

MOD Armed Forces Personnel Statistics 1 October 2017

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UK Armed Forces Equal Pay Audit

This report details the findings of the second equal pay audit for the UK Armed Forces. It compares the average salaries of male and female, and white and black and minority ethnic personnel doing broadly equivalent work.

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Key Findings

- Focusing on gender, the Equal Pay Audit for 2017/18¹, the evidence shows there are a few differences exceeding 3% between the average salaries for male and female personnel in the Regular Armed Forces, accounting for rank and pay scale. The most notable difference is -11.2% for OR-2's in the Royal Navy (RN) Supplement 1.
- Once Time in Rank (TIR) is accounted for, observed notable differentials in the average salaries for male and female personnel disappear in most instances <u>and all differences</u> <u>are below the 5% threshold for action</u>.
- For ethnicity, there are pay differentials exceeding 3% for the average salaries of white and BAME personnel when rank and pay scale are considered. The most notable difference is -10.0% for rank OR-2 in the RN.
- After TIR is included in further analysis, there are no notable differences in the average salaries white and BAME personnel received.

¹ No Equal Pay Audit has been conducted since the previous one dated 1 October 2010 and published on 31 January 2012. This report is the first since the restructuring of Armed Forces Pay (Pay 16).

Introduction

The Equal Pay Audit (EPA) assesses the equality of pay for all Regular Service Personnel across the three services: the Royal Navy (RN), the Army and the Royal Air Force (RAF). A basis for measuring pay inequalities in the Armed Forces requires a comparison of salaries for staff undertaking similar roles. Therefore, we have compared the pay of personnel in the same service with the same NATO rank on the same pay scale. It is anticipated that this approach will split the population into groups of people doing broadly equivalent work.

It primarily focuses on the differences in the average salaries based on gender and ethnicity. Further analysis concentrates on the differences present for gender and ethnicity once TIR has been accounted for. This is because personnel can increment pay spines (receiving higher pay) as their TIR increases, so long as they are not already on the top spine for their rank.

Analysis produced in this report has some exclusions which are explained below. The population used in this report contains only Regular Service Personnel who have received basic pay and X-factor as recorded on the JPA system during October 2017. The exclusions applied in the analysis are:

- Non-Regular sub-populations such as Full Time Reserves (FTRS), Gurkhas and Volunteer Reserves are excluded.
- b) Bespoke pay Spines, targeting specific specialist groups, have been excluded due to low numbers.
- c) Allowances and other Recruitment and Retention payments are excluded.
- d) Personnel for whom no basic pay has been recorded on the JPA system as at 1st November 2017 (during October) are excluded.
- e) Personnel above NATO rank OF-6 have been excluded from gender comparisons due to low numbers of female personnel at these ranks.
- f) Groups containing fewer than 5 personnel have their numbers and average salaries suppressed and subsequently no pay differential is calculated

Further exclusions have been made specifically for the ethnicity analysis:

a) Personnel who have "No Value" or "Declined to Declare" as their ethnicity have been excluded from percentage calculations.

This is the second Armed Forces Equal Pay Audit report which has been written by Defence Statistics, the first report was produced using data as at 1 October 2010. Since the previous report, there have been reforms to the military pay structure such as the shortening of pay scales for Other Ranks and the replacement of Higher and Lower pay spines with 4 Supplements. It should be noted that due to a change in the measurement of the pay differentials, results from this audit cannot be directly compared to those produced previously² but the overall conclusions can.

² In 2010 the pay differentials were calculated as female pay – male pay as a % of female pay. In 2017 the pay differential is calculated as male pay – female pay as a % of male pay. This change is to keep the calculation in line with the Civilian Equal Pay Audit and the Gender Pay Gap calculations.

Definitions

Salary refers to the annual rates of basic pay (i.e. Base Pay plus X factor) and reflects the amount an individual received in 2017/18 provided they remained a full-time member of the Armed Forces for the entire year.

X Factor is an additional percentage added to the base salary of Regular Service Personnel (and some Reserve personnel depending on commitment level), reflecting the differences between conditions of service experienced by members of the Armed Forces over a full career and conditions in civilian life.

Salary differential percentages show the difference in salaries of females/BAME personnel as a percentage of salaries received by male/white personnel.

A positive salary differential shows female personnel receive a lower average salary than their male counterparts. A negative salary differential shows female personnel receive a higher average salary than their male counterparts.

UK Regular Forces include both trained and untrained personnel and exclude Gurkhas, Full Time Reserve Service (FTRS) personnel and mobilised reservists.

Black, Asian and Minority Ethnic (BAME) is the terminology normally used in the UK to describe people of non-white descent.

Time in Rank (TIR) is the amount of time in years the individual has been in a specific NATO rank and captures the difference between the flow date and the situation date.

Symbols and conventions

Symbols

- not applicable
- .. not available, or figures suppressed due to small numbers
- zero

Italic figures are used for percentages and other rates, except where otherwise indicated.

This has 2 consequences: Firstly, the sign is reversed from 2010-2017 so that a +ve differential in 2010 represents females are paid more than males whereas in 2017 it means the opposite, that females are paid less than males. Secondly the % difference was shown as a % of female pay in 2010 but as a % of male pay in 2017.

Thus, a differential of 5% in 2010 would have meant that males were paid 5% less than females. In 2017 it means that females are paid 5% less than males.

Data Quality and sources

Data Sources

Data on Armed Forces personnel and salaries are obtained from the Joint Personnel Administration (JPA) system, which is updated continuously as a live system.

Data Quality

For Data Quality please consult Annex 1 which provides more detailed information.

Additional information on the assumptions underpinning the analysis in this Audit can be found in Annex 2.

SECTION 1 - Analysis on average annual basic salary by gender

1.1 Summary

Women represent 9.7% of the overall UK Regular Armed Forces on the Main Pay Scale. Across the individual services, the proportion of women in the RN and Army are broadly similar with 8.8% and 8.6% respectively, the RAF has the highest proportion of women at 13.4%.

Overall there is little difference between male and female basic average salary with males paid 0.6% more on average. The RN is the only service which has a pay differential greater than 3% between males and females, with females paid 5.3% less on average³.

Table 1 UK Regular Personnel and their average salaries by service and gender as at 1 Oct 17

1				
			Average	Basic Salary
	Headcount	Proportion	Basic Salary	Differential
All Services	139,406		£33,242	0.6%
Male	125,862	90.3%	£33,262	
Female	13,544	9.7%	£33,052	
Royal Navy	30,566		£34,169	5.3%
Male	27,885	91.2%	£34,328	
Female	2,681	8.8%	£32,512	
Army	77,890		£32,101	-0.6%
Male	71,165	91.4%	£32,084	
Female	6,725	8.6%	£32,285	
Royal Air Force	30,950		£35,198	1.8%
Male	26,812	86.6%	£35,282	
Female	4,138	13.4%	£34,649	

1.2 Comparison of average salaries

The tables below show the pay differentials that are evident in the Officers and Other Ranks (ORs) sub groups for each service.

It should be noted that this is not a valid measure of equal pay since Officers and ORs are split into 7 and 8 NATO-equivalent ranks, respectively, that represent the different levels of seniority and responsibility. The differences in average salary reflect the variations present in the distributions for men and women across respective of rank. A more accurate comparison of salaries can be deduced when looking at ranks on their own, and for ORs this can be broken down further into the different Supplements.

It is apparent there is a pattern amongst Officers with notable pay differentials overall and within each service. The consistent positive pay differential implies that across the services male Officers are being paid notably more than female Officers. The RN has the most prominent pay

³ A difference of 3% or more between the average salaries of females/males and BAME/White are deemed material throughout this report.

differential for Officers at 10.5%, the Army and RAF have similar differentials of 7.1% and 6.6% respectively.

Table 2 UK Regular personnel on the main pay scale average salaries by gender and Service as at 1 Oct 17

	Officers					Other Ranks			
			Average	Basic Salary				Average	Basic Sala
	Headcount	Proportion	Basic Salary	Differential		Headcount	Proportion	Basic Salary	Differenti
All Services	22,292		£52,263	7.6%	All Services	117,114		£29,621	1.4
Male	19,643	88.1%	£52,740		Male	106,219	90.7%	£29,660	
Female	2,649	11.9%	£48,725		Female	10,895	9.3%	£29,242	
Royal Navy	5,764		£52,643	10.5%	Royal Navy	24,802		£29,875	4.8
Male	5,208	90.4%	£53,180		Male	22,677	91.4%	£29,998	
Female	556	9.6%	£47,617		Female	2,125	8.6%	£28,560	
Army	10,330		£52,006	7.1%	Army	67,560		£29,058	-0.3
Male	9,246	89.5%	£52,397		Male	61,919	91.7%	£29,051	
Female	1,084	10.5%	£48,673		Female	5,641	8.3%	£29,136	
	-					-			
RAF	6,198		£52,338	6.6%	RAF	24,752		£30,906	3.7
Male	5,189	83.7%	£52,911		Male	21,623	87.4%	£31,052	
Female	1,009	16.3%	£49,393		Female	3,129	12.6%	£29,895	

With ORs, there is not a notable pay differential between males and females across the services. This trend does not hold when looking at the individual services, with the RN and the RAF possessing figures exceeding the threshold value of 3%. Both services show positive notable pay differentials between males and females, consistent with male ORs being paid more than female counterparts.

1.3 Officers

Table 3 UK Regular Officers on the main pay scale average salaries by gender, rank and Service as at 1 Oct 17

	Royal Navy			Army			Royal Air Force		
	Headcount	Ave. Salary	% diff F/M	Headcount	Ave. Salary	% diff F/M	Headcount	Ave. Salary	% diff F/M
Officers	5,764	£52,643		10,330	£52,006		6,198	£52,338	
OF-6 Male	75	£103,537	-	141	£103,348	*	75	£102,892	*
Female	-	-		5			3		
OF-5 Male	242	£88,148	*	411	£88,241	1.0%	242	£89,149	1.3%
Female	3	••		23	£87,330		17	£87,979	
OF-4 Male	829	£75,943	3.8%	1,377	£74,827	0.6%	780	£76,494	3.0%
Female	55	£73,078		102	£74,414		116	£74,185	
OF-3 Male	1,592	£55,756	2.4%	3,273	£55,714	1.2%	1,293	£55,090	1.0%
Female	164	£54,400		406	£55,031		289	£54,538	
OF-2 Male	1,455	£44,047	-1.5%	2,179	£41,775	-0.4%	1,979	£44,628	0.4%
Female	206	£44,719		312	£41,961		416	£44,470	
OF-1 Male	785	£33,226	0.8%	1,337	£32,413	0.0%	701	£32,747	3.7%
Female	105	£32,966		167	£32,419		145	£31,526	
OF-D Male	230	£25,970	-0.1%	528	£26,274	0.8%	119	£25,984	0.0%
Female	23	£25,984		69	£26,076		23	£25,984	

There is a low number of females at OF-6 level which means no inferences can be made on the presence of a pay differential. An identical approach has been adopted for those ranks where there is a low female presence throughout this report.

1.3a Gender pay differentials at OF-4 and OF-1

From Table 3, there are some notable pay differentials between female and male Officers across the services. The exceptions are OF-4 in the RN and OF-4, OF-1 in the RAF which exceeds the 3% threshold.

Consistent with previous audits this audit will capture the effect of time in a current job/rank on average salaries. Time in current rank is not readily available on the JPA system, thereby making statistical adjustments for the whole population not practical. Instead, an estimate has been applied in further analysis where notable differentials are observed.

In order to take the observed differences of TIR into account when making gender comparisons in pay, Table 4 and similar tables present adjusted average basic salary figures by gender, and the resultant percentage gender difference in average basic salary. These adjusted averages were derived using the "Estimated Marginal Means" from ANCOVA analysis to remove the effect which an individual's TIR has on their basic salary, thereby providing a more representative comparison of the average basic salary of males and females at the same rank.

1.3b Adjusting for Time in Rank in the RN OF-4

Table 4 Comparison of average salaries of UK Regular Officers (OF-4) in the RN before/after accounting for TIR as at 1 Oct 17

	Headcount	Ave. Salary	% diff F/M	Headcount	Adjusted Ave. Salary	% diff F/M
OF-4 Male	829	£75,943	3.8%	829	£75,776	0.2%
Female	55	£73,078		55	£75,592	

The addition of TIR results in the pay differential between females and males to decrease from 3.8% to 0.2%, below the 3% threshold. This shows equality of pay once TIR has been accounted for. A decrease in the pay differential after adjusting for TIR implies that females have a lower TIR on average than males at this rank. This could be due to a number of possibilities; a recent increase in the proportion of females at this rank, females promoting sooner or females otherwise exiting the rank sooner.

1.3c Adjusting for TIR in the RAF OF-4

Table 5 Comparison of average salaries of UK Regular Officers (OF-4) in the RAF before/after accounting for TIR as at 1 Oct 17

	Headcount	Ave. Salary	% diff F/M	Headcount	Adjusted Ave. Salary	% diff F/M
OF-4 Male	780	£76,494	3.0%	780	£76,392	2.0%
Female	116	£74,185		116	£74,873	

Once TIR is included, the pay differential between females and males decreases from 3.0% to 2.0%, below the 3% threshold. This demonstrates equality of pay once TIR has been accounted for

1.3d Adjusting for TIR in the RAF OF-1

Table 6 Comparison of average salaries of UK Regular Officers (OF-1) in the RAF before/after accounting for TIR as at 1 Oct 17

	Headcount	Ave. Salary	% diff F/M	Headcount	Adjusted Ave. Salary	% diff F/M
OF-1 Male	701	£32,747	3.7%	701	£32,720	3.2%
Female	145	£31,526		145	£31,659	

The addition of the TIR results in the pay differential between females and males decreasing from 3.7% to 3.2%. This figure is not within the 3% threshold, meaning there is still a notable difference once TIR has been accounted for. But the difference is below the 5% threshold for action.

Further investigation of the data revealed that this is likely due to an extra source of variation present in the salaries at the RAF OF-1 rank resulting in a relatively high proportion of personnel being paid above the top of the pay scale for OF-1s in the RAF. This is due to some Officers Commissioned from Ranks (OCFR) retaining their previous OR higher rate of pay, on a marked time basis.

1.4 Other Ranks (ORs) - Supplements

1.4a ORs- Supplement 1

Table 7 UK Regular Other Ranks (Supplement 1) average salaries by gender, rank and Service as at 1 Oct 17

	Royal Navy			Army			Royal Air Force		
	Headcount	Ave. Salary	% diff F/M	Headcount	Ave. Salary	% diff F/M	Headcount	Ave. Salary	% diff F/M
Other Ranks	4,523	£26,195		19,578	£29,126		8,285	£27,858	
OR-9 Male	71	£48,395	0.4%	356	£47,782	-0.3%	225	£48,128	0.1%
Female	12	£48,224		59	£47,914		33	£48,083	
OR-8 Male	10	£43,798	*	943	£42,637	-0.5%	-	-	-
Female	1			201	£42,858		-	-	
OR-7 Male	274	£41,190	0.5%	1,366	£38,784	-1.3%	359	£40,488	1.8%
Female	55	£41,003		279	£39,297		107	£39,756	
OR-6 Male	406	£37,029	0.1%	2,153	£35,788	-1.6%	870	£36,359	-0.7%
Female	141	£37,010		419	£36,356		363	£36,607	
OR-4 Male	618	£32,009	0.9%	3,105	£31,510	-0.1%	1,486	£31,536	0.3%
Female	258	£31,731		616	£31,547		573	£31,452	
OR-3 Male	7	£30,065	*	2,806	£27,256	0.8%	-	-	-
Female	2			734	£27,035		-	-	
OR-2 Male	2,133	£19,041	-11.2%	5,342	£20,147	0.2%	2,399	£22,853	1.4%
Female	535	£21,183		1,199	£20,116		689	£22,529	
OR-1 Male	-	-	-	-	-	-	1,011	£16,508	1.7%
Female	-	-		-	=		170	£16,229	

1.4ai Gender pay differentials at OR-2

The only notable pay differential present in the above table is OR-2s in the RN. The presence of a material pay differential in the RN is suggestive of male and female personnel receiving different average salaries at the same rank.

As with Officers, time in current rank is not available so has been estimated in further analysis. OR-2 is the lowest rank across all the services so TIR measures the time between an individual joining the services and the situation date, in years.

1.4aii Adjusting for Time in Rank in the RN OR-2

Table 8 Comparison of average salaries of UK Regular ORs (OR-2) in the RN before/after accounting for TIR as at 1 Oct 17

	Headcount	Ave. Salary	% diff F/M	Headcount	Adjusted Ave. Salary	% diff F/M
OR-2 Male	2,133	£19,041	-11.2%	2,133	£19,390	-2.1%
Female	535	£21,183		535	£19,794	

The inclusion of TIR pay differential between females and males for OR-2s in the RN drops from - 11.2% to -2.1%, below the 3% threshold. This is consistent with equality of pay once TIR has been accounted for.

An increase in the pay differential after adjusting for TIR implies that males have a lower TIR on average than females at this rank. This could be due to a number of possibilities; a recent increase in the proportion of males at this rank, males promoting sooner or males otherwise exiting the rank sooner.

1.4b ORs- Supplement 2

Table 9 UK Regular ORs (Supplement 2) average salaries by gender, rank and Service as at 1 Oct 17

	Royal Navy			Army			Royal Air Force		
	Headcount	Ave. Salary	% diff F/M	Headcount	Ave. Salary	% diff F/M	Headcount	Ave. Salary	% diff F/M
Other Ranks	10,132	£28,716		33,597	£27,951		9,311	£31,866	
OR-9 Male	233	£48,200	*	268	£47,683	-0.2%	257	£48,081	*
Female	6			12	£47,762		9		
OR-8 Male	177	£44,396	-	1,227	£43,791	0.2%	-	-	-
Female	-	-		40	£43,702		-	-	
OR-7 Male	814	£41,309	-1.5%	1,847	£40,118	-0.7%	725	£42,187	1.3%
Female	26	£41,939		74	£40,379		38	£41,633	
OR-6 Male	1,245	£37,371	0.3%	3,412	£36,920	-0.4%	1,694	£38,163	0.6%
Female	70	£37,271		100	£37,079		169	£37,947	
OR-4 Male	1,927	£32,241	1.0%	5,902	£32,195	-0.5%	2,478	£33,195	0.3%
Female	151	£31,917		119	£32,372		209	£33,105	
OR-3 Male	566	£27,272	-	6,436	£27,747	0.9%	151	£27,799	-
Female	-	-		177	£27,496		-	-	
OR-2 Male	4,630	£21,437	1.2%	13,744	£20,473	2.3%	3,256	£24,563	3.9%
Female	287	£21,184		239	£20,000		276	£23,599	
OR-1 Male	-	-	-	-	-	-	45	£16,671	*
Female	-	-		-	-		4	-	

1.4bi Gender pay differentials at OR-2

The only pay differential evident above are OR-2s in the RAF. It is an indication females and males are paid differently, with a differential of 3.9%. A positive pay differential implies males are paid more than females.

1.4bii Adjusting for TIR in the RAF OR-Supplement 2

Table 10 Comparison of average salaries of UK Regular ORs (Supplement 2) in the RAF before/after accounting for TIR as at 1 Oct 17

	Headcount	Ave. Salary	% diff F/M	Headcount	Adjusted Ave. Salary	% diff F/M
OR-2 Male	3,256	£24,563	3.9%	3,256	£24,524	1.9%
Female	276	£23,599		276	£24,055	

Once the TIR is considered, the pay differential between females and males has reduced from 3.9% to 1.9%, below the threshold value of 3%. This shows equality of pay once TIR has been accounted for.

1.4c Other Ranks (ORs)- Supplement 3

Table 11 UK Regular ORs (Supplement 3) average salaries by gender, rank and Service as at 1 Oct 17

	Royal Navy			Army			Royal Air Force		
	Headcount	Ave. Salary	% diff F/M	Headcount	Ave. Salary	% diff F/M	Headcount	Ave. Salary	% diff F/M
Other Ranks	10,147	£32,674		14,268	£31,446		7,156	£33,185	
OR-9 Male	596	£48,371	-0.6%	528	£47,757	0.3%	204	£48,278	0.8%
Female	11	£48,659		29	£47,592		15	£47,907	
OR-8 Male	160	£45,823	-	1,138	£45,380	-0.2%	-	-	-
Female	-	-		98	£45,474		-	-	
OR-7 Male	1,518	£43,474	-0.1%	1,554	£41,423	0.0%	956	£42,734	0.9%
Female	71	£43,505		114	£41,414		58	£42,365	
OR-6 Male	1,704	£37,949	0.3%	1,378	£37,296	0.4%	1,483	£38,205	-0.5%
Female	101	£37,832		156	£37,143		133	£38,415	
OR-4 Male	2,337	£32,512	-0.1%	2,021	£32,473	1.0%	1,544	£33,093	0.3%
Female	170	£32,538		243	£32,139		118	£32,982	
OR-3 Male	67	£28,501	-	2,427	£28,645	2.9%	-	-	-
Female	-	-		303	£27,823		-	-	
OR-2 Male	3,184	£21,579	-4.6%	3,849	£20,810	8.2%	2,472	£25,363	3.7%
Female	228	£22,568		430	£19,102		161	£24,436	
OR-1 Male	-	-	-	-	-	-	8		*
Female	-	-		-	-		4		

1.4ci Gender pay differentials at OR-2

In the above table, there is a pay differential between males and females exceeding the 3% for all services at OR-2. The RN has a negative pay differential which contrasts with the other services, implying OR-2 females receive a higher salary than male counterparts. Further analysis will be carried out for all services since they all possess notable pay differentials at the OR-2 rank.

1.4cii Adjusting for TIR in the RN OR-2

Table 12 Comparison of average salaries of UK Regular ORs (OR-2) in the RN before/after accounting for TIR as at 1 Oct 17

	Headcount	Ave. Salary	% diff F/M	Headcount	Adjusted Ave. Salary	% diff F/M
OR-2 Male	3,184	£21,579	-4.6%	3,184	£21,615	-2.1%
Female	228	£22,568		228	£22,062	

The addition of TIR results in the pay differential decreasing between females and males from - 4.6% to -2.1%, below the 3% threshold. This shows equality of pay once TIR has been accounted for.

Table 13 Comparison of average salaries of UK Regular ORs (OR-2) in the Army before/after accounting for TIR as at 1 Oct 17

	Headcount	Ave. Salary	% diff F/M	Headcount	Adjusted Ave. Salary	% diff F/M
OR-2 Male	3,849	£20,810	8.2%	3,849	£20,709	3.4%
Female	430	£19,102		430	£20,013	

Once TIR is included, the pay differential between males and females remains notable with a decrease from 8.2% to 3.4%, which is above the 3% threshold but below the 5% threshold for action. This shows there is no equality of pay once TIR has been accounted for.

Further analysis has been undertaken to assess if there are other factors which could explain the difference in salaries between females and males in this instance. It was identified that some personnel at this rank are on a different pay spine called New Entrant Rate of Pay (NERP) that is assigned to new joiners to the services within the first 6 months. This salary differs substantially from the salary of other personnel at this rank hence the difference in average salaries could be attributed to this factor.

Table 14 Comparison of average salaries of UK Regular ORs (OR-2) in the RAF before/after accounting for TIR as at 1 Oct 17

	Headcount	Ave. Salary	% diff F/M	Headcount	Adjusted Ave. Salary	% diff F/M
OR-2 Male	2,472	£25,363	3.7%	2,472	£25,348	2.7%
Female	161	£24,436		161	£24,669	

The addition of TIR results in the pay differential decreasing between females and males from 3.7% to 2.7%, below the 3% threshold. This shows equality of pay once TIR has been accounted for.

SECTION 2 - Analysis on average annual basic salary by ethnicity

2.1 Summary

Black, Asian and Minority Ethnic (BAME) comprise 7.6% of the UK Regular Armed Forces personnel on the Main Pay Scale. The RN and RAF have similar proportions of BAME personnel with 3.6% and 2.2% respectively, the Army has the largest proportion of BAME personnel at 11.3%.

Across all services, the pay differential between white and BAME personnel is 12.2% which exceeds the 3% threshold. These pay differentials are present in all the individual services with the RN having the largest difference of 11.1%. A positive pay differential implies BAME personnel receive a lower salary than white personnel, irrespective of rank.

Table 15 UK Regular Personnel and their average salaries by service and ethnicity as at 1 Oct 17

			Average	Basic Salary
	Headcount	Proportion	Basic Salary	Differential
All Services	139,406		£33,242	
White	127,706	92.4%	£33,498	12.2%
BAME	10,560	7.6%	£29,400	
Not known	1,140		£40,180	
Royal Navy	30,566		£34,169	
White	29,263	96.4%	£34,289	11.1%
BAME	1,106	3.6%	£30,497	
Not known	197		£36,843	
Army	77,890		£32,101	
White	68,904	88.7%	£32,500	10.6%
BAME	8,783	11.3%	£29,057	
Not known	203		£28,496	
Royal Air Force	30,950		£35,198	
White	29,539	97.8%	£35,041	8.4%
BAME	671	2.2%	£32,086	
Not known	740		£44,273	

2.2 Comparison of average salaries

From Table 16 below, we can look at the pay differentials between white and BAME personnel for Officers and ORs sub groups for each service.

There is a notable pay differential for white and BAME Officers which exceeds the 3% threshold. A positive pay differential implies white Officers receive a higher average salary than BAME Officers. After breaking down to individual services, the RAF is the only service with no notable pay differential, implying BAME and white personnel receive equal pay.

Similarly, this pattern is evident for the ORs with a pay differential for all services at 4.4%, implying white personnel are paid more than BAME personnel. For individual services, the RN and the RAF have notable positive pay differentials, suggesting BAME receive a lower average salary than white.

Table 16 UK Regular personnel average salaries by ethnicity and service as at 1 Oct 17

	Officers					Other Ranks			
	Headcount	Proportion	Average Basic Salary	Basic Salary Differential		Headcount	Proportion	Average Basic Salary	Basic Salary Differential
All Services	22,292		£52,263	4.9%	All Services	117,114		£29,621	4.4
White	21,450	97.8%	£52,273		White	106,256	91.3%	£29,708	
BAME	490	2.2%	£49,734		BAME	10,070	8.7%	£28,411	
Not known	352		£55,199		Not known	788		£33,471	
Royal Navy	5,764		£52,643	6.8%	Royal Navy	24,802		£29,875	4.59
White	5,623	98.2%	£52,674		White	23,640	95.9%	£29,917	
BAME	104	1.8%	£49,081		BAME	1,002	4.1%	£28,568	
Not known	37		£58,020		Not known	160		£31,946	
Army	10,330		£52,006	5.7%	Army	67,560		£29,058	2.69
White	9,988	97.3%	£52,134	51770	White	58,916	87.4%	£29,171	
BAME	276	2.7%	£49,165		BAME	8,507	12.6%	£28,404	
Not known	66		£44,573		Not known	137		£20,751	
DAT.	5 400		CF2 220	0.70/	DAT	24 752		520.005	0.50
RAF	6,198	00.00/	£52,338	0.7%	RAF	24,752	07.70/	£30,906	8.59
White	5,839	98.2%	£52,125		White	23,700	97.7%	£30,832	
BAME	110	1.8%	£51,778		BAME	561	2.3%	£28,225	
Not known	249		£57,597		Not known	491		£37,517	

2.3 Officers

Table 17 UK Regular Officers average salaries by ethnicity, rank and service as at 1 Oct 17

	Royal Navy			Army			Royal Air Force		
	Headcount	Ave. Salary	% diff BAME/White	Headcount	Ave. Salary	% diff BAME/White	Headcount	Ave. Salary	% diff BAME/White
Officers	5,764	£52,643		10,330	£52,099		6,198	£52,338	
OF-6 White	72	£103,551	*	145	£103,315	*	75	£102,971	*
BAME	1			1			2		
Unknown	2	*		-	-		1	*	
OF-5 White	240	£88,178	*	420	£88,197	0.7%	241	£89,211	*
BAME	3			12	£87,618		5		
Unknown	2	*		2	*		13	*	
OF-4 White	867	£75,738	-1.9%	1,445	£74,807	0.1%	835	£76,253	0.6%
BAME	11	£77,195		20	£74,765		16	£75,766	
Unknown	6	*		14	*		45	*	
OF-3 White	1,709	£55,640	0.3%	3,556	£55,639	0.5%	1,451	£54,938	-0.5%
BAME	29	£55,456		114	£55,370		20	£55,195	
Unknown	18	*		9	*		111	*	
OF-2 White	1,627	£44,128	0.0%	2,419	£41,809	0.9%	2,278	£44,553	0.6%
BAME	31	£44,137		64	£41,450		48	£44,276	
Unknown	3	*		8	*		69	*	
OF-1 White	864	£33,192	-0.4%	1,462	£32,418	0.5%	819	£32,500	0.1%
BAME	22	£33,333		41	£32,257		17	£32,458	
Unknown	4	*		1	*		10	*	
OF-D White	244	£25,971	*	541	£26,269	0.2%	140	£25,984	*
BAME	7			24	£26,206		2		
Unknown	2	*		32	*		-	-	

Overall, there appears to be no notable pay differential present for Officers when accounting for rank. Therefore, there is no need to conduct further analysis on the average salaries of BAME and white Officers.

2.4 Other Ranks - Supplements

2.4a ORs- Supplement 1

Table 18 UK Regular ORs (Supplement 1) average salaries by ethnicity, rank and service as at 1 Oct 17

Γ	Royal Navy			Army			Royal Air Force		
	Headcount	Ave. Salary	% diff BAME/White	Headcount	Ave. Salary	% diff BAME/White	Headcount	Ave. Salary	% diff BAME/White
Other Ranks	4,523	£26,195		19,578	£29,126		8,285	£27,858	
OR-9 White	82	£48,358	-	406	£47,805	*	246	£48,142	*
BAME	-	-		8			5		
Unknown	1	*		1	*		7	*	
OR-8 White	11	£43,765	-	1,071	£42,710	1.2%	-	-	-
BAME	-	-		72	£42,191		-	-	
Unknown	-	-		1	*		-	-	
OR-7 White	317	£41,170	0.7%	1,428	£38,908	0.7%	433	£40,315	-0.5%
BAME	12	£40,871		214	£38,625		13	£40,526	
Unknown	-	*		3	*		20	*	
OR-6 White	514	£37,004	-0.5%	1,976	£35,973	1.1%	1,174	£36,433	-0.3%
BAME	30	£37,205		594	£35,576		22	£36,526	
Unknown	3	*		2	*		37	*	
OR-4 White	766	£31,961	0.7%	2,669	£31,566	0.6%	1,978	£31,498	0.5%
BAME	108	£31,731		1,050	£31,387		52	£31,339	
Unknown	2	*		2	*		29	*	
OR-3 White	9	-	-	2,622	£27,152	-0.8%	-	-	-
BAME	-	-		916	£27,374		-	-	
Unknown	-	-		2	*		-	-	
OR-2 White	2,486	£19,341	-10.0%	5,007	£20,167	-0.1%	2,977	£22,792	1.9%
BAME	168	£21,282		1,482	£20,191		104	£22,352	
Unknown	14	*		52	*		7	*	
OR-1 White	-	-	-	-	-	-	1,121	£16,458	-1.1%
BAME	-	-		-	-		54	£16,644	
Unknown	-	-		-	-		6	*	

2.4ai Gender pay differentials at OR-2

The only pay differential exceeding the 3% threshold exists for OR-2s in the RN, with a difference of -10.0%. this negative pay differential implies BAME OR-2s receive a higher salary than white OR-2s.

The presence of a significant pay differential warrants further analysis that accounts for the effect of TIR as previously shown in the gender section.

2.4aii Adjusting for TIR in the RN OR-2

Table 19 Comparison of average salaries of UK Regular ORs (OR-2) in the RN before/after accounting for TIR as at 1 Oct 17

	Headcount	Ave. Salary	% diff F/M	Adjus	sted Ave. Salary	% diff F/M
OR-2 White	2,486	£19,341	-10.0%	2,486	£19,479	1.2%
BAME	168	£21,282		168	£19,247	

Once TIR is included, the absolute pay differential between BAME and white reduces from -10.0% to 1.2%, which is below 3% threshold. This finding shows there is equality of pay once TIR is accounted for.

An increase in the pay differential value after adjusting for TIR implies that white personnel have a lower TIR on average than BAME personnel at this rank. This could be due to a number of possibilities; a recent increase in the proportion of white personnel at this rank, white personnel promoting sooner or white personnel otherwise exiting the rank sooner.

2.4b ORs-Supplement 2

Table 20 UK Regular ORs (Supplement 2) average salaries by ethnicity, rank and service as at 1 Oct 17

[Royal Navy			Army			Royal Air Force		
	Headcount	Ave. Salary	% diff BAME/White	Headcount	Ave. Salary	% diff BAME/White	Headcount	Ave. Salary	% diff BAME/White
Other Ranks	10,132	£28,716		33,597	£27,951		9,311	£31,866	
OR-9 White	237	£48,207	*	274	£47,676	*	251	£48,060	*
BAME	2			6			5		
Unknown	-	-		-	=		10	*	
OR-8 White	173	£44,397	*	1,230	£43,792	0.3%	=	-	-
BAME	2			36	£43,669		-	-	
Unknown	2	*		1	*		-	-	
OR-7 White	819	£41,339	*	1,814	£40,142	0.6%	725	£42,131	*
BAME	8			103	£39,902		7		
Unknown	13	*		4	*		31	*	
OR-6 White	1,266	£37,399	3.1%	3,227	£36,930	0.2%	1,744	£38,125	-1.1%
BAME	33	£36,255		283	£36,874		20	£38,548	
Unknown	16	*		2	*		99	*	
OR-4 White	1,930	£32,220	0.8%	5,319	£32,170	-0.8%	2,590	£33,168	-0.8%
BAME	105	£31,957		698	£32,422		50	£33,447	
Unknown	43	*		4	*		47	*	
OR-3 White	539	£27,246	-1.5%	5,807	£27,683	-1.7%	144	£27,774	*
BAME	20	£27,658		804	£28,159		6		
Unknown	7	*		2	*		1	*	
OR-2 White	4,669	£21,358	-4.5%	12,843	£20,363	-6.9%	3,429	£24,501	1.2%
BAME	223	£22,316		1,106	£21,768		93	£24,215	
Unknown	25	*		34	*		10	*	
OR-1 White	-	-	-	-	-	-	48	£16,710	*
BAME	-	-		-	-		1		
Unknown	-	-		-	-		-	-	

2.4bi Gender pay differentials at OR-2 and OR-6

Pay differentials present are OR-2s in the RN and Army which have -4.5% and -6.9% respectively. A negative pay differential implies BAME OR-2s are paid more than white OR-2s. Despite a significant differential for OR-6s in the RN, no further analysis is conducted due to the low numbers for BAME, preventing a statistically robust TIR adjusted mean.

The RAF has no notable pay differentials, meaning BAME and white ORs show equality of pay within ranks.

2.4bii Adjusting for TIR in the RN OR-2

Table 21 Comparison of average salaries of UK Regular ORs (OR-2) in the RN before/after accounting for TIR as at 1 Oct 17

	Headcount	Ave. Salary	% diff F/M	Adjusted Ave. Salary		% diff F/M
OR-2 White	4,669	£21,358	-4.5%	4,669	£21,401	-0.1%
BAME	223	£22,316		223	£21,416	

With TIR adjusted for, the absolute pay differential between BAME and white personnel decreases from -4.5% to -0.1%. This demonstrates equality of pay once TIR has been accounted for.

2.4biii Adjusting for TIR in the Army OR-2

Table 22 Comparison of average salaries of UK Regular ORs (OR-2) in the Army before/after accounting for TIR as at 1 Oct 17

	Headcount	Ave. Salary	% diff F/M	Ac	ljusted Ave. Salary	% diff F/M
OR-2 White	12,843	£20,363	-6.9%	12,843	£20,476	0.1%
BAME	1,106	£21,768		1,106	£20,453	

The addition of TIR results in the absolute pay differential magnitude decreasing between BAME and whites from -6.9% to 0.1%, falls below the 3% threshold. This shows equality of pay once TIR has been accounted for. This result implies that BAME SP have a higher TIR on average than white SP at this rank.

2.4c ORs- Supplement 3

Table 23 UK Regular ORs (Supplement 3) average salaries by ethnicity, rank and Service as at 1 Oct 17

	Royal Navy			Army			Royal Air Force		
	Headcount	Ave. Salary	% diff BAME/White	Headcount	Ave. Salary	% diff BAME/White	Headcount	Ave. Salary	% diff BAME/White
Other Ranks	10,147	£32,674		14,268	£31,446		7,156	£33,185	
OR-9 White	604	£48,374	*	548	£47,750	*	209	£48,258	*
BAME	2			9	£47,670		3		
Unknown	1	*		-	-		7	*	
OR-8 White	156	£45,826	*	1,186	£45,392	0.2%	-	-	-
BAME	2			49	£45,282		-	-	
Unknown	2	*		1	*		-	-	
OR-7 White	1,544	£43,489	1.1%	1,530	£41,405	-0.5%	945	£42,727	0.5%
BAME	40	£43,017		135	£41,621		12	£42,528	
Unknown	5	*		3	*		57	*	
OR-6 White	1,739	£37,950	0.4%	1,382	£37,265	-0.4%	1,517	£38,185	-2.3%
BAME	59	£37,786		151	£37,423		21	£39,074	
Unknown	7	*		1	*		78	*	
OR-4 White	2,398	£32,509	-1.0%	2,058	£32,432	-0.2%	1,601	£33,056	0.1%
BAME	97	£32,827		204	£32,491		23	£33,013	
Unknown	12	*		2	*		38	*	
OR-3 White	66	£28,489	*	2,472	£28,507	-1.8%	-	-	-
BAME	1			258	£29,006		-	-	
Unknown	-	-		-	-		-	-	
OR-2 White	3,315	£21,606	-6.4%	3,931	£20,597	-4.2%	2,556	£25,315	1.4%
BAME	90	£22,993		328	£21,456		70	£24,968	
Unknown	7	*		20	*		7	*	
OR-1 White	-	-	-	-	-	*	12	£17,303	*
BAME	-	-		-	-		-	-	
Unknown	-	-		-	-		-	-	

2.4ci Gender pay differentials at OR-2

The notable pay differentials between BAME and white SP in this table are OR-2s in the RN and the Army. Both groups have differences of -6.4% and -4.2% respectively, indicative of BAME personnel receiving a higher average salary than white personnel. The presence of sufficient pay differentials warrants further investigation which considers the effect of TIR.

As previously, the RAF does not have any pay differentials above 3% across the different ranks. Hence, there is pay equality for BAME and white ORs with them receiving a similar average salary.

2.4cii Adjusting for TIR in the RN OR-2

Table 24 Comparison of average salaries of UK Regular ORs (OR-2) in the RN before/after accounting for TIR as at 1 Oct 17

	Headcount	Ave. Salary	% diff F/M	A	Adjusted Ave. Salary	% diff F/M
OR-2 White	3,315	£21,606	-6.4%	3,315	£21,642	-0.2%
BAME	90	£22,993		90	£21,696	

The addition of TIR results in the pay differential decreasing between BAME and white personnel from -6.4% to -0.2%, falls below the 3% threshold. This shows equality of pay once TIR has been accounted for. This result implies that BAME have a lower TIR on average than white personnel at this rank.

2.4ciii Adjusting for TIR in the Army OR-2

Table 25 Comparison of average salaries of UK Regular ORs (OR-2) in the Army before/after accounting for TIR as at 1 Oct 17

	Headcount	Ave. Salary	% diff F/M		Adjusted Ave. Salary	% diff F/M
OR-2 White	3,931	£20,597	-4.2%	3,931	£20,664	0.1%
BAME	328	£21,456		328	£20,644	

The addition of TIR results in the absolute pay differential decreasing between BAME and white personnel from -4.2% to 0.1%, falls below the 3% threshold. This shows equality of pay once TIR has been accounted for.

SECTION 3 – Conclusion

A basis for measuring pay inequalities in the Armed Forces requires a comparison of salaries for staff undertaking similar roles. Therefore, the pay of personnel in the same service, with the same NATO rank, on the same pay scale was compared, in anticipation that this approach splits the population into groups of people doing broadly equivalent work.

Initial analysis that accounted for service, rank and pay scale shows that for the most part, there are only minor (less than 3%) differences in average pay within these groupings. However, there are a few groups showing pay differentials exceeding the 3% threshold for male and female personnel in the Armed Forces. The differences were largely observed at lower ranks, with the largest differential being -11.2% for the RN.

Personnel can increment in pay spines as their TIR increases so long as they are not already at the top of the spine. Although the number of spine points have been shortened as a result of pay reforms. TIR does still impact the average salary. The effect of TIR on the average salaries of personnel was investigated in further analysis where notable differentials were observed. Overall, the amount of time spent in rank was found to be a contributing factor to pay differentials.

After adjustments for TIR, most pay differentials are below the 3% threshold and all differentials are below 5%, so based on the guidance from the Equality and Human Rights Commission (EHRC) no action is required to close the differential. Only two differentials above 3% are present after this adjustment, the OF-1 in the RAF and OR-2 in the Army on Supplement 3, where female personnel receive an annual salary lower than their male counterparts. These figures are 3.2 and 3.4% respectively. An explanation for the persistent difference for OR-2 in the Army is the inclusion of personnel on a different pay spine called New Entrants Rate of Pay (NERP), who receive a lower average salary within their first 6 months of joining compared to others at the same rank. The difference in OF-1 in the RAF is due to OCFRs retaining their previous OR higher pay rate on a marked time basis.

Similarly, analysis that considered service, rank and pay scale found few pay differentials deemed notable for white and BAME personnel in the Armed Forces. Consistent with observations for gender, these differentials were found at the lower ranks and the largest difference was -10.0% for the RN. These pay differentials for white and BAME personnel reduced once TIR was accounted for in the analysis, with all differentials within the 3% threshold.

This analysis suggests that once service, rank, pay scale and TIR are accounted for there is equality of basic pay for Regulars on the main pay scale irrespective of ethnicity or gender.

Appendices

1. Data Quality issues

Time in Rank (TIR)

A persons TIR is calculated as the difference between the situation date and their latest intake date or their substantive promotion date, depending on how the person entered their current rank. These fields are taken from JPA, which is known to have issues such as administrative errors.

2. Armed Forces Salary structure

Military salary consists of 3 main components: Base pay (Core Pay plus Trade Supplement Pay (for ORs only)), X-factor and Bespoke pay spines. Base pay is the standard salary military personnel receive and is paid in accordance with the salary paid to civilians doing jobs with a similar job evaluated weight. The X-factor is an additional percentage added to the base salary of regular Service Personnel (and some Reserve personnel depending on commitment level), reflecting the differences between conditions of service experienced by members of the Armed Forces over a full career and conditions in civilian life.⁴

Armed Forces personnel can be paid differently depending on their trade or profession. Most personnel are on the Main pay scale. Officers have a single Main pay scale but ORs are split into different supplements on the Main pay scale according to their trade and rank.

Accounting for professional skills and career structures, there are Armed Forces personnel on bespoke pay spines. Whilst they are considered, at various levels, equivalent to their main scale counterparts, with equivalent ranks, they are paid differently in recognition of their specialism.

3. Methodology

Guidance from the Equality and Human Rights Commission (EHRC) suggests an audit should make comparisons on the pay of workers undertaking the same type of work. The EHRC advocates when a pay differential related to gender is less than 3%, no action is necessary⁵. Where the difference is greater than 3%, there is a need to undertake further analysis and for gender pay differentials exceeding 5%, action is needed to address the issue and close the differential. In this audit, pay differentials which exceed 3% when looking at individual ranks within pay scales will involve further analysis to provide explanations. These will include factors such as TIR and pay supplements within their rank.

Salaries for senior military officers (NATO rank OF-7 and above) and Senior Civil Servants are recommended by the Senior Salaries Review Body (SSRB) and approved by the Prime Minister each year. SSRB reports are published annually by the Office of Manpower Economics and can be found at http://www.ome.uk.com/SSRB Reports.aspx.

⁴ Salary rates below NATO rank OF-7 are recommended by the Armed Forces Pay Review Body (AFPRB) and approved by the Prime Minister each year. AFPRB reports are published annually by the Office of Manpower Economics and can be found at http://www.ome.uk.com/AFPRB_Reports.aspx.

⁵ https://www.equalityhumanrights.com/en/multipage-guide/equal-pay-audit-step-4-causes-gender-pay-differences

A basis for measuring pay inequalities in the Armed Forces requires a comparison of salaries for staff undertaking similar roles. Therefore, we compare the pay of personnel in the same service, with the same NATO rank and on the same pay scale. It is anticipated this approach will split the population into groups of people doing broadly equivalent work.

This audit focuses on Officers and ORs on the Main pay scale. FTRS personnel are excluded due to different levels of X-factor applied to their base pay rate according to the different balances of positive and negative factors of Service life which apply to this group. Part-time personnel including Volunteer Reservist personnel are excluded due to data quality issues.

4. NATO Rank codes and UK Service ranks

NATO Code	Royal Navy	Royal Marines	Army	Royal Air Force
Officers	5			
OF-10	Admiral of the Fleet	-	Field Marshal	Marshal of the RAF
OF-9	Admiral	General	General	Air Chief Marshal
OF-8	Vice Admiral	Lieutenant General	Lieutenant General	Air Marshal
OF-7	Rear Admiral	Major General	Major General	Air Vice-Marshal
OF-6	Commodore	Brigadier	Brigadier	Air Commodore
OF-5	Captain	Colonel	Colonel	Group Captain
OF-4	Commander	Lieutenant Colonel	Lieutenant Colonel	Wing Commander
OF-3	Lieutenant Commander	Major	Major	Squadron Leader
OF-2	Lieutenant	Captain	Captain	Flight Lieutenant
OF-1	Sub-Lieutenant	Lieutenant/2nd Lieutenant	Lieutenant/2nd Lieutenant	Flying Officer/Pilot Officer
OF(D)	Midshipman	-	Officer Designate	Officer Designate
Other R	tanks			
OR-9	Warrant Officer Class 1	Warrant Officer Class 1	Warrant Officer Class 1	Warrant Officer
OR-8	Warrant Officer Class 2	Warrant Officer Class 2	Warrant Officer Class 2	-
OR-7	Chief Petty Officer	Colour Sergeant	Staff Sergeant	Flight Sergeant/ Chief Technician
OR-6	Petty Officer	Sergeant	Sergeant	Sergeant
OR-4	Leading Rate	Corporal	Corporal	Corporal
OR-3	-	Lance Corporal	Lance Corporal	Lance Corporal
OR-2	Able Rating	Marine	Private (Classes 1 to 3)	Junior Technician/
	-			Leading Aircraftman/ Senior Aircraftman
OR-1	-	-	Private (Class 4)/Junior	Aircraftman

5. Links to relevant MOD statistical publications

UK Defence Statistics (compendium publication containing a wide range of statistics)

https://www.gov.uk/government/organisations/ministry-of-defence/about/statistics
Annual Manning Report (Analysis by rank and age)

Quarterly Service personnel statistics

https://www.gov.uk/government/collections/quarterly-service-personnel-statistics-index