



# Ministry of Defence

## Equal Pay Audit 2017

### MOD Core Civilian

### Non-Industrial Personnel

This audit presents a comparison by Gender, and Ethnicity, of annualised average salaries in the period 1 October 2016 to 1 October 2017, in order to meet the Department's obligations under the Public Sector Equality Duty to provide information on its workforce identified by the Equality Act 2010. Further analysis to compare length of service in grade, promotions and length of time to promotion have been conducted to provide possible explanations for differences in pay that may be found between these groups.

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# Introduction

The Equal Pay Audit (EPA) examines the equality of pay of all non-industrial and industrial personnel by analysing the differences in average basic salary based on Gender. It also conducts the same analyses on Ethnicity and Working status.

The analyses conducted within this report require exclusions. The population in this report consists of MOD main non-industrial personnel with a current HRMS record, who are identified as being paid on the CHIPS pay extract as at 1 October 2017. The following exclusions were applied throughout:

- a. Trading Fund and Executive agency personnel
- b. Defence, Equipment & Support Bespoke Trading Entity (DE&S)
- c. Royal Fleet Auxiliary personnel
- d. Locally engaged civilians
- e. Industrial grades
- f. Analogue grades (which include: MDP, Fire Service, NHS, Teachers, Civilian Medical Practitioners and Civilian Dental Practitioners)
- g. Senior Civil Servants and equivalent (those paid above the Band B1 maximum)
- h. Personnel for whom no basic salary data is recorded on CHIPS pay extract as at 1 October 2017
- i. Personnel for whom required data are missing for other explanatory factors required within these analyses
- j. Personnel on Zero pay – i.e. not being paid by the MOD as at 1 October 2017, are excluded from salary analysis, but are included within the feeder grades of promotion analysis, due to the fact that someone can be promoted from zero pay into a paid position

Further exclusions in addition to those listed above are made for the promotions analysis:

- a. Personnel not substantively promoted between 1 October 2016 and 1 October 2017
- b. Personnel promoted into or between Senior Civil Service grades
- c. Other personnel whose pay falls outside the pay band scales, such as Apprentices and some Retained grades; although those on broader banded pay scales, such as Fast Streamers are included
- d. Personnel who move from a Trading Fund post into a core post.

To assist anyone who requires historical or additional data, Defence Statistics publishes Civilian and Armed Forces Personnel data via our website at the link below:

[MOD Statistics Homepage](#)

## Definitions

**Adjusted average basic salary** figures have been calculated using Analysis of Covariance methodology, with adjusted averages obtained after the differential effects of Length of Service in Grade in males and females have been taken into account. See background notes for more detail.

**Average basic salary** figures for each individual are derived from the basic monthly salary rate they were paid as at 1 October 2017, annualised to assume a whole year at the same salary rate. In order to assure comparability independent of full-time/part-time status, for each individual it represents what they would earn in a full year at the same salary rate with an FTE of 1.

**Average basic salary differential percentages** represent the ratio of the difference between the gender averages to the higher of the gender averages.

### **Core MOD Total**

- includes: Top Level Budgetary Areas (TLBs)
- excludes: Trading funds, Executive agency, DE&S Bespoke Trading Entity, Royal Fleet Auxiliary and Locally engaged civilians

**Black, Asian and Minority Ethnic (BAME):** BAME is now the widely used terminology, as a collective descriptor for non-white citizens, across Whitehall, other public sector bodies and the third sector, as well as among civil service race staff networks and their cross-Whitehall umbrella body, the Civil Service Race Forum. See also Ethnic Origin.

**Declaration rates:** Ethnic background, disability, religion and sexual orientation are self-declared. Therefore representation rates are calculated from known declarations and exclude unknown and undeclared personnel.

**Ethnic origin** is the ethnic grouping to which a person has indicated that they belong. The classifications used were revised for the 2011 Census of Population when a classification of nationality was also collected.

**Full-time** civil servants are those working 37 hours a week (36 hours or over in London), excluding meal breaks.

**Industrial personnel** are civilian personnel employed primarily in a trade, craft or other manual occupation. This covers a wide range of work such as industrial technicians, air freight handlers, storekeepers, vergers and drivers.

**Non-industrial personnel** are civilian personnel who are not primarily employed in a trade, craft or other manual labour occupation. This covers a wide range of personnel undertaking work such as administration, analysis, policy, procurement, finance, medical, dental, teaching, policing, science and engineering.

**Part-time** civil servants are those working fewer than 37 hours a week (36/37 hours in London), excluding meal breaks.

## Data comparisons

This is the third Equal Pay Audit report where Defence Equipment and Support (DE&S) is reported outside of MOD Main. Due to the size and makeup of DE&S, its removal from MOD main may have an impact on a number of variables (an increase or decrease which is inconsistent with previous time series data). Therefore data in this report are only directly comparable with data for 2015 and 2016.

## Symbols and Conventions

### Symbols

- ~ fewer than five
- \* not applicable and/or data is not of a sufficient size
- zero or rounded to zero

All percentages are calculated from headcount totals (part time equivalent to one person), from unrounded figures and are shown to 1 decimal place.

### Rounding

Where rounding has been used, totals and sub-totals have been rounded separately and so may not equal the sums of their rounded parts. When rounding to the nearest 10, numbers ending in '5' have been rounded to the nearest multiple of 20 to prevent systematic bias.

## **SECTION A1:**

### **Average annual basic salary for all permanent employees by gender and grade**

Table EPA-A1 shows for each Non-industrial broader banded grade; the strength of personnel (headcount), the average (arithmetic mean) FTE worked, the average (arithmetic mean) length of service in grade, and the average annualised basic salary split by gender. In addition, the gender difference in length of service in grade is presented in years, and the percentage gender difference in average basic salary is given.

#### **Key point**

When average annual salary is adjusted to take account of length of service in grade there is no substantial difference between male and female average annual salary for all grades (difference for Bands B1 to E2 are all below +/- 0.3%).

#### **Summary**

Taking the average annual salary without adjusting for any factors which may affect a difference, at each grade (Bands B1 to E2) males had a higher average basic salary than females. These differences ranged from 0.3% (Band E1) to 1.6% (Band C1 and Band D).

There was variation in the average length of service in grade across each grade (Bands B1 to E2). This ranged from 3.6 years (Bands B1) to 9.4 years (Band E2). Within these grades there was also a difference by gender with males having a longer length of service within grade for all grades, except Band E1 where females have a longer length of service. These differences ranged from 0.3 years (Band E1) in favour of females to 2.5 years (Band D) in favour of males. The difference for Band D may be due to a larger proportion of females relative to males entering this grade on promotion and recruitment.

#### **Average length of service (years) in grade by MOD main broader banded non-industrial personnel, as at 1 October 2017**

<b>Grade</b>	<b>Total</b>	<b>Males</b>	<b>Females</b>
B1	3.6	4.0	2.6
B2	3.7	4.2	2.8
C1	4.9	5.7	3.6
C2	5.0	5.7	4.1
D	6.3	7.5	5.0
E1	8.3	8.1	8.4
E2	9.4	10.0	8.1

In order to take the observed differences in length of service in grade into account when making gender comparisons in pay, Table EPA-A1 presents adjusted average basic salary figures by gender, and the resultant percentage gender difference in average basic salary. These adjusted averages were derived using ANCOVA analysis to remove the effect which an individual's length of service in grade has to their basic salary, providing a more representative comparison of the average basic salary of males and females of the same grade.

Adjusting for length of service in grade resulted in average female salaries being broadly equivalent to average male salaries (less than +/- 0.3 per cent difference for all grades). To illustrate this point, before the adjustment for length of service in grade, there was a 1.6 per cent difference from males to females in average annual salary for both Band C1 and Band D. After the adjustment for length of service in grade the differences were both 0.1 per cent in favour of females.

### Average Annual Basic Salary - All Personnel

Table EPA - A1 - Average Basic Salary by Gender and Grade, as at 1 October 2017

Grade	Gender	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %	Adjusted Average Basic Salary accounting for LOS in Grade	Adj Av Basic Salary Diff %
	B1	Male	260	0.99	4.0		62,235		62,368
Female		120	0.99	2.6		61,739		62,480	
<b>Total</b>		<b>380</b>	<b>0.99</b>	<b>3.6</b>	<b>1.4</b>	<b>62,082</b>	<b>0.8%</b>		<b>-0.2%</b>
B2	Male	660	0.99	4.2		52,313		52,346	
	Female	390	0.97	2.8		51,968		52,323	
	<b>Total</b>	<b>1,040</b>	<b>0.98</b>	<b>3.7</b>	<b>1.4</b>	<b>52,184</b>	<b>0.7%</b>		<b>0.0%</b>
C1	Male	1,940	0.98	5.7		39,359		39,270	
	Female	1,100	0.97	3.6		38,724		39,299	
	<b>Total</b>	<b>3,050</b>	<b>0.98</b>	<b>4.9</b>	<b>1.5</b>	<b>39,129</b>	<b>1.6%</b>		<b>-0.1%</b>
C2	Male	3,190	0.99	5.7		32,155		32,079	
	Female	2,240	0.96	4.1		31,688		32,053	
	<b>Total</b>	<b>5,440</b>	<b>0.98</b>	<b>5.0</b>	<b>1.5</b>	<b>31,962</b>	<b>1.5%</b>		<b>0.1%</b>
D	Male	3,050	0.99	7.5		25,927		25,798	
	Female	2,600	0.96	5.0		25,515		25,822	
	<b>Total</b>	<b>5,650</b>	<b>0.97</b>	<b>6.3</b>	<b>2.5</b>	<b>25,737</b>	<b>1.6%</b>		<b>-0.1%</b>
E1	Male	2,090	0.98	8.1		20,345		20,438	
	Female	4,880	0.93	8.4		20,281		20,416	
	<b>Total</b>	<b>6,970</b>	<b>0.95</b>	<b>8.3</b>	<b>-0.3</b>	<b>20,300</b>	<b>0.3%</b>		<b>0.1%</b>
E2	Male	2,090	0.98	10.0		17,401		17,437	
	Female	1,090	0.91	8.1		17,267		17,461	
	<b>Total</b>	<b>3,170</b>	<b>0.96</b>	<b>9.4</b>	<b>1.9</b>	<b>17,355</b>	<b>0.8%</b>		<b>-0.1%</b>

Source: Defence Statistics (Civilian)

Because of rounding, totals may not always equal the sum of the parts.

## **SECTION A2:**

### **Average annual basic salary for part-time permanent employees by gender and grade**

Table EPA-A2 shows the same outputs as in Table EPA-A1, but for part-time personnel. Average basic salary for part-time personnel is presented as annualised in order to be comparable where individuals work varying numbers of hours, and is derived from the basic monthly salary as at 1 October 2017 which they would receive if they worked full-time, multiplied by 12 to obtain the current annual basic salary level assuming 1 FTE.

#### **Key point**

When average annual salary is adjusted to take account of length of service in grade there is no substantial difference between male and female average annual salary for all grades (difference for Bands B2 to E2 are all below +/- 0.9%).

#### **Summary**

At Band B1, the numbers of personnel are too small to conduct any salary comparisons. For all other grades females make up the majority of the part-time workforce, in particular at Band E1 where 91 per cent of part-time personnel are female.

Average FTE for part-time personnel tends to increase from lower grades to higher grades, (Band E2 it is 0.65 FTE, and rises to 0.77 FTE for Band B1).

Males have a higher average LOS in grade across all grades. The gender difference is highest for E2 where males were on average 4.2 years longer in the grade than females. It was lowest for Band E1 where males were on average 0.7 years longer in the grade than females.

As discussed previously, when observing gender differences in average basic salary, it is necessary to take into account the significant differences which exist in length of service in grade. The adjusted annual salary figures which take length of service in grade into account are presented in Table EPA-A2.

The differences between average salaries generally remain higher for part-time personnel than for the whole workforce reflecting the fact that those persons with longer lengths of service in grade are more likely to opt for part-time work. After removing the differential effects of length of service in grade, the gender differences in the adjusted average annualised basic salary reduce to below 0.9 per cent for all grades.

### Average Annual Basic Salary - Part-Time Personnel

Table EPA - A2 Average annual basic salary of part-time personnel by Gender and Grade, as at 1 October 2017

Grade	Gender	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %	Adjusted Average Basic Salary accounting for LOS in Grade	Adj Av Basic Salary Diff %
	B1	Male	10	0.74	3.5		61,393		60,774
Female		10	0.82	2.3		61,250		61,955	
<b>Total</b>		<b>20</b>	<b>0.77</b>	<b>3.1</b>	<b>1.2</b>	<b>61,345</b>	<b>0.2%</b>		*
B2	Male	30	0.73	6.8		53,253		52,659	
	Female	50	0.76	4.2		52,483		52,764	
	<b>Total</b>	<b>70</b>	<b>0.75</b>	<b>5.1</b>	<b>2.6</b>	<b>52,774</b>	<b>1.5%</b>		<b>-0.2%</b>
C1	Male	100	0.71	7.4		40,322		39,298	
	Female	140	0.74	4.5		38,834		39,597	
	<b>Total</b>	<b>240</b>	<b>0.73</b>	<b>5.7</b>	<b>2.9</b>	<b>39,454</b>	<b>3.8%</b>		<b>-0.8%</b>
C2	Male	140	0.69	8.1		32,776		32,163	
	Female	340	0.74	5.6		31,869		32,350	
	<b>Total</b>	<b>480</b>	<b>0.73</b>	<b>6.3</b>	<b>2.5</b>	<b>32,139</b>	<b>2.8%</b>		<b>-0.6%</b>
D	Male	100	0.71	9.5		26,486		25,891	
	Female	410	0.73	6.4		25,615		25,899	
	<b>Total</b>	<b>520</b>	<b>0.72</b>	<b>7.0</b>	<b>3.1</b>	<b>25,792</b>	<b>3.4%</b>		<b>0.0%</b>
E1	Male	110	0.69	9.9		20,527		20,461	
	Female	1,030	0.68	9.2		20,328		20,466	
	<b>Total</b>	<b>1,140</b>	<b>0.68</b>	<b>9.2</b>	<b>0.7</b>	<b>20,346</b>	<b>1.0%</b>		<b>0.0%</b>
E2	Male	80	0.60	12.7		17,587		17,401	
	Female	280	0.66	8.5		17,327		17,487	
	<b>Total</b>	<b>360</b>	<b>0.65</b>	<b>9.4</b>	<b>4.2</b>	<b>17,386</b>	<b>1.5%</b>		<b>-0.5%</b>

Source: Defence Statistics (Civilian)

Because of rounding, totals may not always equal the sum of the parts.



## **SECTION B1:**

### **Average annual basic salary for all permanent employees by ethnicity and grade**

Section B1 (including Table EPA – B1) examines the equality of pay of all personnel by analysing the differences in average basic salary by ethnicity.

#### **Key point**

There is no disparity in the annual average salary by ethnicity at any of the non-industrial grades.

#### **Summary**

White personnel have a greater average LOS in grade than BAME personnel for every grade except for B2 and E2 (0.3 and 0.7 years greater LOS for BAME compared to White personnel respectively for each of these grades). The differences for B1 and C1 to E1 are less than 1.9 years. Therefore the impact of LOS in grade upon salaries will be small.

The average basic salary difference ranges from 0.3 to 1.8 per cent in favour for BAME, meaning that BAME personnel are receiving a higher pay than WHITE personnel. The most likely explanation for this is known differing proportions of White and BAME on the London and National pay scales. The proportion of London personnel who are BAME is 17.7 per cent compared to only 3.3 per cent of National personnel<sup>1,2</sup>.

Table EPA-B1 does not present adjusted average basic salary figures using Analysis of Covariance methodology due to small numbers of BAME personnel.

## **SECTION B2:**

### **Average annual basic salary for part-time permanent employees by ethnicity and grade**

Table EPA-B2 shows the same outputs as in Table EPA-B1, but for part-time personnel. A number of categories within this table do not have sufficient numbers to provide robust data and have been replaced with a ~ (see section 'Symbols and Conventions' for more detail).

#### **Summary**

At grades B1 and B2 the numbers of part-time BAME personnel are too small to reliably calculate averages or to conduct any salary comparisons. The numbers of personnel at each grade, split by ethnicity, have been shown for information. At no grade do BAME personnel make up more than six per cent of the part-time workforce. As these proportions are very small it would be prudent to interpret further analysis with caution, considering many possible reasons for any differences that may be observed.

1. Based on known declaration.

2. Calculations for National excluded London.

### Average Annual Basic Salary - All Personnel

Table EPA - B1 - Average Basic Salary by Ethnicity and Grade, as at 1 October 2017

B1	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	310	0.99	3.7		61,934	
BAME	10	0.99	1.9		62,829		
<b>Total</b>	<b>320</b>	<b>0.99</b>	<b>3.6</b>	<b>1.8</b>	<b>61,963</b>	<b>-1.4%</b>	

  

B2	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	840	0.98	3.8		52,107	
BAME	40	0.99	4.1		52,717		
<b>Total</b>	<b>870</b>	<b>0.98</b>	<b>3.8</b>	<b>-0.3</b>	<b>52,133</b>	<b>-1.2%</b>	

  

C1	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	2,460	0.98	5.1		39,096	
BAME	130	0.98	4.7		39,542		
<b>Total</b>	<b>2,580</b>	<b>0.98</b>	<b>5.1</b>	<b>0.3</b>	<b>39,118</b>	<b>-1.1%</b>	

  

C2	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	4,320	0.97	5.3		31,941	
BAME	200	0.99	5.0		32,284		
<b>Total</b>	<b>4,520</b>	<b>0.98</b>	<b>5.3</b>	<b>0.3</b>	<b>31,956</b>	<b>-1.1%</b>	

  

D	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	4,480	0.97	6.9		25,763	
BAME	230	0.97	5.5		25,850		
<b>Total</b>	<b>4,720</b>	<b>0.97</b>	<b>6.8</b>	<b>1.4</b>	<b>25,767</b>	<b>-0.3%</b>	

  

E1	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	5,600	0.95	9.1		20,313	
BAME	310	0.97	7.5		20,693		
<b>Total</b>	<b>5,910</b>	<b>0.95</b>	<b>9.0</b>	<b>1.6</b>	<b>20,333</b>	<b>-1.8%</b>	

  

E2	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	2,480	0.96	10.5		17,408	
BAME	140	0.98	11.2		17,678		
<b>Total</b>	<b>2,620</b>	<b>0.96</b>	<b>10.5</b>	<b>-0.7</b>	<b>17,422</b>	<b>-1.5%</b>	

Source: Defence Statistics (Civilian)

Because of rounding, totals may not always equal the sum of the parts.

### Average Annual Basic Salary - Part-Time Personnel

Table EPA - B2 - Average annual basic salary of part-time personnel by Ethnicity and Grade, as at 1 October 2017

B1	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	20	0.76	3.0		61,508	
BAME	~	*	*		*		
<b>Total</b>	<b>20</b>	<b>0.76</b>	<b>3.1</b>	<b>*</b>	<b>61,422</b>	<b>*</b>	

  

B2	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	60	0.76	4.7		52,588	
BAME	~	*	*		*		
<b>Total</b>	<b>60</b>	<b>0.76</b>	<b>5.0</b>	<b>*</b>	<b>52,698</b>	<b>*</b>	

  

C1	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	210	0.73	5.9		39,477	
BAME	10	0.77	3.6		39,808		
<b>Total</b>	<b>220</b>	<b>0.73</b>	<b>5.8</b>	<b>2.4</b>	<b>39,490</b>	<b>-0.8%</b>	

  

C2	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	410	0.73	6.8		32,172	
BAME	10	0.80	4.5		32,688		
<b>Total</b>	<b>420</b>	<b>0.73</b>	<b>6.7</b>	<b>2.3</b>	<b>32,179</b>	<b>-1.6%</b>	

  

D	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	440	0.72	7.3		25,777	
BAME	20	0.71	4.6		25,584		
<b>Total</b>	<b>460</b>	<b>0.72</b>	<b>7.1</b>	<b>2.7</b>	<b>25,767</b>	<b>0.8%</b>	

  

E1	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	950	0.68	10.0		20,369	
BAME	30	0.66	6.7		20,510		
<b>Total</b>	<b>980</b>	<b>0.68</b>	<b>9.9</b>	<b>3.3</b>	<b>20,373</b>	<b>-0.7%</b>	

  

E2	Ethnicity	Headcount	Average FTE	Average LOS in Grade (years)	Diff in LOS in Grade (years)	Average Annualised Basic Salary	Av Basic Salary Diff %
	White	300	0.65	10.6		17,454	
BAME	10	0.66	10.0		17,937		
<b>Total</b>	<b>300</b>	<b>0.65</b>	<b>10.6</b>	<b>0.6</b>	<b>17,465</b>	<b>-2.7%</b>	

Source: Defence Statistics (Civilian)

Because of rounding, totals may not always equal the sum of the parts.

## **SECTION C1:**

### **Length of time to promotion by gender**

Table EPA-C1 shows the number of males and females in each grade who were substantively promoted/advanced in the year from 1 October 2016 to 1 October 2017 (temporary promotions were not included here, except where those temporary promotions were made substantive, and in these cases the point of promotion was taken at the point where the promotion was made substantive). The grade referenced in this table is the grade which personnel were promoted into i.e. where a B2 was promoted to B1, they are listed here under their new grade of B1.

It also considers the average length of service in grade prior to promotion (i.e. in the previous grade) in order to observe the length of time it took to be promoted for those individuals who were promoted within the period 1 October 2016 to 1 October 2017.

The analysis also observes the average basic salary upon promotion, which will be also be affected to some degree by the differing proportions of males and females on the London or National pay scales.

#### **Key point**

The average length of service in grade prior to promotion is broadly comparable between males and females for the majority of grades.

#### **Summary**

The average length of service in grade prior to promotion is broadly comparable between males and females for the majority of grades. The exceptions are Band D and E1 (where the LOS in grade for females is on average 1.0 years greater than for males. Other than this, gender disparities in LOS are less than one year across the other grades.

It is important to note that these figures do not represent the average length of time spent within a grade that it takes to achieve promotion, as there are inevitably many other individuals remaining in the previous grade who will achieve promotion in the future. These figures are simply representative of the average length of time spent in the previous grade prior to promotion by those who were promoted within the stated period.

The average basic salary on promotion of males and females in each grade remains comparable for most grades, with a difference of less than one per cent. The higher average salary for females at Band B1 reflects proportionally more females at London pay rates than males at London pay rates. The higher average salary for females at Band D reflects proportionally more females getting promoted than males overall as a result of Average Strength of females in the lower grade being proportionally higher.

Overall, males have a higher average salary on promotion than females at all grades apart from grades B1 and D, where differences between males and females being no greater than 0.1 per cent in favour for females. These differences owe for the most part to the different proportions of males and females on London and National pay scales across grades for B1 and the Average Strength of females at the lower grade for Band D.

### Length of time for Promotion

**Table EPA - C1 - Average basic salary by Gender and Grade, and length of time until Promotion / Advancement for those Promoted / Advanced during the year 1 October 2016 to 1 October 2017**

B1	Gender	Number of Promotions into grade	Average Basic Salary on Promotion	Av Basic Salary Diff %	Average LOS to promotion (yrs)	Av LOS to promotion Diff (yrs)
	Male	30	61,115		2.4	
Female	20	61,190		3.2		
<b>Total</b>	<b>50</b>	<b>61,146</b>	<b>-0.1%</b>	<b>2.8</b>	<b>-0.8</b>	

  

B2	Gender	Number of Promotions into grade	Average Basic Salary on Promotion	Av Basic Salary Diff %	Average LOS to promotion (yrs)	Av LOS to promotion Diff (yrs)
	Male	90	51,605		3.2	
Female	80	51,193		2.8		
<b>Total</b>	<b>170</b>	<b>51,420</b>	<b>0.8%</b>	<b>3.0</b>	<b>0.5</b>	

  

C1	Gender	Number of Promotions into grade	Average Basic Salary on Promotion	Av Basic Salary Diff %	Average LOS to promotion (yrs)	Av LOS to promotion Diff (yrs)
	Male	190	38,319		3.8	
Female	150	38,228		3.3		
<b>Total</b>	<b>340</b>	<b>38,278</b>	<b>0.2%</b>	<b>3.6</b>	<b>0.5</b>	

  

C2	Gender	Number of Promotions into grade	Average Basic Salary on Promotion	Av Basic Salary Diff %	Average LOS to promotion (yrs)	Av LOS to promotion Diff (yrs)
	Male	230	31,343		3.8	
Female	310	31,240		3.5		
<b>Total</b>	<b>540</b>	<b>31,285</b>	<b>0.3%</b>	<b>3.6</b>	<b>0.3</b>	

  

D	Gender	Number of Promotions into grade	Average Basic Salary on Promotion	Av Basic Salary Diff %	Average LOS to promotion (yrs)	Av LOS to promotion Diff (yrs)
	Male	160	24,979		3.7	
Female	320	25,011		4.7		
<b>Total</b>	<b>490</b>	<b>25,000</b>	<b>-0.1%</b>	<b>4.3</b>	<b>-1.0</b>	

  

E1	Gender	Number of Promotions into grade	Average Basic Salary on Promotion	Av Basic Salary Diff %	Average LOS to promotion (yrs)	Av LOS to promotion Diff (yrs)
	Male	70	19,716		4.5	
Female	150	19,598		5.5		
<b>Total</b>	<b>220</b>	<b>19,634</b>	<b>0.6%</b>	<b>5.2</b>	<b>-1.0</b>	

Source: Defence Statistics (Civilian)

Because of rounding, totals may not always equal the sum of the parts.

## **SECTION C2:**

### **Promotion proportions by gender**

Table EPA – C2 shows the number of promotions into grade and the proportion of those who were female. It also shows the average strength of the grade below and the proportion of those who were female. Significance tests were undertaken at each grade to determine whether the proportion of females in the promotion group at each grade was significantly different to the proportion of females at the feeder grade.

#### **Key point**

A significantly higher proportion of females were promoted than would be expected given the proportion of their feeder grade for Bands B2, C2 and E1. There were no grades where the proportion of females promoted was significantly less than expected.

#### **Summary**

Of all promotions, 780 were male (42.7 per cent) and 1,040 were female (57.3 per cent). A higher number of males were promoted into grades at C1 and above, and a higher number of females were promoted into grades C2, D and E1. However, it is important to consider these in the light of the individual male/female representation at the feeder grades. For example, at grade C2, the proportion of promotes into this grade who were female was 57.1 per cent, which was higher than the feeder grade for promotions to C2 (44.9 per cent). Contrary to this at Band D the proportion of females promoted to this grade (66.5 per cent) was lower than feeder grade representation (69.5 per cent).

Significance tests were undertaken at each grade to determine whether the proportion of females in the promotion group at each grade was significantly different to the proportion of females at the feeder grade. Significant differences for females (ie there were a higher proportion of females promoted than would be expected given the proportion of females in the feeder grade) was found for Bands B2, C2 and E1. There were no grades where the proportion of females promoted was significantly less than expected.

### Promotions/Advancements Rates

Table EPA - C2 - Number of Promotions/Advancements during the year 1 October 2016 to 1 October 2017

All Grades	Gender	Number of Promotions into grade	Percentage female - promotees	Average Strength at lower grade	Percentage female - lower grade	Difference between female proportion in promotions and in feeder grade	Promotion rate into grade	Promotion rate ppt difference
	Male	780			13,492			
Female	1,040			12,468		0.09		
<b>Total</b>	<b>1,820</b>	<b>57.3%</b>	<b>25,960</b>	<b>48.0%</b>	<b>Significant</b>	*	*	

  

B1	Gender	Number of Promotions2 into grade	Percentage female - promotees	Average Strength at lower grade3	Percentage female - lower grade	Difference between female proportion in promotions and in feeder grade4	Promotion rate into grade	Promotion rate ppt difference
	Male	30			667			4.6%
Female	20			378		0.05	5.8%	
<b>Total</b>	<b>50</b>	<b>41.5%</b>	<b>1,045</b>	<b>36.2%</b>	<b>Not significant</b>		<b>5.1%</b>	<b>-1.2 ppt</b>

  

B2	Gender	Number of Promotions2 into grade	Percentage female - promotees	Average Strength at lower grade3	Percentage female - lower grade	Difference between female proportion in promotions and in feeder grade4	Promotion rate into grade	Promotion rate ppt difference
	Male	90			2,025			4.6%
Female	80			1,120		0.09	6.9%	
<b>Total</b>	<b>170</b>	<b>45.0%</b>	<b>3,146</b>	<b>35.6%</b>	<b>Significant</b>		<b>5.4%</b>	<b>-2.2 ppt</b>

  

C1	Gender	Number of Promotions2 into grade	Percentage female - promotees	Average Strength at lower grade3	Percentage female - lower grade	Difference between female proportion in promotions and in feeder grade4	Promotion rate into grade	Promotion rate ppt difference
	Male	190			3,260			5.7%
Female	150			2,198		0.05	7.0%	
<b>Total</b>	<b>340</b>	<b>45.2%</b>	<b>5,458</b>	<b>40.3%</b>	<b>Not significant</b>		<b>6.2%</b>	<b>-1.3 ppt</b>

  

C2	Gender	Number of Promotions2 into grade	Percentage female - promotees	Average Strength at lower grade3	Percentage female - lower grade	Difference between female proportion in promotions and in feeder grade4	Promotion rate into grade	Promotion rate ppt difference
	Male	230			3,201			7.2%
Female	310			2,609		0.12	11.8%	
<b>Total</b>	<b>540</b>	<b>57.1%</b>	<b>5,811</b>	<b>44.9%</b>	<b>Significant</b>		<b>9.3%</b>	<b>-4.6 ppt</b>

  

D	Gender	Number of Promotions2 into grade	Percentage female - promotees	Average Strength at lower grade3	Percentage female - lower grade	Difference between female proportion in promotions and in feeder grade4	Promotion rate into grade	Promotion rate ppt difference
	Male	160			2,202			7.4%
Female	320			5,010		-0.03	6.5%	
<b>Total</b>	<b>490</b>	<b>66.5%</b>	<b>7,212</b>	<b>69.5%</b>	<b>Not significant</b>		<b>6.8%</b>	<b>1.0 ppt</b>

  

E1	Gender	Number of Promotions2 into grade	Percentage female - promotees	Average Strength at lower grade3	Percentage female - lower grade	Difference between female proportion in promotions and in feeder grade4	Promotion rate into grade	Promotion rate ppt difference
	Male	70			2,136			3.2%
Female	150			1,153		0.34	13.4%	
<b>Total</b>	<b>220</b>	<b>69.4%</b>	<b>3,288</b>	<b>35.0%</b>	<b>Significant</b>		<b>6.8%</b>	<b>-10.2 ppt</b>

Source: Defence Statistics (Civilian)

Because of rounding, totals may not always equal the sum of the parts.

## Ministry of Defence broader banded pay (Non-industrial personnel)

The Ministry of Defence considers that a necessary and fair measure is to address the pay gap between people being paid considerably less than colleagues performing a similar role at the same grade. The pay award for 2017 was based on an individual's position on their pay scale. Each scale was divided into quartiles with the following rates applied:

1 <sup>st</sup> (Top) Quartile	0.5%
2 <sup>nd</sup> Quartile	0.7%
3 <sup>rd</sup> and 4 <sup>th</sup> Quartiles	1.1%

This continued the Department's aim of providing those towards the bottom of their pay scale with higher increases thus narrowing the gap between the highest and lowest paid.

### **MOD main personnel salary ranges for Broader Banded personnel, Non-industrial (B1 to E2) 2013 to 2017**

			2013	2014	2015	2016	2017	% change in the difference from 2013 to 2017	
<b>B1</b>	London	High	72,907	72,907	72,907	72,907	73,272		
		Low	59,280	60,199	61,033	61,778	62,458		
		Difference	13,627	12,708	11,874	11,129	10,814		-20.6%
	National	High	70,103	70,103	70,103	70,103	70,454		
		Low	57,000	57,877	58,674	59,388	60,041		
		Difference	13,103	12,226	11,429	10,715	10,413		
<b>B2</b>	London	High	60,130	60,130	60,130	60,130	60,431		
		Low	50,359	51,132	51,835	52,467	53,044		
		Difference	9,771	8,998	8,295	7,663	7,387		
	National	High	57,817	57,817	57,817	57,817	58,106		
		Low	48,421	49,161	49,835	50,440	50,995		
		Difference	9,396	8,656	7,982	7,377	7,111		
<b>C1</b>	London	High	44,711	44,711	44,711	44,711	44,935		
		Low	37,444	38,025	38,553	39,027	39,456		
		Difference	7,267	6,686	6,158	5,684	5,479		
	National	High	42,991	42,991	42,991	42,991	43,206		
		Low	36,004	36,562	37,071	37,527	37,940		
		Difference	6,987	6,429	5,920	5,464	5,266		
<b>C2</b>	London	High	36,696	36,696	36,696	36,696	36,879		
		Low	30,732	31,211	31,646	32,035	32,387		
		Difference	5,964	5,485	5,050	4,661	4,492		
	National	High	35,285	35,285	35,285	35,285	35,461		
		Low	29,551	30,008	30,424	30,797	31,136		
		Difference	5,734	5,277	4,861	4,488	4,325		
<b>D</b>	London	High	29,383	29,383	29,383	29,383	29,530		
		Low	24,608	24,995	25,346	25,663	25,945		
		Difference	4,775	4,388	4,037	3,720	3,585		
	National	High	28,253	28,253	28,253	28,253	28,394		
		Low	23,661	24,028	24,362	24,663	24,934		
		Difference	4,592	4,225	3,891	3,590	3,460		
<b>E1</b>	London	High	22,345	22,345	22,345	22,345	22,457		
		Low	19,853	20,165	20,449	20,704	20,932		
		Difference	2,492	2,180	1,896	1,641	1,525		
	National	High	20,883	20,883	20,883	20,883	20,987		
		Low	18,554	18,845	19,109	19,346	19,559		
		Difference	2,329	2,038	1,774	1,537	1,428		
<b>E2</b>	London	High	19,003	19,003	19,003	19,003	19,098		
		Low	16,884	17,148	17,389	17,606	17,800		
		Difference	2,119	1,855	1,614	1,397	1,298		
	National	High	17,760	17,760	17,760	17,760	17,849		
		Low	15,779	16,028	16,253	16,455	16,636		
		Difference	1,981	1,732	1,507	1,305	1,213		



## Background Notes

### 1. Data sources

Defence Statistics (DS) Civilian statistics are compiled from:

- i) **Core MOD Personnel** - Data for core MOD personnel have been taken from the personnel system - Human Resources Management System (HRMS) on a monthly basis since April 2004. DS use budgetary UINs and attribute people according to the budgetary area that pays them, using the Standing Data System hierarchy from Financial Management Information Systems.
- ii) **Civilian personnel pay** - Defence Business Systems (DBS) provide Defence Statistics with a dataset of all those individuals on the pay system at 1 October 2017 and their grade according to the 'Salary Admin Plan' field. Additional information in the DBS dataset includes those receiving a promotion in the relevant period, the date of that promotion, the grade they were promoted from and the new grade they have been promoted into, the length of service in grade prior to promotion and basic salary at 1 October 2017.

### 2. Data definitions

**Analysis of Covariance (ANCOVA)** is a statistical methodology to obtain adjusted average salary figures. ANCOVA is a standard and robust statistical methodology used to observe differences in means between groups after accounting for and removing the effects of other variables (covariates). After the removal of the effects of covariates, adjusted means for each group being compared are obtained. These adjusted means allow observation of any differences between groups in the variable of interest on an equal and more comparable basis. The adjusted average salary figures presented in section A were derived from this approach to enable average basic salary to be compared between males and females in each grade without being confounded by the effects of the differing length of service in grade of males and females in each group. The resulting adjusted average salaries represent what the average salary for each gender within a specific grade would be if the average lengths of service in grade for each gender were equal for both genders. This enables a level comparison of the average salary of each gender without confounding with the effects of different lengths of service.

**Length of service in grade (LOS)** (which automatically resets to 0 on promotion) was recorded as at the period prior to promotion in order to ascertain the length of time in the previous grade prior to being promoted. The LOS in grade field was reset to start counting from 2000, for the majority of MOD personnel in post in April 2004, when the new HRMS data system was introduced. Despite this limitation there is no evidence that this would introduce any gender bias. Although caution should be used when viewing the actual values of length of service in grade, as these will be capped at 13 years for the majority of individuals. Initial investigations have shown this to only affect a few individuals and as such where these values are used for statistical analysis they are still valid for making statistical adjustments for the grade band in question.

Length of service in grade also resets to 0 for persons transferring in from another government department, irrespective of whether they transferred across at the same grade. This is unlikely to have a skewing effect, as these numbers tend to be small.

Average Length of Service in Grade is presented in years to one decimal place. Gender difference in average Length of Service in grade are calculated from the difference between the exact averages and are also presented in years to one decimal place.

**Promotions:** This report analyses the number of personnel who were promoted in the 12 months from 1 October 2016 to 1 October 2017. Included in these analyses were those who were substantively promoted or advanced within this period (including a small number of personnel who were both recruited and promoted within the time period). Temporary promotions were not included, except where individuals had been on temporary promotion and were made substantive within the period. MOD has advancement from E2 to E1, C2 to C1 and B2 to B1 but for the purposes of the report these are referred to as promotion.

**Significance testing:** Section C includes statistical tests on the relative differences of the female proportion within promotion groups for each grade, compared to the female proportion of the underlying average strength of the grade from which they were promoted. The test only needs to be conducted on the female proportion, as we are considering the proportion as females divided by the sum of males and females in each case.

This is different to the significance test methodology used prior to 2012 which compared the promotion *rates* of male to females. It has been determined that this method is not the most appropriate and can be distorted by the fact that male and female rates are not independent of each other, whereas the proportion of females in the promotion group is independent of the proportion of females within the underlying strength group. This can be assumed to be true where the factors that influence promotion are equally distributed for men and women. Therefore a statistical test result of ‘Significant’ suggests that either gender or a factor that is gender biased is having an influence on promotion.

### 3. Grade structures

Since 1 April 1996 all departments and agencies have had delegated responsibility for the pay and grading of their employees, except for those in the Senior Civil Service (SCS). The MOD grades are shown here against levels broadly equivalent (in terms of pay and job weight) to the former service-wide grades.

<b>MOD grades</b>	<b>Former service-wide grades</b>
<b>Senior Management</b> SCS – Senior Civil Service	<b>Senior Management</b> SCS – Senior Civil Service
<b>Other Management Grades</b> B1 & equivalents B2 & equivalents C1 & equivalents C2 & equivalents D & equivalents	<b>Other Management Grades</b> Grade 6 Grade 7 SEO - Senior Executive Officer HEO - Higher Executive Officer EO - Executive Officer
<b>Administrative Grades</b> E1 & equivalents E2 & equivalents	<b>Administrative Grades</b> AO - Administrative Officer AA - Administrative Assistant

#### Other definitions (to those reported in page 2)

**Broader Banded grade:** Defence Statistics report personnel against their equivalence within the broader banded structure; B1 to E2 for non-industrial and Skill Zones 1 to 4 for Industrial. The analyses does not include: SCS for non-industrial, Industrial Firemen and Apprentices for industrial personnel. Also excluded are personnel in retained grade structures, (such as MOD Guards) and personnel employed in analogue grade bands (such as civilian nurses employed against NHS grade codes), who have their own delegated pay schemes outside of the MOD National and London pay scales.

**Defence Equipment and Support (DE&S)** is responsible for equipping and supporting the UK's Armed Forces. They manage a vast range of complex projects to buy and support all the equipment and services that the Royal Navy, British Army and Royal Air Force need to operate effectively. They work closely with industry, including through partnering agreements and private finance initiatives. Their main responsibilities are:

- the procurement and support of ships, submarines, aircraft, vehicles, and supporting services
- general requirements including food, clothing, medical supplies and temporary accommodation
- inventory management
- British Forces Post Office
- Submarine dismantling project

DE&S was reported as a bespoke trading entity on 1 July 2015 (prior to this it was reported as an extant TLB). This means it is an arm's length body of the Ministry of Defence with a separate governance and oversight structure with a board under an independent Chairman, and a Chief Executive who will be an Accounting Officer, accountable to Parliament for the performance of the organisation. It achieved full status for reporting purposes as at 1 April 2015.

**Full Time Equivalence (FTE)** is a measure of the size of the workforce that takes account of the fact that some people work part-time. Prior to 1 April 1995 part-time employees were assumed to work 50 per cent of normal hours, but since then actual hours worked has been the preferred methodology. The average hours worked by part-time personnel is about 68 per cent of full-time hours.