	3.39 (2.79; 4.00)	2.21 (1.66; 2.75)
Age	1.03 (0.76; 1.29)	1.07 (0.85; 1.29)
Age2	-0.01 (-0.01; -0.01)	-0.01 (-0.01; -0.01)
Graduate status (ref: non-graduate=0)		
Graduate	3.80 (2.28; 5.31)	2.77 (1.75; 3.79)
Full or part-time? (ref: Full- time=0)		
Part-time	-2.22 (-3.53; -0.91)	-1.54 (-2.11; -0.97)
Professional? (ref: No=0)		
Yes	3.03 (2.14; 3.91)	4.32 (3.53; 5.11)
Sector (ref: Private=0)		
Public	5.77 (4.79; 6.75)	6.25 (5.55; 6.94)
$\hat{\sigma}_{u0}^2$	119.27 (113.73; 124.82)	108.69 (104.18; 113.19)
$\hat{\sigma}_e^2$	45.28 (43.42; 47.13)	48.41 (46.86; 49.97)
Constant	33.70 (28.38; 39.01)	32.58 (28.30; 36.85)
Observations (unweighted)	28,622	35,156

Notes: Data adjusted for complex survey design & multilevel data structure. \* signifies insufficient sample size to form stand-alone group; 95 per cent confidence interval (CI) in brackets; coefficients for level-1 explanatory variables highlighted where CI excludes zero.

**Table D15.** Men - Number of observations by religious affiliation, occupational class, and sector.

	Private Sector		Public Sector	
	Non-professional	Professional	Non-professional	Professional
<b>Christian White British</b>	2,022	2,500	727	1,337
<b>Christian non-White British</b>	533	400	124	266
<b>Muslim</b>	780	373	145	240
<b>Hindu</b>	198	204	33	50
<b>Sikh</b>	149	97	14	32
<b>Other religion</b>	91	141	29	59
<b>No religion</b>	7,407	6,341	1,751	2,579

**Table D16.** Women - Number of observations by religious affiliation, occupational class, and sector.

	Private Sector		Public Sector	
	Non-professional	Professional	Non-professional	Professional
<b>Christian White British</b>	2,974	2,270	2,329	3,679
<b>Christian non-White British</b>	696	412	438	768
<b>Muslim</b>	412	158	270	250
<b>Hindu</b>	195	115	60	112
<b>Sikh</b>	122	66	68	63
<b>Other religion</b>	149	88	117	152
<b>No religion</b>	6,845	3,747	3,688	4,913

## Appendix 5



# Does the Muslim penalty in the British labour market dissipate after accounting for so-called “sociocultural attitudes”?

Samir Sweida-Metwally

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# Does the Muslim penalty in the British labour market dissipate after accounting for so-called “sociocultural attitudes”?

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## ABSTRACT

Using multilevel modelling, this paper investigates ethno-religious penalties in unemployment and inactivity among men and women using the Understanding Society survey. The paper confirms previous findings of a Muslim penalty and a British labour market hierarchized by colour (ethnicity) and religion (culture). However, by including a greater range of ethnic groups the paper provides a corrective to accounts in the sociological literature that being White is not a protection against the Muslim penalty. Rather, while affiliation with the Muslim White British group does not appear to be associated with penalization, Muslim Arabs who traditionally identify as White are found to experience significant disadvantage. This suggests that the Muslim penalty might also be moderated by a person's country of origin. The paper also finds that considerable penalties remain for Muslims even after adjusting for so-called “sociocultural attitudes”, challenging the assumption that value orientations offer a suitable explanation for the Muslim penalty.


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**KEYWORDS** Arab; Britain; ethnic penalty; inactivity; Muslim penalty; unemployment

## Introduction

Ethnic differences in labour market outcomes have long attracted scholarly and policy interest in Britain. They have been studied from various perspectives, including pay gaps (Longhi and Brynin 2017; Li and Heath 2020), occupational attainment (Cheung 2014), and the probability and duration of unemployment (Longhi 2020). The fact that these variations remain even after accounting for factors that are likely to impact employment (e.g. education, age, region, language proficiency, health) resulted in these

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differentials being described as an “ethnic penalty” (Heath and McMahon 1997, 91). As data became increasingly available, researchers also investigated religious differentials (Modood et al. 1997). In Britain, evidence suggests that Muslims experience the greatest faith penalty relative to any other religious group even after adjusting for the aforementioned factors (Khattab 2009; Berthoud and Blekesaune 2007; Khattab and Modood 2015). This phenomenon is known as the “Muslim Penalty” (Connor and Koenig 2015, 198).

In terms of ethnic penalties, Pakistanis, Bangladeshis, Black Africans and Caribbeans are frequently found to be the most disadvantaged relative to the White majority (Li and Heath 2020; Modood et al. 1997; Karlsen, Nazroo, and Smith 2020). However, evidence suggests considerable gender variation within these groups. Among Black Africans and Caribbeans, women fare much better than men (Berthoud and Blekesaune 2007). Among Pakistanis and Bangladeshis, they fare worse (Cheung 2014). Indians, although also considered a “South Asian” group in many analyses, are typically less penalized than other minority ethnic groups (Heath and Cheung 2006). However, findings show considerable intra-group heterogeneity among Indians based on religion, with Muslims and Sikhs more disadvantaged than Hindus (Karlsen, Nazroo, and Smith 2020). Research suggests that labour market penalties in Britain are therefore determined by both ethnicity and religion. As such, the current understanding is that all Muslims face a penalty “regardless of ethnicity, but also all black groups face a racial “black penalty” regardless of religion” (Khattab and Modood 2015, 502).

While some (Karlsen, Nazroo, and Smith 2020; Zwysen, Di Stasio, and Heath 2020; Heath and Di Stasio 2019; Di Stasio et al. 2021; Heath and Cheung 2006) argue that discrimination is likely to be an important driver of these penalties, others (Koopmans 2016; Mirza, Senthilkumaran, and Ja’far 2007) suggest that factors related to cultural values are the cause, particularly among women. In the context of Muslims, these “internal cultural factors” (Joppke 2009, 456), namely “tastes for isolation” (Blackaby et al. 1999, 3) and, particularly for women, a supposed commitment to traditional gender norms (Koopmans 2016), are assumed to stem from their religion. The alleged desire for “self-segregation” (Joppke 2009, 460) implies individuals are more committed to establishing relationships with co-religionists and co-ethnics than forging relationships with members of other groups, including the ethnic/religious majority. This results in ethnic minorities developing the less professionally advantageous bonding capital (Clark and Drinkwater 2002) at the expense of the more favourable bridging capital (Lancee 2012; Heath, Li, and Woerner-Powell 2018). The latter is developed through ties with members of the majority group (Putnam 2000) who, on average, have higher occupational attainment than ethnic minorities (Heath and Cheung 2006) and therefore can provide them with information on better job

opportunities. The insinuation, therefore, is that if Muslims did not hold “isolationists tastes” there would be little variance in their employment outcomes relative to majority group members (Koopmans 2016).

In terms of holding traditional gender norms, the more conservative a person, the more sympathetic they are assumed to be to the “male breadwinner model” (Lewis 2001). The corollary is that women prioritize childrearing and household work, dedicating less time to finding employment. This is posited as another explanation for Muslim women’s poor labour market outcomes (Koopmans 2016; see also Khoudja and Fleischmann 2015). It is worth noting, however, that the mechanism could also operate in reverse with women who are unable to find successful employment potentially validating their labour market status retrospectively by holding more traditional views on the division of labour. Khoudja and Platt (2018) capture gender attitudes through participant views on female employment, namely whether they believe it is a husband’s role to earn money, and whether they feel a mother working is detrimental to her child’s wellbeing. The authors find that “gender attitudes are not related to labour market entries of Indian and Sri Lankan and Pakistani and Bangladeshi women” (Khoudja and Platt 2018, 13). Nevertheless, the authors do find that traditional gender views are associated with labour market exits, but this is found to be the case across all ethnic groups, and not only with Muslims.

In light of how Muslims are often problematized and critically discussed in the public discourse as “segregationists” because of their faith (Field 2007; Joppke 2009), it is notable that many ethnic penalty studies do not account for religiosity. Among the exceptions are Heath, Li, and Woerner-Powell (2018) who capture religiosity through how much difference religion makes to a person’s life (see also Connor and Koenig 2015), and frequency of attendance at religious services as a proxy for bonding capital, with those who have high religiosity being more likely to spend time actively engaging with their faith community and therefore developing intra-community ties. However, since there is no religious obligation on Muslim women to attend the mosque, focusing solely on how important religion is to a woman’s life is a more accurate measure of religiosity.

Given the claim that these key sociocultural variables “are not often taken into account in ethnic penalty studies” (Koopmans 2016, 198), but that when they are included “there are hardly any statistically significant differences left” (Koopmans 2016, 213), there is a need for novel and updated quantitative research on the Muslim penalty in Britain which also adopts a more heterogeneous reading of Muslims. This is particularly needed since, in the UK, research has tended to focus on Muslims with a Pakistani, Bangladeshi and Indian background, yet the population today includes a reasonable number of Muslims with White, Black African and Arab ethnicities (MCB 2015).

Based on the established evidence of a religious (Muslim) and colour (Black) penalty at play in the British labour market (Khattab and Modood 2015), one might assume that any penalty Muslim Arabs face on account of their religion is mitigated by the fact they identify as White (Modood 2005). As such, their penalty should be close to that of White British Muslims. However, recent findings that Muslim male job applicants originating from the Middle East and Africa “experience a double burden: independent of the stigma they face for signalling their closeness to a Muslim association, they are also *penalised for the geographic region they originate from*” (Di Stasio et al. 2021, 13; emphasis added) suggest that our initial assumption might need to be revisited. Indeed, if we also account for the evidence that “respondents from North Africa and Sub-Saharan Africa report the highest levels of discrimination” in Europe (Fundamental Rights Agency 2017, 24), we can see that a study accounting for the plurality of ethnicities that constitute the Muslim community (i.e. distinguishing between labour markets participants who are Muslim Arabs, Muslim Black Africans and White British Muslims) that also accounts for so-called “sociocultural attitudes” is essential to better understand the potential drivers of the Muslim penalty.

Drawing on multilevel modelling, the purpose of this study is therefore to measure inequalities between hitherto included but not disaggregated Muslim ethnic groups, and, in doing so, to contribute to and incentivise research that develops explanations for the differences the data show. To do so, this paper contributes to the literature in two ways. First, it examines differentials in terms of unemployment and inactivity while also accounting for oft-excluded so-called “sociocultural variables” that have been posited as an explanation for Muslims’ poor labour market outcomes. Second, by adopting a more heterogenous reading of Muslims and disarticulating between hitherto included but not disaggregated groups (namely Arabs and British Whites), the paper investigates whether there is evidence of a country-of-origin penalty among Muslim men from the Middle East and North Africa.

The specific research questions considered are:

1. Does the Muslim penalty, among men and women, dissipate once so-called “sociocultural attitudes” are accounted for? Specifically, are religiosity, traditionalist views, and lower civic participation associated with a higher risk of unemployment and inactivity?
2. Do both Muslim groups that identify as White – Arabs and White British people – exhibit a similar risk of being unemployed and inactive relative to White British Christians? Specifically, is there evidence of a country-of-origin effect moderating the Muslim penalty among men?

## Data and method

### Data

This paper uses information from the first ten waves of the adult panel of *Understanding Society*: the UK Household Longitudinal Study (UKHLS) (University Of Essex 2021). This annual survey started in 2009 and collects information over a 24-month period, primarily through face-to-face interviews, on people's socio-economic situation and events that have occurred between each wave. It offers the most detailed and highest-quality source currently available on the labour market position of British Muslims in their social, religious and cultural contexts. The survey design involves clustering and stratification, meaning it is not a simple random sample, and allows researchers to draw nationally representative statistics after adjusting for the complex survey design. It counts approximately 100,000 individuals from 40,000 households (38,000 households in wave one (2009/11) which includes 4,000 household from an ethnic minority boost sample), making it one of the largest studies of its kind. It also benefits from an Immigrant and Ethnic Minority Boost Sample added in wave six (2014/16), which provides an additional 2,500 households.

### Measures

**Dependent variable.** By pooling data from the first ten waves, I analyse two types of labour market status. Both analyses are restricted to those of working age (16–64).

First, I focus on estimating the average probability of unemployment within the active population between 2009 and 2020, distinguishing between those who are unemployed (1) and those who are employed (0). Respondents are considered to be employed if they report being in either employment (full- or part-time) or self-employment. Those on maternity leave, government training schemes, and apprenticeships are also considered employed. Individuals are categorized as unemployed if they self-report as such. All other groups are excluded from the analysis. Second, I assess the likelihood of inactivity. Those in full-time education, retired, working in a family business in an unpaid capacity, focused on “family care or home”, “doing something else”, or who identify as long-term sick or disabled are classified as inactive (1). Those who are employed and unemployed (as defined above) are coded as (0).

**Explanatory variable.** *Ethno-religious groups:* Data on ethnicity and religious affiliation are combined in order to capture the interaction between the two and create a set of ethno-religious categories (Khattab 2009; Khattab and Modood 2015). To identify ethnic membership responses to the question

"What is your ethnic group?", which is asked once of participants when they first enter the study, is used. For religious affiliation, I use information from the question that asks, "Which religion do you regard yourself as belonging to?". When information is missing at a particular wave, I fill the gap using information from the closest prior wave. Otherwise, I use information from the closest next wave. I also use information from a question that asks "Do you regard yourself as belonging to any particular religion?" to create No Religion groups based on those who answered "no" to the question.

Based on the ethnicity and religious affiliation questions which have 18 and eight modalities each (once "Other religion" is included, Christian denominations are combined, and a No Religion group is created), there are 144 different possible combinations of ethno-religious groups that can theoretically be created. Only those groups which had at least 100 observations were assigned their own group in the regression analysis. The groups with too few observations or with missing ethno-religious identity information were combined into one "Other" group which also includes all those who specified their ethnicity to be Other/Other Mixed. While this group is not of substantive interest, their inclusion in the model guards against producing biased estimates. Table 1 lists the categories of ethno-religious groups derived.

The models are adjusted for the survey's complex design which involves clustering based on postcode sectors, and stratification within primary

**Table 1.** Classification of ethno-religious categories.

Buddhist Asian Other (BAO)	Christian White British (CWB)	Muslim Pakistani (MP)	No Religion White British (NRWB)
Buddhist White British (BWB)	Christian White Irish (CWI)	Muslim White British (MWB)	No Religion White Irish (NRWI)
Christian Asian & White Mix (CAW)	Christian White Other (CWO)	No Religion Arab (NRA)	No Religion White Other (NRWO)
Christian Asian Other (CAO)	Hindu Asian Other (HAO)	No Religion Asian & White Mix (NRAW)	Other (OTHER)
Christian B&W African (CBWA)	Hindu Indian (HI)	No Religion Asian Other (NRAO)	Other Religion Black Caribbean (ORBC)
Christian B&W Caribbean (CBWC)	Jewish White British (JWB)	No Religion B&W African (NRBWA)	Other Religion White British (ORWB)
Christian Black African (CBA)	Muslim Arab (MA)	No Religion B&W Caribbean (NRBWC)	Other Religion White Other (ORWO)
Christian Black Caribbean (CBC)	Muslim Asian Other (MAO)	No Religion Black African (NRBA)	Sikh Indian (SI)
Christian Chinese (CC)	Muslim Bangladeshi (MB)	No Religion Black Caribbean (NRBC)	
Christian Indian (CI)	Muslim Black African (MBA)	No Religion Chinese (NRC)	
Christian Other Black (COB)	Muslim Indian (MI)	No Religion Indian (NRI)	

Note: "Asian Other" refers to other than Indian, Pakistani, Bangladeshi, Chinese, and Asian and White mix. "Other Black" refers to other than Black Caribbean, Black African, White and Black Caribbean, and White and Black African.

sampling units. Weights provided by UKHLS (Knies 2018) are also applied to adjust for over-sampling due to the survey design and non-response. This is to ensure coefficient estimates are unbiased and standard errors are efficient. To get a clearer understanding of the association between ethno-religious grouping and risk of unemployment/inactivity, the study adjusts for other influences known in the literature to affect these two. These are discussed below and a statistical description of each of these variables, including the number of observations, is available online (Tables A1, A2, A3, and A4).

***Demographic factors and human capital.*** *Age:* I control for age and include a squared age variable to capture any curvilinear effect.

*Marital status:* Grouped into three categories: (1) single, (2) married, in a same sex civil partnership, or cohabiting, and (3) divorced, separated (including from a civil partnership) and widowers/surviving civil partners.

*Region of residence:* Coded as (1) rest of England, (2) London, (3) Wales, and (4) Scotland.

*Health concern:* Coded as (1) those with a long-standing physical or mental impairment and (0) those without.

*Children:* Grouped into four categories: (0) responsible for no children under 16, (1) responsible for 1 child under 16, (2) responsible for 2 children under 16, and (3) responsible for 3 or more children under 16.

*UK born:* Coded as born in the UK (1) or not (0). All White British not born in the UK are dropped to get a more accurate picture of the impact of this variable.

*Education:* Grouped into five categories: (1) degree or higher, (2) post-secondary qualification (below-degree), (3) secondary education, (4) other qualification (below secondary), and (5) no qualifications.

*Difficulty with English language:* Coded as (1) if the participant affirmed having difficulty (i) speaking English in person or over the phone, (ii) reading English, (iii) filling in official forms in English. The relevant information is only collected in waves one, five, six, and ten. Information from wave one is used for the first four waves, wave five data for the fifth, wave six data are used for the subsequent four waves, and wave ten uses its own information. If information is still missing after this, I use information on whether the respondent completed the survey in English. If they didn't, participants are coded as (1). Otherwise, like those whose first language is English, they are recorded as (0).

***"Sociocultural attitudes": religiosity, civic participation, and traditionalism.*** *Religiosity:* Captured through two questions. First, "How much difference would you say religious beliefs make to your life?". Responses are grouped into three categories: (1) "A great difference", (2) "Some difference" or "A little difference" and (3) "No difference".<sup>1</sup> The second question asks, "How often, if at all, do you attend religious services or meetings?". Responses

are grouped into three categories: (1) once a week or more, (2) at least once a month, and (3) once a year, never, or only on special occasions. As both questions are only asked in waves one, four and eight, information from wave one is used for the first three waves, data from wave four for the subsequent four waves, and wave eight for the remaining waves. As discussed, since this second question is not a suitable proxy for Muslim female religiosity, it is not included in the women-only models.

*Civic participation:* Following a similar logic adopted by Heath, Li, and Woerner-Powell (2018) who use information on the number of social organizations a person is a member of or active in as a proxy for bridging capital, here the information is used to proxy for so-called “isolationist tendencies”. The rationale is that the lower the number of civic organizations a person is involved with, the more socially isolated they are, and vice versa. Participants are asked about their involvement with 16 different organizations: a political party, trade union, environmental group, parents’ or school association, tenants or residents group, religious or church organization, voluntary services group, pensioners organization, scouts or guides organization, professional organization, other community group, social or working men’s club, sports club, women’s institute or townswomen’s guild, women’s group or feminist organization, and any other group or organization. The data are only collected in waves three, six and nine. As such, wave three data are used for waves one to five, wave six data for waves six to eight, and wave nine data are used for the last two waves.

*Traditionalism:* Gender attitudes towards work are a proxy for traditionalism which in turn shapes labour market participation preferences. The more traditional a person, the more likely they subscribe to a gendered view of the division of paid and unpaid labour, with women understood as being responsible for the latter, and therefore more likely to wait to match with a job which fits around family, rendering them less like to be employed. The degree of traditionalism is captured through two questions where respondents are asked whether they (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, or (5) strongly agree with two statements. The first reads, “Husband should earn, wife should stay at home”. The second is, “Family life suffers if mother works full-time”. As both questions are only asked in waves two, four and ten, information from wave two is used for the first three waves and wave four data are used for all other waves bar wave ten which utilizes its own information.

Finally, wave is included in the model as a categorical variable to account for period effects.

## **Model**

Since the dependent variable is binary I elect to use a logistic regression.<sup>2</sup> Second, as the dataset is hierarchical in nature with observations (level 1)



clustered within an individual (level 2), and there are a large number of observations at the higher level (see below), a multilevel (random effect) model is adopted to ensure standard errors are not underestimated. Adopting a random effect model is suitable since people's ethno-religious grouping is relatively stable in the sample. Among the unemployed, out of a total of 11,469 men and 13,941 women, only 1,463 and 1,773, respectively, showed a change in ethno-religious grouping at one point between waves one and ten. Similarly, among the inactive, out of a total of 14,601 men and 21,272 women, only 1,869 and 2,647 respectively, showed a change in ethno-religious grouping at one point between waves one and ten. Importantly, for both groups, the majority were transitions between Christian White British and No Religion White British. This means that a within-subjects design is less useful for understanding the extent to which ethno-religious background is associated with employment outcomes, particularly among ethno-religious minorities for whom there are fewer observations. Adopting a random effect model, which models both within- and between-person effects concurrently, is therefore a suitable approach to adopt (Gayle and Lambert 2018).

I pool ten waves of data to analyse unemployment and inactivity for both men and women distinctly, starting with the former. Pooling waves allows me to disaggregate between groups that have traditionally been combined for sample size reasons, such as Muslim Arabs and Muslim White British, and ethnic minority groups who do not subscribe to a religion. For each analysis, I adopt a stepwise approach. In both instances, first, I run a model examining the differentials in the risk of unemployment and inactivity after common human capital and demographic factors are accounted for. The subsequent models assess how the ethno-religious differences change once so-called "sociocultural attitudes" are considered. Model 2 controls for bonding capital proxied through religiosity. Model 3 adjusts for attitudes towards traditional gender norms and so-called "isolationist tendencies" proxied through the degree of civic participation.

The results are presented as log-odds, which display the average risk of a particular ethno-religious group being unemployed or inactive relative to the Christian White British majority, along with information on the 95 per cent confidence intervals. Confidence intervals that include 0 are not statistically-significant at that level since it implies that the odds of being unemployed are possibly equal to that of the reference category, i.e. equal to 1. A summary of the full models is presented here, with the full regression outputs available online (Tables B1 and B2).

## Results

Table 2 (men) and Table 3 (women) examine ethno-religious differences in the risk of being unemployed (Models 1–3) and inactive (Models 4–6) by

**Table 2.** Men - Log-odds of being unemployed and inactive

	Unemployed			Inactive		
	Model 1 (Human Capital)	Model 2 (religiosity added)	Model 3 (‘socio-cultural’ variables added)	Model 4 (Human Capital)	Model 5 (religiosity added)	Model 6 (‘socio-cultural’ variables added)
Ethno-religious Group (ref: Christian White British=0)						
Christian White Irish	-0.31 (-3.99; 3.36)	-0.21 (-3.67; 3.26)	0.00 (-3.24; 3.25)	1.97 (0.40; 3.53)	1.97 (0.36; 3.58)	1.98 (0.39; 3.57)
Christian White Other	-2.78 (-8.17; 2.61)	-2.85 (-8.29; 2.60)	-2.81 (-7.84; 2.23)	-1.19 (-2.79; 0.40)	-1.28 (-2.96; 0.41)	-1.23 (-2.93; 0.46)
Christian B&W Caribbean	3.79 (2.07; 5.52)	3.61 (1.91; 5.31)	3.59 (1.89; 5.28)	3.69 (2.04; 5.35)	3.60 (1.94; 5.27)	3.60 (1.94; 5.26)
Christian B&W African	*	*	*	4.96 (1.88; 8.04)	4.79 (1.81; 7.77)	4.82 (1.90; 7.73)
Christian Asian & White Mix	*	*	*	2.71 (1.15; 4.26)	2.68 (1.17; 4.18)	2.48 (0.93; 4.02)
Christian Indian	0.63 (-7.86; 9.12)	0.40 (-9.05; 9.86)	0.50 (-8.30; 9.29)	2.89 (1.65; 4.13)	2.73 (1.45; 4.00)	2.75 (1.48; 4.02)
Christian Asian Other	-2.44 (-6.15; 1.28)	-2.49 (-6.86; 1.88)	-2.39 (-6.56; 1.77)	0.67 (-1.50; 2.83)	0.37 (-1.76; 2.50)	0.37 (-1.75; 2.50)
Christian Black Caribbean	4.15 (2.99; 5.32)	4.27 (3.06; 5.47)	4.25 (3.01; 5.50)	2.03 (0.43; 3.63)	2.11 (0.58; 3.64)	2.06 (0.53; 3.59)
Christian Black African	3.99 (2.74; 5.24)	3.85 (2.59; 5.12)	3.95 (2.66; 5.23)	3.46 (2.03; 4.90)	3.33 (1.92; 4.74)	3.33 (1.94; 4.73)
Muslim White British	-0.17 (-3.55; 3.21)	-0.30 (-3.74; 3.15)	-0.33 (-3.86; 3.20)	-1.73 (-3.88; 0.42)	-1.82 (-3.95; 0.30)	-1.90 (-4.03; 0.24)
Muslim Indian	1.64 (-0.52; 3.79)	1.35 (-0.84; 3.53)	1.12 (-1.08; 3.32)	2.42 (0.96; 3.88)	2.12 (0.59; 3.65)	2.03 (0.47; 3.59)
Muslim Pakistani	2.65 (1.72; 3.58)	2.45 (1.47; 3.44)	2.29 (1.29; 3.29)	2.58 (1.59; 3.57)	2.32 (1.29; 3.35)	2.28 (1.26; 3.30)
Muslim Bangladeshi	3.44 (2.32; 4.57)	3.19 (2.04; 4.33)	3.06 (1.86; 4.25)	3.56 (2.46; 4.67)	3.24 (2.07; 4.40)	3.19 (2.02; 4.37)

(Continued)

Table 2. Continued.

	Unemployed			Inactive		
	Model 1 (Human Capital)	Model 2 (religiosity added)	Model 3 (‘socio-cultural’ variables added)	Model 4 (Human Capital)	Model 5 (religiosity added)	Model 6 (‘socio-cultural’ variables added)
Muslim Black African	2.55 (0.40; 4.69)	2.39 (0.27; 4.51)	2.30 (0.13; 4.47)	2.40 (0.64; 4.17)	2.18 (0.47; 3.89)	2.17 (0.44; 3.90)
Muslim Arab	2.52 (0.50; 4.54)	2.35 (0.31; 4.40)	2.25 (0.29; 4.21)	2.14 (0.23; 4.05)	1.85 (-0.11; 3.80)	1.84 (-0.10; 3.78)
Hindu Indian	1.79 (0.66; 2.91)	1.75 (0.62; 2.89)	1.71 (0.54; 2.88)	2.35 (1.31; 3.39)	2.28 (1.23; 3.32)	2.28 (1.24; 3.32)
Hindu Asian Other	0.52 (-0.52; 1.56)	0.64 (-0.46; 1.73)	0.72 (-0.45; 1.90)	0.97 (-0.40; 2.34)	1.20 (-0.16; 2.56)	1.14 (-0.26; 2.54)
Jewish White British	1.86 (-0.37; 4.09)	1.70 (-0.43; 3.82)	1.72 (-0.36; 3.80)	1.46 (-0.54; 3.45)	1.32 (-0.64; 3.27)	1.31 (-0.72; 3.33)
Sikh Indian	1.36 (0.23; 2.50)	1.31 (0.11; 2.50)	1.40 (0.16; 2.64)	2.14 (1.34; 2.94)	2.02 (1.15; 2.89)	1.95 (1.09; 2.81)
Buddhist Asian Other	0.81 (-1.61; 3.23)	1.24 (-1.30; 3.78)	1.08 (-1.52; 3.69)	2.59 (-0.14; 5.32)	2.80 (0.08; 5.52)	2.80 (0.08; 5.52)
Other Religion White British	-1.02 (-2.31; 0.28)	-0.96 (-2.23; 0.31)	-0.95 (-2.26; 0.36)	-0.88 (-2.24; 0.49)	-0.78 (-2.14; 0.57)	-0.80 (-2.15; 0.55)
No Religion White British	0.41 (0.07; 0.75)	0.31 (-0.09; 0.70)	0.29 (-0.11; 0.69)	0.20 (-0.10; 0.49)	0.15 (-0.18; 0.49)	0.14 (-0.19; 0.48)
No Religion White Irish	1.20 (-0.82; 3.22)	1.20 (-0.84; 3.25)	1.45 (-0.56; 3.47)	2.51 (0.43; 4.58)	2.53 (0.43; 4.62)	2.50 (0.44; 4.56)
No Religion White Other	1.55 (-0.01; 3.11)	1.55 (-0.04; 3.13)	1.55 (-0.02; 3.12)	2.19 (1.15; 3.24)	2.27 (1.21; 3.32)	2.25 (1.20; 3.30)
No Religion B&W Caribbean	2.17 (0.27; 4.07)	2.38 (0.51; 4.26)	2.32 (0.44; 4.19)	2.47 (1.02; 3.91)	2.56 (1.11; 4.02)	2.51 (1.04; 3.98)
No Religion Asian & White Mix	0.83 (-1.56; 3.22)	0.66 (-1.71; 3.03)	0.67 (-1.64; 2.97)	1.04 (-0.60; 2.68)	1.02 (-0.66; 2.69)	1.00 (-0.71; 2.71)
No Religion Indian	1.17 (-0.05; 2.40)	1.07 (-0.18; 2.31)	0.96 (-0.33; 2.26)	1.05 (-0.06; 2.16)	0.96 (-0.19; 2.12)	0.88 (-0.29; 2.04)

(Continued)

Table 2. Continued.

	Unemployed			Inactive		
	Model 1 (Human Capital)	Model 2 (religiosity added)	Model 3 (‘socio-cultural’ variables added)	Model 4 (Human Capital)	Model 5 (religiosity added)	Model 6 (‘socio-cultural’ variables added)
No Religion Chinese	3.47 (2.46; 4.49)	3.51 (2.47; 4.54)	3.39 (2.35; 4.43)	3.92 (2.89; 4.96)	4.00 (2.93; 5.06)	4.02 (2.95; 5.09)
No Religion Asian Other	*	*	*	1.25 (-1.09; 3.59)	1.29 (-1.03; 3.61)	1.27 (-1.04; 3.58)
No Religion Black Caribbean	4.07 (2.77; 5.37)	4.24 (2.92; 5.56)	4.30 (2.95; 5.65)	3.09 (1.79; 4.38)	3.15 (1.87; 4.43)	3.11 (1.82; 4.41)
No Religion Black African	4.02 (1.54; 6.49)	4.08 (1.35; 6.82)	3.98 (1.29; 6.68)	3.15 (0.65; 5.66)	3.28 (0.64; 5.93)	3.29 (0.63; 5.96)
No Religion Arab	4.54 (2.80; 6.28)	4.55 (2.76; 6.34)	4.53 (2.69; 6.37)	3.80 (1.68; 5.92)	3.92 (1.78; 6.06)	3.96 (1.82; 6.09)
Other	3.14 (2.32; 3.96)	3.16 (2.31; 4.01)	3.17 (2.32; 4.01)	2.57 (1.63; 3.51)	2.51 (1.57; 3.45)	2.50 (1.57; 3.43)
Religion makes difference (ref: No difference=0)						
Great difference		-0.33 (-1.00; 0.35)	-0.35 (-1.03; 0.33)		-0.08 (-0.61; 0.46)	-0.06 (-0.59; 0.48)
Some difference		-0.67 (-1.27; -0.07)	-0.70 (-1.31; -0.09)		-0.48 (-0.89; -0.06)	-0.46 (-0.87; -0.06)
Attendance at religious services (ref: Once a year/never/ special occasions=0)						
Once a week or more		0.59 (0.13; 1.06)	0.64 (0.16; 1.12)		0.50 (0.08; 0.92)	0.51 (0.09; 0.93)
At least once a month		0.55 (-0.18; 1.27)	0.58 (-0.14; 1.30)		0.60 (0.09; 1.10)	0.62 (0.10; 1.13)
Husband should earn, wife should stay at home? (ref: Strongly disagree=0)						
Disagree			0.31 (-0.18; 0.81)			-0.12 (-0.45; 0.20)
Neither agree/disagree			0.53			-0.06

(Continued)

**Table 2.** Continued.

	Unemployed			Inactive		
	Model 1 ( <i>Human Capital</i> )	Model 2 ( <i>religiosity added</i> )	Model 3 ( <i>'socio-cultural' variables added</i> )	Model 4 ( <i>Human Capital</i> )	Model 5 ( <i>religiosity added</i> )	Model 6 ( <i>'socio-cultural' variables added</i> )
			(0.02; 1.04)			(-0.46; 0.34)
Agree			0.36			-0.15
			(-0.33; 1.05)			(-0.68; 0.38)
Strongly agree			0.05			0.07
			(-1.32; 1.42)			(-0.86; 0.99)
Family life suffers if mother works full-time? (ref: Strongly disagree=0)						
Disagree			-0.25			-0.18
			(-0.88; 0.37)			(-0.59; 0.24)
Neither agree/disagree			-0.15			-0.34
			(-0.73; 0.43)			(-0.77; 0.10)
Agree			-0.08			-0.27
			(-0.72; 0.57)			(-0.73; 0.19)
Strongly agree			0.18			-0.03
			(-0.80; 1.16)			(-0.70; 0.64)
Civic participation			-0.19			-0.07
			(-0.40; 0.02)			(-0.21; 0.06)
$\hat{\sigma}^2(u_0)$	16.20	16.87	16.22	19.17	19.48	19.43
	(12.16; 20.24)	(12.56; 21.18)	(11.83; 20.61)	(15.56; 22.78)	(15.75; 23.20)	(15.73; 23.14)
Constant	2.00	2.28	1.81	16.61	16.78	16.90
	(-0.75; 4.74)	(-0.62; 5.19)	(-1.12; 4.74)	(14.24; 18.98)	(14.34; 19.22)	(14.43; 19.36)
Observations (unweighted)	70,816	70,816	70,816	84,805	84,805	84,805

Notes: 95% confidence interval in parenthesis; \* signifies insufficient sample size to form stand-alone group; in addition to religiosity, traditionalists views, and lower civic participation (where applicable), models are also adjusted for age and its curvilinear effect, marital status, education, health, number of children, whether born in the UK, English language proficiency, region, and period effects.

**Table 3.** Women - Log-odds of being unemployed and inactive

	Unemployed			Inactive		
	Model 1 (Human Capital)	Model 2 (religiosity added)	Model 3 (‘socio-cultural’ variables added)	Model 4 (Human Capital)	Model 5 (religiosity added)	Model 6 (‘socio-cultural’ variables added)
Ethno-religious Group (ref: Christian White British=0)						
Christian White Irish	1.20 (-0.51; 2.92)	1.20 (-0.51; 2.91)	1.30 (-0.43; 3.03)	0.36 (-0.96; 1.68)	0.35 (-0.97; 1.67)	0.38 (-0.92; 1.68)
Christian White Other	1.07 (0.04; 2.11)	1.08 (0.04; 2.12)	1.05 (0.01; 2.10)	-0.41 (-1.15; 0.33)	-0.42 (-1.16; 0.31)	-0.41 (-1.15; 0.34)
Christian B&W Caribbean	1.80 (0.37; 3.22)	1.80 (0.37; 3.23)	1.69 (0.26; 3.12)	1.76 (0.48; 3.04)	1.73 (0.45; 3.02)	1.72 (0.43; 3.00)
Christian B&W African	-0.17 (-2.43; 2.10)	-0.16 (-2.42; 2.10)	-0.11 (-2.31; 2.09)	0.11 (-1.40; 1.61)	0.07 (-1.44; 1.58)	0.11 (-1.39; 1.61)
Christian Asian & White Mix	0.08 (-3.30; 3.45)	0.07 (-3.30; 3.45)	0.24 (-3.03; 3.52)	0.06 (-1.54; 1.66)	0.04 (-1.56; 1.63)	0.13 (-1.49; 1.75)
Christian Indian	3.51 (1.59; 5.42)	3.53 (1.61; 5.44)	3.65 (1.72; 5.59)	1.78 (0.10; 3.46)	1.74 (0.06; 3.42)	1.75 (0.10; 3.41)
Christian Chinese	1.76 (-1.55; 5.08)	1.77 (-1.55; 5.10)	1.70 (-1.64; 5.05)	-0.58 (-3.11; 1.95)	-0.60 (-3.12; 1.92)	-0.71 (-3.15; 1.74)
Christian Asian Other	1.28 (-0.62; 3.18)	1.31 (-0.61; 3.22)	1.10 (-0.74; 2.95)	-0.01 (-1.76; 1.73)	-0.05 (-1.79; 1.70)	-0.10 (-1.76; 1.56)
Christian Black Caribbean	1.08 (0.26; 1.91)	1.10 (0.24; 1.96)	1.15 (0.31; 1.98)	-0.07 (-0.77; 0.64)	-0.10 (-0.82; 0.61)	-0.03 (-0.73; 0.68)
Christian Black African	1.71 (0.75; 2.67)	1.74 (0.73; 2.75)	1.72 (0.73; 2.71)	0.53 (-0.23; 1.29)	0.49 (-0.28; 1.26)	0.45 (-0.32; 1.23)
Christian Other Black	*	*	*	0.83 (-0.80; 2.46)	0.81 (-0.82; 2.45)	0.77 (-0.90; 2.43)
Muslim White British	-0.25 (-2.79; 2.29)	-0.25 (-2.79; 2.29)	-0.27 (-2.92; 2.38)	0.09 (-1.35; 1.53)	0.09 (-1.35; 1.53)	0.13 (-1.32; 1.58)
Muslim Indian	2.49 (1.20; 3.78)	2.51 (1.20; 3.82)	2.13 (0.82; 3.44)	2.27 (0.99; 3.56)	2.23 (0.94; 3.51)	2.07 (0.75; 3.38)

(Continued)

Table 3. Continued.

	Unemployed			Inactive		
	Model 1 (Human Capital)	Model 2 (religiosity added)	Model 3 (‘socio-cultural’ variables added)	Model 4 (Human Capital)	Model 5 (religiosity added)	Model 6 (‘socio-cultural’ variables added)
Muslim Pakistani	3.53 (2.60; 4.45)	3.56 (2.58; 4.53)	3.21 (2.23; 4.18)	4.18 (3.47; 4.88)	4.12 (3.40; 4.83)	3.91 (3.21; 4.62)
Muslim Bangladeshi	2.19 (0.98; 3.40)	2.21 (0.95; 3.47)	2.04 (0.77; 3.32)	3.20 (2.31; 4.08)	3.15 (2.26; 4.04)	2.98 (2.08; 3.87)
Muslim Asian Other	*	*	*	3.26 (-4.81; 11.33)	3.27 (-4.75; 11.29)	3.06 (-4.68; 10.79)
Muslim Black African	3.21 (1.39; 5.03)	3.24 (1.38; 5.09)	2.96 (1.14; 4.77)	2.66 (1.44; 3.88)	2.61 (1.37; 3.84)	2.31 (1.08; 3.53)
Muslim Arab	*	*	*	5.90 (3.82; 7.99)	5.87 (3.79; 7.95)	5.57 (3.60; 7.55)
Hindu Indian	1.49 (0.36; 2.63)	1.49 (0.36; 2.63)	1.31 (0.15; 2.46)	1.14 (0.39; 1.88)	1.11 (0.36; 1.86)	1.06 (0.31; 1.80)
Hindu Asian Other	3.52 (0.91; 6.13)	3.51 (0.90; 6.13)	3.47 (0.88; 6.06)	2.84 (1.13; 4.55)	2.83 (1.12; 4.53)	2.71 (1.02; 4.41)
Jewish White British	0.73 (-1.59; 3.05)	0.74 (-1.59; 3.07)	0.84 (-1.79; 3.46)	0.90 (-0.15; 1.96)	0.88 (-0.17; 1.93)	0.87 (-0.17; 1.90)
Sikh Indian	1.86 (-0.65; 4.36)	1.86 (-0.66; 4.37)	1.66 (-0.92; 4.24)	1.82 (0.89; 2.75)	1.81 (0.88; 2.73)	1.71 (0.77; 2.65)
Buddhist White British	*	*	*	0.79 (-0.49; 2.06)	0.74 (-0.55; 2.02)	0.87 (-0.40; 2.14)
Buddhist Asian Other	1.89 (-0.77; 4.56)	1.92 (-0.75; 4.59)	1.72 (-0.76; 4.21)	2.87 (1.11; 4.63)	2.86 (1.09; 4.62)	2.73 (1.02; 4.44)
Other Religion White British	0.39 (-0.88; 1.65)	0.40 (-0.89; 1.69)	0.53 (-0.73; 1.78)	0.67 (0.01; 1.33)	0.66 (-0.00; 1.32)	0.70 (0.05; 1.35)
Other Religion White Other	-0.74 (-4.27; 2.79)	-0.74 (-4.28; 2.80)	-0.51 (-3.97; 2.95)	-1.82 (-3.46; -0.18)	-1.82 (-3.46; -0.17)	-1.74 (-3.40; -0.08)
Other Religion Black Caribbean	1.19 (-1.52; 3.90)	1.21 (-1.51; 3.94)	1.24 (-1.54; 4.02)	-0.66 (-2.42; 1.10)	-0.70 (-2.47; 1.06)	-0.71 (-2.51; 1.08)
No Religion White British	0.65 (0.28; 1.03)	0.66 (0.26; 1.06)	0.61 (0.21; 1.00)	0.01 (-0.21; 0.22)	0.02 (-0.21; 0.25)	0.02 (-0.21; 0.25)

(Continued)

Table 3. Continued.

	Unemployed			Inactive		
	Model 1 (Human Capital)	Model 2 (religiosity added)	Model 3 (‘socio-cultural’ variables added)	Model 4 (Human Capital)	Model 5 (religiosity added)	Model 6 (‘socio-cultural’ variables added)
No Religion White Irish	1.46 (-0.86; 3.77)	1.46 (-0.85; 3.77)	1.60 (-0.75; 3.94)	-0.74 (-3.95; 2.46)	-0.75 (-3.96; 2.47)	-0.63 (-3.93; 2.67)
No Religion White Other	1.18 (-0.35; 2.72)	1.17 (-0.38; 2.72)	1.39 (-0.03; 2.81)	0.53 (-0.34; 1.40)	0.54 (-0.32; 1.41)	0.66 (-0.19; 1.51)
No Religion B&W African	*	*	*	-0.88 (-2.40; 0.64)	-0.89 (-2.42; 0.63)	-0.88 (-2.39; 0.63)
No Religion B&W Caribbean	0.62 (-0.91; 2.15)	0.62 (-0.92; 2.16)	0.52 (-1.00; 2.04)	-0.61 (-1.79; 0.56)	-0.60 (-1.77; 0.57)	-0.51 (-1.72; 0.70)
No Religion Asian & White Mix	0.69 (-2.12; 3.51)	0.70 (-2.12; 3.52)	0.65 (-2.32; 3.63)	-0.67 (-2.18; 0.84)	-0.66 (-2.18; 0.85)	-0.59 (-2.18; 1.01)
No Religion Indian	1.65 (0.35; 2.94)	1.66 (0.37; 2.94)	1.53 (0.26; 2.80)	0.79 (-0.07; 1.65)	0.78 (-0.08; 1.64)	0.72 (-0.14; 1.59)
No Religion Chinese	0.72 (-2.03; 3.47)	0.72 (-2.04; 3.47)	0.41 (-2.41; 3.23)	1.13 (-0.60; 2.87)	1.15 (-0.59; 2.89)	0.98 (-0.76; 2.71)
No Religion Asian Other	2.08 (0.31; 3.84)	2.07 (0.31; 3.84)	1.97 (0.10; 3.83)	3.00 (1.55; 4.46)	3.01 (1.56; 4.47)	2.99 (1.53; 4.45)
No Religion Black Caribbean	1.19 (0.00; 2.37)	1.19 (0.00; 2.37)	1.13 (-0.04; 2.30)	-0.27 (-1.34; 0.79)	-0.26 (-1.33; 0.81)	-0.25 (-1.31; 0.82)
No Religion Black African	-0.50 (-4.12; 3.11)	-0.50 (-4.12; 3.12)	-0.60 (-4.28; 3.09)	-1.33 (-3.76; 1.10)	-1.37 (-3.83; 1.08)	-1.25 (-3.65; 1.15)
Other	3.23 (2.63; 3.82)	3.24 (2.64; 3.84)	3.07 (2.48; 3.67)	1.18 (0.52; 1.84)	1.16 (0.51; 1.82)	1.12 (0.47; 1.76)
Religion makes difference (ref: No difference=0)						
Great difference		-0.03 (-0.56; 0.51)	-0.04 (-0.58; 0.49)		0.11 (-0.21; 0.42)	0.07 (-0.25; 0.38)
Some difference		0.03 (-0.30; 0.36)	0.02 (-0.30; 0.35)		0.04 (-0.17; 0.24)	0.03 (-0.18; 0.23)
Husband should earn, wife should stay at home? (ref: Strongly disagree=0)						

(Continued)



Table 3. Continued.

	Unemployed			Inactive		
	Model 1 (Human Capital)	Model 2 (religiosity added)	Model 3 (‘socio-cultural’ variables added)	Model 4 (Human Capital)	Model 5 (religiosity added)	Model 6 (‘socio-cultural’ variables added)
Disagree			0.26 (-0.10; 0.62)			0.26 (0.04; 0.47)
Neither agree/disagree			0.65 (0.21; 1.08)			0.52 (0.24; 0.79)
Agree			1.42 (0.82; 2.01)			1.00 (0.63; 1.36)
Strongly agree			0.95 (-0.33; 2.22)			0.60 (-0.25; 1.46)
Family life suffers if mother works full-time? (ref: Strongly disagree=0)						
Disagree			-0.44 (-1.05; 0.17)			-0.10 (-0.45; 0.24)
Neither agree/disagree			-0.19 (-0.72; 0.34)			-0.00 (-0.35; 0.34)
Agree			-0.41 (-1.01; 0.18)			-0.02 (-0.37; 0.32)
Strongly agree			-0.23 (-0.91; 0.44)			0.29 (-0.15; 0.73)
Civic participation			-0.28 (-0.45; -0.12)			-0.02 (-0.10; 0.06)
$\hat{\sigma}^2(u_0)$	9.50 (7.35; 11.66)	9.51 (7.34; 11.68)	8.72 (6.80; 10.64)	13.81 (12.11; 15.51)	13.79 (12.10; 15.49)	13.37 (11.82; 15.13)
Constant	-1.92 (-3.97; 0.13)	-1.94 (-4.00; 0.12)	-1.54 (-3.62; 0.53)	12.73 (11.26; 14.21)	12.69 (11.21; 14.18)	12.62 (11.14; 14.10)
Observations (unweighted)	82,959	82,959	82,959	115,474	115,474	115,474

Notes: 95% confidence interval in parenthesis; \* signifies insufficient sample size to form stand-alone group; in addition to religiosity, traditionalists views, and lower civic participation (where applicable), models are also adjusted for age and its curvilinear effect, marital status, education, health, number of children, whether born in the UK, English language proficiency, region, and period effects.

gender. In each case, Models 1 and 4 show the risk of unemployment and inactivity, respectively, while adjusting for human capital and demographic factors. Models 2 and 5 include religiosity. Models 3 and 6 adjust for the remaining “sociocultural” variables, notably, so-called “isolationist tastes” and commitment to traditionalism. This stepwise analysis is supported by improvements in AIC, BIC and McFadden Pseudo- $R^2$  (Langer 2017) estimates of the unadjusted models for both men and women. McFadden Pseudo- $R^2$  for Models 3 are 0.34 (men) and 0.31 (women), while the statistic for Models 6 are 0.49 (men) and 0.47 (women) (Table C1, online), suggesting very good model fit.

## Men

Model 1 (Table 2) shows that, among Christian men, all Black groups have a substantially higher risk of being unemployed. Black Caribbeans (4.15) have the greatest risk of unemployment followed by Black Africans (3.99) and Black and White Caribbeans (3.79). No White Christian group nor White British Muslims or Jews display a significantly higher risk of being unemployed relative to White British Christians at the 95 per cent level. While Hindu Indians (1.79) and Sikh Indians (1.36) have a higher likelihood of unemployment, Christian and Muslim Indians do not experience a significantly different risk of unemployment compared to the charter population. All other Muslim groups, however, face a relatively higher risk of unemployment; Muslim Bangladeshi (3.44), Muslim Pakistani (2.65), Muslim Black African (2.55) and Muslim Arab (2.52). The only White group to experience a penalty is No Religion White British (0.41), which is the lowest of all significant coefficients. Bar Indians and Asian and White Mix, all non-White ethnic minorities with no religious affiliation display a significantly-higher likelihood of unemployment; No Religion Arabs (4.54) who are the group with the highest risk of unemployment overall, No Religion Black Caribbean (4.07), No Religion Black Africans (4.02), No Religion Chinese (3.47), and No religion Back and White Caribbean (2.17). Importantly, these differences hold even after controlling for human capital and demographic factors, whose coefficients are in line with expectations.

Model 2 adjusts for religiosity. Those who aver religion makes “some difference” to their life have a lower likelihood of being unemployed than those who say it makes “no difference”. There is no statistically-significant difference (at the 95 per cent level) between those who say religion makes “a great difference” and the latter group. Meanwhile, relative to those who never attend a religious service or who only attend yearly/on a special occasion, those who attend once a week or more display a greater risk of unemployment. There is no statistically-significant difference between those who attend at least once a month and the reference group. Broadly

speaking, there is no major change in the magnitude or significance of the coefficients relative to Model 1 after this adjustment. No Religion Arabs (4.55) remain the group with the highest chance of being unemployed relative to the Christian White British group, those who identify as Black or as mixed Black and White continue to display a higher likelihood of being unemployed irrespective of religious affiliation or lack thereof. Meanwhile, four out of six Muslim groups continue to exhibit a significantly higher likelihood of being unemployed than White British Christians. The hierarchy is Bangladeshi (3.19), followed by Pakistani (2.45), Black African (2.39) and Arabs (2.35). There is one main development, however. The coefficient for No Religion White British has dropped by a quarter and is no longer significant.

Model 3 adjusts for civic participation and commitment to traditionalism. The former is insignificant at the 95 per cent level but the coefficient does show that increased civic engagement reduces the likelihood of unemployment. Only men who neither agree nor disagree (0.53) with the statement "husband should earn, wife should stay at home" have a greater risk of being unemployed relative to those who strongly disagree with the statement. Meanwhile, men's attitudes as to whether "family life suffers if mother works full-time" does not seem to be associated with a lower/higher likelihood of unemployment. Overall, adjusting for so-called "sociocultural variables" does not dissipate the increased risk for any of the ethno-religious groups relative to the simpler model, not least Muslims whose coefficients do not appear to have reduced in any noteworthy way. The coefficients have also remained largely unchanged across all models for Black and Black and White mixed groups irrespective of religious affiliation. Hindu Indians also continue to display a significantly higher likelihood of being unemployed than the charter population, but, along with Sikh Indians, this is the smallest in magnitude of all significant coefficients.

Examining inactivity, Model 4 reveals that Black and Black and White mixed groups generally have a higher likelihood of inactivity than White British Christians irrespective of religious affiliation (or lack thereof). Contrary to the case of unemployment, White groups – such as Christian White Irish (1.97), No Religion White Irish (2.51), No religion White Other (2.19) – appear to have a higher chance of inactivity than the reference group. No Religion Arabs (3.80), No Religion Chinese (3.92), Christian Indians (2.89), Hindu Indians (2.35) and Sikh Indians (2.14) also appear to have a significantly higher chance of being inactive than the charter population after controlling for human capital and demographic factors. The same is true for all Muslims, bar the White British group; Arabs (2.14), Indians (2.42), Pakistanis (2.58) and Bangladeshis (3.56). The controls operate more or less the same as they do in the unemployment models, but with two key differences. Having three or more children and being educated to *any* level below degree is associated with a higher chance of being inactive.

Model 5 controls for religiosity. In general, holding that religion makes “some difference” to life is associated with a lower risk of inactivity relative to holding that religion makes “no difference”. There is no difference between the latter and those who aver religion makes a “great difference”. Meanwhile, attending religious services once a week or more (0.50) or at least once a month (0.60) are associated with a higher chance of inactivity. This does not necessarily mean that those who are more religious are more focused on worship than finding work, it could also indicate that someone who has been unsuccessful in finding employment might turn to more active worship to ease their situation. Broadly speaking, adjusting for religiosity in Model 5 (marginally) lowers the magnitude of the coefficients for some (e.g. Muslims) more than others (e.g. Christians). Nevertheless, Muslim Bangladeshis (3.24), Muslim Pakistanis (2.32), Muslim Black Africans (2.18), and Muslim Indians (2.12), continue to display a significantly higher risk of being inactive than the Christian White British. The confidence interval for Muslim Arabs now includes zero. Moreover, bar the aforementioned exceptions, those who identify with Black groups remain more likely to be inactive be they Christian or aver being of no religious persuasion. In fact, Christian Black and White Africans (4.79) exhibit the highest log odds. They are followed by No Religion Chinese (4.00). Overall, being White British irrespective of religion is not associated with a higher chance of inactivity. However, other groups appear to have a significantly higher chance of being inactive despite being White; Christian White Irish (1.97), No Religion White Irish (2.53), and No Religion White Other (2.27). Finally, Model 6 adjusts for the remaining so-called “sociocultural variables”. The results suggest that there is no relationship between a person’s commitment to traditionalism and likelihood of being inactive, nor between the latter and the extent of civic participation. There is virtually no change in the significance or magnitude of the regression coefficients of any ethno-religious group relative to Model 5.

## **Women**

Model 1 shows that Muslim groups generally exhibit the greatest risk of unemployment relative to White British Christians. Among Muslims, Pakistanis (3.53) display the highest risk of unemployment, followed by Black Africans (3.21), Indians (2.49), and Bangladeshis (2.19). Among Christians, Indians (3.51) display the greatest risk of unemployment, followed by Black and White Caribbeans (1.80), Black Africans (1.71), Black Caribbeans (1.08), and White Other (1.07). Hindu Indians (1.49) and Hindu Asian Other (3.52) also have a relatively higher likelihood of being unemployed. Jewish, Sikh, Buddhist, and Other Religion groups do not display significant coefficients. Among those with no religious affiliation, only Indians (1.65), Asian Other (2.08), Black Caribbeans (1.19) and British Whites (0.65) display a significantly

higher chance of being unemployed than the reference group. The direction and significance of the covariates are the same as it is for men bar a few exceptions. For women, those with a secondary education or who hold an “other higher degree” are more likely to be unemployed. Having three or more children and weak language proficiency are also associated with a higher likelihood of being unemployed, while being born outside the UK does not have a significant relationship with the likelihood of unemployment.

Model 2 shows that religiosity is not significantly related to a higher chance of being unemployed. Moreover, this adjustment does not alter the significance or magnitude of any of the regression coefficients relative to Model 1. Adjusting for so-called “segregationist tendencies” and commitment to traditionalism in Model 3 shows that women who neither agree nor disagree (0.65) with the idea that a husband should earn and wife should stay at home have a higher risk of being unemployed, albeit to a lesser extent than those who agree with the statement (1.42). Conversely, a woman’s position as to whether “family life suffers if mother works full-time”, does not seem to be related to having a higher risk of unemployment. There does, however, appear to be a significant negative relationship between civic participation and unemployment (log odds=−0.28). Nevertheless, adjusting for all these factors has not altered the coefficient or significance of any ethno-religious groups by any considerable amount relative to Model 1. In fact, Muslim women (bar Muslim White British) remain among those with the highest risk of unemployment irrespective of ethnic affiliation. Only Christian Indians (3.65) and Hindu Asian Other (3.47) have a higher likelihood of being unemployed relative to the reference group. The same Black, mixed Black and White, and No Religion groups discussed in the previous models also continue to exhibit a higher risk of being unemployed with their coefficients remaining broadly unchanged. Only the estimate for No Religion Black Caribbean is no longer significant.

Models 4–6 in [Table 3](#) display the results for when inactivity is the dependent variable. Model 4 shows that after controlling for human capital and demographic factors Muslims display the highest risk of being inactive across the board relative to the Christian White British group. Specifically, Muslims Arabs (5.90) are the group with the highest risk followed by Muslim Pakistanis (4.18), Muslim Bangladeshi (3.20), Muslim Black Africans (2.66) and Muslim Indians (2.27). Only the Asian Other group – No Religion (3.00), Buddhist (2.87), Hindu (2.84) – display a similarly high significant coefficient. Among Muslims, only White British and Asian Other do not display a significant coefficient. Among Christians, only Indians (1.78) and Black and White Caribbeans (1.76) display a significantly higher risk of being inactive. Sikh Indians (1.82), Hindu Indians (1.14), and Other Religion White British (0.67) all display a significantly higher likelihood of being inactive relative to White British Christians. The findings for the controls are in line with

expectations and similar to those in the unemployment-only models with one notable exception; having children, irrespective of the number, is associated with a significantly higher likelihood of being inactive.

Model 5 adjusts for religiosity and shows that there does not appear to be a significant relationship between how important religion is to a person's life and their risk of being inactive. There is virtually no change to the magnitude of the ethno-religious coefficient estimates or their significance. The final model, Model 6, adjusts for gender attitudes and civic participation. Relative to those who strongly disagree with the statement "husband should earn, wife should stay at home" those who disagree (0.26), those who neither agree/disagree (0.52), and those agree (1.00) all face a relatively higher risk of being inactive and at an increasing rate. Conversely, much like when examining unemployment, views on whether "family life suffers if mother works full-time" do not seem to be associated with the risk of being inactive. The same is true for civic participation whose coefficient is also close to zero. While controlling for these factors reduces the coefficient for all Muslim groups, it only does so marginally. Muslim Arabs (5.57) remain the group with the highest likelihood of being inactive relative to White British Christians, followed by Muslim Pakistanis (3.91) and Muslim Bangladeshis (2.98). Only No Religion Asian Other (2.99) display a similarly high estimate as the latter. Muslim Black Africans (2.31) and Muslim Indians (2.07) also still display a higher risk of being inactive. The Asian Other group – Buddhist (2.73) and Hindu (2.71) – also have a higher relative risk compared to the charter population.

## Discussion and conclusion

In this paper, I analysed ethno-religious inequalities in exposure to unemployment and inactivity among men and women in Britain using the first ten waves of UKHLS. The large sample size and data on cultural and religious practices allowed me to assess whether certain so-called "sociocultural attitudes" are plausible mediators for the Muslim penalty. The large dataset also enabled me to distinguish between groups that have not typically been disaggregated in similar studies, such as Arabs, British Whites, Black and White Africans and Caribbeans, and between ethnic minorities with no religious affiliation.

Overall, the evidence indicates support for the thesis that there is both a religious (Muslim) and colour (Black) penalty at play in the British labour market (Khattab and Modood 2015; Khattab 2009; Heath and Cheung 2006). Confirming previous research (Li and Heath 2020; Berthoud and Blekesaune 2007), religion is a much better predictor of unemployment and inactivity for women, whereas for men both colour and religion are important. Adjusting for religiosity, so-called "tastes for isolation" and commitment to

traditionalism as potential mediators does not dissipate the Muslim penalty in unemployment or inactivity for either men or women, despite the claim that “[a]fter their inclusion in the explanatory model, there are hardly any statistically significant differences left” (Koopmans 2016, 213). In fact, adjusting for so-called “sociocultural variables” had only a minor effect in reducing the size of the estimates relative to the model that only controlled for human capital and demographic factors, with Muslim men and women consistently among those with the highest risk of being unemployed/inactive. Moreover, the risk of a penalty, particularly in terms of unemployment, remained considerably high for Black African and Black Caribbean men irrespective of whether they subscribed to a faith tradition, providing strong evidence in support of previous research (Khattab and Modood 2015) which established that the British labour market is hierarchized based on skin colour.

In sum, contrary to Koopmans (2016), this study shows that “sociocultural variables” such as gender attitudes, language proficiency, and the extent of inter- and intra-ethnic social ties are not a convincing source of the unexplained ethno-religious differences in labour market participation and unemployment among Muslim men and women. Instead, this study found that “Muslim religiosity and value orientations (...) which sometimes are cited as major individual-level factors hindering socio-economic assimilation turned out to be less consequential” (Connor and Koenig 2015, 199; see also Khoudja and Platt 2018). How can we understand these seemingly opposing findings?

I argue that the divergence could be explained by the variables Koopmans (2016) utilizes to form his “sociocultural assimilation scale”. Specifically, measuring the degree of assimilation based on “host-country neighbourhood acquaintances”, “host-country friendships”, and “host-country family members” ignores (i) the discriminatory housing policies and redlining practices that regulated immigrant neighbourhood settlement (Daniel 1968); (ii) the role racism plays in creating ethnically segregated neighbourhoods (Harrison, Law, and Phillips 2005); (iii) the evidence that White members of the majority culture actively migrate out of, and are less likely to migrate into, neighbourhoods with increased cultural diversity (Bråmă 2006); (iv) that institutional bias directs ethnic minorities towards specific universities less attended by Whites (Shiner and Modood 2002); (v) that interpersonal racism plays an important role in precluding Muslims from establishing multi-ethnic family ties (Pew Research Centre 2018); and (vi) that, in 2011, 46 per cent of the UK Muslim population lived in the 10 per cent most deprived local authority districts in England (MCB 2015) and are, therefore, more likely to live among co-ethnics/co-religionists. Importantly, there is no clear evidence to suggest that the negative impact of residential segregation on social capital accumulation is due more to ethnic concentration than it is to material disadvantage (Laurence 2011).

In other words, the variables used by Koopmans (2016) are likely to be obfuscating important “causes of causes” (Marmot 2018), such as discrimination. This reasoning is compelling in light of the evidence of prevalent racist and prejudicial societal attitudes towards Muslims and ethnic minorities in Britain (Jones and Unsworth 2022; Pew Research Centre 2019; Kelley, Khan, and Sharrock 2017), and the enduring discrimination towards Black and South Asian people which has not subsided since the late 1960s (Heath and Di Stasio 2019). Field experiments that find evidence of discrimination in the British labour market (Thijssen et al. 2021), particularly towards Muslims (Di Stasio et al. 2021), and research showing that ethnic penalties are highly likely to be a reflection of hiring discrimination (Zwysen, Di Stasio, and Heath 2020) lend further support to this argument. In sum, it is not surprising that Koopmans (2016) finds a reduction in ethnic and religious penalties after including as controls variables which are influenced by discrimination if the latter, as the overwhelming research suggests, is an important driver of such penalties.

Positing that discrimination is likely to be playing only a “distant role by affecting sociocultural determinants” (Koopmans 2016, 214) does not acknowledge the complexities of how racism works and how it manifests itself in an intradisciplinary way (Essed 1991).<sup>3</sup> In not recognizing this reality, there is a risk of taking “Muslim behaviour” as “an analytical concept” and therefore “what needs to be represented as a social process and explained is reconstructed as a social fact that can be used to explain other social facts” (Miles and Brown 2003, 91). In such a case “adaptations [to anticipated or experienced discrimination such as where to live or with whom friendships to forge] can easily be coded as choices rather than constraints, as characteristics to be controlled for in estimates of discrimination rather than included as one part of that estimate” (Pager and Shepherd 2008, 199–200). As Virdee articulates it,

[t]he focus on religion, culture and the degree of assimilation amongst other factors when evaluating the relative weight of the ethnic penalty shifts the sociological gaze away from racism and external, constraining forces and towards what will inevitably be interpreted as ‘problematic’ norms, values and patterns of behaviour amongst the minorities themselves. This merely serves to reify the problem and results in a gross underestimation of the multifarious ways in which racism shapes the employment patterns of ethnic minorities. (2010, 74)

The analyses here also distinguish Arab Muslims and White British Muslims and No Religion Arab and No Religion White British, illustrating notable differences between them and other Muslims on the one hand, and the unreligious on the other. Specifically, previous research (Khattab 2009) analysing White Muslims combined British and non-British Whites which includes Turks and Arabs. However, when distinguishing here between Muslim Arabs and



Muslim White British, the results indicate that contrary to Khattab and Modood (2015) and Khattab (2009), being White – specifically White British – *does* appear to offer protection against the Muslim penalty. That said, there appears to be a point at which the historically socially constructed privileges of being racialised as White are lost as the association with Islam becomes stronger, possibly resulting in being seen as more culturally-distant and racialised as “more Muslim than White”. This might explain why Muslim Arab men, despite identifying as White, have a significantly higher risk of unemployment relative to White British Christians (it is closer to that of Muslim Black Africans than it is to White British Muslims). Among women, Muslim Arabs also display the highest risk of being inactive relative to the charter population, far above the risk associated with being Muslim White British. In fact, among men and women, White British Muslims do not display a significantly different risk of unemployment and inactivity from the charter population in any of the models. If White British Muslims are not being racialised as Muslim but continue to be perceived as White, this might explain why they appear to evade penalization. It might also be the case that White British Muslims are penalized but have better resources with which to counter their adversity (Zwysen, Di Stasio, and Heath 2020).

The evidence that No Religion Arab men are among those with the highest likelihood of unemployment/inactivity (even above that of Muslim Arabs, which could be indicative of the importance of religious bonding capital for labour market inclusion), might suggest that *perceived* Muslimness is more important for predicting religious disadvantage among men than actual attachment to the faith. This reasoning is particularly compelling given evidence (Di Stasio et al. 2021) that, in Britain, where a Muslim is considered to originate from has a bigger effect on that person’s labour market positioning than their *actual* “religious closeness” and that “country-of-origin effects in combination with anti-Muslim discrimination produce severe double penalties for minority [male] applicants” from the Middle East and Africa (Di Stasio et al. 2021, 16; see also Fundamental Rights Agency 2017). This suggests that the ethnic penalty might not, as currently understood, only be masking a colour and a religious penalty (Khattab and Modood 2015; Modood 2005) but rather, for men, their penalty might also be moderated by a third country-of-origin penalty. This means that an understanding that Islamophobia is multidimensional, and relates to colour, religion, culture and *country of origin*, with any one dimension of difference being “enough” for someone inclined to be prejudiced, is essential to any strategy seeking to attenuate these inequalities.

There are a number of limitations to this study. Some ethno-religious groups have a small sample size, and it would therefore be beneficial to repeat a similar study with a larger dataset, such as the Census or Labour Force Survey, and compare findings. Exploiting larger datasets might also

offer the possibility of creating a Christian Arab group, which would allow testing of whether the country-of-origin effect advanced here is particular to Muslims or those who might be raised Muslim despite no longer subscribing to the faith. That said, these datasets do not offer similarly rich information on social and religious attitudes and practices as UKHLS so there is a trade-off. The paper would also benefit from further theory-building around the mechanisms through which the country-of-origin effect advanced here impacts labour market outcomes.

Even so, the analyses summarized in this paper provide important new findings regarding labour market stratification by ethno-religious background. The paper questions the contention that, amongst men, the ethnic penalty is best understood as resulting primarily from two penalties (colour and religion), and suggests that a country-of-origin penalty may also be at play. This highlights important heterogeneity in the causal mechanisms driving the Muslim penalty, showing that this complexity needs to be understood to clarify how the penalty operates differently for men and women from diverse ethnic backgrounds. This paper also challenges the hypothesis that the Muslim penalty is a result of so-called “sociocultural attitudes” such as religiosity, “tastes for isolation” and a commitment to traditionalism on the part of Muslims. Hence, rather than a focus on alleged “oppositional” norms and behaviours that problematize the faith and essentialize an ethnically heterogeneous group of people, attenuating ethnic and religious inequalities will require – in large part but not exclusively – addressing both systemic anti-Black and anti-Muslim racism, of which country-of-origin prejudice is likely an important dimension.

## Notes

1. It is worth noting that while the majority of those who identify as having no religious affiliation aver that religion makes “no difference” to their life, not all do. Specifically, out of a total of 94,400 observations who identify as having no religious affiliation, 24,691 aver that religion makes at least “some difference” to their life. This is not surprising, as people might not identify with a religion but still consider themselves to be spiritual.
2. Results were also estimated using a multilevel mixed-effects multinomial logistic model which was fit using generalized structural equation modelling. However, the binary logistic regression is preferred and is presented here. This is because the assumption of Independence of Irrelevant Alternatives (IIA) – integral to multinomial regression, and assumed to hold at the person level in a hierarchical logit model – is not considered to be a realistic assumption for this study. This means that a multinomial model would be incorrectly specified resulting in inconsistent and biased estimates. Importantly, formal tests for IIA are found not to be reliable (Cheng and Long 2007). Crucially, IIA is not an assumption of binary logistic regression, a method used by many other researchers investigating the Muslim penalty (e.g., Khattab and

Modood 2015; Khattab, Miaari, and Mohamed-Ali 2020). For transparency, the results of the multinomial generalized structural equation model are available online (Tables B3 and B4).

3. Koopmans (2016) controls for discrimination using perceived discrimination which seems to be capturing its more blatant forms, yet evidence indicates that discrimination operates less obviously (Essed 1991; Pager and Shepherd 2008; Rooth 2010).

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