



The CWP Survey is a seven day diary completed by trained, regular UK Armed Forces personnel to record the number of hours they spend at work, on call, on breaks and off duty. The aim of the survey is to measure the working patterns of the trained, regular UK Armed Forces personnel for a full working week. In this report, the average number of hours personnel spend at work, on call and on duty per week are provided by Service and rank group.

Key points and trends

Hours worked

- Overall, the average weekly hours worked by trained, regular UK Armed Forces personnel decreased by 0.7 hours to 44.5 hours in 2014/15.
- In 2014/15, the Naval Service had the highest average weekly hours worked (48.4 hours), followed by the RAF (43.8 hours) and the Army (43.4 hours).
- Across all Services, Officers worked longer hours on average than Ranks/Rates.
- Personnel serving on overseas Operations or at sea worked longer hours on average than personnel at all other locations.

Excessive hours

- 7% of trained, regular UK Armed Forces personnel worked excessive hours in 2014/15 - the same as 2013/14. For the purposes of this report, a member of the UK Armed Forces who has worked 70 hours or more during the week is regarded as having worked excessive hours.
- 16% of Naval Service personnel worked excessive hours in 2014/15 compared to 5% of Army personnel and 4% of RAF personnel - these proportions are broadly similar to 2013/14.

Unsociable hours

- Trained, regular UK Armed Forces personnel worked on average 6.6 hours per week during unsociable hours in 2014/15.
- Personnel in the Naval Service worked the highest number of unsociable hours on average (10.8 hours), followed by the RAF (6.3 hours) and the Army (5.2 hours).

On duty hours

- Overall, the average weekly hours spent on duty decreased by 1.5 hours to 63.8 hours in 2014/15. On duty comprises of time spent 'at work', 'on breaks' and 'on call'.
- In 2014/15, the Naval Service had the highest average weekly hours spent on duty (73.3 hours), followed by the RAF (62.7 hours) and the Army (60.9 hours).
- Army and RAF Officers spent more time on duty on average than Army and RAF Ranks/Rates. Among the Naval Service, Senior Ranks/Rates spent more time on duty than the other Naval Service rank groups.
- Personnel serving on overseas Operations or at sea spent more time on duty during the week than personnel at all other locations.

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Background quality report: <https://www.gov.uk/government/collections/armed-forces-continuous-working-patterns-survey-index>

Would you like to be added to our **contact list**, so that we can inform you about updates to these statistics and consult you if we are thinking of making changes? You can subscribe to updates by emailing DefStrat-Stat-WDS-Pubs@mod.uk

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Reference tables and questionnaires for CWP 2014/15 are published as separate documents and can be found on the CWP webpage here:

<https://www.gov.uk/government/collections/armed-forces-continuous-working-patterns-survey-index>

Introduction

This report gives the main results of the 2014/15 Continuous Working Patterns (CWP) Survey alongside results from the 2010/11 to the 2013/14 CWP surveys. The aim of the CWP survey is to describe the working patterns of the trained, regular UK Armed Forces for a full working week. Chief of Defence People (CDP) sponsors the survey under a remit from the Armed Forces Pay Review Body (AFPRB) to inform their work.

The CWP questionnaire includes a 7 day diary; each day is divided into four periods of 6 hours. Respondents were asked to indicate time spent at "work", "on breaks", "on call" and "off duty" for each of these periods. Personnel were provided with guidance on how different activities should be recorded.

CWP questionnaires were distributed at a time of significant change for the MOD, including the end of operations in Afghanistan and the continuation of high-level change programmes such as Future Force 2020 and the New Employment Model.

The target population was regular members of the UK Armed Forces who were full time, trained strength. It excluded untrained personnel, those on long term absence, Special Forces, Gurkhas, reservists and personnel ranked above OF6. There were a number of other minor exclusions arising from the practicalities of running the survey e.g. those with invalid address data. Address data for personnel in the sample were obtained from the Joint Personnel Administration System (JPA).

A "valid response" refers to a returned questionnaire with at least one usable day within the seven day diary. A total of 16,805 surveys were distributed. 4,059 of the returned surveys were considered valid, which equated to a response rate of 24%. In the previous survey conducted in 2013/14, the response rate was 26%. If UK Armed Forces personnel who did not respond to the CWP survey have different working patterns to those who did then the CWP survey results will be biased.

For the Army and RAF, one of the broad locations the CWP survey measures the working patterns of is personnel on overseas Operations. On the 27th October 2014, the UK Armed Forces ceased all combat Operations in Afghanistan and withdrew the last of its combat troops. Because of this, the number of Army and RAF personnel on overseas Operations decreased whilst this survey was in field - and this has led to a decrease in responses from Army and RAF personnel deployed on overseas Operations. Therefore, Army and RAF figures for the location category overseas Operations should be treated with caution.

In order to detect any statistical differences in working patterns between the current year and the previous year, a series of z-tests were conducted with an alpha level of 5%. A statistically significant difference means there is a less than 5% probability that the difference is the result of chance alone. Where a statistical difference has been found, the difference between the current year and the previous year are provided in brackets and the relevant cells have been highlighted in one of the following colours:

Blue highlighting means that the 2014/15 figure is significantly lower than that reported in 2013/14.

Purple highlighting means that the 2014/15 figure is significantly higher than that reported in 2013/14.

Please see the [Background Quality Report](#) for full details of the survey methodology, analysis and data quality considerations.

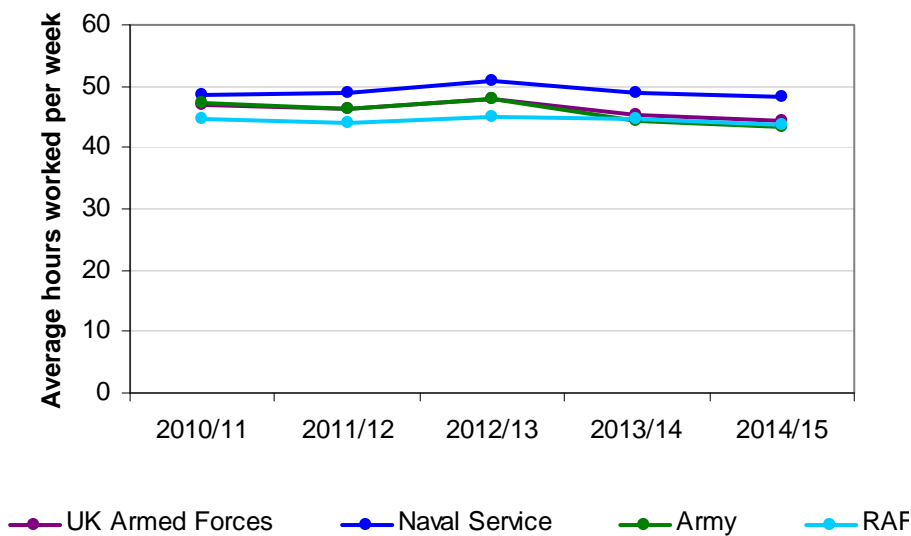
Section 1 - Hours worked by Service

Sections 1, 2 and 3 look at the average hours worked per week by trained, regular UK Armed Forces personnel.

Table 1: Hours worked by Service

	2010/11	2011/12	2012/13	2013/14	2014/15
UK Armed Forces	46.8	46.3	47.9	45.2	44.5 (-0.7)
Naval Service	48.6	49.0	50.7	48.9	48.4
Army	47.1	46.2	48.1	44.2	43.4 (-0.8)
RAF	44.6	44.1	45.0	44.6	43.8 (-0.8)

Figure 1: Hours worked by Service



Overall, the average weekly working hours worked by trained, regular UK Armed Forces personnel decreased by 0.7 hours between 2013/14 and 2014/15. Average weekly working hours are at their lowest level over the last five years.

The Army average weekly working hours decreased by 0.8 hours to 43.4 hours in 2014/15.

The RAF average weekly working hours decreased by 0.8 hours to 43.8 hours in 2014/15.

Over the past five years, the Naval Service has had the highest average weekly working hours.

Section 2 - Hours worked by location

Table 2: Naval Service hours worked by location

	2010/11	2011/12	2012/13	2013/14	2014/15
Naval Service	48.6	49.0	50.7	48.9	48.4
Sea	59.0	57.9	62.4	63.1	61.2 (-1.9)
Shore	43.8	44.2	44.6	41.9	42.4

The average weekly working hours for Naval Service personnel at sea decreased from 63.1 hours to 61.2 hours between 2013/14 and 2014/15.

Naval Service personnel at sea continue to work longer hours on average than shore based Naval Service personnel.

Table 3: Army hours worked by location

	2010/11	2011/12	2012/13	2013/14	2014/15
Army	47.1	46.2	48.1	44.2	43.4 (-0.8)
United Kingdom	44.7	44.5	45.4	42.7	42.2
Germany	45.5	43.3	48.0	43.9	44.4
Overseas Operations	74.0	72.8	72.9	66.3	62.8 (-3.6)
Elsewhere abroad	45.0	44.5	49.5	44.6	48.8 (4.2)

The average weekly working hours for Army personnel decreased from 44.2 hours to 43.4 hours between 2013/14 and 2014/15. The average weekly working hours for Army personnel is the lowest it has been over the last five years.

The average weekly working hours for Army personnel on overseas Operations decreased from 66.3 hours to 62.8 hours between 2013/14 and 2014/15. The average weekly working hours for Army personnel on overseas Operations in 2014/15 is the lowest it has been over the last five years. It is unknown how much of this change (if any) is directly because of the UK Armed Forces withdrawing its combat troops from Afghanistan on 27th October 2014.

For Army personnel based elsewhere abroad, the average weekly working hours increased by 4.2 hours between 2013/14 and 2014/15. This follows a decrease in the average weekly working hours in 2013/14 of 4.9 hours.

Despite the decrease in the average weekly hours worked, Army personnel on overseas Operations continue to work longer hours on average than Army personnel based in the United Kingdom, Germany and elsewhere abroad.

Section 2 - Hours worked by location (continued)

Table 4: RAF hours worked by location

	2010/11	2011/12	2012/13	2013/14	2014/15	
RAF	44.6	44.1	45.0	44.6	43.8	(-0.8)
United Kingdom	42.9	42.5	43.7	43.0	42.2	(-0.8)
Overseas Operations	68.7	67.4	69.4	69.3	69.8	
Elsewhere abroad	43.8	45.0	44.2	44.9	45.1	

The average weekly working hours for RAF personnel decreased from 44.6 hours to 43.8 hours between 2013/14 and 2014/15.

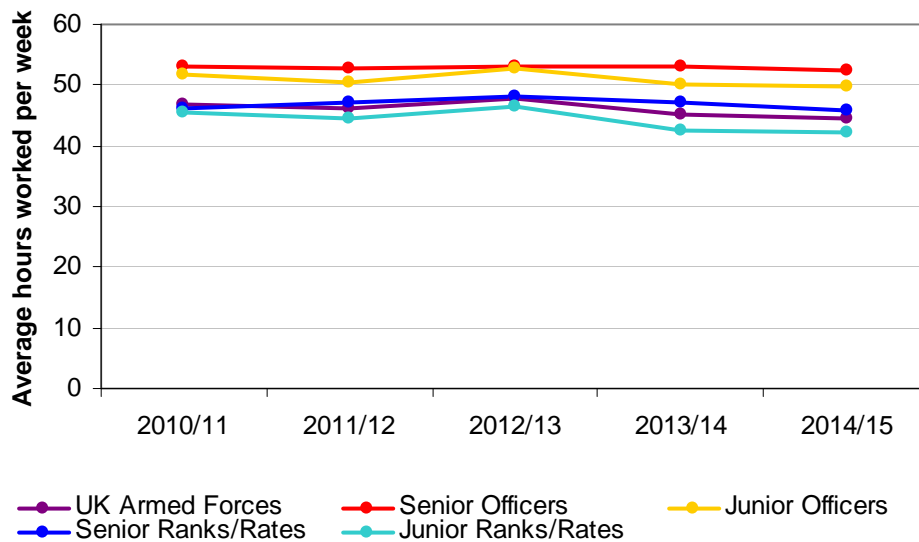
The average weekly working hours for RAF personnel based in the United Kingdom decreased from 43.0 hours to 42.2 hours between 2013/14 and 2014/15. The average weekly working hours for RAF personnel in the United Kingdom in 2014/15 is the lowest it has been over the last five years.

Section 3 - Hours worked by rank group

Table 5: Hours worked by rank group

	2010/11	2011/12	2012/13	2013/14	2014/15
UK Armed Forces	46.8	46.3	47.9	45.2	44.5 (-0.7)
Senior Officers	53.2	52.7	52.9	53.0	52.5
Junior Officers	51.9	50.5	52.6	50.2	49.8
Senior Ranks/Rates	46.3	47.0	48.0	47.1	45.8 (-1.4)
Junior Ranks/Rates	45.5	44.5	46.5	42.6	42.0

Figure 2: Hours worked by rank group



Senior Ranks/Rates average weekly working hours decreased by 1.4 hours to 45.8 hours in 2014/15.

Over the past five years, Officers have worked longer hours (on average) than Ranks/Rates.

Section 4 - Distribution of hours worked by Service

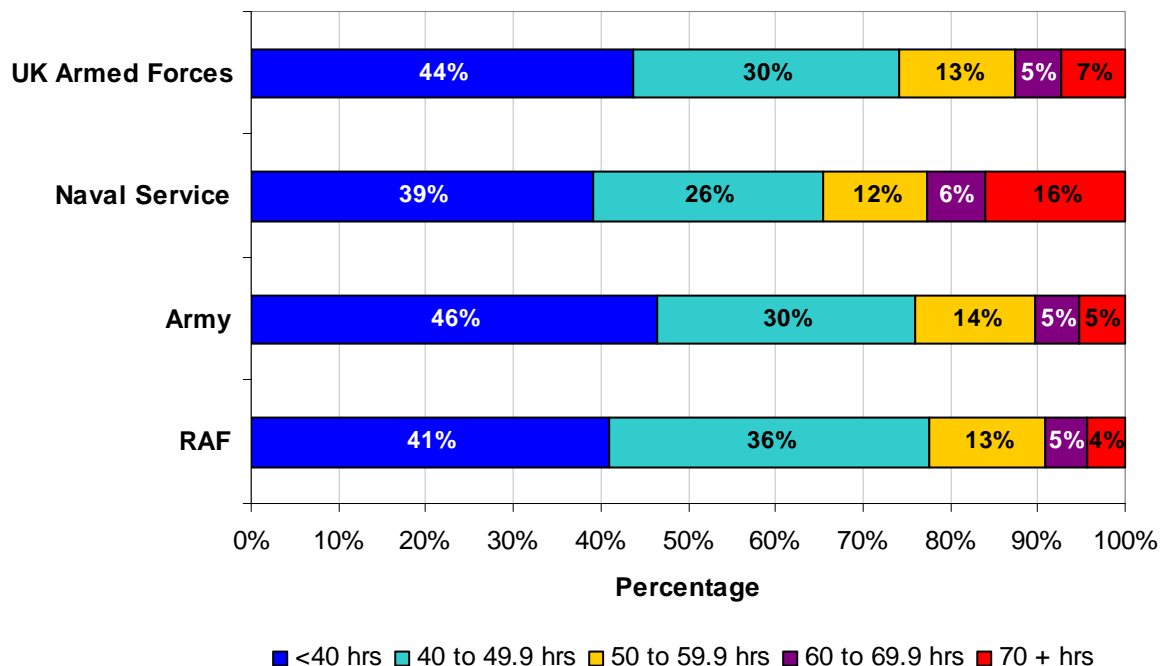
Section 4 and 5 are based on the 2,318 Service personnel for whom a full week's data was available. Because the proportions provided in these sections are based on a smaller number of respondents than sections 1, 2 and 3, levels of precision are likely to be lower (wider confidence intervals). Therefore, **sections 4 and 5 are only an indication of the working week of Service personnel**. The proportions have been weighted to remove bias caused by differing levels of responses by Service, rank group and location. Since the population strengths used for the weightings were revised in 2009/10, direct comparisons of 2014/15 with results prior to 2009/10 should not be made.

Table 6: Distribution of hours worked by Service

	<40 hrs	40 to 49.9 hrs	50 to 59.9 hrs	60 to 69.9 hrs	70 + hrs	Total
UK Armed Forces	44%	30%	13%	5%	7%	100%
Naval Service	39%	26%	12%	6%	16%	100%
Army	46%	30%	14%	5%	5%	100%
RAF	41%	36%	13%	5%	4%	100%

Note: 70 + hours is classed as 'excessive hours' for the purposes of this report.

Figure 3: Distribution of hours worked by Service



74% of Service personnel worked fewer than 50 hours a week, whilst 7% worked excessive hours of 70 hours or more a week.

Naval Service personnel are more likely to work excessive hours with 16% working 70 hours or more a week compared to 5% of Army personnel and 4% of RAF personnel.

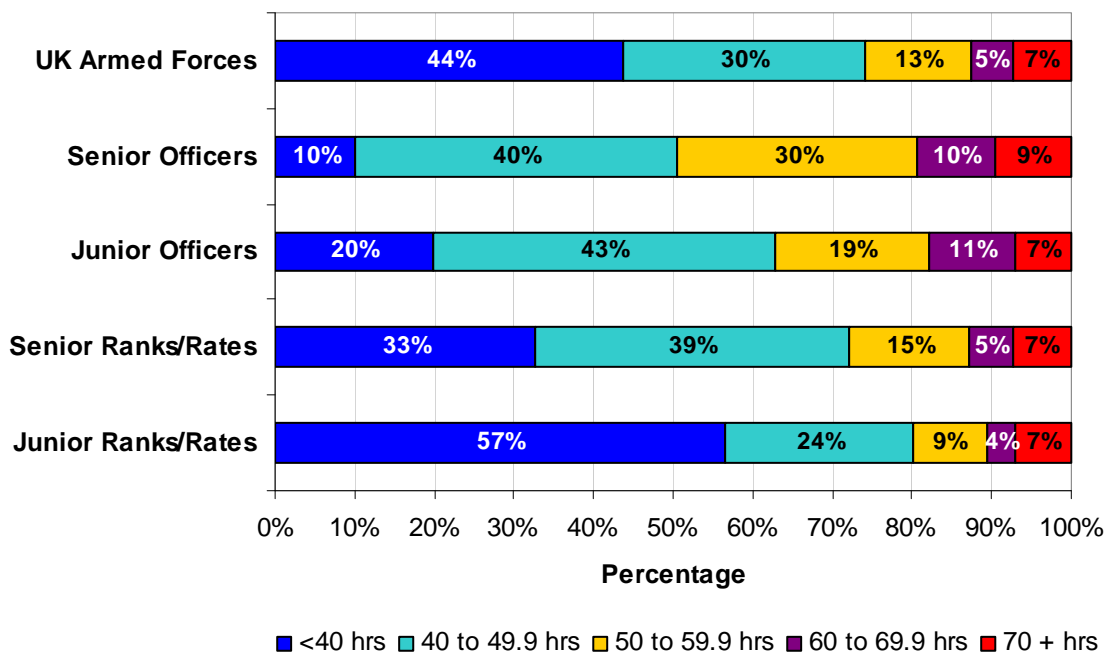
Section 5 - Distribution of hours worked by rank group

Table 7: Distribution of hours worked by rank group

	<40 hrs	40 to 49.9 hrs	50 to 59.9 hrs	60 to 69.9 hrs	70 + hrs	Total
UK Armed Forces	44%	30%	13%	5%	7%	100%
Senior Officers	10%	40%	30%	10%	9%	100%
Junior Officers	20%	43%	19%	11%	7%	100%
Senior Ranks/Rates	33%	39%	15%	5%	7%	100%
Junior Ranks/Rates	57%	24%	9%	4%	7%	100%

Please note: 70 + hours is classed as 'excessive hours' for the purposes of this report.

Figure 4: Distribution of hours worked by rank group



In 2014/15, Officers worked longer hours (on average) than Ranks/Rates.

50% of Senior Officers and 37% of Junior Officers worked 50 hours a week or more, compared to 28% of Senior Ranks/Rates and 20% of Junior Ranks/Rates.

33% of Senior Ranks/Rates and 57% of Junior Ranks/Rates worked less than 40 hours a week, compared to 10% of Senior Officers and 20% of Junior Officers.

Section 6 - Unsociable hours worked by Service

This section looks at the average number of unsociable hours worked per week by the trained, regular UK Armed Forces personnel. This section uses all valid responses as in section 1, 2 and 3. Figures are weighted to account for differing levels of response by Service, rank group and location.

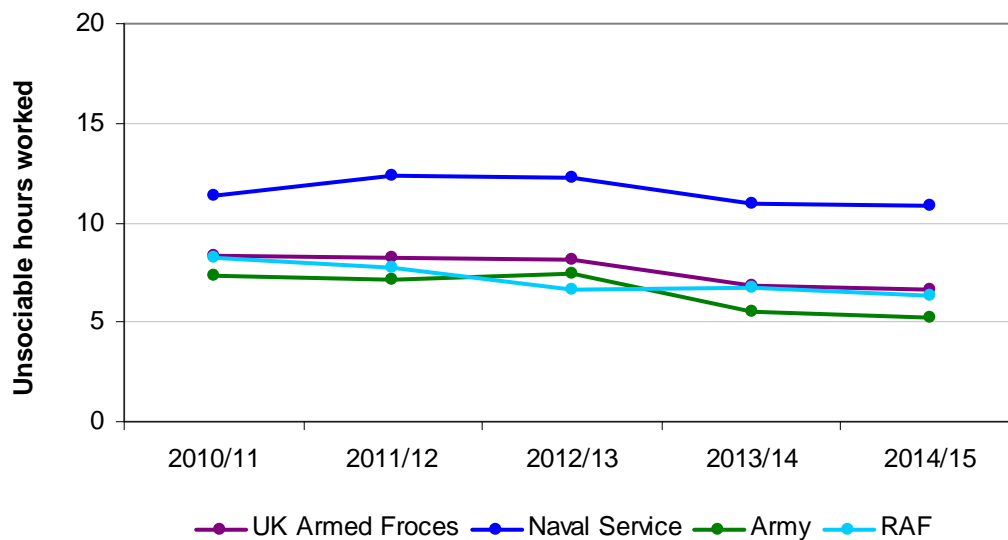
Unsociable hours are:

- Any hours worked between 00:00 and 06:00, between Monday and Friday
- Any hours worked between 18:00 and 24:00, between Monday and Friday
- Any hours worked on Saturday or Sunday

Table 8: Unsociable hours worked by Service per week

	2010/11	2011/12	2012/13	2013/14	2014/15
UK Armed Forces	8.4	8.3	8.2	6.9	6.6
Naval Service	11.4	12.3	12.2	11.0	10.8
Army	7.3	7.1	7.4	5.5	5.2
RAF	8.3	7.7	6.6	6.7	6.3

Figure 5: Unsociable hours worked by Service per week



The average unsociable hours worked per week in 2014/15 are broadly similar to 2013/14, and are at the lowest level they've been over the last five years

In each of the last five years, Naval Service personnel have on average worked the highest number of unsociable hours.

Section 7 - Excessive hours worked by Service

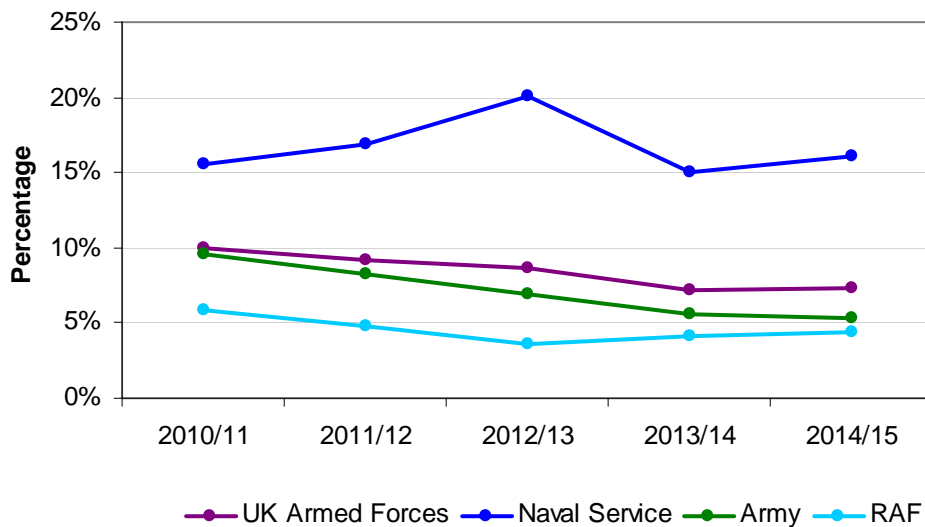
A member of the UK Armed Forces who worked 70 hours or more during the working week is regarded as having worked **excessive hours**.

This section is based on the 2,318 personnel for whom a full week's data was available. Because the proportions provided here are based on a smaller number of respondents than sections 1, 2, 3 and 6, levels of precision are likely to be lower (wider confidence intervals). Therefore, **section 7 is only an indication of excessive hours worked**. The proportions provided here have been weighted to remove bias caused by differing levels of responses by Service, rank group and location.

Table 9: Proportion of personnel working excessive hours by Service

	2010/11	2011/12	2012/13	2013/14	2014/15
UK Armed Forces	10%	9%	9%	7%	7%
Naval Service	16%	17%	20%	15%	16%
Army	10%	8%	7%	6%	5%
RAF	6%	5%	4%	4%	4%

Figure 6: Proportion of personnel working excessive hours by Service



Overall and in each single Service, the proportion of personnel working excessive hours is broadly similar to last year.

For the past five years the Naval Service has had the highest proportion of personnel working excessive hours and the RAF has had the lowest.

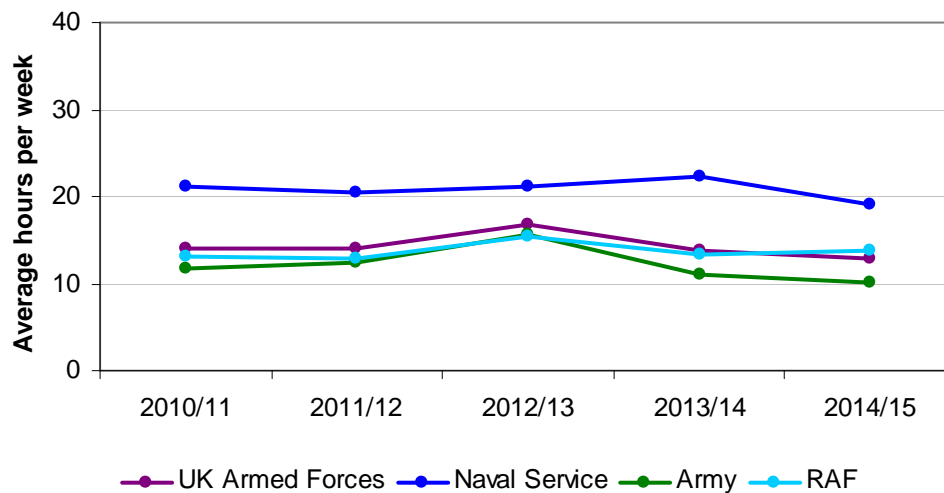
Section 8 - On call hours by Service

Sections 8, 9 and 10 look at the average hours trained regular UK Armed Forces personnel spend on call per week and uses all valid responses like sections 1, 2, 3 and 6. Figures are weighted to account for differing levels of response by Service, rank group and location.

Table 10: Hours spent on call by Service

	2010/11	2011/12	2012/13	2013/14	2014/15
UK Armed Forces	14.0	14.1	16.7	13.7	12.8 (-0.9)
Naval Service	21.2	20.5	21.2	22.3	19.1 (-3.2)
Army	11.8	12.4	15.7	11.0	10.2
RAF	13.1	12.8	15.3	13.4	13.8

Figure 7: Hours spent on call by Service



The average weekly hours spent on call decreased by 0.9 hours to 12.8 hours in 2014/15; the lowest level it's been over the last five years.

For Naval Service personnel, the average weekly hours spent on call decreased by 3.2 hours to 19.1 hours in 2014/15, the lowest level it's been over the last five years.

The Naval Service has recorded more hours on call (on average) than the Army and RAF in every year since 2010/11.

Section 9 - On call hours by location

Table 11: Naval Service hours spent on call by location

	2010/11	2011/12	2012/13	2013/14	2014/15	
Naval Service	21.2	20.5	21.2	22.3	19.1	(-3.2)
Sea	38.4	29.7	35.9	41.8	32.4	(-9.3)
Shore	13.3	15.5	13.5	12.7	12.8	

The average weekly hours spent on call for Naval Service personnel decreased from 22.3 hours to 19.1 hours between 2013/14 and 2014/15. The average weekly hours spent on call for Naval Service personnel in 2014/15 is the lowest it has been over the last five years.

For Naval Service personnel at sea the average weekly hours spent on call decreased by 9.3 hours to 32.4 hours in 2014/15. This decrease in on call hours follows two consecutive increases in hours spent on call in 2013/14 (by 5.9 hours) and 2012/13 (by 6.1 hours).

Personnel at sea continue to report longer hours on call, on average, than shore based personnel.

Table 12: Army hours spent on call by location

	2010/11	2011/12	2012/13	2013/14	2014/15 *
Army	11.8	12.4	15.7	11.0	10.2
United Kingdom	9.1	10.1	13.4	8.5	8.6
Germany	9.5	11.1	11.3	8.9	9.0
Overseas Operations	38.1	40.2	42.0	45.7	44.8
Elsewhere abroad	19.1	13.1	24.9	19.6	19.6

* Note, statistical tests were performed on the data, but the 2014/15 averages were found not to be significantly different from the 2013/14 averages.

There is no evidence of any real change in the average weekly hours spent on call for Army personnel at any location.

Army personnel on overseas Operations continue to spend more time on call than Army personnel at any other location.

Section 9 - On call hours by location (continued)

Table 13: RAF hours spent on call by location

	2010/11	2011/12	2012/13	2013/14	2014/15
RAF	13.1	12.8	15.3	13.4	13.8
United Kingdom	10.7	10.3	12.5	9.8	11.3
Overseas Operations	38.9	38.1	48.2	57.0	51.9 (-5.1)
Elsewhere abroad	20.3	23.6	26.9	23.6	17.1 (-6.5)

For RAF personnel on overseas Operations, the average weekly hours spent on call decreased by 5.1 hours to 51.9 hours in 2014/15. This decrease in on call hours in 2014/15 follows an increase in on call hours in 2013/14 (of 8.8 hours). It is unknown how much of this change (if any) is directly because of the UK Armed Forces withdrawing its combat troops from Afghanistan on 27th October 2014.

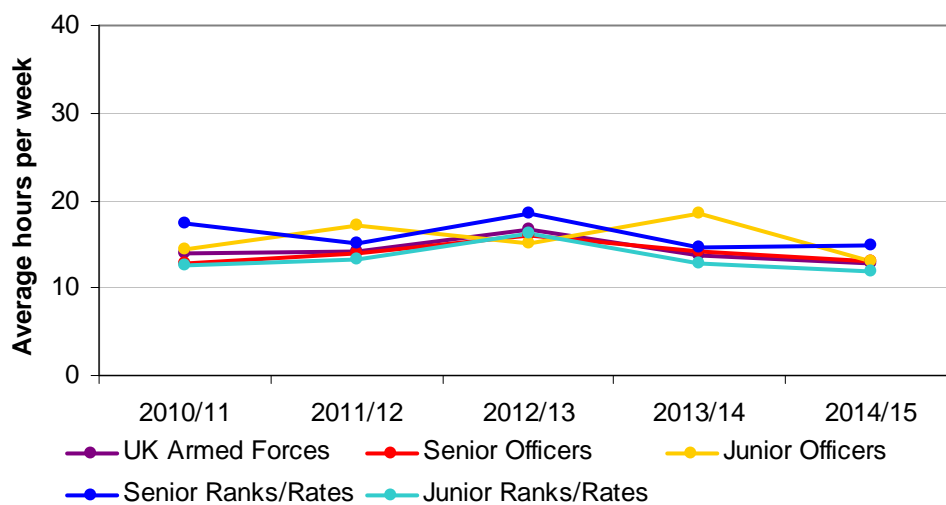
The average weekly hours spent on call for RAF personnel elsewhere abroad decreased from 23.6 hours to 17.1 hours between 2013/14 and 2014/15. The average weekly hours spent on call for RAF personnel elsewhere abroad in 2014/15 is the lowest it has been over the last five years.

Section 10 - On call hours by rank group

Table 14: Hours spent on call by rank group

	2010/11	2011/12	2012/13	2013/14	2014/15
UK Armed Forces	14.0	14.1	16.7	13.7	12.8 (-0.9)
Senior Officers	12.8	13.8	16.0	14.1	12.9
Junior Officers	14.4	17.2	15.0	18.5	13.0 (-5.6)
Senior Ranks/Rates	17.5	15.1	18.6	14.6	14.8
Junior Ranks/Rates	12.7	13.3	16.2	12.7	12.0

Figure 8: Hours spent on call by rank group



The average weekly hours spent on call decreased by 0.9 hours in 2014/15, and are the lowest they have been over the last five years.

For Junior Officers, the average weekly hours spent on call decreased by 5.6 hours in 2014/15 - this follows an increase in on call hours of 3.5 hours in 2013/14.

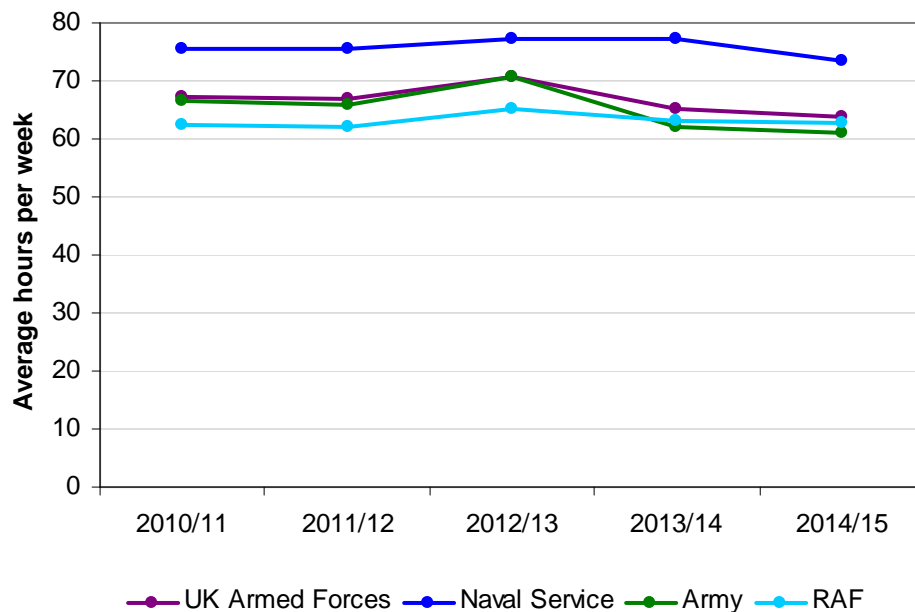
Section 11 - Duty hours by Service

Sections 11, 12 and 13 look at the average hours trained, regular UK Armed Forces personnel spend on duty and uses all valid responses like sections 1, 2, 3, 6, 8, 9 and 10. Figures are weighted to account for differing levels of response by Service, rank group and location. "On duty" comprises of personnel recording time at "work", "on breaks" and "on call".

Table 15: Hours spent on duty by Service

	2010/11	2011/12	2012/13	2013/14	2014/15	
UK Armed Forces	67.3	67.0	70.7	65.3	63.8	(-1.5)
Naval Service	75.5	75.4	77.2	77.1	73.3	(-3.8)
Army	66.4	65.9	70.5	62.2	60.9	
RAF	62.6	62.2	65.3	63.1	62.7	

Figure 9: Hours spent on duty by Service



The average weekly hours spent on duty decreased by 1.5 hours in 2014/15; the lowest level it's been over the last 5 years. This decrease is driven by decreases in the average weekly hours worked (by 0.7 hours) and the average weekly hours spent on call (by 0.9 hours) in 2014/15.

The largest decrease in the average weekly hours spent on duty is among Naval Service personnel, where weekly hours spent on duty has decreased by 3.8 hours in 2014/15. This decrease is driven by a decrease in average weekly hours spent on call (by 3.2 hours) in 2014/15.

On average, Naval Service personnel have recorded more hours on duty than personnel in the Army and RAF.

Section 12 - Duty hours by location

Table 16: Naval Service on duty hours by location

	2010/11	2011/12	2012/13	2013/14	2014/15	
Naval Service	75.5	75.4	77.2	77.1	73.3	(-3.8)
Sea	104.4	95.2	105.0	112.7	100.6	(-12.0)
Shore	62.2	64.6	62.7	59.7	60.4	

For Naval Service personnel, the average weekly hours spent on duty decreased by 3.8 hours in 2014/15. This decrease is driven by a decrease in average weekly hours spent on call (by 3.2 hours) in 2014/15.

For Naval Service personnel at sea, the average weekly hours spent on duty decreased by 12.0 hours to 100.6 hours in 2014/15. This decrease in duty hours is driven by decreases in hours spent at work (by 1.9 hours) and on call (by 9.3 hours) in 2014/15. This decrease in duty hours in 2014/15 follows two consecutive increases in hours spent on duty in 2013/14 (by 7.7 hours) and 2012/13 (by 9.7 hours).

Despite the decrease in the average weekly hours spent on duty, Naval Service personnel at sea continue to spend more time on duty than shore based personnel.

Table 17: Army on duty hours by location

	2010/11	2011/12	2012/13	2013/14	2014/15	
Army	66.4	65.9	70.5	62.2	60.9	
United Kingdom	61.3	61.8	65.1	58.0	58.2	
Germany	62.5	60.7	66.0	59.9	60.4	
Overseas Operations	120.8	124.7	128.1	123.0	116.5	(-6.5)
Elsewhere abroad	69.3	62.7	79.0	70.3	74.7	(4.4)

For Army personnel on overseas Operations, the average weekly hours spent on duty decreased by 6.5 hours to 116.5 hours in 2014/15. This decrease in duty hours is largely driven by a decrease in hours spent at work (by 3.6 hours) in 2014/15. The average weekly hours spent on duty for Army personnel on overseas Operations in 2014/15 is now the lowest it has been over the last five years. It is unknown how much of this change (if any) is directly because of the UK Armed Forces withdrawing its combat troops from Afghanistan on 27th October 2014.

For Army personnel based elsewhere abroad, the average weekly hours spent on duty increased by 4.4 hours in 2014/15 - this follows a decrease of 8.7 hours spent on duty in 2013/14. This increase in duty hours in 2014/15 is driven by an increase in hours worked (by 4.2 hours) in 2014/15.

Despite the decrease in the average weekly hours spent on duty, Army personnel on overseas Operations continue to spend more time on duty than Army personnel based at any other location.

Section 12 - Duty hours by location (continued)

Table 18: RAF on duty hours by location

	2010/11	2011/12	2012/13	2013/14	2014/15
RAF	62.6	62.2	65.3	63.1	62.7
United Kingdom	58.6	58.1	61.0	58.0	58.8
Overseas Operations	113.2	111.9	125.4	132.2	125.9 (-6.3)
Elsewhere abroad	67.6	71.5	74.9	72.0	65.4 (-6.6)

For RAF personnel on overseas Operations, the average weekly hours spent on duty decreased by 6.3 hours to 125.9 hours in 2014/15. This decrease in duty hours is largely driven by a decrease in hours spent on call (by 5.1 hours) in 2014/15. This decrease in duty hours in 2014/15 follows two consecutive increases in hours spent on duty in 2013/14 (by 6.8 hours) and 2012/13 (by 13.5 hours). It is unknown how much of this change (if any) is directly because of the UK Armed Forces withdrawing its combat troops from Afghanistan on 27th October 2014.

For RAF personnel elsewhere abroad, the average weekly hours spent on duty decreased by 6.6 hours to 65.4 hours in 2014/15. This decrease in duty hours is largely driven by a decrease in hours spent on call (by 6.5 hours) in 2014/15. The average weekly hours spent on duty for RAF personnel elsewhere abroad in 2014/15 is now the lowest it has been over the last five years.

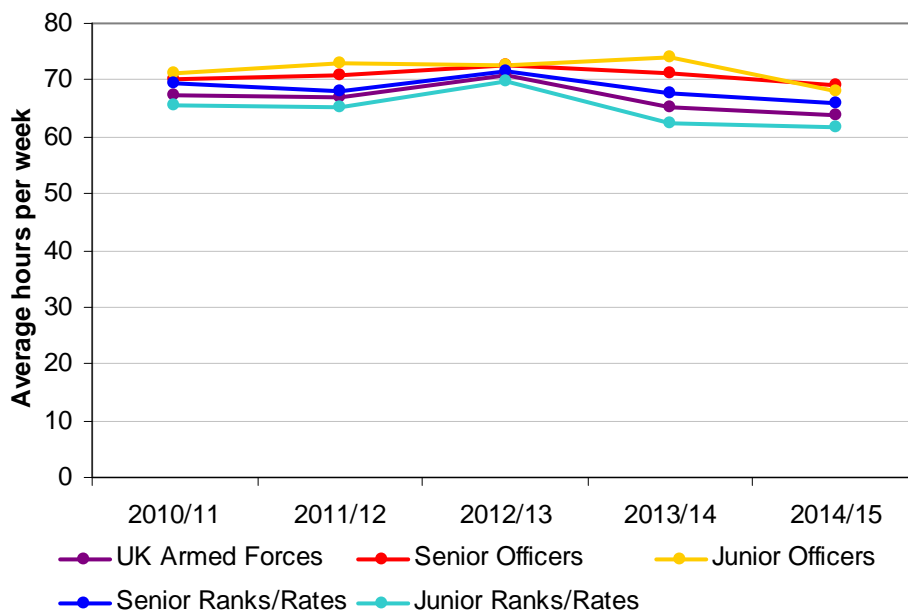
Despite the decrease in the average weekly hours spent on duty, RAF personnel on overseas Operations continue to spend more time on duty than RAF personnel based at any other location.

Section 13 - Duty hours by rank group

Table 19: Hours spent on duty by rank group

	2010/11	2011/12	2012/13	2013/14	2014/15	
UK Armed Forces	67.3	67.0	70.7	65.3	63.8	(-1.5)
Senior Officers	70.0	70.7	72.7	71.2	69.1	(-2.1)
Junior Officers	71.4	73.1	72.8	73.9	68.1	(-5.8)
Senior Ranks/Rates	69.4	67.8	71.7	67.7	65.9	
Junior Ranks/Rates	65.6	65.2	69.7	62.4	61.6	

Figure 10: Hours spent on duty by rank group



The average weekly hours spent on duty by Senior Officers decreased by 2.1 hours in 2014/15.

The average weekly hours spent on duty by Junior Officers decreased by 5.8 hours in 2014/15. This decrease is driven by a significant decrease in average weekly hours spent on call (by 5.6 hours) in 2014/15.

Officers spend more time on duty (on average) than Ranks/Rates.

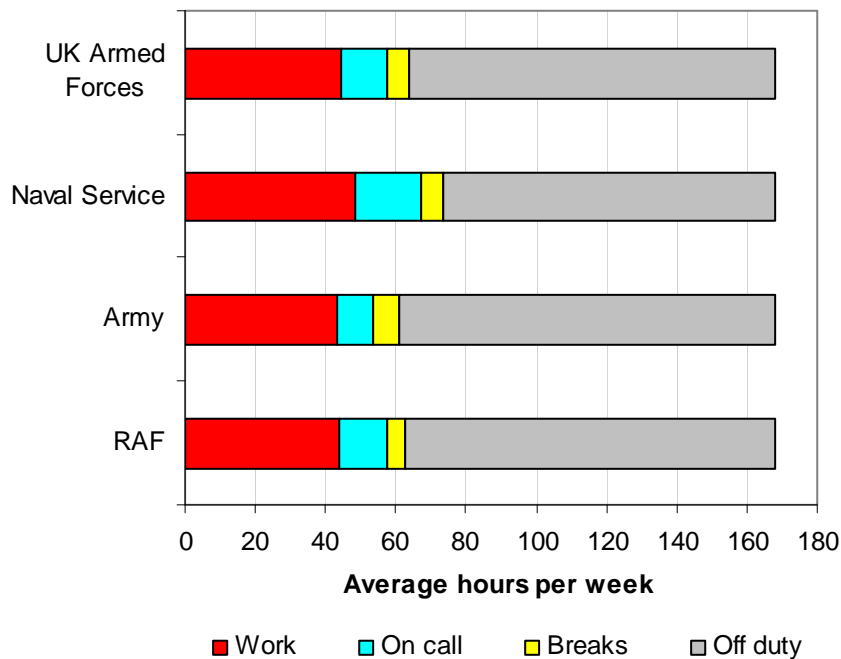
Section 14 - The average week for the UK Armed Forces by Service

Sections 14 and 15 look at the average hours trained, regular UK Armed Forces personnel spend on duty, broken down by the average hours spent at work, on breaks and on call. These sections use all valid responses like sections 1, 2, 3, 6, 8, 9, 10, 11, 12 and 13. Figures are weighted to account for differing levels of response by Service, rank group and location.

Table 20: The average week for the UK Armed Forces by Service

	On duty				Off duty
	Work	On call	Breaks	On duty total	
UK Armed Forces	44.5	12.8	6.5	63.8	104.1
Naval Service	48.4	19.1	5.8	73.3	94.7
Army	43.4	10.2	7.3	60.9	107.0
RAF	43.8	13.8	5.1	62.7	105.3

Figure 11: The average week for the UK Armed Forces by Service



Naval Service personnel have the highest average weekly hours spent on duty. This is driven by Naval Service personnel having the highest average weekly hours at work and on call.

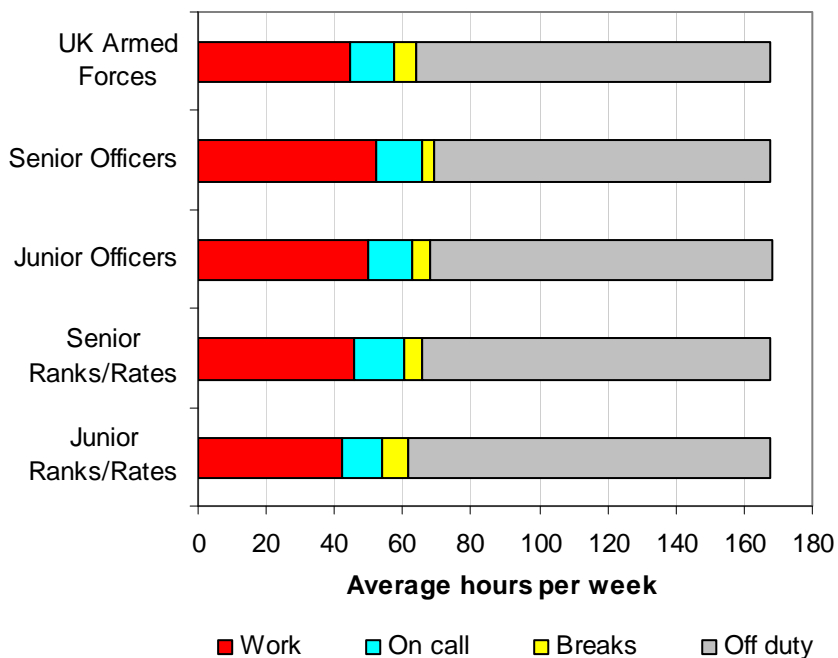
In contrast, Army personnel have the lowest average weekly hours spent on duty. This is driven by Army personnel having the lowest average weekly hours at work and on call.

Section 15 - The average week for the UK Armed Forces by rank group

Table 21 The average week for the UK Armed Forces by rank group

	On duty				Off duty
	Work	On call	Breaks	On duty total	
UK Armed Forces	44.5	12.8	6.5	63.8	104.1
Senior Officers	52.5	12.9	3.7	69.1	98.9
Junior Officers	49.8	13.0	5.2	68.1	99.9
Senior Ranks/Rates	45.8	14.8	5.3	65.9	102.1
Junior Ranks/Rates	42.0	12.0	7.6	61.6	106.4

Figure 12: The average week for the UK Armed Forces by rank group



Senior Officers have the highest average weekly hours spent on duty. This is driven by Senior Officers having the highest average weekly hours at work.

Junior Ranks/Rates have the lowest average weekly hours spent on duty. This is driven by Junior Ranks/Rates spending less time at work and on call than the other rank groups.

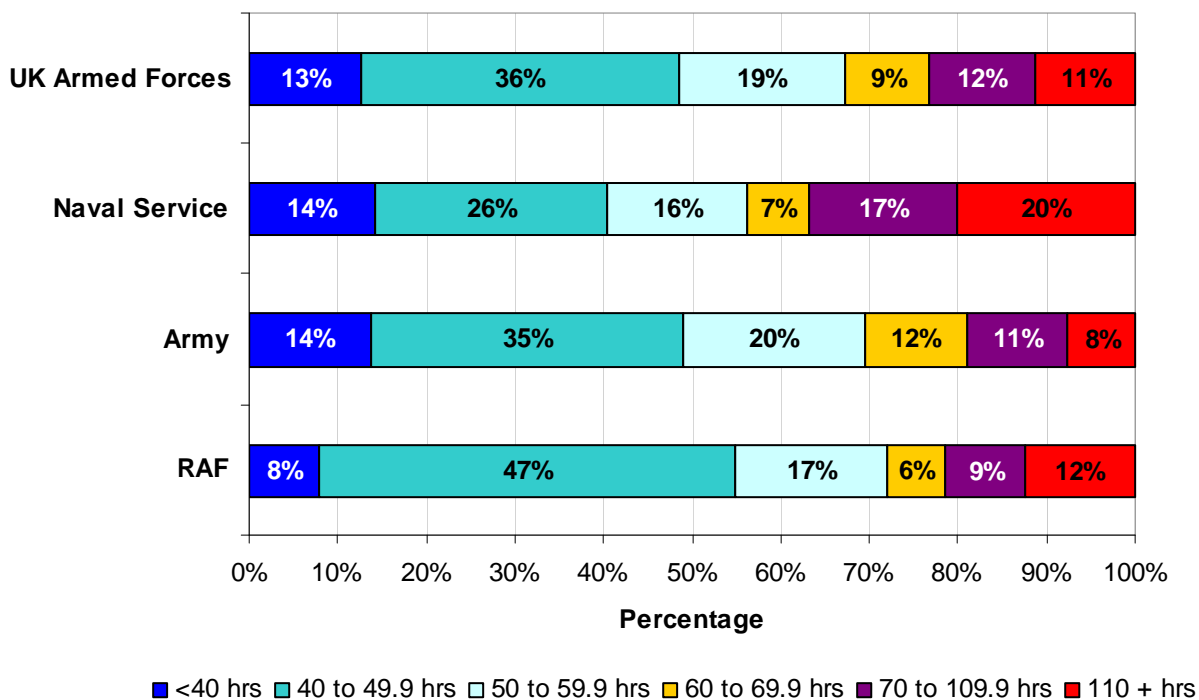
Section 16 - Distribution of duty hours by Service

Sections 16 and 17 are based on the 2,318 Service personnel for whom a full weeks data was available. Because the proportions provided here are based on a smaller number of respondents than sections 1, 2, 3, 6, 8, 9, 10, 11, 12, 13, 14 and 15, levels of precision are likely to be lower (wider confidence intervals). Therefore, **sections 16 and 17 are only an indication of the working week of Service personnel**. The proportions have been weighted to remove bias caused by differing levels of responses by Service, rank group and location. Since the population strengths used for the weightings were revised in 2009/10, direct comparisons of 2014/15 with results prior to 2009/10 should not be made.

Table 22: Distribution of hours spent on duty by Service

	<40 hrs	40 to 49.9 hrs	50 to 59.9 hrs	60 to 69.9 hrs	70 to 109.9 hrs	110 + hrs	Total
UK Armed Forces	13%	36%	19%	9%	12%	11%	100%
Naval Service	14%	26%	16%	7%	17%	20%	100%
Army	14%	35%	20%	12%	11%	8%	100%
RAF	8%	47%	17%	6%	9%	12%	100%

Figure 13: Distribution of hours spent on duty by Service



37% of Naval Service personnel spent 70 hours or more on duty during the week, compared to 22% of RAF personnel and 19% of Army personnel.

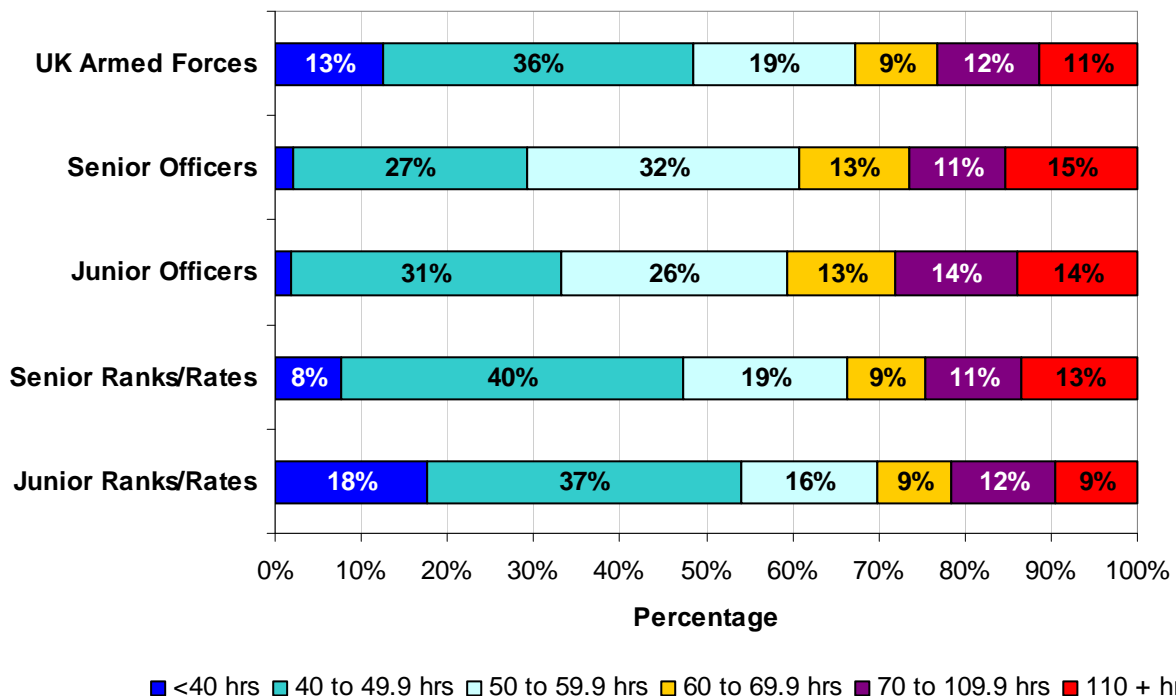
In contrast, 55% of RAF personnel and 49% of Army personnel were on duty for less than 50 hours during the week compared to 40% of Naval Service personnel.

Section 17 - Distribution of duty hours by rank group

Table 23: Distribution of hours spent on duty by rank group

	<40 hrs	40 to 49.9 hrs	50 to 59.9 hrs	60 to 69.9 hrs	70 to 109.9 hrs	110 + hrs	Total
UK Armed Forces	13%	36%	19%	9%	12%	11%	100%
Senior Officers	2%	27%	32%	13%	11%	15%	100%
Junior Officers	2%	31%	26%	13%	14%	14%	100%
Senior Ranks/Rates	8%	40%	19%	9%	11%	13%	100%
Junior Ranks/Rates	18%	37%	16%	9%	12%	9%	100%

Figure 14: Distribution of hours spent on duty by rank group



Overall, 23% of Armed Forces personnel were on duty for 70 hours or more during the week.

47% of Senior Ranks/Rates and 54% of Junior Ranks/Rates were on duty for less than 50 hours during the week compared to 29% of Senior Officers and 33% of Junior Officers.

39% of Senior Officers and 41% of Junior Officers spent 60 hours or more on duty during the week, compared to 34% of Senior Ranks/Rates and 30% of Junior Ranks/Rates.

Methodology

The questionnaire

CWP is a paper survey. Half the personnel in our sample were sent a CWP questionnaire in September 2014. The remaining half of the sample were sent CWP questionnaires in February 2015. Data collection ran from September 2014 to April 2015 - a long period which allows time for receiving paper responses from personnel serving overseas.

The survey is confidential rather than anonymous. An individual's unique Service number is used to allow responses to be linked to demographic data held on the JPA. Personally identifiable data are only available to a small group of civilian researchers working on the analysis and report production.

The sample and respondents

The 2014/15 response rates can be seen in Table 24 below:

Table 24: Valid response rates by Service 2014/15

	Sample Size	Valid responses	Valid response rate
UK Armed Forces	16,805	4,059	24%
Naval Service	6,332	1,423	22%
Army	6,558	1,523	23%
RAF	3,915	1,113	28%

The total CWP sample consisted of 16,805 personnel. A stratified simple random sampling process was used to select the sample. Stratification was by Service (Naval Service, Army and RAF), rank group (Senior Officers, Junior Officers, Senior Ranks/Rates and Junior Ranks/Rates) and broad location. For the Naval Service the locations were at sea and shore, for the Army the locations were United Kingdom, Germany, overseas Operations, and elsewhere abroad, and for the RAF, the locations were United Kingdom, overseas Operations and elsewhere abroad.

The sample was designed to provide sufficient responses to yield estimates with a margin of error of +/- 0.5 hours for each Service average weekly hours worked. This was met for the RAF, who had a margin or error of +/- 0.47 hours, but not for the Naval Service (who had a margin of error of +/- 0.54 hours) or the Army (who had a margin or error of +/- 0.56 hours).

For the UK Armed Forces and the three Services, levels of precision were lower (wider confidence intervals) for on duty and on call averages.

For the Army and RAF, one of the broad locations the CWP survey measures the working patterns of its personnel on overseas Operations. On the 27th October 2014, the UK Armed Forces ceased all combat Operations in Afghanistan and withdrew the last of its combat troops. Because of this, the number of Army and RAF personnel on overseas Operations decreased whilst this survey was in field - and this has had an impact on the number of responses to the CWP survey.

The number of Army personnel deployed on overseas Operations who returned a CWP questionnaire (with at least one usable days data in their diary) fell from 545 in 2013/14 to 164 in 2014/15. For the RAF, this number fell from 325 in 2013/14 to 199 in 2014/15.

Because of this, where changes in the working patterns of Army and RAF personnel on overseas Operations have been identified (between the 2013/14 and 2014/15 CWP surveys), it is unknown how much of this change (if any) is directly because of the UK Armed Forces withdrawing its combat troops from Afghanistan.

Methodology (continued)

It should also be noted that because of the decrease in numbers of completed CWP surveys from Army and RAF personnel on overseas Operations, the confidence intervals for the average weekly hours at work, on call and on duty for this group are wider than personnel based at any other location.

Weighting the data

Due to the sample design and the differences in prevalence of non-response between Service, rank group and broad location, the distribution of characteristics among CWP respondents did not reflect the distribution of the trained, regular UK Armed Forces population. Therefore, responses were weighted by Service, rank group and broad location in order to correct for the bias caused by over or under representation.

The weights were calculated simply by:

$$\frac{\text{Population size of strata (p)}}{\text{Number of responses within strata (r)}}$$

Weighting in this way assumes missing data are missing at random (MAR) only within strata. This means we assume that within strata, the working patterns of non-respondents do not differ (on average) to the working patterns of respondents.

If those who did not respond have different working patterns to those who did, then the observations in this report will not be representative of the working patterns of the trained, regular UK Armed Forces, rather, the observations would only represent the working patterns of the responding population.

Non response that is directly related to individual working patterns will lead to bias within these survey results. For example, those busiest and hence working longer hours may be less likely to complete the survey.

Analysis

The automated data cleaning rules are set out below:

1. If a respondent has recorded they are on annual leave or sick leave but has also filled in some hours, we ignore the hours and assume the leave marker is true.
2. For Monday to Friday, if a respondent has recorded they are on duty but has not filled out any hours in the boxes, we change the leave marker to show them as being on annual leave. Anyone on annual leave will not be used in the calculations, as we are only interested in people who were working a 'normal' week, with no annual leave.
3. On Saturday and Sunday, if a respondent has recorded they are on duty but has not filled out any hours in the boxes, we change the leave marker to show them as being on weekend leave (we feel that this is a reasonable assumption to make).
4. On Saturday and Sunday, if a respondent has recorded they are on weekend leave we make sure that they have 24 hours off duty recorded for that day.
5. If a respondent has recorded they were on weekend leave from Monday to Friday (not a valid option on the questionnaire), we change the leave code to show annual leave.
6. If the total hours for a day add up to between 23 and 25 hours then we allow that day in the calculations without cleansing. We see this as an acceptable margin of error. Any totals that fall outside this margin will not be used in the calculations.

Methodology (continued)

Many personnel returned questionnaires which included leave days or days that had to be discarded because of inconsistent or missing data. If analysis was restricted to only those questionnaires that cover a full working week, results would be based on much less data and confidence intervals would be considerably wider. The methodology used is based upon a 'notional' week made up of the average Monday, the average Tuesday,..., the average Sunday.

Therefore, by calculating the average working hours separately for each day, as much of the data as possible is used.

Statistical comparisons

In order to detect any statistical differences in working patterns between the current year and the previous year, a series of z-tests were conducted with an alpha level of 5%. A statistically significant difference means there is a less than 5% probability that the difference is the result of chance alone.

If a statistical difference is found it means that the difference between years is unlikely to be the result of random variation and is therefore indicative of a genuine change in hours spent at "work", "on duty" or "on call" between 2013/14 and 2014/15. It does not mean that the change is necessarily large or substantively "important".

It is important to note that the absence of a statistically significant difference between years does not necessarily mean that no difference is expected to exist between populations. Simply that, given the number of respondents, the detected difference is too small for us to be confident that a difference of this size could not have arisen due to chance variation in the survey process.

Format of excel tables

CWP 2014/15 excel tables can be found on the CWP webpage here:

<https://www.gov.uk/government/collections/armed-forces-continuous-working-patterns-survey-index>

As well as providing details of the UK Armed Forces and three Service working patterns (like this report), the excel tables also provides details of the three Service working patterns, broken down by rank group and broad location. Statistical comparisons have been made between the 2013/14 survey and the 2014/15 survey.

The excel tables also provide details of the working patterns of Service personnel from the 2010/11 CWP survey to the 2014/15 CWP survey. This time series data is presented in a series of tables and graphs.

Glossary

Armed Forces Pay Review Body (AFPRB) Provides independent advice to the Prime Minister and the Secretary of State for Defence on pay and changes for members of the Naval, Military and Air Forces of the Crown.

Breaks Are meal breaks during periods of work.

Excessive hours Refers to a working week of 70 hours or more.

Joint Personnel Administration (JPA) Is the system used by the Armed Forces to deal with matters of pay, leave and other personal administrative tasks.

Junior Officers Armed Forces personnel with NATO Ranks of OF1 to OF2.

Junior Ranks/Rates Armed Forces personnel with NATO Ranks of OR1 to OR4.

Missing at random (MAR) Statistical theory that states that those who did not respond to a question do not differ from those who did respond.

MOD Ministry of Defence.

NATO North Atlantic Treaty Organisation.

Naval Service Comprises the Royal Navy (including Queen Alexandra's Royal Naval Nursing Service) and the Royal Marines combined.

Non-response Refers either to a person who although sampled and sent a questionnaire did not reply, or to a respondent who did not reply to a question.

Off duty Not at work, on breaks or on call.

Officers In the CWP survey, this refers to Officers with a NATO Rank of OF1 to OF6.

On call Includes all time when available as necessary, including all time away at sea, time spent on exercise (including periods of stand down) and fully kitted for immediate call out.

On duty All time spent at work, on breaks and on call.

Ranks/Rates Ranks are members of the Royal Marines, Army and RAF who are not Officers. The equivalent group in the Royal Navy are known as 'Ratings'.

RAF Royal Air Force

RM Royal Marines

RN Royal Navy

Senior Officers Armed Forces personnel with NATO Ranks of OF3 to OF6.

Glossary (continued)

Senior Ranks/Rates Armed Forces personnel with NATO Ranks of OR6 to OR9.

Single Services Naval Service, Army and RAF.

Statistically significant Refers to the result of a statistical test in which there is evidence of a change in average weekly hours spent at work, on call or on duty between the 2013/14 survey and the 2014/15 survey.

Statistical tests Refers to those tests which are carried out to see if any evidence exists for a change in working patterns between the 2013/14 survey and the 2014/15 survey.

Trained strength Trained strength comprises military personnel who have completed Phase 1 and Phase 2 training:

- Phase 1 Training includes all new entry training to provide basic military skills
- Phase 2 training includes initial individual specialisation, sub-specialisation and technical training following Phase 1 training prior to joining the trained strength.

Unsocial hours Are any hours worked between 00:00 and 06:00 Monday to Friday, any hours worked between 18:00 and 24:00 Monday to Friday, and any hours worked on Saturday or Sunday.

Work Includes all time spent on core activities, secondary duties, compulsory fitness training, organised sports and representational activities, but excludes breaks.

Weighting Refers to weights that are applied to the respondent data set (by Service, Rank Group and broad location) in order to make the data more representative of the population of interest.

z-test Statistical tests based on a standardised distribution which allows comparison between years for populations of different sizes.

Further information

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.

Revisions

There are no regular planned revisions of this Bulletin. Amendments to figures for earlier years may be identified during the annual compilation of this Bulletin. This will be addressed in one of two ways:

- i. where the number of figures updated in a table is small, figures will be updated and those which have been revised will be identified with the symbol "r". An explanation for the revision will be given in the footnotes to the table.
- ii. where the number of figures updated in a table is substantial, the revisions to the table, together with the reason for the revisions, will be identified in the commentary at the beginning of the relevant chapter / section, and in the commentary above affected tables. Revisions will not be identified by the symbol "r" since where there are a large number of revisions in a table this could make them more difficult to read.

Occasionally updated figures will be provided to the editor during the course of the year. Since this Bulletin is published electronically, it is possible to revise figures during the course of the year. However to ensure continuity and consistency, figures will only be adjusted during the year where it is likely to substantially affect interpretation and use of the figures.

Further Information

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Defence Statistics welcome feedback on our statistical products. If you have any comments or questions about this publication or about our statistics in general, you can contact us as follows:

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If you require information which is not available within this or other available publications, you may wish to submit a Request for Information under the Freedom of Information Act 2000 to the Ministry of Defence. For more information, see:

<https://www.gov.uk/make-a-freedom-of-information-request/the-freedom-of-information-act>

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Tri-Service Manpower	020 7807 8896	DefStrat-Stat-Tri-Hd@mod.uk
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