

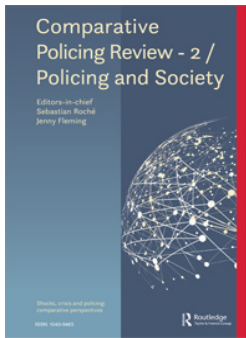
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The 'police progression paradox'? Why are women under-represented across the middle ranks of the police?

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ABSTRACT

Internationally, despite increasing numbers of women entering the police, women are still under-represented across the various ranks of law enforcement, especially within more senior and leadership positions. Barriers to women's progression within law enforcement has been identified in previous research; however, what is not known are the reasons behind the drop in representation of women officers across the middle tiers of the police; an important promotion stage likely to hinder women entering senior ranks. This article seeks to address this significant dearth in knowledge, by presenting the findings of a large-scale mixed-methods research project exploring staff retention and, in particular, the experiences and barriers faced by women officers. The resulting research comprises three parts: (i) statistical analyses of national workforce data on 142,505 police officers in England and Wales, (ii) in-depth examination of one constabulary's HR data pertaining to 3321 officers, and (iii) force-wide semi-structured interviews with women officers (n = 9). Each method targets a unique level of ecology (cultural/national; organisational, and individual) and draws on complexity theory to provide a multi-level exploration of the issues and barriers preventing women from progressing in their policing careers. Central here is an examination of the gendering of the police organisation and the ways in which gender performance, stereotypes, bias, and expectations filter through to working relationships and policing hierarchies vis-a-vis the social and domestic sphere. We argue that focusing only on women's overall representation in the police, creates a 'police progression paradox' which masks the underlying problem of women's progression into senior roles.

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Gender; complexity theory; women police officers; promotion

Introduction

An equitable and diverse workforce has become a key policing priority globally in recent years (Shepherd 2014, Wilson *et al.* 2016, HerForShe.org 2019). In the United States, the National Institute of Justice supports the 30 × 30 initiative which has a goal of increasing the representation of women in police recruit classes to 30% by 2030 (New York University 2023). A similar target of attaining 30% of new sworn-female workforce by 2028 is part of Australia's federal police strategy (Australian Federal Police 2021), as well as in parts of Canada (Regina Police Service 2023). The reasons for these international initiatives are in part due to the recognition that, historically, policing has been

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characterised by a lack of diversity in terms of race and gender, as well as recognition that women use less force, are named in fewer complaints, perceived by communities as more honest and compassionate, and see better outcomes for crime victims (Regina Police Service 2023). A diverse workforce that is representative of all backgrounds and groups is crucial to policing by consent (Laverick and Cunningham 2023).

In many parts of the world, women constitute as little as 11.7% of police officers in India (The Times of India 2023), 13% of officers in the United States (National Institute of Justice 2019, p. iii), 14.3% in China (Shen 2022), 23.8% in Australia (Australian Federal Police 2023), and 22.42% in Canada (Alecu and Bringsrud Fekjær 2020). It is thus unsurprising that women have been considered 'outsiders' within this traditionally male realm (Silvestri 2018). In other areas of the globe, the proportion of women police officers is higher. For example, in Norway, in 2018 women accounted for 31% of the Norwegian police force, and 46% of new recruits (Alecu and Bringsrud Fekjær 2020, p. 3). In England and Wales, where our study is based, in 2017, women made up 29% of the police service, and by the end of March 2021, the number of women police officers had risen to 32.4% (Home Office 2022). By the end of March 2024, this had risen further to 35% (Home Office 2025).

However, despite increasing numbers of women entering policing in recent years, the number of women officers in senior positions remains low. For example, in the United States women hold only 3% of leadership roles in law enforcement (New York University 2023). This suggests that barriers in relation to women's promotion remain an ongoing problem, with higher rates of resignation for women officers a longstanding issue (Cooper and Ingram 2004, Charman and Tyson 2023). Increasing the proportion of women in an organisation may therefore not be enough to remedy the problem of differential rates of retention and promotion in a traditionally male-dominated workplace (Archbold and Hassell 2009). Thus, as Silvestri *et al.* (2023) note the suggestion that progress has been made regarding women's increasing representation in policing should be viewed with caution.

Previous research has identified the barriers to women's progression in law enforcement internationally (Todak 2023, Pyo and Lee 2024). However, there exists an important knowledge gap in terms of examining this issue in what may be termed a 'whole systems' approach (Stansfield *et al.* 2020), with prior studies either examining national level police service data or local level issues (Charman 2017, Casey 2023), with a handful of exceptions such as Alexander and Charman (2024) who examined career patterns of police senior leaders. In contrast, our study involved: (i) analysis of national workforce in England and Wales ($n = 140,228$); (ii) a novel in-depth examination of Human Resources data ($n = 3321$) from a constabulary that mirrors the national (and arguably international) trend; and (iii) interviews with nine women officers. The article explores the rationale behind the comparative lack of women officers across the middle tiers of the police (the ranks of Sergeant, Inspector and Chief Inspector), and the impact of this on policing leadership and culture. Capturing the intricacies across the various inter-connected phenomena within policing systems, the results are triangulated and analysed through the lens of complexity theory to discuss system change more holistically (Walby 2004).

Complexity theory claims that society is composed of multiple complex systems that are intertwined and overlap (Murray *et al.* 2019), leading to both common and at times unpredictable social phenomena (Cilliers 2010). These systems operate at the macro (e.g. the global economy, the internet), meso (organisations/groups) and micro level (individual) (Walby 2009), and such levels informed our approach to empirical data collection and analysis, capturing both micro and meso level data, as informed by macro-level analysis (gender, power, and control). The application of theory focuses on better understanding the issues and barriers that women officers face as individuals, and how this is intertwined in wider policing systems both within the UK and internationally. We argue that current initiatives that seek to increase the proportion of women officers need to look beyond increasing levels of recruitment, to consider wider system change that ensures policing environments support and allow for the progression of women officers. We illustrate how the

current initiatives within policing have created ‘bookend’ support for women in entry and senior leadership ranks, but that this masks issues of women officer progression throughout the middle ranks of the police force. We claim that a ‘*police progression paradox*’ exists that mask progression problems. Whilst meso level data may show gender equality in the total number of women officers in the police overall, this does not mean that women are represented at all ranks in policing.

Background

The lack of progress around the entry of women into more senior police roles has been referred to as ‘the brass ceiling’ effect by Alexander and Nowacki (2022), with further research illustrating how it is a global issue (Drew and Saunders 2020, Silvestri and Tong 2022, Todak 2023). In Queensland Australia, for example, women comprise only 18.6% of senior police leadership positions (Queensland Police Service 2022). As of 2020, women made up just 4% of local police chiefs and 1% of sheriffs were women in United States of America (USA) (Bureau of Justice Statistics 2021), illustrating difficulties in recruitment, retention and progression of women officers.

The history of policing in countries such as the USA, according to Kingshott (2009), is grounded in conflict and follows military models associated with British colonialism. Consequently, policing in many countries has been male dominated with hyper-masculine expectations and codes of conduct (Bishu and Headley 2020). As a result, male officers engaged in Special Weapons And Tactics (SWAT) are seen as the ‘real’ heroes of the police (Shelley *et al.* 2011). The Los Angeles Police Department (LAPD) have openly labelled police as either ‘hard chargers’ or ‘station queens’ – the former – such as SWAT teams – seen as legitimate and worthy, and the latter – officers undertaking mostly office-based roles – delegated as feminine and inferior (Herbert 2001). It is perhaps of little surprise given these cultural systems and expectations, that police departments have, over the years, had immense difficulty attracting and retaining women officers.

In contrast, Sweden remains a firm frontrunner with regards to more equitable gender representation (Rostami *et al.* 2022). In 2022, women comprised 34% of the Swedish Police Organisation, and 30% of managers in sworn police roles were women (Polismyndigheten 2022). In their comparative analysis of the barriers faced by women police officers across Catalonia (Spain), Austria, and the Netherlands, van der Lippe *et al.* (2004) found that, in countries such as Sweden where equal opportunities policies were utilised and childcare facilities provided, there were greater numbers of women officers. Furthermore, these women officers were regarded more highly by colleagues, and subsequently were afforded more senior positions within the organisation.

The global picture highlights how macro-level and embedded cultural issues may, for many countries around the world, make policing a difficult environment for women officers to engage with and progress (Alexander and Charman 2024). Internationally, there are common barriers to women’s progression within the police and linked promotion experiences. Existing research has so far identified that a progression through the ranks can be explained by, in the main, women officers’s decision not to pursue promotion (Archbold and Hassell 2009, Bishopp 2013). Caring responsibilities and a lack of confidence have been identified as the prime reasons why women officers opt-out of promotions processes (Holdaway and Parker 1998, Archbold and Hassell 2009, Drew and Saunders 2020, Todak *et al.* 2021), and goes some way towards explaining why women officers might find it more challenging to prepare for promotions (Robinson 2013, Todak 2023). Cultural barriers have also been noted internationally, with cultural assumptions that women are less competent or skilled than men for particular roles, and a gender trend in promotion processes favouring men’s progression over women (Worden 1993, Charman 2017, Todak 2017, 2023, Alexander and Charman 2024). Being too nice, or too ‘assertive’ were some of the reasons why women officers were not promoted. Elsewhere, women were overlooked because they did not conform to hypermasculine, aggressive and authoritarian traits (Treece 2016, Silvestri 2017, Brown *et al.* 2020, Adams *et al.* 2023, Todak 2023). Structural barriers have likewise been documented. For example, research has identified how internationally, men often benefit from mentoring, networking

opportunities, and gender biased promotion panels that enhance their promotion prospects, benefits that remain unavailable to women (Franklin 2005, Rabe-Hemp 2008, Spasić *et al.* 2015, Todak 2023). Such structural benefits have also been identified in the context of racialised promotion barriers which have served as ‘an invisible guiding hand that identifies, pursues, advises and sponsors ... [those] ... who fit the existing leadership composition’ (Clarke and Smith 2024, p. 1). To attain promotion through the ranks within policing globally, it appears that a positive outcome is determined by whether a person’s ‘face fits’ (Stubbs 2023, p. 6).

Previous research on the progression barriers for women in police has, according to Todak (2023, p. 968), only ‘scratched the surface of the problem’, and has called for further research to deepen our understanding of the challenges that women officers face. Our research responds to this call and advances understandings of these challenges. An examination of existing literature noted above demonstrates common experiences around the globe in terms of the barriers to women’s promotion in policing. The universal nature of this, we argue illustrates macro level forces are influencing meso level organisations and micro level experiences. In focusing specifically on the middle ranks of the police, we seek to interrogate the ecology of progression barriers facing women police officers in England and Wales.

Women in UK policing

Addressing the gender imbalance in policing is an issue that has plagued governments both internationally and in the UK (Home Office 2015, The Ministry of Gender and Family Promotion 2024).

An analysis of Home Office police workforce data found that, between 2007 and 2018, the percentage of women police officers across all ranks in the UK steadily increased (Hales 2020). However, whilst women comprised just over 30% of constable roles across England and Wales (Hales 2020), the highest distribution of women officers by rank (Laverick and Cunningham 2023), there has been a ‘small but sharp’ reversal of women at chief superintendent level since 2016 (Hales 2020). According to the authors of the *HeForShe* report (2019), the representation of women at senior levels ‘is the most obvious means of showing the imbalance of power between men and women in police forces across the UK’ (2019, p. 11). Although progress is being made, men still disproportionately occupy more senior positions in the police than women. Furthermore, the review of the Metropolitan Police Service by Baroness Casey (Casey 2023) highlighted how the Met had a “‘boy’s club’ culture, particularly in specialist commands’ making it difficult for women officers to ‘break through’ (p. 267). Whilst this paper does not focus on gender equality in policing outright, instead its remit is focused on gender proportions across police ranks, it is important to stay mindful of the context around gender proportionality in UK policing, and how it has seemingly reached a plateau.

In March 2019, every police force in the UK made a commitment to achieve proportionate gender representation across senior leadership by 2022 (*HerForShe.org* 2019). As part of this, police forces across the UK agreed to tackle three key areas around gender equality within policing: The engagement of men in gender equality; parental leave (in particular, the lack of men taking parental leave or utilising part-time/flexible working); and the links between gender equality and operational policing. Two years on from these organisational level commitments, some improvements were noted, such as an increase of women police officers and some growth in relation to the representation of women at Chief Officer level (*HerForShe.org* 2021). However, women remain under-represented at a national level across middle and senior management.

This paper aligns with the argument presented in the *HerForShe.org* (2021) report, namely, that the ranks of Sergeant and Inspector are key to achieving gender balance on the basis that they represent the traditional progression of officers through to more senior ranks. However, according to the authors of the report: ‘These ranks, typically, have the lowest numbers of women in post and the first step into line management generally sees the biggest drop in the proportion of women from the previous rank’ (2021, p. 9). Despite police forces across the UK committing to a

proportionate representation of women at senior levels, 89% of forces have a higher proportion of men at senior levels than within their force overall, and this was up from 76% of forces in the previous year (2021). As a result, the figures could be indicative of more systematic barriers related to the progression of women officers into more senior positions within the police.

Shelley *et al.* (2011) draw on the notion of a 'leaking pipeline' to describe the higher recruitment but lower retention of women staff within male-dominated professions. According to the authors, potential sources of leakage might include probation, training, family life, health issues, early retirement, or following sickness/injury. Each aspect presents a crossroads, whereby women may either advance within an organisation, stay in role, or resign. Whilst the literature has highlighted both the successes and barriers to women's progression in policing and senior leadership roles more generally (Todak 2023, Clarke and Smith 2024), there remains a dearth of research into the unique issues and experiences that women face in relation to the middle tiers of the police.

Our research involves an innovative mixed-methods study to explore this unique phenomenon within the context of policing personnel and linked systems in England and Wales. Research in this area is crucial as under-representation across the middle ranks will have a knock-on effect on future leadership, and the continued monoculture there-in once existing senior officers retire. In highlighting and responding to this issue, the following research is not only extremely timely, but is also politically necessary, with ACC Samantha Millar QGM highlighting that research into culture change in policing remains a priority in tackling violence against women and girls (Millar *et al.* 2024). This research aims to fill this significant knowledge gap by employing a complexity theory approach in examining data across several levels of ecology in policing. In doing so, the work offers a novel glimpse at the inner workings of gender (dis)proportionality across police ranks, within the context of wider gender (in)equality across policing as whole. The research objectives focused on in this paper were:

1. Analyse the proportion of police officers by gender and rank, nationally and by force, to examine gender proportions across police ranks.
2. Explore the experiences of women officers working for a police force where disproportion is present in middle ranks.
3. Identify potential barriers women face in relation to general policing work and culture, as well as career progression and the promotion process.

Methodology

The research included three components: (i) statistical analyses of national workforce data pertaining to 142,505 police officers in England and Wales; (ii) in-depth examination of one constabularies' HR data pertaining to 3321 officers; and (iii) force-wide semi-structured interviews with women officers ($n = 9$), interpreted via the results of an international scoping study. The three methods aimed to target each layer of ecology, with the results triangulated through the application of complexity theory.

Our research design specifically sought to target three levels of police ecology. At the macro level, national workforce data was selected to explore macro level trends in women officers and their police ranks, with further breakdown of how this appeared across the meso systems (police constabularies) (Marchiori and Possamai 2015). At the meso level, data from one police constabulary that mirrors the national and arguably international trends was selected to examine potential connections between what we term HR events and the disproportion of women officers in middle police ranks, as well as the meso level promotion patterns. To probe these potential connections further, women officers were interviewed to gain a more in-depth, micro level understanding of the role these events and how they potentially impacted upon promotion. Our analytical approach likewise mirrored this layering, in that data from each level of the ecology was analysed separately, and then subsequently examined as a whole within the discussion. This analytical technique was designed to

interrogate (and reflect) the interaction between these complex systems, and ultimately to understand the system as a whole (Turner and Baker 2019).

Procedure

To determine the composition of women officers across police ranks within England and Wales, the research team used the most up to date national data open source data available at the time of the study. This dataset, including information on 142,505 police officers, was made available by the Home Office regarding the police workforce in England and Wales year ending 31st March 2022.¹ The analysis filtered the data to police officers and aggregated police ranks to Constable, Sergeant, Inspector, Chief Inspector, and Superintendent+, before then extracting the counts of men and women officers across these ranks (by headcount). The same criteria were applied during the pseudonymised HR data extract. This extract included police officers who were employed by the force as of 31st March 2022 and had data pertaining to their gender present with the database. The ranks were aggregated into the same coding used for the national workforce data, resulting in a dataset of 3321 police officers by headcount. As part of data quality checks, the total number of officers within the national workforce data pertaining to the partnered force (where officer gender was recorded) and the HR data extract from the partnered force (where officer gender was recorded) were compared. This illustrated the same total count of 3321 officers in both sets of data. All data was collected, formatted, and analysed using R and RStudio.

Interviews with women officers were sought through the force Equality and Diversity Network. This resulted in nine responses, all of which were interviewed using a semi-structured interview approach. The interviews were transcribed and subject to thematic analysis using NVivo (Braun and Clarke 2006, 2019).

Ethics

The work was conducted using pre-existing research agreements with a partnered police force, whereby the research team were vetted and had access to data and officers for interview. Ethical approval was sought in two stages from the Business, Arts, Humanities and Social Science ethics committee at the University of Lancashire. The first phase of ethics sought approval for data analysis of national workforce data and police HR data, with the second focused on the interviews with officers. Ethical approval for stage one was granted on 2nd September 2022, with phase two approved on 30th January 2023.

Findings

Gender proportionality in the police at a national level

The research team first examined whether there was an association between police rank and officer gender within the national workforce data. The Chi Square analysis resulted in a statistically significant association with a small effect, $\chi^2 (4, n = 142,505) = 1001.1, p < .001, V = 0.084$, which illustrated how there was a greater than expected count of women officers at Constable rank, and a less than expected count of women officers at Sergeant, Inspector, Chief Inspector, and Superintendent ranks (see Table 1). It is important to note that these results should be interpreted with caution, as the study did not measure the time men and women spent in each rank. As such, historical trends in recruitment and promotion may influence the current proportions. Specifically, female recruitment and representation at the rank of constable have increased incrementally over several decades, meaning there may be a time lag in relation to women officer promotion. The difference between the observed and expected counts was greatest at the rank of Sergeant, and this difference decreased as the ranks become more senior.

Table 1. Observed and expected counts across police ranks and gender using pooled police officer data.

| Rank | | Gender | | | | Total |
|-----------------|----------|---------------|----------------|---------------|----------------|----------------|
| | | Women (n) | (%) | Men (n) | (%) | |
| Constable | Observed | 40,831 | (36.4%) | 71,215 | (63.6%) | 112,046 |
| | Expected | 38,517 | | 73,529 | | |
| Sergeant | Observed | 5479 | (26.6%) | 15,089 | (73.4%) | 20,568 |
| | Expected | 7071 | | 13,498 | | |
| Inspector | Observed | 1643 | (26.2%) | 4637 | (73.8%) | 6280 |
| | Expected | 2159 | | 4121 | | |
| Chief Inspector | Observed | 552 | (27.4%) | 1464 | (72.6%) | 2016 |
| | Expected | 693 | | 1323 | | |
| Superintendent+ | Observed | 483 | (30.3%) | 1112 | (69.7%) | 1595 |
| | Expected | 548 | | 1047 | | |
| Total | | 48,988 | (34.4%) | 93,517 | (65.6%) | 142,505 |

The research team then conducted a Chi Square analysis on each of the 43 forces, extracted the adjusted residuals from the Chi Square results, and then stored residuals relating to women officers. The residuals represent the difference between the expected and observed counts of women officers in each rank across the forces, given the total proportions of men and women officers within each force. Put simply, the analysis considers whether there is a greater or lesser proportion of women officers across each rank when compared to the forces' total composition of officer gender.

To interpret the analysis, an expected count is a projection of the expected number of officers in each rank if the null hypothesis (i.e. no difference in gender compositions across ranks) were true, and the observed counts relate to the actual count of officers. In interpreting the residuals, a residual of -2 or lower indicates that the officer count was *less than expected* (to approximately $p < .05$) and a residual of $+2$ and greater indicates a count that was *more than expected* (to approximately $p < .05$). The visualisation in Figure 1 plots residuals for women officers and uses the dotted red line to illustrate which forces had residuals that fell above and below the threshold across each rank. As seen

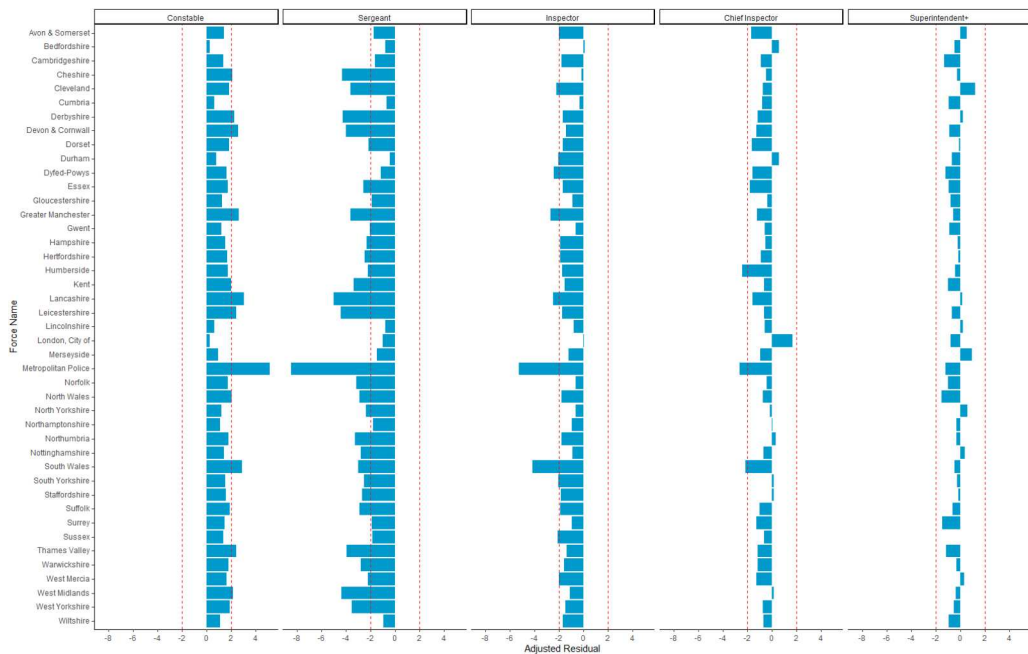


Figure 1. Bar plot of adjusted residuals illustrating the difference between observed and expected counts of women officers across each of the 43 forces in England & Wales. Note: dotted red lines indicate approximate $p = .05$.

within the visual, the majority of forces across England and Wales had expected or a greater than expected number of women officers at Constable level with residuals falling between 0 and 2. However, there were lower than expected counts of women officers at Sergeant level with residuals falling below -2 . This suggests that there may be a distinct under-representation of women within the rank of Sergeant, potentially due to the time lag in promotion from Constable. The expected and observed counts become more similar at Inspector, Chief Inspector, and Superintendent + level, with residuals falling between -2 and 2. Whilst the expected and observed counts appear similar at higher ranks, such as Chief Inspector and Superintendent+, it is important to note that this reflects an adherence to the overall composition of officer gender within the rank of that force.

The data likely represents the more current work in relation to greater recruitment of women Constables (thus increasing the proportion of women at this rank) but illustrates a potential barrier in promotion into Sergeant and possibly other ranks. It is possible that the lower residuals in higher ranks may represent measures, such as ‘direct entry’ (whereby external candidates can join straight into an inspector or superintendent role), the recruitment of women leaders from industry (The College of Policing 2024)² Figure 1 may also evidence that women at constabularies such as Cumbria and Merseyside hold senior positions, suggesting progression barriers are less pronounced. Interestingly, Chief Constables in both constabularies were women at the time this data was made available. In contrast, data from London Metropolitan Police illustrates larger disproportions of women officers at all senior policing levels, consistent with conclusions of the independent review (Casey 2023). Again, this could be indicative of misogyny, sexual harassment and toxic masculinity, as identified in Operation Hotton (Independent Office for Police Conduct 2022), in addition to practical barriers for women in policing.

Overall, the analysis illustrates how there are less than expected counts of women officers in the middle ranks across a range of forces in England and Wales.

Examining force level issues

Statistical analysis of HR data

As the national analysis indicated potential barriers for women moving from Constable to Sergeant (and possibly higher ranks), the research team liaised with a police force that followed this trend to better understand some of the meso level patterns apparent in the data. Human Resources (HR) data was extracted and provided information on 2066 (62.2%) men and 1255 (37.8%) women officers.³

As illustrated in Table 2, the total gender composition across the force illustrated a male majority. In examining the proportions of women officers across ranks in comparison to the respective total (approx. 38% women), it is possible to see that within the rank of Constable there was a slightly greater proportion of women (approx. 42%). This figure then dropped (to approx. 25%) across the ranks of Sergeant, Inspector and Chief Inspector. This illustrates both the relationship found within the national data and how the trend is occurring within the context of an overall male majority workforce.

The HR data contained a variety of HR related events (e.g. sickness, career break, promotion) which were analysed to begin understanding the possible reasons for the disproportion of women officers in the middle ranks of the police. To determine the gender composition of officers across the HR events, each unique officer ID was used to group the HR events before presenting gender proportions.

Table 2. Officer gender broken down across force rank.

| Sex | Constable | Sergeant | Inspector | Chief Inspector | Superintendent+ | Total |
|-------|-----------------|----------------|----------------|-----------------|-----------------|-----------------|
| Women | 41.6% (1062) | 24.1% (117) | 25.6% (45) | 26.8% (15) | 30.2% (16) | 37.8% (1255) |
| Men | 58.4% (1488) | 75.9% (369) | 74.4% (131) | 73.2% (41) | 69.8% (37) | 62.2% (2066) |

As seen in Table 3, most officers who took at least one event of child related leave were women ($n = 161$, 94.2%) in comparison to men ($n < 10$, < 5.8%). Conversely, a greater proportion of men had seemingly undergone promotion within the force ($n = 212$, 74.4%) in comparison to women ($n = 73$, 25.6%). A larger proportion of men had also been transferred to another police force ($n = 68$, 84.0%) in comparison to women ($n = 13$, 13.0%), indicating that male officers may be more transient than women officers.

As the national data indicated the greatest shift in proportions at Constable to Sergeant level, the analysis focused on promotion events across the officer groups.

The figures in Table 4 show that promotion events largely favoured officers who were men. The result illustrates how the proportion of women promoted was lowest in the movement between Constable and Sergeant level, suggesting there may be issues for women officers in applying and/or securing promotion at this level. The proportion of women officers subject to promotion appeared to trend slightly higher as the rank seniority increased, however, this was in the context of an overall majority for men. Overall, for every 1 promotion event for woman there were 3 promotion events for men.

Overall, the HR data analysis illustrated that women officers were associated with care related leave, whereas male officers were associated with promotion, retirement and transfers to other forces.

Qualitative analysis of interview data

To understand the patterns and corresponding issues identified in national police workforce and constabulary data (meso level), interviews were conducted with women officers from the same regional police force in the UK (micro level). We sought to comprehend the ways meso level trends informed or were borne out of micro level experiences. Nine officers were interviewed about their experiences working for the police and, in particular, their experiences of workplace culture, training needs and development, and opportunities or barriers in relation to promotion. This included ascertaining views on a range of topics where gender or gender bias/inequality may be an issue – such as balancing work with childcare/caring responsibilities (if relevant), workload, and flexible working.

A total of three Inspectors and six Sergeants were interviewed, adopting a semi-structured interview approach. The ages of participants ranged from early twenties through to late fifties. Most participants were white British, and one participant was mixed-race. Interviews were conducted via video-call and audio recorded. Remote interviews enabled police to fit the interviews around their busy and often unpredictable schedules, in a location suitable to their needs. Interviews were transcribed by the research team and analysed through NVivo, following a thematic analytical approach (Braun and Clarke 2006, 2019).

Table 3. Distinct counts of officers who had undergone an HR event, broken down by officer gender.

| Gender | Adoption/Maternity/ SPL | Career Break | Promotion | Resignation | Retirement | Sickness | Transfer to other Police Force |
|--------|----------------------------|-----------------|----------------|---------------|----------------|----------------|-----------------------------------|
| Women | 94.2% (161) | 57.7% (15) | 25.6% (73) | 47.8% (86) | 25.0% (147) | 42.2% (607) | 16.0% (13) |
| Men | <5.8% (<10) | 42.3% (11) | 74.4% (212) | 52.2% (94) | 75.0% (441) | 57.8% (830) | 84.0% (68) |

Table 4. Promotion events broken down by gender.

| Gender | Constable → Sergeant | Sergeant → Inspector | Inspector → Chief Inspector | Chief Inspector → Superintendent+ |
|--------|----------------------|----------------------|-----------------------------|-----------------------------------|
| Women | 24.7% (36) | 26.4% (19) | 31.4% (11) | <28.6% (<10) |
| Men | 75.3% (110) | 73.6% (53) | 68.6% (24) | 71.4% (25) |

Of note, a single officer could appear in multiple counts if promoted multiple times within the year.

Organisational & structural barriers

Workload

Participants described extremely heavy workloads and a pervasive culture of overwork which had a significant impact on those with children or other caring responsibilities. Working overtime, often at last-minute and during unsociable hours, was normalised. One officer describes working 60 h worth of overtime in a month which, she says, is 'fairly common'. The same officer also detailed having just five hours off over a period of forty-eight hours. She admits that 'if I had children, I physically don't know what I would have done ...' (005). As officers move up through the ranks, there is an expectation that the work will get done 'whatever hours it takes to get done' (001). This represented a considerable stumbling block for those with caring commitments who were forced to make sacrifices to keep up with an ever-increasing workload. One officer – an Inspector – described being heavily pregnant and felt the pressure to continue to work 40/45 h weeks. Another officer felt that she was missing out on her child's life because of the long working hours that were expected, which left little time for family life.

A few participants discussed going 'above and beyond' in their role as managers, and talked about being constantly available for their staff should any issues arise. One participant felt that there was a gendered aspect to this with women socialised to take on more caring roles and feeling the burden of responsibility for other people's welfare and well-being, even at the cost of their own. As such, women officers are not exempt from the additional responsibility entailed by emotional labour, and this gendered expectation may take its toll on an officer and the sustainability of her career (Broadbridge *et al.* 2000, Gorman and Kmec 2007, Charman and Tyson 2023).

Flexible working

The interviews revealed a gendered aspect to flexible working, which tended to be utilised by women. Although policies for enabling flexible or more agile ways of work were in place across the constabulary, these did not necessarily translate into practice. Flexible working was often at the discretion of an officer's line manager and was dependent on role and linked responsibilities. According to the following officer:

... it's such a fast-paced role and so busy and intense ... you can't just start a rap and then go 4 or 5 – "Gotta go now." There's no chance. You know? (003)

There was a consensus among participants that those who opted to work part-time were not treated fairly. In addition, issues around workload meant that part-time workers tended to work over their hours. In the words of one officer:

... it was the same workload but I had half the time to do it and so when I came into work, I would literally be running at full power for those two days. So, you know, I wouldn't take lunch breaks because you've also got that pressure ... definitely got the same workload I've found (007)

Part-time working proved challenging in relation to frontline roles whereby, according to one participant, '... if you're not there all the time and you're not carrying the same workload as others I think you can kind of be seen as a spare part or not given the same opportunities because you're not always here' (002). As a result, one participant felt that the consistency needed for certain roles meant that full-time workers were often chosen over part-time workers and that, as a result, some supervisors were reluctant to have part-time officers on their team. The lack of opportunities afforded to part-time workers meant that women juggling caring responsibilities were reluctant to consider it as an option, as they felt it would negatively impact their career. One officer, who was anticipating her return after maternity leave, intended to continue to work full-time hours because she did not want to impact the team and because she felt that dropping too many hours 'would really set me back, particularly in my career' (001).

Restricted duties and maternity leave

Officers described numerous challenges from being placed on restricted duties and after a period of extended leave. Women who had taken maternity leave discussed the difficulties of working whilst pregnant, and the adverse impacts they faced upon their return to work. One participant discussed the lack of accommodations made whilst she was pregnant:

... I'm about to pop, I am getting tasked with deadlines and I'm thinking "if I go into labour, really this isn't gonna get done" ... not that I want an easy ride by any means because I've chosen to still be at work but tasking is coming to me with very little consideration about what that means for me and my wellbeing (001)

Further issues were noted for lactating mothers. These related to the wearing of body armour which made milk production difficult. Breast discomfort, injury and the fit and functional requirements of women soldiers has likewise been noted in military research (Coltman *et al.* 2020, Trego 2021). In addition, despite the availability of a room for her to express milk, one respondent found that the demands of her workload meant that she was unable to do so. Being so busy meant that was unable to get breaks to eat or drink properly, which impacted on her milk supply:

Everybody said "you can manage that". Take your own time. So everything was in place for it to be successful, but ... in actual fact what they pile on doesn't allow for that (001)

In the above scenario, the accommodations made by the force failed to address the root cause of the issue – namely, a heavy workload and unrealistically high expectations. Subsequently, the onus of responsibility was placed on the employee rather than the organisation.

Officers found that shifts proved difficult to balance with childcare responsibilities, and other requirements of the role – such as fitness tests – proved immensely challenging for both pregnant officers and recent mothers who were dealing with sleep deprivation and 'baby brain' (Luders *et al.* 2020). According to one officer: 'Even if you're part-time then I think it's hell ... I feel sorry for most people returning from maternity' (007). A few participants discussed how returning from maternity leave resulted in a loss of confidence, in part caused by the increasing demands of a shifting, fast-paced, and dangerous environment. For mothers in Charman and Tyson's (2023) research, cultural challenges following a return to work, lead to what they argue is a 'conflicted identity'. Whilst returning from maternity leave is not a new concern, the unique circumstances of the policing environment exacerbate the barriers experienced (Duddin *et al.* 2023).

Promotion application process

Becoming a Sergeant or an Inspector required completing a mandatory portfolio of work which was described by several participants as a particularly time-consuming process. Participants felt that the current allocation of one day/month study time was inadequate and resulted in officers having to make up the shortfall in their own time. There was a consensus that those with childcare or other caring responsibilities would struggle to complete the necessary work in the required timeframe and so would miss out on promotional opportunities.

The application process also served as a barrier for those getting back into work after a period of leave (such as maternity, sick leave, compassionate leave etc), mainly due to the requirement for up-to-date training and recent operational experience. A participant who was on restricted duties was also unsure how to manage the promotion process because she felt that it favoured operational officers serving on the frontline. In addition to this, the expectation that officers bring something 'extra' to a more senior role by diversifying their portfolios through the undertaking of specialist training also served as an additional barrier. As a result, some women noted that whilst they were interested in applying for promotion, having caring responsibilities or access issues meant that they were forced to delay this process.

Officer dedication to their job meant that they used their work-time to prioritise their commitments to victims and public safety over their own career path and development. According to one participant:

No one's going to prioritize their portfolio of work over getting a job done, getting it to court, helping a victim because I know my team, I know my staff, they don't make choices like that. (005).

This is an interesting finding in the context of the 30 × 30 initiative which identifies women's positive attributes of being victim-focused as a reason to recruit more women into the police. Yet, this attribute has been shown to come at the cost of women's progression in the workplace.

There was a sense from participants that a key requirement for securing a promotional appointment was the ability to network and connect with senior managers, a finding echoed in international research (Todak 2023). One participant felt that the promotional process was dictated by 'relationships and face fitting ... so if your SMT (senior management team) are a certain way, they're going to have certain people and that's just the way it is.' This was confirmed by another participant who felt that progressing beyond the rank of Sergeant became 'less about capability and more about who you know' (005). According to this officer, those who progress through the ranks tended to be those with a pre-existing relationship with members of the senior management team:

... it's familiar faces. It's – "I was on the van with you 15 years ago, and I know you're a good lad." All that kind of stuff, just I feel like I have to be ... I have to work twice as hard and I have to be twice as good as my male colleagues in order to succeed. And that's not the way it should be at all, but that's how it feels and it's because I don't have the advantage of ... "we play golf together" or "our wives know each other" or anything like that.. And yes, I can succeed in that environment, but there's no leg up (005)

The same officer had previously applied for a more senior position and was told at the interview panel that the board 'had nothing to go off' because they had not met her before. This was despite the fact that the interview was supposed to be unbiased – based on a candidate's skills, experience, and performance – rather than weighted towards pre-existing relationships with management. In addition, respondent 001 felt that officers were typically promoted based on their being a '*good cop*', rather than their leadership abilities. These findings align with that of Clarke and Smith (2024) and Todak (2023), who found that policy bureaucracy maintained and reproduced networked positions of power and elite status for those like themselves. Clarke and Smith (2024) claim that hidden social networks exist in London Metropolitan Police that support and act in the interests of officers who matched the social characteristics or homophily of the current leadership; 'social network volition'.

Elsewhere, officer 005 wanted to go for a promotion but was told by senior management that they did not think she was ready: 'I had a Detective Inspector tell me that the worst possible outcome was me applying and getting through.' However, only a few months later, the same Detective Inspector let the officer 'act-up' into a Detective Sergeant role. The officer felt that her superiors were keen for her to 'act up' rather than immediately enter a more substantive role as it would be easier to step her down again if she did not perform well. The officer found the process 'frustrating' and 'disempowering,' and felt that she was treated differently from her colleagues because of her gender and because she is young in service, highlighting the continuation of the 'old boys' network' within policing (see also, Hassan and Hufnagel 2018, Kurtz and Upton 2018, Todak 2023).

Cultural barriers

Family vs career

Women officers found themselves in the position of having to choose between having a family or a career in the police. This dilemma is one experienced by women around the world, partly due to the continuation of gendered stereotypes and expectations that women are the main carers in families and responsible for childcare and their children's upbringing (Andersen 2020, Pinho and Gaunt 2021, Sarker 2021). The resultant juggling (of expectations, workload, and other commitments) often led to significant sacrifices and greatly impacted women's opportunities and development across their police career (Todak 2023). Although participants described trying to have

both a career and a family, in reality the significant and, at times, inflexible demands of their working role meant that this was often not possible. One officer describes the workaround that she was forced to make as a result:

I refuse to accept that you can't have a family and a career, but now I accept that perhaps you don't go at the same time ... Something has to give whilst the other takes priority (001)

While some women might have a family before focusing on their career, other officers may decide to delay starting a family so as to focus on their career. One officer waited until her children were older before focusing on her career development:

I didn't feel I could really progress until the kids were kind of at a stage where they were at high school ... You know, nothing really changed for him (husband). Whereas for me and I don't think I'm alone here and you know it, a lot of the responsibilities to fall on the female ... It has affected my career. So had I not had the kids, I definitely would have done the promotion process sooner (007)

There remains an expectation – both culturally and filtered into relationships and the workplace – that the onus of childcare and other caring responsibilities will fall to women and all the officers we spoke to who had children described being responsible for domestic arrangements outside of work. Disproportionate domestic responsibility had a knock-on effect on women officers' working life and subsequent ability to progress through the organisation, a finding echoed in other studies (Pološki Vokić *et al.* 2019).

It is perhaps particularly telling that one officer – an Inspector – described herself as an anomaly because she had a family at the same time as going through promotion. This presented a unique set of issues. That few women decide to have children after entering a more senior position is particularly telling, and there was a consensus amongst participants that the lack of women at sergeant and inspector level was most likely due to the lack of workload adjustments and accommodations for childcare and other caring responsibilities. As a result, women may be forced to leave the force altogether to focus on family life.

Three respondents had partners who were also police officers. This created additional barriers when considering promotion, particularly for those with families, as two sets of shift patterns were difficult to negotiate when juggling domestic responsibilities with workload. According to one participant: *'One person has to choose whether to apply for promotion'* (009). Given that childcare tends to fall to women, it is more likely that the career of a male partner will be prioritised. Half of the women interviewed in Archbold and Hassell's (2009) study on 'cop couples' had husbands in supervisory positions, which affected their own promotional opportunities. These issues were amplified in a sergeant's role which required on-call availability, often at short notice, which made childcare arrangements difficult to organise and predict.

Ideal police officer

Participants believed there to be an 'ideal officer' type who was more likely to be promoted. The candidate most likely to succeed was one who was confident, unemotional, could 'fit in with the lads,' and who could ignore or downplay PTSD/mental health issues. Displaying emotions or a negative attitude was believed to impact progression within the force, which is interesting in the context of the 30 × 30 initiative launched in Australia, Canada and the US, where women's compassionate nature as officers is highlighted as a positive attribute. According to participants, it was for these reasons that men were more likely to get promoted:

A lot of the time I would say your male counterpart is going to be able to hide that better than a female. That's in my experience. Whether it's affecting them ... you don't know ... (009).

The women who did break through to the senior tiers were considered by their colleagues to be more adept at masking their emotions: *'I'm a very emotional person outside of work and inside work, not so much because I put up a front. But ... I think it's very difficult for women emotionally'*

(003). One participant expressed the belief that she would have been promoted earlier had she fitted the ideal officer type.

The under-representation of women across the middle and senior tiers of the police – combined with issues of gender bias – created the foundation for the formation of misogynistic attitudes by some male officers. As a result, participants felt continual pressure to work harder and perform ‘better’ than their male colleagues in order to be treated equally:

‘... women (have) probably got maybe something to prove you’re good enough for the job’ (007)

‘I think the pressure is on females more than it is males’ (004)

‘Quite a few male colleagues thought I was coming in for an easy ride’ (008)

This finding is in keeping with the wider literature around tokenism, and the continual pressure on women to outperform, and policing is no exception to this (see for example, Pierino 2007, Rabe-Hemp 2008). Several respondents who had been offered training opportunities or who had successfully obtained a promotion reported receiving comments from male officers that their achievements were due to their gender rather than any individual merit.

Oh of course you’ll pass your course because they need females on there’ (002)

‘I ... tick a lot of boxes for people, and people have openly said to me ‘... you’re BAME and you’re female. Why wouldn’t we want you in our department? ... so I do feel that I get used sometimes to be a token (001).

Discussion

In many parts of the world, such as Australia, Canada, China, India, the United States, and as we have shown in England and Wales, women are underrepresented in the police. As a result, the issue of a lack of gender diversity in law enforcement suggests that universal, macro level issues have informed women’s lesser engagement in policing (Charman 2017) and most acutely in middle tier and higher ranks (Alexander and Charman 2024). Our study has provided an in-depth examination of this trend across the layers of ecology in England and Wales. By applying the lens of complexity theory across existing literature, in addition to an analysis of national workforce data, HR data from a police organisation, and interviews with women officers, this study illustrates the societal, organisational, and individual levels that interact and converge to impact women officer progression within the police. Whilst previous research has acknowledged the ‘structural conditions’ and ‘social environment’ in which police officers operate, and how this has ‘changed immeasurably’ since the turn of the century (Charman 2017, p. 4), the use of complexity theory as a framework to analyse data and inform our methodological design is novel, as is our analysis of HR police data. Consideration of these systems, how they operate and interplay, and what key areas to target will be of interest to those seeking to encourage more women into policing and take on law enforcement leadership positions. In this discussion we identify what we categorise as ‘promotion inhibitors’ that may be the target of EDI interventions, as well as what we propose is a ‘police progression paradox’ that fails to look beyond overall percentages of women officers compared to men, which on the surface may appear to suggest gender equality.

The complex systems that operate within society comprise of macro, meso and micro systems that converge and are intertwined (Walby 2009). At the macro level, education, increased employment opportunities, access to childcare, and maternity leave policies have, for example, enabled women to enter the workplace in a way 50 years ago women were not (Gregory 2003, Jones 2019). State law and policies have been enacted to support this entry into employment, such as statutory maternity leave policies (Katherine and Ann-Marie 2012), sex discrimination laws (Gaze 2010), and childcare support (van der Lippe *et al.* 2004). Likewise state initiatives that seek to enhance women’s entry into policing, such as training and courses targeted at supporting women’s progression in policing in South Africa (Ward and Prenzler 2016), are macro level changes that

influence both local police agencies (meso) and women's experiences as officers (micro). For example, research has documented the historical shifts in women's entry into policing as a profession and the importance of governmental policy and legislative changes (Charman 2017), as well as international agreements (e.g. Article 18 of the CEDAW agreement, 1979 United Nations Convention on the Elimination of All Forms of Discrimination Against Women) (Ward and Prenzler 2016).

However, as we have discussed, commonalities around the world that relate to women's continued domestic responsibilities, women's assumed more caring role in the workplace, and a culture of masculinity in certain workplaces suggest that these macro systems are still influenced by universal gendered stereotypes (Carli 2020, Coleman 2020, Barkhuizen *et al.* 2022). Thus, whilst macro, state level changes such as 30 × 30 are introduced, this does not necessarily mean policy will always be followed by practice changes. That said, this does not mean this is a failed approach, only that change can take time, such changes need to be made mandatory, or other changes need to be made to accommodate better practice. As with The Sexual Offences Act 1967, which decriminalised homosexuality (Grey 2011), social and cultural change may take several decades and requires more than a macro level approach. As Charman (2017) notes, police culture is not something that is malleable and easily shifted. Indeed, as Clarke and Smith (2024) has shown, the percentage of black officers in senior positions remains low in London Metropolitan Police, despite explicit formal attempts to change this situation.

Furthermore, macro level changes could also lead to unintended consequences when it comes to women officer progression. For example, macro level initiatives that aim to address difficulties for women officer progression could breed resentment at the micro level, especially amongst officers who are men (Cunningham and Ramshaw 2020). This was mentioned by participants within this study, stating that others viewed their progression being attributed to their gender, rather than individual merit. In addition, policies such as flexible working can serve as a double-edged sword, as they both enable and disadvantage women equally (Silvestri 2018). As mentioned within the officer interviews of our study, whilst policies such as flexible working are available (meso level), in practice this does not necessarily mean a reduction in duties due to the police culture of 'overworking' and can also lead to women officers being passed up for opportunities as members of management do not want part-time workers on their teams (micro level). The above examples illustrate how meso level initiatives may prove difficult when applied across various contexts within the meso and micro systems.

Meso systems, such as local police agencies and their culture, policies and procedures likewise inform women's entry and progression within policing. Much previous research has identified cultural, stress and attitudinal differences between police agencies in China (Wu and Wen 2020), Pakistan (Husain 2020), the United States (O'Shea 1999, Barrett *et al.* 2009) and New Zealand (O'Shea 1999, Barrett *et al.* 2009, Buttle *et al.* 2010). As Kutnjak Ivković and Khechumyan (2014, p. 39) have claimed 'police agencies within the same system can develop different expectations of integrity'. Thus, cultural differences between police agencies in the United States have been deemed organisational rather than occupational (Cordner 2017, Silver *et al.* 2017). Yet, as complexity theory suggests, these meso systems continue to be influenced by, and can influence, macro and micro systems as they do not exist in a vacuum. Potential evidence on the impact at the meso level is evidenced by the differences in culture across police forces in England and Wales. For example, within the analysis of the national workforce data, the Metropolitan Police Service had particularly strong trends in relation to gender proportions across ranks, and is the force that has been criticised most heavily in relation to misogyny, as well as other issues (Casey 2023). This may differ from forces with existing examples of balanced and representative senior leadership, which may transcend through their ranks largely due to force culture within the meso system. This could in part be due to the disruption of the 'ideal officer' stereotype within senior ranks (Silvestri 2018). As such, the expectation to be forceful, tough, aggressive, and competitive may not be expected, and a more inclusive view of 'ideal officers' becomes instilled within the organisation.

Micro systems include the daily interactions the police have with others. These micro level interactions are mediated by macro (Charman 2017), and meso systems but are also influenced by individual behaviours and opinions. Previous research on women’s daily experiences as a police officer have noted sexual harassment, discrimination and bullying in many parts of the world (Todak and Brown 2019, Rief and Clinkinbeard 2020, Cénat *et al.* 2022, Aborisade and Ariyo 2023). As Cunningham and Ramshaw (2020) documented in their study of women’s daily experiences as officers in the UK, when women attained senior rank, male colleagues would make comments such as ‘What’s she doing up there, it’s ‘cause she’s female’. The impact of such negative micro interactions can lead to women feel like they do not belong in a policing work environment (Rief and Clinkinbeard 2020), thereby creating retention and progression problems. As we found, these conditions negatively impacted on many women’s confidence to apply for a promotion, and this was mentioned explicitly within the participant interviews.

Whilst increasing numbers of women are entering the police, the gender gap remains (Astley and Harness 2009). According to Brown *et al.* (2006), women need to comprise around 35% of all sworn officers in order to have equal access to opportunities for progression. Yet as we argue here, whilst changes in the percentage of women’s entry into policing is positive, society and policing are comprised of complex systems of ecology that interact and inform each other. Positive change needs to take place simultaneously throughout the macro, meso, and micro systems, to effectively support women officer progression in policing. Thus, whilst initiatives such as the 30 × 30 campaign will draw more women officers into the lower ranks of policing, further work is needed alongside this campaign to enable women to progress to more senior law enforcement positions. Rather than solely dealing with ‘bookend’ police ranks (entry level and direct entry at senior level), support is needed in the middle ranks of the police to support women’s progression. Furthermore, focusing too heavily on the overall percentage of women officers in the police, as opposed to proportions across the subset of rank, creates what we term a ‘police progression paradox’ Figure 2 (similar to Simpson’s paradox (Simpson 1951)) which masks the disproportion of women officers in middle ranks of policing and suppresses our understanding of possible barriers to women officer progression.

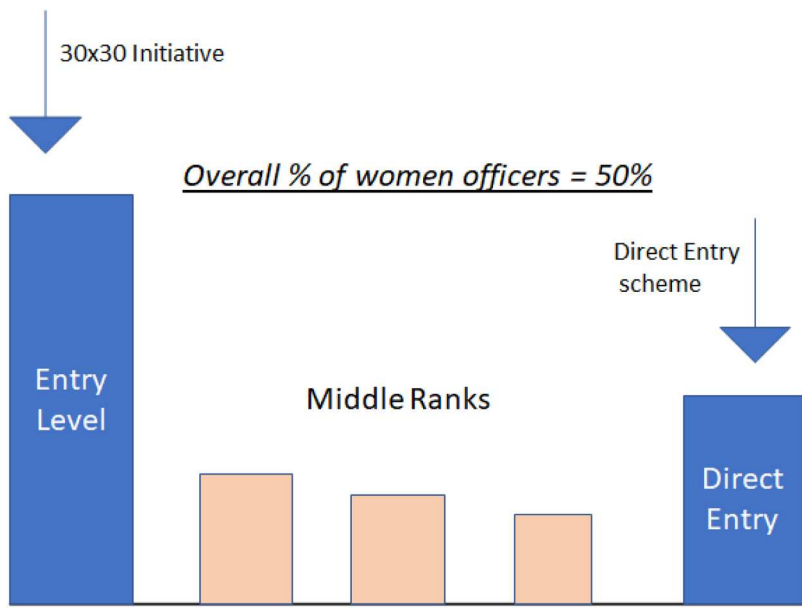


Figure 2. The police progression paradox.

Interventions at the meso and micro level, such as tackling misogyny and sexual harassment, training officers in selection bias, providing supportive maternity leave policies, and women focused promotion events, may assist with tackling this paradox.

Taking a complexity theory approach to the study of women's progression in policing is we argue an important one. Women officers experiences in ours and other research has illustrated significant commonalities that transcend micro interactions. Rather than taking a reductionist approach, which seeks to understand the whole system by analysing its component parts (for example undertaking interviews to understand broader trends), complexity theory seeks to comprehend how each part interacts, which according to Turner and Baker (2019) leads to 'a more comprehensive and complete understanding of the whole.' By taking a multi-layered approach to understanding women's progression, our study illustrates the interaction between macro, meso and micro systems, as well as the patterns and trends within and across these systems, and how they inform each other. According to complexity theory, complex systems (such as the police service) are comprised of multiple non-linear relations between component parts of the whole system. For example, as we have shown above, macro level changes such a national police policy can filter through these complex systems to alter women's experiences and vice versa, women's micro interactions can lead to meso level changes that then inform macro level decision making.

By taking a complexity theory approach further and moving from theory to practice, practical interventions that seek fair promotion, we argue, must move away from the often taken for granted paradigm of individualistic career progression. Instead, a woman's progression is mediated by meso and macro systems (whole system) and not in isolation of them. Police promotion panels would thus benefit from considering constabulary level analysis of HR data to determine meso level trends and whether they reflect macro level patterns, when reviewing a person's promotion application. In addition, practical changes could be made within forces to address issues that may prevent women officer progression. For example, given that care-related leave seemed to be exclusive to women officers within the HR analysis and given national changes to care-leave policies at the macro level, forces could examine their care related policies. If there were changes to the shared parental leave policies and the provision of child-care facilities for those who work shifts, such meso level changes could positively impact on women officers at the micro level to enable more time and space to apply and be more successful in promotion. Furthermore, there appeared to be more proportionality in some forces where the Chief Constable was female (i.e. Cumbria – Michelle Skeer, Merseyside).

A complexity theory approach, as we have shown also offers empirical researchers with a methodological framework to enable a holistic understanding of a whole and parts a system, in this case the police service. Whilst a complexity theory led approach does not privilege specific modes of scientific inquiry over others, it does not regard experimental methods such as randomised control trials, as able to assist in our understanding of complex systems (Byrne and Callaghan 2022). Our 'complexity-led methodology' (Gear *et al.* 2022), involved the analysis of macro and meso level quantitative police data, and prompted us to probe further to explore specific micro interactions through qualitative interviews that then assist our understanding of macro and meso trends. Thus, our design involved the utilisation of diverse methodological techniques appropriate to the level of analysis under study. This mixed method approach has likewise been driven by a complexity led approach for policing scholar Ingrams (2017) who utilised both police data and interviews with officers in the USA to deepen an understanding of police governance, albeit discussion of the ecology and levels in systems was absent. Future policing researchers may seek to identify and reflect on the layered and overlapping nature of complex systems and how they map onto or align with the research design and methodological approach adopted.

Future research may seek to identify and chart the various macro, meso and micro systems and their influence on policing to enable a multi-faceted campaign to support women in policing, drawing on work that has charted strategies to support women's progression in policing (Garcia and Shen 2023, Taniguchi *et al.* 2023, Huff *et al.* 2024, Pyo and Lee 2024). In addition, whilst the

use of complexity theory is a useful analytical framework to help explain levels of influence and experiences, using, for example 'meso level' can conceal what are often complex, intricate, and different meso level organisations and groups which need further investigation to understand their significance and relationships to other meso and micro groups. Bronfenbrenner's (1992) Ecological Systems Theory may also be an avenue of exploration. Some scholars have referred to police culture as being pictorially portrayed like an onion (Charman 2017), which may align with the layered approach of Bronfenbrenner's Ecological Systems Theory. Future study could examine more detailed data on the promotion process within Learning and Development departments to further explore the progression of women officers through the promotion process, especially those with care giving responsibilities. Such work could examine the rates of promotion application, success in exams, success in panel interviews, and re-application broken down by gender and care giving responsibilities of officers. Further work may also seek to incorporate larger samples sizes both in terms of the quantitative analysis presented here, and the number of interviews conducted.

Conclusion

This paper started with a meso level exploration of the association between gender and police rank across the 43 forces of England and Wales using national open source workforce data. This was followed by a detailed examination of gender representation across the ranks of Constable, Sergeant, Inspector, and Chief Inspector, and Superintendent + level at a single regional police force in the UK to confirm similar patterns existed within the local meso system. Thematic analysis of police interview data highlighted the interplay of gender issues across the micro, meso, and macro spheres, and the ways in which gendered assumptions, roles, stereotypes, bias, discrimination, and inequity play out both within and across each of these systems to hinder women officer progression (Wiley 1988). Drilling down into the experiences of individuals within a single organisation revealed the current roadblocks that women officers today face when attempting to build a long-term career in the fast-paced, para-militaristic, and male dominated workforce of policing. The resulting themes – an inflexible and burdensome workload, male-centred policing ideals and associated biases, and a monocultural work environment – emerged as significant barriers which continue to thwart women's progression and advancement throughout middle ranks. To borrow the term from Alexander and Nowacki (2022), 'the brass ceiling' effect continues to ripple across the middle and senior tiers of the police in England and Wales with detrimental impact for its serving officers, and for its role and effectiveness in society and future leadership. This article will be a useful point of reference for those in policy and practice, who seek to improve and support women's progression throughout all ranks of the police service. As shown, intervention is needed across the complex multi-layered systems of ecology to deliver practical change for women officers at the micro level. Whilst international initiatives such as 30 × 30 are positive ones, other roadblocks such as those documented in our study, will continue to hinder women's progression unless a 'whole systems' approach to tackling progression inequities is progressed. We argue that nation states need to consider how the 'police progression paradox', created by the appearance of gender balanced workforce data, can mask deep rooted and universal barriers to women's promotion through the middle ranks of the police.

Notes

1. <https://www.gov.uk/government/statistics/police-workforce-open-data-tables>.
2. For further information about police profiles and rank in England and Wales, please see: National Level of Policing – College of Policing.
3. In addition to the data reported within the results, the HR data from the police force contained 112 (2.45%) officers who 'preferred not to say'/'self-describe', as well as 1134 (24.83%) officers where the recorded sex was 'unknown'.

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