

# Background Quality Report for the Future Accommodation Model (FAM) Survey

March 2017

## 1 Introduction

### 1.1 Future Accommodation Model (FAM<sup>1</sup>) survey

The Future Accommodation Model (FAM) survey was designed to produce statistics that would help to inform the development of future accommodation policy. In particular, the FAM survey was designed to examine Service personnel' accommodation preferences and the attractiveness of potential future accommodation options and subsidies and the potential take up of those options.

The FAM survey is an Official Statistic and is produced and published in line with the [Official Statistics Code of Practice](#)<sup>2</sup>. The publication date was pre-announced on the [GOV.UK Official Statistics Release Calendar](#)<sup>3</sup>. 24hr pre-release access was given to those listed on the published FAM [pre-release access list](#)<sup>4</sup>.

The results in the March 2017 FAM report include revisions to provisional results previously published in January 2017. An issue with the underlying population figures used for weighting was discovered close to the pre-announced January publication date. This had a minor effect on the majority of the top level results and so, in the interest of transparency and equality of access the decision was made to publish. This issue has been rectified in the March release consisting of a fully revised report and the publication of tables for all survey questions.

### 1.2 Brief History

The Ministry of Defence is considering options for how it provides service personnel with accommodation in the future, whether they are single, in a relationship or married. This follows the 2015 [Strategic Defence and Security Review \(SDSR\)](#) commitment to make a new accommodation offer to help more personnel live in private accommodation and meet their aspirations for home ownership, and reducing the costs associated with building and maintaining Service accommodation. The FAM survey was designed to examine Service personnel' accommodation preferences and the attractiveness of potential future accommodation options and subsidies and the potential take up of those options.

The FAM survey fieldwork was conducted between 1<sup>st</sup> September 2016 and 3<sup>rd</sup> October 2016.

### 1.3 Documentation

The FAM 2016 report contains the following sections:

- Main Report – a narrative and graphical report outlining the main FAM findings and methodology.  
Reference tables – tables of estimates and margins of error for all survey questions, in Excel and pdf formats. Several questions include additional breakdowns by some or all of the following demographics: Service, Rank, Marital status, whether they have children and their current type of accommodation.
- A list of questions from the FAM survey.

## 1.4 Summary Production Process

There were nine stages in the FAM survey process. Each of these stages is briefly described below.

### *Stage 1: Questionnaire design*

The questionnaire was designed by staff from CDP' Future Accommodation Team working with contractors from Deloitte LLP and Ipsos MORI.

### *Stage 2: Sample design, selection and cleaning*

The survey was open to all Regular and Reserve Service personnel excluding under 18's, Special Forces and personnel stationed in Northern Ireland - this was for security or ethical reasons. Although open to all Regular personnel, the FAM survey was only concerned with Reserve personnel that were currently in receipt of Service accommodation. Reserve personnel that indicated that they were not currently in receipt of Service accommodation were not required to complete the survey.

### *Stage 3: Survey distribution and communications*

The FAM survey was distributed as an online survey. Sampled personnel were sent a personalised email which contained their unique web-link and invited them to complete the survey online. Online questionnaires were produced and administered by Defence Statistics. Survey participation was also publicised internally and on social media platforms. Due to the complexity of the online questionnaire the questionnaire would not work properly using Internet Explorer. Internet Explorer is the default web browser for many personnel accessing the survey via a work computer, so a message appeared on the survey asking participant to reopen the survey in Google Chrome. Around 300 Service personnel contacted the CDP' Future Accommodation team as they were unable to access the survey. Many of the issues were resolved and they were subsequently able to gain access, those who weren't were invited to send their views directly to the CDP' Future Accommodation team.

### *Stage 4: Data input*

Online survey responses are held securely on Ministry of Defence servers.

### *Stage 5: Data cleaning*

The data was cleaned by contractors working for Deloitte. Any invalid responses (e.g. completely blank responses, inconsistent responses, multiple responses to single item questions) were removed and do not contribute to the response rate.

The survey was anonymous. Participants were prompted to enter their Service numbers before being allowed to enter the survey to ensure that they were a valid member of the population and to prevent repeat participation, however responses were recorded separately from Service numbers or any other personally identifiable information. Many questions were then recoded to simplify the output. For example, many 5-point Likert scale responses were recoded into a 3-point positive, neutral, negative scale. Responses have been weighted by Service, rank and Marital Status. This accounts for bias caused by differing levels of response.

### *Stage 6: Production of results*

Tables of results are produced using SPSS Complex Samples to ensure estimates and their corresponding standard errors are correctly weighted. Service and rank comparisons have been made using Z-tests at the 99% confidence level; non-significant changes are not described as changes in the narrative reporting. Each estimate carries a margin of error to enable users to observe the level of uncertainty in the estimate.

### *Stage 7: Checking*

There are several stages of both automated and manual validation built into the data cleaning process. A copy of the draft output tables were provided to the FAM team to cross check against outputs produced by Deloitte for quality assurance purposes.

Each section of tables, along with the content of the narrative report, undergoes several layers of scrutiny. These include cross-checking by at least one other Defence Statistics staff.

#### *Stage 8: Publication*

FAM survey is published on the Ministry of Defence external webpage on GOV.UK:

<https://www.gov.uk/government/statistics/mod-future-accommodation-model-survey-2016>

## **2 Relevance**

**2.1** The principal users of the FAM publication are the CDP Future Accommodation Model team. The statistical information is used to inform the development of Service accommodation strategy and policy. The survey results will also be of interest to Service personnel, since the policy will impact on them and groups representing their interests, such as the Family Federations.

## **3 Accuracy & Reliability**

**3.1** The survey was open to all Regular Service personnel and Reserve Service personnel currently in receipt of Service Accommodation. The sample excluded under 18's, Special Forces and personnel stationed in Northern Ireland - this was for security or ethical reasons. The resulting sample size was around 137,000. FAM achieved 24,302 valid returns representing a response rate of 18%. A number of questions were only asked of a subset of respondents and they typically carry a larger margin of error. This sample size allows for data to be modelled by different geographical regions among other demographic groups of interest.

Where comparisons between different demographic groups are possible, 99% confidence level Z-tests have been carried out. This level is used to minimise the possibility of finding false positive differences that can be expected when performing a large number of significance tests.

As the FAM survey did not achieve 100% response rate there is always the risk that those who returned questionnaires have differing views from those who did not. We assume that all non-response is Missing At Random (MAR). This means we have assumed that those people who did not return their questionnaires do not differ from those who did respond in their perceptions and attitudes.

If those who did not respond have different attitudes to those who did respond then the observations in this report will be biased and will not represent the attitudes of all Armed Forces personnel living in Service accommodation; rather, our observations would only represent the views of the *responding* population.

One area of concern is low response rates among certain groups. Response rates tend to be lower at the more junior ranks, which is especially true in the Royal Marines and Army. The low response rate means that those at the lowest ranks had relatively high weights when compared to other ranks.

To compensate for non-response bias these data are weighted so that as far as possible they represent the distribution of the population by Service, Rank group (OR1-3, OR4-6, OR7-9, OF0-1, OF2-3, OF4-5 & OF6-10) and Marital Status (Married/Not Married). This means the assumption of "Missing Completely at Random" (MCAR) only applies within each weighting group. For example, we assume that the views of those Married Army OR1-3 personnel, who responded, do not differ, on average, to those who did not.

The population figures for weighting were derived from the Joint Personnel Administration (JPA) system. The January results were also weighted by whether or not the respondent had children. However, comparisons with other sources and between Services suggested considerable under-

reporting on JPA of those with children, particularly for the Royal Navy/Royal Marines. This had a very minor effect on tri-Service results, but for a small number of questions strongly related to having children this under-reporting introduced some bias for Royal Navy/Royal Marine results. As such the results provided within the January report were labelled as provisional, subject to a review of the weighting methodology. Following this review, the category children/no children was removed from the weighting classes for the March 2017 results.

The FAM survey was designed to provide a snap shot of Service personnel' accommodation preferences and the attractiveness of potential future accommodation options and subsidies and the potential take up of those options. The FAM survey is a one-off data collection exercise and it's possible that these attitudes and perceptions are liable to change within the calendar year, for example, as a result of events or even due to the time of the year that the responses were collected (a seasonality effect).

## **4 Timeliness and Punctuality**

### **4.1 Timeline**

The FAM survey took approximately 5 months from agreeing the questionnaire to publishing the FAM report. The online questionnaire was available for completion for approximately 4 weeks; the remaining time was concerned with data cleansing, analysis and report production. There was a gap of 12 weeks between the close of fieldwork and report publication, so findings are not current.

Data collection took place from 1<sup>st</sup> September 2016 to 3<sup>rd</sup> October 2016.

### **4.2 Punctuality**

All pre-announced publication deadlines have been met.

## **5 Accessibility and Clarity**

### **5.1 Access to publications**

The FAM report is available free of charge in pdf format and copies of the statistical tables in Excel format on [www.gov.uk](http://www.gov.uk) (<https://www.gov.uk/government/statistics/mod-future-accommodation-model-survey-2016>). A search of "FAM" on [www.gov.uk](http://www.gov.uk) will bring up links to the FAM report and associated documents.

### **5.2 Clarity**

In addition to this Quality Report, the FAM report contains a key points section that summarises the main findings, a narrative section which aids users' interpretation of the data, a methodology section including target population, information on the sample, respondents, weighting, statistical tests used, and notations and definitions used. Data quality boxes in the main report highlight any changes or issues with the underlying data which may affect users' interpretation of the results. Both 'web' and print versions of tables are made available to accommodate different user preferences.

Detailed results are presented in background tables in both Excel and printable pdf formats, and include tables showing margins of error. Relevant footnotes are shown below tables to indicate any filters that have been applied to the data or any issues with the data or time series comparisons.

## **6 Coherence and Comparability**

### **6.1 Coherence**

The FAM survey was designed to examine Service personnel' accommodation preferences and the attractiveness of potential future accommodation options and subsidies and the potential take

up of those options. There are no other tri-Service data sources that collect the same information with which to ensure coherence.

## **7 Trade-offs between Output Quality Components**

### **7.1 Timeliness and costs versus Quality**

The main trade-off is between timeliness and quality. The report includes a standard breakdown by Service and Officer/Other Ranks for all Survey questions. Further to this several other demographic breakdowns are included but only on a subset of key questions. This trade-off is so that the basic statistical information can be made available to policy users and the public as soon as possible in a clear and accessible format. Additional analysis for policy users is available on request and external requests for further information would be considered under the usual FOI process.

## **8 Assessment of User Needs and Perceptions**

### **8.1 Description and Classification of Users**

CDP Future Accommodation Model team worked with Deloitte contractors to agree their policy user requirements and questionnaire content. Defence Statistics worked with CDP Future Accommodation Team to identify the key messages that are likely to be of interest to FAM survey report readers.

## **9 Performance, Cost and Respondent Burden**

Response to FAM was voluntary. Participant information was provided within the questionnaires to encourage informed consent. It was estimated to take about 30 minutes for respondents to complete.

The FAM 2016 report was produced by MOD statistical staff.

## **10 Confidentiality, Transparency and Security**

### **10.1 Security**

All staff involved in the FAM survey production process adhere to the MOD and Civil Service data protection regulations. In addition all members of the report production team have to follow the code of practice for the Government Statistical Service (GSS). All data is stored, accessed and analysed using the MOD's secure IT system.

### **10.2 Confidentiality**

FAM was an anonymous survey. Only a small number of individuals in Deloitte and in Defence Statistics have access to the record-level data. No record-level data is provided to anyone not directly involved with the analysis, unless covered by a Data Access Agreement.

### **10.3 Transparency**

The FAM report is published with details of the methodology and footnotes beneath statistical tables alerting readers to potential issues. This quality report informs users of the method, production process and quality of the output. Any significant errors identified after publication will result in revisions along with explanations as to the cause of the revisions.

## 11 References

	<b>Title of Reference</b>	<b>Website Location</b>
1	Future Accommodation Model Survey 2016	<a href="https://www.gov.uk/government/statistics/mod-future-accommodation-model-survey-2016">https://www.gov.uk/government/statistics/mod-future-accommodation-model-survey-2016</a>
2	Official Statistics Code of Practice	<a href="https://www.statisticsauthority.gov.uk/monitoring-and-assessment/code-of-practice/">https://www.statisticsauthority.gov.uk/monitoring-and-assessment/code-of-practice/</a>
3	UK Official Statistics Release Calendar	<a href="https://www.gov.uk/government/statistics/announcements">https://www.gov.uk/government/statistics/announcements</a>
4	Future Accommodation Model pre-release access list	<a href="https://www.gov.uk/government/statistics/defence-statistics-pre-release-access-list">https://www.gov.uk/government/statistics/defence-statistics-pre-release-access-list</a>
5	Defence Statistics Disclosure and Confidentiality Policy - Identifiable Survey Data	<a href="https://www.gov.uk/government/publications/defence-statistics-policies">https://www.gov.uk/government/publications/defence-statistics-policies</a>

**Last Revised: 27 March 2017**