

A Review of Pay Comparability Methodologies

Armed Forces' Pay Review Body (AFPRB)

Brown D, Bevan S, Rickard C

Institute for Employment Studies

IES is an independent, apolitical, international centre of research and consultancy in HR issues. It works closely with employers in all sectors, government departments, agencies, professional bodies and associations. IES is a focus of knowledge and practical experience in employment and training policy, the operation of labour markets, and HR planning and development. IES is a not-for-profit organisation.

The work described in this report was carried out under contract as part of the Office for Manpower Economics (OME)'s research programme. However, the views and judgements expressed in this report are those of IES and do not necessarily reflect those of OME.

Institute for Employment Studies
City Gate
185 Dyke Road
Brighton BN3 1TL
UK

Telephone: +44 (0)1273 763400
Email: askies@employment-studies.co.uk
Website: www.employment-studies.co.uk

Copyright © 2016 Institute for Employment Studies

Contents

Introduction	1
1 Rapid Evidence Review Findings: Approaches to Pay Comparability	4
1.1 Introduction	4
1.2 Methodology.....	6
1.3 Definitions	8
1.4 Job Evaluation.....	9
1.5 Market-based pay comparisons	15
1.6 Emerging approaches to pay comparability	19
1.7 Hard to recruit/retain posts	21
1.8 Comparing Armed Forces and civilian pay	22
1.9 Section summary	26
2 Expert Interview and Group Findings	29
2.1 Introduction and method	29
2.2 Findings and commentary	30
<i>The previous approach</i>	30
<i>Market trends in pay comparability</i>	31
<i>Future approach to pay comparability</i>	34
2.3 Section summary	35
3 IES Analysis and Way Forward	36
3.1 The recent approach.....	36
3.2 An alternative future approach: the direction and components	39
4 Report Summary and Conclusions	43
4.1 Introduction	43
4.2 Rapid evidence review findings.....	43
4.3 Expert findings	44
4.4 IES analysis and way forward.....	44
Appendix: Sources and References	46

Introduction

This report presents the findings from a short review that the Institute for Employment Studies (IES) has carried out for the Armed Forces' Pay Review Body (AFPRB) into the previous and potential alternative pay comparability methodologies that might be used to compare remuneration in the Armed Forces (AF) with relevant civilian organisations. Pay comparability is the process through which employers classify and reward their jobs and make reward comparisons with other employers for the purpose of assessing competitiveness.

The **aim** has been to produce this 'academic think-piece' that is designed to help to ensure that the most appropriate methodology is used to inform the 2017 and later comparisons used in the AFPRB's reports.

More specifically, the **objectives** for the study have been to:

- Investigate the current and alternative approaches to pay comparability including new and innovative approaches.
- Consider approaches that include pension comparisons and total reward.
- Consider pay scales for specialist positions and where specific comparisons may exist for specialist jobs at a given grade or rank level (eg for pilots).
- Provide an explanation and critique of each approach, identifying the relative strengths and weaknesses of each approach.
- On the basis of this comparative analysis, make recommendations on possible approaches that AFPRB could adopt.

The **background** to the work is that the AFPRB, uniquely amongst the pay review bodies, has a statutory requirement to make external comparisons. This is specified as follows:

'the Review Body shall have regard for the need for the pay of the Armed Forces to be broadly comparable with pay levels in civilian life' when making recommendations to the Prime Minister and Secretary of State for Defence on the pay and charges for members of the UK Armed Forces (AF).

Three sets of analysis have been undertaken on behalf of the PRB in the past:

- A largely job evaluation-driven exercise covering almost 300 jobs and comparing with mostly private sector civilian jobs and rates in terms of base pay levels, total cash and total remuneration (undertaken by PwC in 2013, updated in 2015).
- Comparison with the adjusted average earnings of various age groups, using ONS ASHE data.
- A graduate starting salary comparison.

The comparisons have generally excluded AF specific payments from the AF data such as RRPs and the X-Factor; and aspects of the external package not provided in the Forces, such as overtime payments.

The conclusions from these studies have been that AF pay levels are generally competitive, with:

- the market position being more competitive for non-officer roles than for officer ranks;
- and in terms of total rewards rather than base pay or total cash, because of the value of the pension provided.

However, in the context of the other aspects of their work, it seems that AFPRB members have questioned aspects of the job evaluation comparability approach, for example:

- in terms of the quality of the external job matching (we understand that a number of the proposed matches were changed after the PRB members initially reviewed them);
- the lack of sufficient reflection of the skills and differentiations in market pay irrespective of job size of certain key hard-to-recruit positions;
- and the value for money provided by this detailed labour-intensive exercise.

The internal context reflected in the last AFPRB report has been one of missed recruitment targets, increases in voluntary outflow and particular concern with retaining staff in specialist posts subject to recruitment and retention pressures. Seventeen RRPs and a raft of other incentives now operate to help retain these staff. Pay reforms and a revised pay structure recognising four distinct trades with supplements introduced in April. But in the context of the continuing one per cent cap on settlements and increasing 'tempo' of work, alongside of changes to pension and accommodation charges (CAAS), morale and pay satisfaction appear to be generally low, while greater outsourcing has also increased awareness of contractor pay rates in some areas.

Hence, the AFPRB's wish to have an independent review of the approach and explore whether alternative methods of comparing military pay with jobs and roles in the wider labour market may be more appropriate and/or add more value.

The **work stages** involved in the project have been as follows:

- **Planning**

IES met with relevant OME staff to confirm the project outputs and scope and plan out the specifics of each work stage; and in particular to agree and detail our rapid review protocol - summarising the review questions, defining search terms, inclusion and exclusion criteria, and source databases and other sources of literature.

- To aid our understanding of the existing situation and desired outcomes of the review, we also carried out individual interviews with AFPRB chair John Steele and Ken Mayhew.

- **Literature Search**

We then searched and retrieved relevant literature on pay comparability against the agreed search protocol and assessment framework from a wide range of sources. Section 2.2 provides more detail on the literature review methodology and our search criteria and sources.

- **Collation and Assessment of Literature**

The literature gathered was then assessed and classified, before being summarised and interpreted. This is presented in the remainder of Section 2 of this report.

- **Expert Interviews and 'Think Tank'**

This review has also required a more forward-looking aspect in terms of documenting emerging and innovative approaches and adaptation to the changing circumstances facing the Armed Forces, as well as addressing the 'how' of comparability. We have worked on this aspect of the review with the input of recognised expert academics and practitioners in the field, accessed through individual telephone interviews and a meeting at our London offices. We provide the findings and outputs from these meetings in Section 3.

- **Synthesising Findings, Categorising and Analysing Existing and Alternative Approaches**

In Section 4 we pull together all of the information gathered on the project and use this to highlight the strengths and weaknesses of the prior comparability methodology and then set out the relative advantages and disadvantages of feasible alternative methods emerging during the study.

- **Report Drafting and Discussion**

Finally we produced a draft report which was discussed with the AFPRB at their October 2016 meeting and subsequently amended and finalised and a final section summary added.

We refer in the report to specialist positions, which, often because of labour demand amongst civilian organisations, may be subject to particular recruitment and retention pressures, and therefore attract a pay premium and/or market supplement. We would like to make clear that any supplement would be because of recruitment and retention pressures, rather than directly paying for specialist skills and qualifications.

1 Rapid Evidence Review Findings: Approaches to Pay Comparability

1.1 Introduction

While job evaluation (JE) has the advantage of still being relatively common in many larger organisations in the UK as a support for pay determination, the pay comparison methods used vary considerably; are based on data of varying degrees of robustness; and may not routinely include all components of the reward 'package' which need to be compared (eg pensions and the so-called 'X-Factor'). The European Commission, for example, has been experimenting with a measure of the gender pay gap that includes a more robust pension valuation.

Reviews of recent trends in this area in the UK and the USA highlight growing employer dissatisfaction with traditional points factor methods of JE for their bureaucracy and lack of flexibility to reflect job changes and differentiated rates of external market pay increase. This has been driving moves to more external market/survey driven pay determination approaches, or a combination of the two job evaluation and market survey, internal and external methodologies, within looser job 'classification' or 'levelling' approaches (Armstrong and Cummins, 2008). It is also relatively common now in the private sector and parts of the public sector for jobs evaluated to be of the same size to be paid different market-linked rates within so-called job family approaches, where different market-survey-determined rates are paid for different types of job or functions.

In the specific realm of comparing the pay of military and civilian personnel there are a number of approaches which have been used (often in combination) in the UK, USA and internationally (Hosek and Sharp, 2001). These include:

- Comparisons of entry-level pay for workers in their late teens or early twenties with similar levels of education.
- Comparisons of pay 'streams' for different career paths according to occupation and level of education.
- Comparisons of the ways that the relativities between military and civilian pay change over time.

-
- Pegging military pay to agreed (often composite) measures of labour costs (for example, the US military has previously linked pay increases to be 0.5% above the annual increase in the Employment Cost Index – (ECI)).
 - Development of multi-factor military and civilian pay indices which weight the civilian workforce to have the same age, education, gender, race/ethnicity and occupational composition as military personnel over an agreed reference period.
 - Systematic tracking of civilian pay to inform the calibration and maintenance of a military pay ‘premium’ to reflect recruitment, re-enlistment and retention challenges.
 - Pay comparisons (eg in the USA) between military and civilian comparators which factor in the so-called ‘military tax advantage’ or reflect ‘discretionary’ (disposable) income differences.

To a greater or lesser extent, civilian employers use variants of these approaches and, perhaps all too often, will rely on far less sophisticated or systematic methods most of the time. Schmidt and Dworschak (2006), for example, coined the term ‘mimetic wages’ to caricature the way many private sector firms will seek only to mimic or match the wages of competitors without systematic analysis and primarily as a defensive retention strategy. Babcock, Xianghong and Lowenstein (1996) highlight the dangers with pay surveys, of inaccurate matching of jobs and that the choice of pay comparators can carry the risk of ‘self-serving bias’ especially in formal negotiations over pay and conditions. And for those saying they have abandoned ‘inflexible’ job evaluation methods in favour of ‘external market’ pay determination, the whole question of how surveys compare and measure jobs in order to gather their pay level data, other than simple alignment of job titles, makes this a somewhat tautological argument.

Given the changing nature of jobs, the increasingly dynamic nature of organisation designs, structures and skill demands it is not surprising that AFPRB members and others are unlikely to accept that one, perhaps monolithic and inflexible, pay comparison method will be sensitive enough to capture and reflect this changing context. David Marsden has pointed out (Marsden, 2002) that, in most cases, an agreed yet broad approach to job classification will be needed in pay comparability exercises ‘to reduce the natural idiosyncrasy of jobs and help to identify contours of similarity and equivalence’.

Predictions of the ‘death of the job’ may prove to have been somewhat exaggerated. Moves to less hierarchical organisations with fewer but more generic role profiles¹ have been associated with the declining use of traditional job evaluation methods, as well as the introduction of simplified, market-survey driven and more person-based methods.

¹ Replacing multiple job descriptions in sectors such as technology and finance.

Internal evaluation is much easier if jobs are to be placed in (for example) ten grades at the BBC rather than the 40 that they had in the past. Then at each level or grade or job there is more flexibility for factors such as market worth and personal competence and performance to influence the actual level of pay.

The Fleishman Job Analysis System (F-JAS) developed by Edwin A. Fleishman represents a worker-oriented, skills-based approach. His system of 73 specific scales measure three broad areas: Cognitive (Verbal Abilities; Idea Generation & Reasoning Abilities; Quantitative Abilities; Memory; Perceptual Abilities; Spatial Abilities; and Attentiveness), Psychomotor (Fine Manipulative Abilities; Control Movement Abilities; and Reaction Time and Speed Abilities), and Physical (Physical Strength Abilities; Endurance; Flexibility, Balance, and Coordination; Visual Abilities; and Auditory and Speech Abilities).

Yet, as Findlay, Findlay and Stewart (2014) point out, *'there is remarkably little contemporary academic literature on occupational pay comparability'* and the usage and effectiveness of methods. Perhaps, given this background, there is space for some forward-looking new thinking in this area.

In the rest of this section, after describing our review methodology, we provide more detail on the internal job-evaluation- and external-market-driven methods of pay setting, and go on to describe the newer, hybrid, slotting and classification methods that have emerged in the UK context to support pay determination and assessing comparability. Finally, we describe methods of pay comparability used for Armed Forces in other parts of the world.

1.2 Methodology

The protocol followed for our rapid evidence review has reflected our view that a large, systematic (in the academic sense) review of existing literature has not been warranted in this project, as the subject does not feature heavily in academic literature. We feel the most fruitful sources will be examples drawn from case studies of employer practice, known sources of papers on reward and compensation strategy and practice, as well as 'grey' and other literature.

Sources which we have accessed include:

- ABI/Inform
- Business Source Premier
- CIPD
- ProQuest Business Databases

- Academic Search Complete
- Web of Science (including Social Science Citation Index)
- EconLit
- PsychINFO
- Research Papers in Economics (RePEc)
- XpertHr
- International Bibliography of the Social Sciences (IBSS)
- WorldatWork

We have sought to capture details of:

- Methods of making pay comparisons;
- Details of the data collected by each, the sources of these data and how the comparisons are made.
- Material setting out the effectiveness, reliability, costs & benefits and 'usability' of each method (including sources of error, bias etc).
- Material looking at specialist occupations, shortage occupations, non-pay benefits (eg pensions) and other components of 'Total' rewards.
- Work which describes anything which might approximate to an 'X-Factor²' or methods of attaching a notional value to 'intangible' job demands or benefits.

We then collated and assessed the literature against set criteria, reflecting the extent to which the literature:

1. Directly informs one or more of our project objectives.
2. Is helpful in illuminating the specific issues of comparing military pay with civilian pay.

² X-Factor: whilst it was generally appropriate to compare Armed Forces pay without X-Factor, it should always be borne in mind, as there may be some circumstances under which it should be included (eg comparisons with Armed Forces in other countries, etc).

3. Offers alternative methods to pay comparability which might be helpful in formulating novel approaches later in the project.
4. Includes sufficient detail of the methods used to assess their replicability or generalisability in other contexts and the extent to which the data to populate them in the UK/AFPRB context exists.
5. Signposts us towards examples, experts and case studies which we can follow-up and examine in the interview phase of the project.

This section summarises our findings from reviewing this finalised literature sample. These sources are listed in the report Appendix.

1.3 Definitions

Pay comparability “*focuses on the processes through which organisations classify and reward jobs*” and compare them with the pay and rewards in other relevant organisations (Findley et al, 2013:4). Traditionally job evaluation can be conducted in different ways although “*primacy is often given to analytical or points-based job evaluation as the most reliable route to establishing internal job worth*” (Armstrong et al., 2005; cited in Findlay, Findlay and Stewart, 2014:4). However, a survey by World at Work (2015) highlighted the growing trend in the use of market pricing to evaluate job worth.

More than four fifths (88%) of organisations have an established method for determining pay comparability with market pricing outpacing other pay comparability methods (between 68% to 74% of organisations depending on job category) (World at Work, 2015). Similarly high up among the reward priorities of UK reward professionals in a 2016 survey was ‘benchmarking salaries against the market’ (three-quarters of survey respondents) (XpertHR, 2016). Employers are becoming more likely to use external market data to establish the pay levels of jobs internally and using surveys to cover more of their workforce. World at Work found that more than one-third of organisations match at least 80 per cent of their jobs to survey sources; and nearly 70 per cent of organisations match at least 60 per cent of their jobs (World at Work, 2015).

The trend has gone furthest in North America but the evidence is that large UK organisations are following suit. However, aspects of traditional job evaluation remain in many UK employers and also influence pay setting, resulting in more of a ‘blended’ approach on this side of the Atlantic (Armstrong and Cummins, 2008). Indeed, job evaluation can only operate as a means of pay comparison in conjunction with some type of database of market pay levels.

1.4 Job Evaluation

Job evaluation in its detailed points factor form developed in large bureaucratic organisations such as the UK Civil Service in the 1920's (a system developed by Lott, referred to in Armstrong and Baron (1996: p. 70). It was taken up and promoted by expanding American multinational firms in the 1950's, where Edward Hay developed the system named after him, which is still the most popular system used in the UK (Ibid). These systems were primarily internally focused to determine the grade of a post, in organisations which often had a job or 'career for life' approach to resourcing, and used regular incremental pay progression and promotion up through hierarchical grading structures as a key reward. Only later were they linked to pay databases and even then, used in a fairly mechanistic, points-driven form, with Hay for example publishing each year a single points formula to convert an evaluation score into the pay level for any given job.

Some large employers today use 'off-the-shelf' systems like Hay, while others, such as the approach used by the Armed Forces, local authorities and NHS, are tailored-made to suit that particular employer. The job evaluation process used by the Armed Forces examines representative roles from various trades and assesses each one against a set of six factors: Knowledge, skills and experience (Factor One); complexity and mental challenge; judgement, decision-making and job impact; use of resources, level of supervision and influence; communication; and working conditions (Factor Six). Factor Six is particularly designed to reflect the unique environment in which Service personnel operate (MoD, 2016). The resulting job weight assessment is expressed as a score, known as a Whole Trade Score (WTS), which is used to inform pay differentiation and grade.

As Armstrong notes, job evaluation was developed to determine "*the relative worth or size of jobs within an organisation, in order to establish internal relativities*" (Armstrong, 2012:386); rather than to compare jobs between organisations and assess competitiveness. As labour markets and organisation structures have become more fluid, such systems have come in for heavy criticism over the past 20 years as organisations have de-layered and placed more emphasis on the skills, performance and market worth of the job-holder rather than the detailed job content and level of each job. Lawler, for example, describes it as a twentieth century tool designed for hierarchical organisations with a high division of labour. But he regards it as an anachronism now in knowledge-based organisations "*in a world where people do not have traditional jobs and are able to add considerable value because of their high level of skills*" (Lawler, 2000).

Yet surveys indicate that job evaluation seems to be alive and well in UK organisations. XpertHR's latest job evaluation survey revealed that 71 per cent of UK organisations use a job evaluation scheme in their organisation and among these, the majority of organisations (69%) use a single job evaluation scheme, with the rest operating different schemes for different groups of employees (XpertHR, 2013). The persistence of job

evaluation can largely be attributed not to the need to set internal pay levels and underpin pay surveys however, but to the requirement to comply with equal pay law.

XpertHR's survey found that 69 per cent of organisations stated that the need to be equal pay compliant was behind their reason for using job evaluation; only marginally below the need to introduce or improve a pay and grading structure (70%). Indeed the newly updated pages on equal pay and job evaluation on the Equality and Human Rights Commission website (EHRC, 2016) stress the need for analytical job evaluation more strongly than ever, as 'vital' to achieving effective pay management and ensuring equal pay for work of equal value (Brown and Munday, 2016).

Employers such as the AF and NHS also have some, sometimes many, jobs which are difficult to compare externally and so determining their pay based on internal comparisons can be the only way to proceed. And, while changing the content of jobs is relatively common practice in large employers today, these can often be minor incremental changes which only a job evaluation tool can measure.

Figure 1.1: Factors assessed by analytical job evaluation



n = 78.

Source: XpertHR, 2013

World at Work (2015) found that 87 per cent to 89 per cent of job evaluation is prompted by a newly created job, followed closely by significant changes in the job (81% to 86%) (see Tables 1.1 and 1.2).

Table 1.1: What typically prompts job evaluation

	Newly created job %	Broad-based review of department/unit/org. as a whole %	By request %	Significant change in job %	Fixed schedule %	Other %
Senior management (n=617)	89	47	68	82	14	4
Middle management (n=625)	89	53	78	86	11	3
Professional (n=625)	89	54	79	85	11	3
Sales (n=531)	87	52	77	83	10	4
Administrative (n=621)	87	51	77	83	11	4
Production (n=509)	87	50	74	81 ⁴	11	5
Senior management (n=617)	89	47	68	82 ⁴	14	4

Contents © 2016. Reprinted with permission from WorldatWork. Content is licensed for use by purchaser only. No part of this article may be reproduced, excerpted or redistributed in any form without express written permission from WorldatWork.

Source: World at Work (2015)

Table 1.2: How often job evaluation is conducted when a fixed schedule is in place

	2-3 years %	>3 years %	>2 years %
Senior management (n=82)	45	4	51
Middle management (n=66)	47	5	49
Professional (n=65)	48	5	48
Sales (n=52)	54	2	44
Administrative (n=64)	50	6	44
Production (n=58)	53	3	43

Contents © 2016. Reprinted with permission from WorldatWork. Content is licensed for use by purchaser only. No part of this article may be reproduced, excerpted or redistributed in any form without express written permission from WorldatWork.

Source: World at Work (2015)

We have seen that traditional job evaluation has been criticised for supporting hierarchies by ranking jobs according to certain common criteria such as line management, financial or budget responsibility, decision-making authority etc, supporting vertical pay grades which sustain bureaucracy, are resistant to change and fail to reflect market pay premia (Kettley, 1995). The approach has traditionally caused problems for highly skilled technical specialists who may deserve promotion based on their technical contributions, yet, because these jobs often involve relatively few of the

responsibilities carrying higher weighting on most JE schemes (related to management), they rarely warrant re-grading based on typical factors (Griffiths, 1981). This can also create pay competitiveness and retention issues in the face of higher external market pay rates driven, for example, by newer technology companies who don't rely on internal job evaluation (Armstrong and Cummins, 2008).

Thompson and Dalton highlighted that recognition and the prospect of career progression were important factors in the sustained motivation of technical specialists and yet in some organisations the reward system provided an *"incentive to the brightest people in the organisation to move out of technical work and into management as fast as possible. This clearly defines those who have been promoted into management as winners and those still performing the prime task of the organisation as losers"* (Thompson and Dalton (1976) cited in Griffiths, 1981).

Yet UK organisations have often adapted approaches which they graft on to existing systems to address this type of dissonance. Some organisations have addressed this through the creation of dual ladders - establishing two parallel hierarchies: a management ladder and a ladder for technical specialists. The two ladders demand different responsibilities but equivalent rewards and status (Ibid), and we consider below the different ways in which organisations are now reconciling variations in internally and externally assessed value. Dual ladders were developed in the 1970's in employers such as ICI and Mobil to address this issue and give equal status to technical work and prevent such talented technical specialists becoming poor managers. Multiple technical or job family ladders are though more common today, used by around 1/5th of employers (CIPD, 2015).

Under the Armed Forces new pay structure 'Pay16', Other Ranks receive a trade-related market supplement to pay and JE evidence is applied in a different, more flexible way to the previous pay model 'Pay2000'. These changes include:

- JE informs differentiation on a through career basis (via the Through Career Whole Trade Score) so that all Other Ranks in a particular trade are treated the same for pay supplement purposes. This means that all ranks within a Trade are in the same Supplement which removes situations when flip-flop³ or overtaking⁴ can occur (MoD, 2016:8).

³ *"Where individuals move between pay bands when promoting, resulting in them often having to be placed on a Stand Still Rate of Pay or on an incremental level that does not match their seniority, reducing the number of increments available to them"* (MoD, 2016:7).

⁴ *"Whereby individuals overtake other Service personnel within the same trade and rank who were promoted earlier, and who have more experience within that rank"* (MoD, 2016:7).

- Unlike Pay2000, trade supplement boundaries are not governed by a fixed-JE point boundary but are *“informed by the JE evidence and the trade-to-supplement placement is reflective of tri-Service judgement/ agreement on which trades should feature within each of the four Supplements”* (MoD, 2016:29).

Traditional job evaluation has also been influenced by more recent pay management approaches such as competencies and broad banding, whilst market pricing has always been an alternative, yet an also integral element of, job evaluation in the UK context (Kilgour, 2008). The referenced surveys indicate that many employers use both approaches. Many organisations have now delayered their structures; creating slimmer and flatter organisations. Rolls Royce, for example, used a revised Hay job evaluation system to examine the relationship between management reporting levels, clarify lines of responsibility and accountability whilst reducing the total workforce by 15 per cent (Kettleby, 1995). It uses market surveys to set pay ranges for different skills and roles in different job families at each grade level.

The overall trend in pay comparability has been described as being a *“more pragmatic adaptation rather than revolution; for simplification rather than complexity”* (Armstrong and Cummins, 2008). There is less bespoke point-factor job evaluation, with bespoke analytical matching or job classification schemes becoming more popular. This development has been driven by the desire to simplify the process and to reduce the burden of time-consuming point-factor job evaluation schemes (Ibid).

Pay consultants are also increasingly referring to job ‘levelling’, rather than job evaluation. Job levelling involves *“the definition of the levels in an organisation using a standard set of descriptors, often including competencies”* (Ibid). Perhaps this move away from a total reliance on point-factor or factor comparison schemes to the use of matching approaches is the most important development in recent years (Ibid). Organisations such as the NHS and some universities often start with a point-factor scheme but rely mainly on job matching or slotting after the initial benchmark evaluations have taken place. Others may also do without an underpinning point-factor job evaluation scheme altogether, relying on analytical matching or levelling. Armstrong and Cummins suggest this is the main direction that job evaluation will take in the future (Ibid).

Internally, JE systems are often used to compare jobs, whilst in comparing pay across organisations a broad approach to job classification is needed *“to reduce the natural idiosyncrasy of jobs and help to identify contours of similarity and equivalence”*. (Marsden, 2002: 15) This can be achieved through (for example) grouping jobs based on knowledge or qualification requirement or based on job demands. However, comparing pay across occupations is a complex task and there are challenges around identifying the relevant comparators, measuring pay (over a specific time period or using a median or mean measure) and identifying factors other than occupation which influence pay levels (eg

location, sector, impact of pay bargaining agreements etc.) (Findlay, Findlay and Stewart, 2013).

“Whether through systematic job evaluation or broader job categorisation for pay benchmarking, however, the starting point for any pay comparison is the identification of sufficient similarity in the features of jobs or job holders that render them appropriate comparators in order to limit the risk of self-serving bias.”

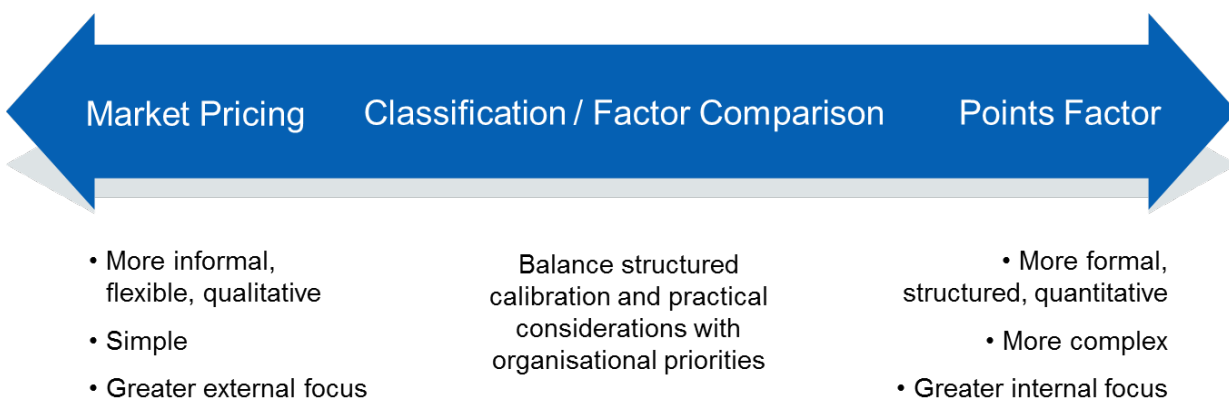
(Babcock et al. (1996) cited in Findley, Findlay and Stewart, 2013).

Used on their own, wholly market-based comparison methods, as we have seen, can be criticised for lack of accurate job measurement and matching and a portion, sometimes a significant portion, of the market pay range revealed in pay surveys for any particular job is never explained by ‘rational’ factors such as variations in skills required, location etc.

Thus in practice we are seeing traditional job evaluation and market-driven approaches to pay comparability often emerging as combined and complementary rather than alternative approaches, as represented by the spectrum of approaches model below (Figure 1.2). Nonetheless, while job evaluation survives, the direction of travel for many UK employers on the model has been from right to left, and market surveys are paying an increasingly influential role in pay determination, with job evaluation playing a simpler, more supportive and defensive role. Indeed, in practice pay levels even in organisations still heavily focused on points factor JE cannot be set without reference to some type of market pay database.

We move now to consider the left-hand side of more heavily market-driven and survey-based approaches to pay setting and comparison.

Figure 1.2: Spectrum of pay comparability approaches



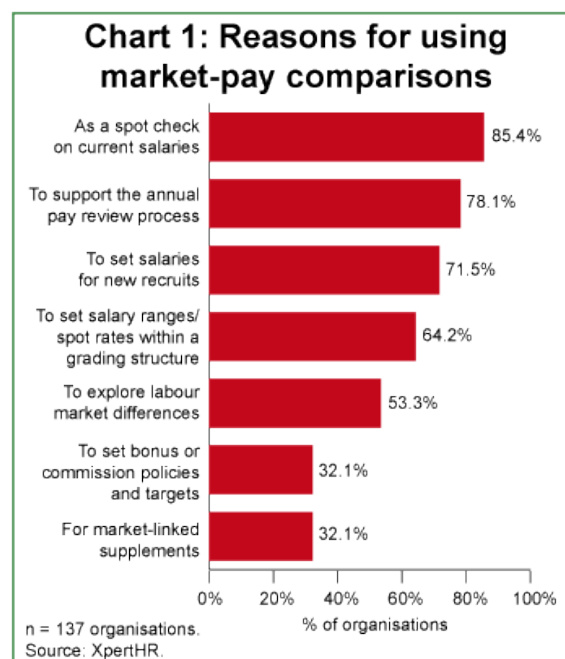
Source: Unpublished client webinar material

1.5 Market-based pay comparisons

A survey by XpertHR (2012) found that 95 per cent of respondents are now using market-linked pay comparisons in some form. Comparing elements of the reward package (typically basic pay) with the external market is typically undertaken to improve recruitment and retention, although it is often also used to improve employee engagement and provide greater transparency on reward (XpertHR, 2012).

XpertHR found that the large majority (78%) of organisations use market-linked pay across all occupations. Among those that do not use it for all roles, 14 per cent use it for particular groups of employees only, and eight per cent for only certain occupations, typically in hard to recruit/retain areas. For example, a borough council IES works with uses market comparisons for all occupations, but when looking at spot rates and market supplements the use is limited to heads of service and skills shortage areas. Other organisations were found to share this approach, using market-based pay only for higher grades and roles with scarce skills (for example, IT) (Ibid). In some sectors such as technology parts of financial services however, there is very limited evidence of any job evaluation at all and in generally flatter organisations with more skills and performance-based pay progression, pay determination is heavily external-market driven and market surveys play the key role in determining job worth.

Figure 1.2: Reasons for using market-pay comparisons



Source: XpertHR (2012)

Given the potential complexity of conducting a market-pay analysis, few organisations conduct pay benchmarking as an ongoing exercise (28%); over a third of organisations

(36%) conduct pay benchmarking annually and a further quarter (26%) of organisations do so only on an ad hoc basis (XpertHR, 2012). Survey research for the OME (2014) confirmed that in the private sector the majority of respondents review jobs against the market on an annual basis (see Table 1.3).

Table 1.3: Frequency of market benchmarking in private sector

Frequency	All private sector employers (except those with spot rates) %	Those with incremental scales %	Those with salary ranges %
Less frequently than annual	12	7	13
Annually	74	79	74
More frequently than annual	14	14	13

Source: OME (2014)

Organisations typically focus on basic salary when making market comparisons (see Figure 1.3); but other common benchmarks include pay settlements, benefits, terms and conditions, pension provision and total reward.

Employers are increasingly focusing on the full, total reward package, from basic pay to flexible benefits and pension. However, it is suggested that employees can typically underestimate this full value of their reward package by up to 30 per cent, largely accounted for by the value of the pension (Throp, nd). During periods when organisations have been under pressure to show pay restraint, some companies have sought to place greater emphasis on the less tangible benefits of their reward offering in an effort to engage staff (IDS, 2011). IRS (Egan, 2012) similarly found that employers attempt to make more of their non-pay benefits packages at a time when reward spend is constrained, especially to ensure that they provide good value. It found that during the period of subdued pay rises, many employers have reviewed their benefits provision, not only to save money, but also to ensure that their offering is cost effective and that the expense is valued by employees.

It has been argued that “*without the inclusion of benefits, the value of a pay comparability study is limited*” (Grefer, 2008:1); and by comparing actual levels of compensation it can be determined whether the Armed Forces are rewarded at a comparable level to civilian peers (Ibid).

“It is common practice for people to simply compare the cash part of compensation; however, the correct comparison with civilian cash compensation is not just military cash compensation but military cash plus the benefits-value differences. Published comparisons of

compensation should include these amounts, and the full value of these benefits should be communicated to service members."

(Grefer, 2008:5)

However, valuing the full package is a complex exercise and although all of the major consultancies have their own methodologies, their application in regular surveys tends to be limited to higher value added parts of the private sector, such as financial services and pharmaceuticals. The costs of such studies are high and internal HR systems can struggle even to deliver an individual employer's costs on a common measurement basis required for survey comparisons.

Moves towards flexible benefits and the use of total reward statements have made the calculation and disclosure of total rewards inside an organisation more common. But in the private sector it has also encouraged employers to simply provide cash packages and giving staff a benefits 'spend' within that. Also, as in the NHS, total reward statements typically only value key elements of the package such as pay and pensions and will often just list other elements such as vacation and flexible working.

In the XpertHR survey, about a third of organisations are using market supplements, rather than increasing basic salaries to reflect market comparisons (XpertHR, 2012). Overwhelmingly, respondents to XpertHR's survey found market-linked pay comparability to be an 'effective recruitment and retention tool' (92% of respondents). However, respondents stated the biggest problem with market-based pay comparisons is accurately matching roles in the organisation to job levels in salary-survey data (Ibid). This is where many of the larger survey houses retain job evaluation to underpin the benchmark survey levels and help ensure comparability. The fact that case law has been inconsistent in determining whether or not market pay can represent a defence against an equal pay claim has also contributed to the retention of job evaluation in some form.

So while traditional points factor JE has in practice to be used in conjunction with a market pay database to set actual pay ranges and levels, it can be argued that such databases in turn need some form of job evaluation underpin to accurately calibrate and compare jobs in order to gather and categorise their data.

Figure 1.3: Elements of reward compared against market

Source: XpertHR (2012)

Where there are clear market differences between groups of similar sized and graded jobs and recruitment and retention considerations are utmost, job family structures can be appropriately used. These consist of jobs in a function or occupation which are related through the activities performed and the competences required, but in which the levels of market value differ (e-reward, nda). A job family structure can consist of separate job families, each of which has its own grade and pay structure which takes account of different levels of market rates between families (sometimes called 'market grouping'); or more commonly because of equal pay risks, they can consist of different career paths and pay ranges overlaid onto a common grading structure, as in the AF new structure. The size of jobs and rates of pay can vary between the same levels in different job families. Job family structures help organisations to flex pay rates for different occupations to reflect variations in market rates, but also help define career paths within job families (e-reward, nda).

Job families are more typically found among private-sector organisations. XpertHR found that the most common basis for determining the salary ranges within job families is the use of market rates (in 50% of job family structures). *"In job families, pay ranges or scales are most likely to have a minimum and maximum with no fixed points between them (the case for just over half of organisations), with incremental pay steps or points used in a quarter of structures"* (Sharp, 2015).

Survey research conducted for the OME in 2014 showed clear differences in the use of market rates between employers operating incremental pay scales (56%) and those using salary ranges (86%) (See Table 1.4) (OME, 2014). The survey showed market rates have a greater impact on progression for employers using salary ranges, with 36 per cent of

respondents reporting employees progressed at a different rate when paid above the market rate, compared to only eight per cent of those with incremental scale (Ibid).

Table 1.4: Setting pay rates/ranges by reference to the market

Are rates set by reference to the market?	All private sector employers (except those with spot rates) %	Those with incremental scales %	Those with salary ranges %
Yes	78	56	86
No	22	44	14

Source: OME (2014)

1.6 Emerging approaches to pay comparability

As mentioned, research and surveys highlight the spread of a newer category of ‘semi-analytical’ job evaluation approaches which combine the flexibility and speed of simple market-driven pay ranking with the analytical rigour of factor-based methods (PM Editorial, 2009). The latest job evaluation survey by e-reward found that almost 20 per cent of respondents were also using newer, hybrid, ‘semi analytical’, classification and job-levelling systems which are “*faster, more efficient and flexible than the ponderous points factor systems of old, but still provide an objective, robust and effective foundation for fair and consistent pay setting and management*” (Brown and Munday, 2016), who continue:

“Points factor evaluation may still be undertaken for difficult or controversial jobs, but most jobs are simply slotted into the appropriate level, and then the focus is on developing people’s skills and contribution which drives their pay progression up clearly communicated career pathways. Managers understand and accept banding decisions, while employees are engaged by the clarity and links between their pay progression and development of their skills and talents”

(Brown and Munday, 2016).

Organisations such as Unilever, Tesco and Vodafone are using such approaches to “*develop flatter, more flexible organisation and job designs in which future leadership talent can flow and grow*” (PM Editorial, 2009).

Perhaps one of the best known ‘new’ models of pay comparability is the ‘**DMA**’ model, developed after extensive research into job characteristics in the mid-1990s at Unilever. It assumes that any organisation has “*a genetic code of decision-making accountability and job-holders are held to account to ensure that it achieves its purpose. The complexity of accountability increases as people move up the organisation*” (PM Editorial, 2009). Unilever concluded that no more than eight levels of accountability are required in any organisation. Unilever was the first firm to apply DMA globally but the DMA model has now spread across many different industries as well as in the public and voluntary sectors (Ibid). At Unilever,

DMA was used as the basis for replacing 17 job classes with five work levels, which better structured reward and talent development processes (Ibid).

The CIPD reported that a major financial services company also used the DMA approach to highlight the need for a move from seven management grades to three work levels. Also in a telecoms company, where organisational growth had slowed, DMA was used as the basis for delayering to improve responsiveness to customers and for the consistent allocation of incentives and talent programmes (CIPD, 2009).

Tesco also used the DMA approach to move away from a points factor job evaluation system and 22 grade structure towards a six-band structure of work levels. Work levels progress from level one, covering clerical and administrative jobs, up to board and senior directors in levels five and six. Jobs are allocated to a level according to the seven aspects of accountability in the DMA model: resource complexity, problem-solving, change, teamwork, external interaction, timeframe and nature of work.

The pay bands are relatively wide, with actual pay managed against market-related reference points set for about 100 benchmark roles based on the practices of 20 blue-chip companies. Work levels have also been applied to develop more effective organisation design and reduce costs. In the Tesco structure, all staff must report to an individual in the work level above their own. These work levels *“underpin the group’s leadership development programme, linked to key competencies”* (Ibid).

However, leveling systems like this typically result in very wide pay bands and so market surveys generally play a key role in determining what range of pay staff in particular functions and locations are paid within. In many cases local ‘grades within levels’ are developed to practically manage pay within such broad bands – with literally dozens of ranges for different roles within some of Tesco’s levels for example.

Vodafone operates a system that uses eight global broad-bands encompassing all jobs. Accountability descriptors exist for each band and roles are slotted into this framework. At the most senior levels and for the roles most difficult to slot, more detailed descriptors are used under headings such as business impact, leadership and innovation. The *“banding framework is mapped onto external databases for pay benchmarking and to support core reward processes such as incentives and benefits allocation”* (Ibid).

Swiss pharmaceutical giant Novartis uses a similar flat framework of bands to classify on a common basis the jobs of more than 90,000 employees in over 50 countries. A brief general description covers the types of job at each level, but then more detailed descriptions can be used to place jobs at the appropriate level in one of their functional specialist job families which together constitute a global job family catalogue that essentially replaces traditional job evaluation. The firms’ compensation policy makes no reference to internal fairness or job evaluation, instead explaining:

“...that ‘our compensation system offers competitive compensation that is aligned with industry practice and supports the realization of our vision’ and supporting a ‘performance-oriented culture that allows Novartis to reward people who perform well (and) be competitive with world-class companies and industry peers”

(Novartis, 2016)

Pay ranges at each level vary by job family and location, supported by extensive market pay analysis.

1.7 Hard to recruit/retain posts

The Armed Forces experience particular difficulties in retaining staff in certain technical specialist roles, such as pilots, offering a range of Recruitment and Retention Payments in response. A study conducted for the OME in 2014 found that around half of private sector respondents have specific pay arrangements for specialist or hard-to-recruit roles. For example, the case study evidence, revealed that a bank had around 40 role-specific salary ranges in place for specialist staff (OME, 2014). However, this approach appeared to be an exception, with the most common approach typically being the use of a separate payment, such as a market supplement or recruitment and retention payment, to reflect recruitment difficulties for particular posts (Ibid).

Some organisations, however, appoint harder-to-recruit staff higher up the incremental scale (Ibid). Other mechanisms reported in the private sector for hard to recruit, specialist staff included staff employed on non-standard, fixed-term contractual arrangements, effectively removing these employees from the standard pay structure; introducing an element of discretionary flexibility at the upper end of pay ranges in order to retain functional and technical specialists; and job family and technical ladders – which as we have seen are once again becoming more common (Ibid).

In the XpertHR survey, about a third of organisations were found to be using market supplements for technical and functional specialist staff, rather than increasing basic salaries to reflect market comparisons (XpertHR, 2012). In addition, geographical pay differentials are sometimes used to reflect market data and maintain competitiveness with the external labour market. They can be used to “*address general but localised recruitment and retention problems or be targeted to tackle specific skill shortages*” (Geldman, 2013). They are most common in large employers with multiple locations in different parts of the country such as the food retailers who have used them to address variations in pay and staff attrition rates, with higher pay ranges and rates for example evident in London and the South East. In the public sector, the Ministry of Justice now operates this type of location-based pay structure.

In a military context, Armed Forces’ service personnel serving in certain locations are entitled to various forms of compensation. In the private sector, most multi-site private

sector companies operate using location allowances or zonal pay systems zones which reflect groups of locations with similar labour market conditions, rather than simple geographical boundaries, which allow sites to be moved to a higher paying zone if labour market pressures require. Typically, in the private sector, the location differential is reflected in base pay, rather than paid as a separate allowance (IDS, 2012). Location pay is largely determined by salary surveys, staff turnover, recruitment measures, cost of living and staff satisfaction measures (Ibid).

1.8 Comparing Armed Forces and civilian pay

In Canada, following unification of the Canadian Armed Forces (CAF) in the mid-1960s, a 'principle of comparability' between the CAF and the federal Public Service (PS) was adopted for establishing military compensation. In the late 1970s, Total Compensation (TC) analysis was applied to ensure that the full value of the compensation and benefits available to federal public servants was considered in the comparison. The methodology includes salary and benefits such as pensions, severance pay, acting pay, overtime and medical and dental services, annual leave and sick leave etc:

"The comparison provides a net value, expressed in terms of the dollars paid per hour actually worked [for each group]... and the warranted pay increase or decrease in a given year is the percentage difference [between the two values]."

(Defence and Canadian Armed Forces, 2015)

For the military, two TC analyses are conducted: one for general service officers and one for non-commissioned members. Comparability is considered to be achieved if the CAF dollar per hour worked is equal to the PS dollar per hour worked (Defence and Canadian Armed Forces, 2015). The TC analysis for the CAF also recognises unique CAF conditions of service. One example of this is the Military Factor, which values the major characteristics of military service. Since 1999, the Military Factor has been valued at 7.5 per cent for non-commissioned members and for general service officers. Another example is the fact that CAF members are not eligible for overtime. To adjust for this in the TC analyses, values of six per cent of salary for non-commissioned members and four per cent of salary for general service officers are used in the comparability methodology (Ibid).

In the United States, a Congressional Budget Office (CBO) paper in 2007 suggested four main methods of comparing US military and civilian pay:

1. Comparing cumulative increases over time in private-sector wages (in the US, based on the Employment Cost Index -ECI⁵) and in military basic pay – a ‘pay gap calculation’ (CBO, 2007). US policymakers have used the ECI as a benchmark measure of civilian pay for comparative purposes since the 1980s (Ibid). However, the CBO recognised that this pay gap approach has its limitations, “including the use of a relatively narrow measure of cash compensation (basic pay)” (Ibid:10); and the sample of civilian workers included in the ECI has, on average, different demographic characteristics (such as age and education) to military personnel (CBO, 2007).
2. Comparing levels of military and civilian pay, adjusted for years of experience and education levels.
3. Comparing total compensation, including non-cash and deferred cash benefits. The CBO calculated that US military personnel receive about half of their total compensation in such benefits, compared with about a third for civilian workers. Therefore, these additions make the military package substantially larger than comparable civilian packages. However, “qualitative differences exist between military and civilian benefits which may be difficult to measure” (Ibid: 13) eg private sector employers offer a wide variety of noncash benefits, so identifying the ‘average’ civilian benefit package is difficult and potentially misleading (CBO, 2007).
4. Comparing military and civilian trends in cash compensation for selected occupations—including special pay (eg usually awarded for particular skills; or
5. for hazardous duty, deployment and combat) and bonuses (eg for reenlistment) (Ibid). However, the CBO noted that as Regular Military Compensation (RMC)⁶, which does not vary by occupations, forms the majority of cash compensation, the military is limited in its ability to address skill shortages by adjusting pay levels (Ibid).

⁵ Released quarterly by the US Bureau of Labor Statistics, measures the rate of change in compensation per hour worked. “In 1992 and 1998, researchers at RAND produced an index that was designed to better represent the age, sex, race, education levels, and particular occupations of the military population than the ECI does. According to those researchers, comparisons of civilian and military pay estimated using that ‘defense employment cost index’ (DECI) better tracked the military’s actual recruiting and retention than estimates based on the ECI did. However, the DECI did not gain the acceptance of the Office of Management and Budget or the Congress, and it was never adopted by the Department of Defense” (CBO, 2007:10).

⁶ Defined as “basic pay, housing and subsistence allowances, and associated tax advantages to which each service member is entitled” (CBO, 2007:1) The Department of Defence has used RMC as a fundamental measure of military pay since the Gorham Commission established the concept in 1962 as a “rough yardstick to be used in comparing the compensation of members of the uniformed services to the compensation of civilian-sector employees” (cited in Grefer, Gregory and Rebham, 2011:6).

In the US, the RMC is *“the traditional metric used in comparisons of military and civilian compensation because all service personnel are eligible to receive the four components of RMC”* (Grefer, Gregory and Rebham, 2011:8):

1. Basic pay: the largest element of compensation received, typically accounting for about two-thirds of RMC (Kapp and Torreon, 2015; Grefer, Gregory and Rebham, 2011).
2. Basic Allowance for Housing (BAH): for those living within the United States or Overseas Housing Allowance (OHA) for those living outside of the United States (Kapp and Torreon, 2015; Grefer, Gregory and Rebham, 2011) Basic Allowance for Subsistence (BAS) – a monthly payment to cover personal food costs (Ibid).
3. Federal income tax advantage (TA) because BAH and BAS are not taxed as income (Grefer, Gregory and Rebham, 2011).

RMC therefore provides *“a more complete understanding of the cash compensation provided to all service members and therefore is usually preferred over just basic pay when comparing military with civilian compensation”* (Kapp and Torreon, 2015: 2). The RMC is also not *“vulnerable to the ups and downs of the state of the U.S. economy, as are, for example, reenlistment and continuation bonuses. Nor is RMC vulnerable to the variations of the skills sets and quality levels of the labour market, as special and incentive pays can be”* (Grefer, Gregory and Rebham, 2011:7).

A study (Grefer, Gregory and Rebham, 2011) which formed part of the US 11th Quadrennial Review of Military Compensation (QRMC) analysed the trend in RMC over ‘the decade of the 2000s’ against the wages of equivalent civilians for enlisted personnel and officers. Civilian comparison groups were constructed by dividing civilians into groups based on education level⁷ to proxy the civilian equivalent of military personnel and officers and the civilian populations were weighted by age to correspond to the experience levels of military personnel. The 9th QRMC, published in 2002, argued that compensation for service members should be around the 70th percentile of wages for civilians with similar education and experience, to enable the military to recruit and retain the quantity and quality of personnel required. However, according to the 11th QRMC, it had reached 83 per cent for officers and 90 per cent for enlisted personnel (Kapp and Torreon, 2015).

The Congressional Budget Office study however highlighted the complexities of comparing military and civilian sectors stating:

⁷ *“Assuming that those with a high school diploma, some college, or a 2-year (Associate) degree are equivalent to military enlisted personnel, and that those with a 4-year degree (B.A.) or a graduate-level degree (M.A. or higher) are equivalent to military officers”* (Grefer, Gregory and Rebham, 2011:10)

“One obvious limitation is that such comparisons cannot easily account for different job characteristics. Many military jobs are more hazardous, require frequent moves, and are less flexible than civilian jobs in the same field. Members of the Armed Forces are subject to military discipline, are considered to be on duty at all times, and are unable to resign, change jobs at will or negotiate pay. Military personnel also receive extensive training, paid for by the government. Family support programs are generally more available in the military compared with civilian employers. Intangible rewards, such as a shared sense of purpose, may be higher among military personnel as well. Quantifying those elements among military and civilian personnel is extremely difficult”.

(CBO, 2007: 2)

However, in summary, the Kapp and Torreon (2015) study stated:

“The key issue is, or should be, not comparability of military and civilian compensation, but the competitiveness of the former. Absent a draft, the Armed Forces must compete in the labor market for new enlisted and officer personnel. The career force by definition has always been a ‘volunteer force,’ and thus has always had to compete with civilian opportunities, real or perceived. Given these facts, some ask what difference it makes whether military pay is much lower, the same, or higher than that of civilians? If the services are having recruiting difficulties, then pay increases might be appropriate, even if the existing ‘gap’ favors the military. Conversely, if military compensation is lower than equivalent civilian pay, and if the services are doing well in recruiting and retaining sufficient numbers of qualified personnel, then there might be no reason to raise military pay”

(Kapp and Torreon, 2015: pp. 17-18)

The 2013 UK Armed Forces Continuous Attitude Survey (AFCAS) revealed that pay was not the most significant factor explaining finding of increasing intentions to leave the Armed Forces. Rather, *turbulence* of family and personal life and on a partner’s employment and earning potential were the most commonly stated factors (See Table 1.5) – leading IDS to recommend that ‘Spouse/partner employment’ should form a new component of the X-Factor following their review (IDS, 2014).

The suggestion that factors other than pay might be important for retention was supported by a paper produced by the US General Accounting Office (GAO) on the retention of Service members in retention-critical specialties. This paper concluded that special attention should be paid to aspects of military service members’ work circumstances, such as lack of equipment to perform day-to-day job functions, inadequate personnel levels and high deployment pace and demands. The paper concluded that, whilst pay is an important concern for military personnel, there was a greater need to address other quality of life issues in the retention of military personnel (GAO, 1999).

Table 1.5: Top five factors increasing intentions to leave the Armed Forces

Factor	Proportion %
Impact of service life on family and personal life	58
Spouse/partner's career	47
Opportunities outside the service	41
Service morale	40
Own morale	38

Source :AFCAS (2013) cited in IDS, 2014

Thus Callahan for example argues that the cash focus of recruitment and retention initiatives in the US military 'is not working' and argues instead for aligning with the values of recruits and personnel and greater monitoring of people's attitudes and intentions to quit (Callahan, 2015).

This in turn must lead to consideration of what motivates and affects the career choices of Generation Y (or millennials) as opposed to those of older generations; as by 2025, millennials may represent 75 per cent of the workforce (Deloitte, 2014). Generation Y is perceived to be very different to previous generations in their approach to work and although pay and location of work are considered important factors, research has shown that more dominant expectations of this cohort are linked to fulfilling work and career development particularly opportunities to gain transferable skills and knowledge through professional/academic qualifications. Alongside work-life balance, organisational values and approach to social responsibility and having, motivating and inspirational leaders. For this generation, feeling highly valued and being in a supportive workplace are key drivers of their satisfaction at work (Martin and Whitling, 2013).

1.9 Section summary

- Job evaluation is still very much in evidence as a pay determination method in UK employers. It originated as a method of determining internal pay relativities in an employer rather than an external comparability process and this remains its primary role in large UK employers today. For pay comparison purposes it needs to be used in conjunction with a pay database.
- But the role of JE has declined in prominence towards a more supportive one, acting as a defensive barrier to equal pay claims, rather than being a strong determinant of pay level in detailed multi-graded structures.
- Contemporary developments have seen a shift towards more externally-driven pay determination approaches informed by market pay surveys. These highlight a

growing divergence across external markets in how and how much employers reward particular skill sets and occupations at an equivalent job size and level.

- Pay supplements and technical and job family ladders have multiplied in response. Many employers now match their roles into the extensive job catalogues developed by market-data providers without reference to internal job evaluation.
- In response, job evaluation systems have become simpler and faster, and there has been a fusion of internal and externally-driven pay determination methods within so called levelling, classification and slotting methodologies.
- Fewer organisation and job levels within many large employers makes for simpler pay comparability matching for the purposes of setting fewer, wider pay ranges, leaving more flexibility to adjust pay according to personal skills and performance.
- In Table 1.6 we profile a simple generic analysis of the relative strengths of each type of the three broad approaches to pay comparability we have described – internally focused, externally driven and intermediate/combination approaches. There are of course many variations and combinations within and between each of these approaches, and even different approaches used for different groups of staff within the same employer – for example between management and non-management roles. For pay comparison purposes, a market pay database needs to at least underpin all of these methods, although the prominence in the process varies.

Table 1.6: Strengths and weaknesses of pay comparability approaches

	Strengths	Weaknesses
Point factor job evaluation	<ul style="list-style-type: none"> Provides defined yardsticks which help to increase the objectivity and consistency of judgements eg points values show relative difference between jobs (Acas, 2014) Objective points measure of differences in job size. Difficult to manipulate the scoring (Acas, 2014) New jobs can easily be evaluated and placed into the hierarchy (Acas, 2014). Strongest approach to determine whether or not employees are performing equal work (for equal pay purposes) (XpertHR, 2013). 	<ul style="list-style-type: none"> Can be complex to apply and understand and explain – a ‘black box’ The use of points can give the false impression of scientific measurement (Acas, 2014). Not easy to amend the scheme as circumstances, priorities or values change (e-reward, nd); inflexibility. It can be difficult to select the right factors and weight them accurately (Acas, 2014). It takes considerable resources and time to implement a scheme properly (Acas, 2014).
Job classification	<ul style="list-style-type: none"> Simple to operate. Standards of judgement when making comparisons are provided in the form of grade definitions (e-reward, nd) Good for communicating to staff why a job is at a particular level. Works particularly well where job classes developed for different occupations and skillsets so career as well as pay progression clarified. 	<ul style="list-style-type: none"> Can be difficult to fit complex jobs into a grade without using elaborate grade definitions (e-reward, nd). Not useful when jobs are very different to each other. Definitions tend to be so generalised that they are not helpful in evaluating borderline cases or making comparisons between individual jobs. Does not provide a strong defence in an equal value case.
Market pricing	<ul style="list-style-type: none"> Ensures that pay is competitive. An organisation can interpret where it wants to position salary and total remuneration levels in relation to the market eg median, LQ, UQ (CIPD, 2016). Simple to operate; facilitates direct comparisons, especially when the jobs have been analysed in terms of a set of common criteria (e-reward, nd). 	<ul style="list-style-type: none"> Relies on accurate market rate information which is not always available (e-reward, nd). Difficult to apply to unique jobs. Relativities in the market may not properly reflect internal relativities (e-reward, nd). Pay discrimination in the market may be perpetuated (e-reward, nd). There is no such thing as an accurate single rate of pay for a job/ role (CIPD, 2016). Choice of comparator significantly affects the outcome (Findley et al, 2013) and risk of self-serving bias in choice of comparators (Babcock, Xianghong and Lowenstein, 1996). Market pricing based on only on job titles can be inaccurate as job titles are often misleading, unclear or unspecific (CIPD, 2016). Relies on a considerable level of judgement (e-reward, nd). May perpetuate existing relativities; dependent on accurate job/role analysis (e-reward, nd). May not provide a defence in an equal value case (e-reward, nd).

Source: IES

2 Expert Interview and Group Findings

2.1 Introduction and method

In order to gain expert academic and practitioner input into this study, both to critique existing methods and consider alternatives and particularly the latest innovations, we ran an expert think tank in London on August 10th. We also carried out individual phone interviews with those unable to attend.

- Our phone interviewees were:
 - Aadam Lloyd, Civil Service Pay and Reward
 - Steve Munday, Senior Manager Strategic Reward, KPMG
 - Professor Stephen Perkins, London Metropolitan University
 - Paul Thompson, Founder, E-reward
 - Geoffrey Winnard, Assistant Director, Agenda for Change and Employment Relations, NHS Employers.

- The attendees for our expert think tank were:
 - Daniel Hibbert, independent consultant and ex-leader of the pay comparability exercise carried out by PwC;
 - Charles Cotton, Performance and Reward Adviser, CIPD
 - Professor Geoff White, University of Greenwich
 - Nishant Mahajan, Vice President, Pearl Meyer
 - Stephen Bevan, Catherine Rickard and Duncan Brown, IES
 - Nicola Allison, Remuneration Specialist, OME

2.2 Findings and commentary

The previous approach

- In describing the rationale for the market pay comparisons by the AFPRB, everyone recognised the somewhat untypical, unique situation in the Armed Forces. Externally in other organisations these exercises are invariably done from a recruitment and retention rationale and hence the strong external focus on what competitors are actually paying. In the Armed Forces there are clearly a variety of other reasons, for example demonstrating value for money to the taxpayer, and the fairness of provisions to AF personnel.
- We briefed the expert group and our interviewees on the previous studies undertaken by PwC in 2013 and updated in 2014 and 2015. We also discussed the X-Factor adjustment made to reflect the unique aspects of AF roles.
- There were two main reactions to the prior methodology used:

1. It was perceived to be largely an internal job evaluation rather than external market-driven exercise, with a lot of the effort and resource devoted to the job evaluation, rather than the external market data aspects. People felt that some of this work was superfluous and 'spurious detail' to justify the pay numbers produced. Job evaluation was not seen as unimportant in large UK employers, and the revived focus on equal pay and gender pay reporting was described as leading to something of a revival in interest in job evaluation. But its purpose was seen as supporting internal fairness and equity and providing proof of equality, rather than doing much to support assessments of external market pay rates and comparability. A key aim of this type of exercise, our experts felt, should actually be to highlight market pay variations irrespective of job evaluation scores and at a given job level. And one interviewee pointed out that it seemed strange that the AF now have 4 trade-based pay ranges for each grade rank, yet has not broken its PwC market data down to show trade and functional variations by grade level.

People were also sceptical as to whether job evaluation ever really helped with external job matching, given that job evaluation is more of an art rather than a pure science, which can be applied in many different ways. The representatives from the larger consultancies and Aadam Lloyd in particular emphasised the importance of accurate job matching through meeting with survey providers, who in response have developed detailed survey job catalogues that they use in meetings with large employers to try to ensure effective job matching. Indeed some large employers have adopted these levels and trade divisions in reverse, to act as pay structures and career paths in their own organisations, and as an alternative to job evaluation.

The unique nature of the AF staffing model also meant that comparisons with reward approaches, if not the pay levels, used by Armed Forces elsewhere in the world were seen by the expert group as highly relevant, particularly in US/Canada/Australia.

2. The previous came from 'an economist's rather than psychologist's mindset' as one put it, that is it only considered quantitative job scores and pay market information, with no

analysis of staff turnover, nor real understanding displayed of what is actually driving the growth in voluntary outflow. Many similar studies suggest that pay is often not the primary driver of the leave/stay decision, even in the current climate of low pay awards, but other factors eg family, workload etc are often coming into play. We discussed in the think tank meeting the wider 'deal' which the AF offers and some of the changes going on to this – pensions, accommodation etc, which may be contributing to the rise in VO.

Finally, people felt that the issue in some cases may be shortages in the labour supply, which again, will not be addressed simply by moving to close an identified market pay shortfall. Interviewees referred to something of a revival in labour market studies by some of the biggest private sector employers, such as large retailers. Aadam Lloyd talked about some of the good work being undertaken across government to secure an adequate supply of technical specialists in areas such as cyber and avoid a price war for the limited supply of them with the private sector or between public sector employers.

- These limitations in methodology meant that the prior comparability studies appeared to do little to address the third important dimension and purpose of pay comparability according to our experts: - to indicate actions that could be taken to best address any labour turnover and retention issues that have been identified. There are clearly no simple easy solutions, but that focus, it was felt, should be the key objective in gathering market pay information, rather than just being an end itself and/or a justification for exceeding the one per cent award cap in hard to recruit/retain skill areas.
- The meeting also observed that while many large employers survey the market for recruitment and retention purposes, the Armed Forces' internal development/promotion model means that the concern (except 'at the bottom') should, it was felt, be largely with retention: *"no market data in the world will solve that problem"* according to one attendee.
- Career paths were seen as an important area to focus on to aid retention in large organisations with significant numbers of professional/specialist staff groups, and should be reflected in future comparability studies. This was seen to be a key factor explaining the trend in large employers towards more use of job family/technical career and pay ladders of a similar type to the new Pay16 Model, rather than simply paying temporary market supplements; and the gathering of more differentiated and specialised market data, often nowadays from different survey sources (see below).

Market trends in pay comparability

- Geoff Winnard from NHS Employers gave us an excellent perspective on this, observing the similarity in NHS staffing models with the Armed Forces, in that about 2/3 of NHS staff only really have an internal employer market, while approximately 1/3 can be compared easily with, and move into/out of the private sector. Therefore perhaps surprisingly few market premia exist in the NHS, and the only national one that was introduced with the new NHS model, Agenda for Change, in 2003, for craft trades was removed some years later, for creating range of problems, not least an

equal pay dispute. This is interesting to compare with the growing and wider use of RRP's in the AF.

- Thus he told us that where a trust faces a staffing shortage, say in nursing, they tend naturally to look at the local labour market and supply issues, rather than assuming they need to do a market pay survey and that pay or a market supplement is the only lever to best address this.
- Geoff Winnard also pointed out that the move to fewer common broad bands for all NHS specialities in AfC meant that detailed internal comparison across specialities and between levels have also received less emphasis, and although these nine wide pay bands were developed using a detailed points factor job evaluation system, nowadays most jobs are simply slotted into the appropriate level against general, quite brief band descriptions. The focus is often on internal progression in pay and career and like Pay16, the pay and grading structure is also characterised by fairly incremental pay progression.
- The NHS experience also, as Professors White and Perkins pointed out, shows the importance of setting the AF approach to pay comparability into the historical context in terms of the various investigations in the 1980's and 1990's into pay comparability and also the parallel reforms in the NHS and local government, at the same time as the Armed Force's pay structures were brought together (Corby S and White G, 1999).
- In most larger UK employers however, relying on a mix of externally recruited and internally developed staff, the group and our interviewees very much supported the trend profiled in section 2 towards a much stronger emphasis on external market data sources than internal evaluations, given that in major parts of the economy according to one interviewee 'the market has become an unstoppable force', and another 'the market calls the shots'. As Professor Perkins pointed out, the owners of many large corporations may not like having to pay their executives so much, but they would not risk the loss of staff at this critical level by reducing their pay.
- Everyone agreed large employers are devoting proportionately more resources to external market surveys and data and relatively less to job evaluations, partly through using simpler levelling methodologies, although it is not easy to get evidence to prove this. While there is less emphasis on job evaluation and determining horizontal grade, there is more account taken of external data and 'vertical' divisions and variations in this for different functions and occupations. Key trends mentioned included:
 - More emphasis on accurate job matching and ensuring the employer 'is comparing Granny Smiths with Granny Smiths, rather than just apples with apples' according to Steve Munday; interestingly, this does not seem to be leading to any greater reliance on job evaluation as a means of doing this.

- Covering more jobs with external market data, rather than just a few very specialist or in-demand roles.
- Using the best surveys and data sources for each trade and role, rather than assuming that one provider is the best for all jobs. According to Aadam Lloyd, when looking at the case for market supplements in pay remit submissions, HM Treasury and Cabinet Office pay close attention to the quality of data sources and of job matching, currently regarding Hay as the best general sector database for example, and Radford as the best information for specialist engineering and software roles. PwC did utilise some additional specialist surveys beyond their own general database, and the 2015 update refers to trends in the engineering sector, which perhaps makes it even more surprising that different trade rates were not shown. But our sense from these discussions is that this trend has gone much further as the UK labour market has recovered and tightened and voluntary turnover rates increased over the last two to three years.
- Moves to occupational and technical ladders and rewarding technical and specialist skills more clearly, rather than reinforcing hierarchy through reward – “rewarding skills and contribution rather than position and power” according to one interviewee. Using a growing variety of market supplements was seen as a temporary solution at best, a ‘finger in the dyke’ according to one, compared to moving to a more disaggregated pay structure.

- Some interviewees did though suggest that the emphasis on the external market surveys as determinants of pay had gone too far, presenting an image that this is a totally scientific process and that having access to ‘perfect data’ would produce a ‘magic number’ which is what any employer should pay an individual in any specific role. Interestingly the reward management ‘grey’ literature written by the data providers and consultants themselves is starting to show evidence of this reaction, with Samantha Gee from Verditer for example explaining why ‘pay benchmarking is not the answer’ (Gee, 2016) and Chuck Csizmar from CMC arguing that survey data ‘provides more of a pricing guide and not a ‘smoking gun’ of what to pay (Csizmar, 2016).

- Steve Munday also pointed to the explosive growth in employee-driven sources of data such as Emolument (Emolument, 2016) and Glassdoor (Glassdoor, 2016).

These might lack the job-matching accuracy of paid-for employer surveys, but are becoming increasingly influential on employees’ perceptions, and for purposes such as setting a recruitment salary range or determining a wide salary band in a relatively flat pay structure, might be accurate enough for an employer to use.

- Another area we discussed was trends in total rewards valuations. The recent AF studies covered base pay, total cash including other cash and variable payments; and total rewards with an additional annual pensions’ valuation.
- The group thought that it made sense to include market supplements and premia in the comparisons; but that the existing pension-focused additional valuation largely ‘did the job’ and more sophisticated total reward valuation methods were expensive and generally didn’t add proportionately that level of additional value to the comparisons. Detailed total rewards studies, we heard, were expensive and generally

only carried out regularly in high margin sectors and/or those with persistent skill shortages, such as financial services, oil and pharmaceuticals sectors. The existing methodologies were also focused on costs to the employers, when a number of interviewees felt that value to the employee might be a better basis for comparison and valuation.

- The need to communicate the full value of the package to personnel was though very important and an area where the private sector was seen as having made more progress in recent years than the public, for example with more extensive use of annual total reward statements.

Future approach to pay comparability

- For the future therefore, in terms of alternative/improved approaches to comparability, the group and our interviewees all felt that the following, simpler and differentiated approach should be considered:

- Distinguishing between those skilled/specialist jobs that have a direct (and fairly obvious) external market comparator and the majority of 'unskilled' infantry roles that don't;
- Putting more effort into getting more exact external market data for comparative specialist positions, without undertaking job evaluation; this would probably involve more detailed job matching with the job catalogues in a wider range of specialised market pay surveys; the results could be reported back by post and possibly aggregated into the trade grouping to show the market variations at a given rank level.
- Grading the other roles primarily using job evaluation with just broad checks of pay comparability by grade into general databases such as PwC's – 'don't spend a lot of time doing market pay comparisons where there is no market'; and possibly analysing the national market data for unskilled jobs in more detail eg geographic variations. According to one participant 'JE gives you the default position: the market data justifies 'why are we paying differently?'
- Include market supplements in the comparisons, all forms of bonus and performance pay and a simple pensions' valuation. More detailed total rewards comparisons would be expensive to carry out and not seen to deliver value at the micro calculation level – more detailed consideration of the AF 'deal', how this has changed and how it could be made more attractive compared to alternative occupations was regarded as a more valuable way to investigate and improve AF recruitment and retention.
- Integrate the pay data with wider studies of labour supply, and as in the current report, integrate with other considerations which may be influencing voluntary outflow and take a 'total reward', 'deal-driven' approach to addressing this.

- The expert group members liked the analogy of a balance between external competitiveness and internal equity considerations in determining pay. While they needed to be balanced, the two considerations should not be confused. The concepts of job and person-based pay may also be relevant – the AF have a job/rank-driven

concept with hierarchical grades and incremental progression; whereas many large employers in all sectors have moved to flatter structures with less emphasis on internal job evaluation, more variation by professional/specialist group; and more scope for personal contribution to impact of pay.

2.3 Section summary

- We consulted with 10 academic and practitioner experts as part of this review.
- The prior AF pay comparability methodology used was perceived to be largely an internal job evaluation rather than external market-driven exercise.
- The key purpose of pay comparability according to our experts should be to indicate actions that could be taken to best address any labour turnover and retention issues.
- They recognised the trend profiled in Section 2 towards a stronger emphasis on external market data sources rather than internal evaluations, although some felt that this emphasis had gone too far.
- Other key trends mentioned included:
 - More emphasis on accurate job matching
 - Covering more jobs with external market data
 - Multiple-sourcing and using the best surveys and data sources for each trade and role, rather than assuming that one provider is the best for all jobs
 - Moves to occupational and technical ladders and rewarding technical and specialist skills more clearly.
- The group thought that the existing pension-focused additional valuation largely 'did the job' and more sophisticated total reward valuation methods were unnecessary.
- For the future the experts supported a differentiated and more external-market-focused approach.

3 IES Analysis and Way Forward

3.1 The recent approach

The AF pay comparability study undertaken in 2013, updated in 2015, can be characterised as follows:

- The reports recognise the difficulty with job matching and different talent model used in the AF compared to most external employers – AF recruit most staff at the base of the organisation.
- The process involved was as follows:
 - Select benchmark sample of 286 jobs
 - Evaluate using the PwC points factor je system
 - Compare with/convert points into the AF je system
 - Drawdown market data from the PwC remuneration database of c300 majority private sector employers using comparable civilian jobs
 - Report showing LQ/Med/UQ pay levels for each rank, categorised into overall Civilian, and split into private/public sectors
 - Analysis uses base pay, total cash (base plus allowances, bonuses etc) and total reward (incl. pensions)
 - Analysis excludes overtime, shift etc from civilian sector; and from AF data excludes RRP's and accommodation/food
- The levels of competitiveness found were:
 - *“pay for the other rank population is competitive”* and above median on total rewards
 - Pay for Officers is *“close to civilian median”*, lower on total cash, though median on TR with pension, better compared to public than private sectors

Accepting the difficulties of any comparability exercise for AF roles, IES's assessment of the main strengths and weaknesses of this method is summarised in the table below:

Table 3.1: Analysis of the last AF Pay Comparability Study Approach

Key aspects of approach and methodology	Strengths	Weaknesses	Implications and Comments
<ul style="list-style-type: none"> - Select benchmark sample of 286 jobs across all disciplines - Match with specific job roles in public and private sectors 	<ul style="list-style-type: none"> - Large representative sample of AF roles in different ranks and trades used 	<ul style="list-style-type: none"> - <i>No reflection of marketability of different roles: large employers will often skew their sample towards more marketable roles and/or those easiest to match externally</i> 	<ul style="list-style-type: none"> - Maintain good coverage, possibly focus more on jobs most at risk of outflow and/or with clearest comparators in civilian sectors
<ul style="list-style-type: none"> - Evaluate jobs using the PwC points factor je system - Compare/convert with the AF je system 	<ul style="list-style-type: none"> - Gives a quantitative measure of job size and seems a highly objective process for ensuring AF jobs are compared with similar sized civilian jobs 	<ul style="list-style-type: none"> - <i>Long-winded and expensive process</i> - <i>Spurious accuracy?</i> - <i>Difficulty in practice matching jobs despite je; AFPRB members changed a number of the initial job matches in the 2015 exercise</i> - <i>Je a process for determining internal job size in an employer: does using two different systems make it any better at ensuring comparability between organisations for market pay comparison purposes?</i> 	<ul style="list-style-type: none"> - Very heavy internal job evaluation emphasis: time might be better spent on ensuring external market data matches and highlighting variations in market worth at a given job size.
<ul style="list-style-type: none"> - Drawdown market data from the PwC general industry remuneration database of c300 mostly private sector employers using comparable civilian jobs. Supplemented with some additional specialised market data eg for engineers 	<ul style="list-style-type: none"> - Robust general industry database, useful for matching more generic or AF-specific roles, especially for lower skilled ranks 	<ul style="list-style-type: none"> - Heavy reliance on one source of market data for all roles/ranks: relatively little use of other specialised survey pay data sources 	<ul style="list-style-type: none"> - Use a wider range of market survey sources - Do much more to highlight variations in market value of jobs in different trades and specialisms

Key aspects of approach and methodology	Strengths	Weaknesses	Implications and Comments
<ul style="list-style-type: none"> - Report showing LQ/Med/UQ for each rank, Civilian all sector, and private and public sector breakdown 	<ul style="list-style-type: none"> - Differences in competitiveness against public and private sectors shown - Ranges give good overview picture of all civilian market range and average AF competitiveness against the market 	<ul style="list-style-type: none"> - Report gives no breakdown at all of different trade and specialist market rates, even for example covering engineers, never mind the variations within those trades eg for cyber specialists. This is a major weakness 	
<ul style="list-style-type: none"> - Analysis uses base pay, total cash (base plus allowances, bonuses etc) and total reward (incl pensions) - Analysis excludes overtime, shift etc; and from AF RRPs and accom./food 	<ul style="list-style-type: none"> - Good pensions valuation methodology covering the major aspect of benefits spend - The analyses highlight the different reward models in AF, private and public sectors - Unique features of AF package excluded and taken account of through the X-Factor eg no contractual house/overtime - Avoids excessive detail trying to value items which add little anyway to the total package value and have marginal impact on retention 	<ul style="list-style-type: none"> - Excluding market supplements leads to underestimates of cash payment levels in AF and markets externally, particularly in areas of high-market demand – pilots, cyber etc 	<ul style="list-style-type: none"> - Consider adding market supplements into both AF and market data to give a better sense of total cash comparability

3.2 An alternative future approach: the direction and components

In Section 2 we profiled three broad approaches to market pay comparability and pay determination: internal job evaluation focused, external market-driven, and intermediate and combination approaches. We see little point in setting out the application of these three approaches to the AF as its character means that only a combination approach is possible, in that:

- Wholly job evaluation-driven approaches would not actually allow for direct comparability with large organisations in the private sector who are competing with the AF for young entry-level recruits and for technical and occupational specialists such as engineers and pilots; these organisations are less and less reliant on job evaluation and placing more emphasis on external market pay surveys to set broad job levels of pay, and then differentiating within that according to much finer cuts of job and occupational skills, as well as personal performance and contribution.
- But adopting wholly external market survey-driven approaches to comparability in the manner of a Google, Microsoft or a Goldman Sachs would be equally impossible and inappropriate in IES's view. First, the AF have significant numbers of staff carrying out roles which are not evident in civilian organisations and either impossible or very difficult to match with. And second, with the current internally-focused talent model and necessarily rank-driven structure, plus a reward strategy including service increments, a loose comparison based on a few job levels as we are seeing in delayed private sector organisations is not going to be effective.

However, considering these three broad approaches as more of a spectrum of alternatives with a different balance of internal and external methodology and determination means that our findings would rather suggest a particular direction of travel for future AFPRB comparability exercises from internal to more external emphasis. There is then considerable choice as to the speed, method and extent of that journey.

We would describe the recent exercises as using an 'inside out' methodology, that is they have been heavily driven by internal evaluations as the way to match with and draw off information on comparable pay and reward levels in other organisations. Future studies in our view need to be more 'outside in', that is focused on finding out what other organisations of different types are paying for different skills and occupations, and once that information has been gathered, then working back to what the internal implications might be for the way pay and rewards are managed internally in the AF.

At its simplest, this would mean devoting relatively less time and resource on the next comparability exercise to job evaluation and more time to accessing a wider range of quality survey data sources. This would produce a stronger and more 'disaggregated' picture of variations in pay and reward levels at the same rank level according to

different skills, occupations and functions, as well as possibly sectors and geographic locations, rather than just highlighted pay differences between ranks averaged across all sectors, functions and locations.

There are literally dozens of proprietary and non-proprietary comparison methods that could support this future shift in emphasis. But we have mentioned already in our analyses in this report a number of the components that we believe would need to be considered in achieving this required shift, and we list and detail those now.

While the AFPRB is required to carry out pay comparability studies, we believe that the fundamental aim of these studies should still be primarily to support the effective recruitment and retention of the personnel that the AF need to fulfil their goals, rather than being an end in itself. Seen from this perspective of having practical impact on this goal would suggest the following actions:

1. Differentiate in the pay comparability approach between those roles which have a clear external labour market and are relatively straightforward to match externally in civilian organisations, and those which do not and where the AF themselves play a much greater role in setting the market rate and managing pay movements. External market surveys and rates need to be more influential in determining the pay of the former group (which the latest AF Pay16 reforms recognise in their move to the trade-based structure overlain onto the rank-based grades); while general UK labour market surveys and internal job evaluation should be more influential for the latter group. The 2013 and 2015 approach tried to apply the same methodology for both sets of personnel which produced quite a complex and ultimately still heavily internally-driven perspective. If the traditional community and long-term career deal in the AF is, as the most recent AFPRB report describes, coming under increasing strain, then it is even more critical that a more external-market-driven perspective is adopted.

Internally, a representative sample of AF jobs could be selected from each rank and trade, but prioritised on the basis of risk of loss to civilian employers and ease of comparison of role in those employers. Then market data sources could be selected for each category on the basis of a range of criteria – coverage of the AF roles, number and quality of survey participants, quality of survey job matching and data, cost of purchase and so on.

The number of providers and cost of purchasing this data would clearly be higher than under the previous method. But we believe based on our experience in the public sector that the overall costs need not go up, as savings would be delivered from not carrying out the internal job evaluation exercise. In addition, existing expertise and possibly data purchased for use in the public sector, for example by CSEP/Cabinet Office might be used, and data providers might also provide very competitive rates to secure the Armed Forces as a valued client.

2. Proportionately greater effort in the comparability exercise should therefore be put into collecting a greater variety of high quality market data for the different skills and specialisms represented in the AF from a wider variety of sources and providers. Rather than focusing on the consistency of the process with a single method for the marketable roles, the emphasis should be accessing the best market data source relevant to where personnel in those roles could work and potentially leave to work. Matching can be achieved through existing job information and matching with job catalogues which most of the external survey providers have developed. This would more closely replicate the process of pay comparability undertaken by large private sector employers and increasingly used in the public sector.
3. The market data findings should therefore be disaggregated far more, rather than averaged into overall levels of competitiveness and broad public/private sector groupings. A retention focus means that pay findings need to be broken out and reported for each role and then grouped into the different trade categories by grade to help establish and provide support for the trade differentials in the AF structure.
4. For those AF roles which are much harder to match externally or indeed have no equivalent role then broad checks of pay comparability with general pay databases along the lines of the previous studies should suffice, possibly analysing the national data in more detail, for example by age focusing on the younger age categories where the majority of personnel are recruited from, and possibly geographic location if the Armed Forces have varying rates of success in recruiting in different parts of the country.
5. We think that the total rewards approach taken in the previous studies, broadly comparing base pay levels, total cash and total cash plus pensions/total rewards, and excluding those features which only apply in the AF and in civilian employers, is carried out in sufficient detail and is appropriate for the future. While the 1% pay cap and payroll costs control focus across the Civil Service has encouraged more detailed valuations in pay remit submissions to HM Treasury, we are not convinced that the additional complexity and costs of these analyses are worth it, nor that they have any noticeable effect on levels of retention.

Such resources might be better devoted for example, to helping to communicate the value of the package to AF personnel so that they can fully appreciate the full value of the AF reward package. More choice in package in some large employers has improved the perceptions of the value of the package by employees without actually increasing employer costs.

We do however recommend that market cash supplements are included in both the AF and market data gathered, as ignoring them when the incidence and level of differentiation between different trades has been growing is increasingly likely

to lead to a somewhat false impression of the actual level of cash competitiveness derived from the comparability exercise. It also might assist with the internal management of these supplements in the AF.

6. As far as the X-Factor and those aspects of the AF life which are not present in civilian employment, IDR conducted a detailed assessment of this relatively recently with changes in the components and calculation resulting and we see no short-term need to further amend this formula.
7. The AFPRB report already in our view positions its market pay comparability findings very well in the context of the wider employment situation and other factors likely to be impacting on recruitment, retention and engagement of AF personnel, such as the state of the external labour market and supply and internally, working and living conditions, staff attitudes and views and so on. The more this occurs then the more value the comparability study will be to the practical management of rewards in the AF. For example, reviewing civilian employers' use of market differentials and supplements could help the AF to consider the management and use of their own RRP's and related payments and ensure that the levels and forms of these payments are the most appropriate.

4 Report Summary and Conclusions

4.1 Introduction

- This report presents the findings from a short review that the Institute for Employment Studies (IES) has carried out for the Armed Forces' Pay Review Body (AFPRB) into pay comparability methodologies.
- Pay comparability is the process by which employers classify and reward jobs and make reward comparisons with other employers to assess competitiveness.
- The aim has been to produce this 'academic think-piece' designed to help ensure that the most appropriate methodology is used to inform the 2017 AFPRB's report. AFPRB, uniquely amongst the pay review bodies, has a statutory requirement to make external comparisons

4.2 Rapid evidence review findings

- Our research has found that job evaluation is still very much in evidence as a pay determination method in UK employers.
- It originated as a method of determining internal pay relativities in an employer rather than an external comparability process and this remains its primary role in large UK employers today. For pay comparison purposes, it needs to be used in conjunction with a pay database.
- But the role of JE has declined in prominence towards a more supportive one, acting as a defensive barrier to equal pay claims.
- Contemporary developments have seen a shift towards more externally-driven pay determination approaches informed by market pay surveys.
- Pay supplements and technical and job family ladders have multiplied in response to growing variations in market pay at a given job level or grade.
- In response to faster changing organisations and markets, job evaluation systems have become simpler and faster, and there has been a fusion of internal and externally-driven pay determination methods within so called levelling methodologies.

- We profile the range of comparability approaches on a scale from strongly internally-driven, through intermediate and combined approaches to strongly externally-determined methods, with many employers having moved to a varying extent along that scale.

4.3 Expert findings

- We consulted with ten academic and practitioner experts as part of this review, with most taking part in a day's 'think-tank' in London.
- The prior pay comparability methodology used was perceived to be largely an internal job evaluation rather than external market-driven exercise.
- The key purpose of pay comparability according to our experts should be to indicate actions that could be taken to best address any labour turnover and retention issues.
- Key trends mentioned included:
 - More emphasis on accurate job matching in external surveys;
 - Covering more jobs with external market data;
 - Using the best surveys and data sources for each trade and role, rather than assuming that one provider is the best for all jobs;
 - Moves to occupational and technical ladders and rewarding technical and specialist skills more clearly in the pay structure.
- The group thought that the existing pension-focused additional valuation largely 'did the job' and more sophisticated total reward valuation methods were unnecessary.
- For the future, the experts supported adopting a more differentiated and external market-focused approach.

4.4 IES analysis and way forward

- Undertaking a pay and reward comparability exercise for the Armed Forces' roles is a vital but difficult process to undertake, whatever methodology is used.
- That said, our analysis suggests the previous methodology has been too driven by considerations of internal evaluation and rank rather than genuine external market pay levels and how these vary by skill and trade, and too reliant on a single data source.

- A move therefore to a stronger external focus in the method would appear to have benefits, if supporting recruitment and retention of personnel is the key purpose of the exercise, which we believe it should continue to be.
- We outline the key steps in moving future comparative studies in this direction, as follows:
 1. Differentiate in the pay comparability approach between those roles which have a clear external labour market and are relatively straightforward to match externally in civilian organisations, and those which do not and where the AF themselves play a much greater role in setting the market rate.
 2. Internally, a representative sample of AF jobs could be selected from each rank and trade, prioritised on the basis of risk of loss to civilian employers and ease of comparison of role in those employers. Then market data sources could be selected for each category on the basis of a range of criteria – coverage of AF roles, number and quality of survey participants, quality of job matching and data, cost of purchase and so on.
 3. Matching can be achieved through existing job information and comparing with job catalogues which most of the external survey providers have developed. This would more closely replicate the process of pay comparability undertaken by large private sector employers and increasingly in the public sector.
 4. The market data findings would then be analysed and reported in a disaggregated form, rather than averaged into overall levels of competitiveness and broad public/private sector groupings.
 5. For those AF roles which are much harder to match externally or indeed have no equivalent role then broad checks of pay comparability with general pay databases along the lines of the previous studies should suffice, possibly analysing the national data in more detail,
 6. Continue with the total rewards approach taken in the previous studies, broadly comparing base pay levels, total cash and total cash plus pensions/total rewards, and excluding those features which only apply in the AF and in civilian employers. We do however recommend that market cash supplements are included in both the AF and market data gathered,
- Retain the X-Factor adjustment which has been analysed and changed relatively recently
- Continue to position the market comparability findings in the context of the wider employment situation and other factors likely to be impacting on recruitment, retention and engagement of AF personnel.

Appendix: Sources and References

Acas (2014), *Job evaluation: considerations and risks*, Acas

Armstrong M (2012), *Armstrong's Handbook of Human Resource Management Practice*, Kogan page, 12th Edition

Armstrong M, Baron A (1995), *Job Evaluation Handbook*, CIPD

Armstrong M, Cummins A (2008), 'What the future holds for job evaluation', *e-reward* [Online]. Available at: <http://www.e-reward.co.uk/resources/soapboxes/what-the-future-holds-for-job-evaluation> [Accessed: 3 August 2016]

Attwood S (2016), *Reward strategies and priorities survey 2016*, XpertHR

Babcock L, Xianghong W, Lowenstein G (1996), 'Choosing the wrong pond: social comparisons in negotiations that reflect a self-serving bias', *The Quarterly Journal of Economics*, Vol. 111, No. 1, pp. 1-19

Brown D, Munday S (2016), *Stability rhymes with agility, pay structure needs to go with flexibility*, Opinion Paper 26, Institute for Employment Studies

Callahan R (2015), '3 Ways The Military Can Improve Recruitment And Retention Rates', *Task and Purpose* [Online]. Available at: <http://taskandpurpose.com/3-ways-the-military-can-improve-recruitment-and-retention-rates/> [Accessed: 28 August 2016]

CBO (2007), *Evaluating military compensation*, Congress of the United States Congressional Budget Office

CIPD (2015), *Annual Survey Report, Reward Management 2015-15*, CIPD

CIPD (2016), 'Market pricing and job evaluation', *CIPD* [Online]. Available at: <https://www.cipd.co.uk/knowledge/strategy/reward/market-pricing-factsheet> [Accessed: 29 November 2016]

Corby S, White C (1999), *Employee Relations in the Public Services, Themes and Issues*, Routledge, London

- Csizmar C (2016), 'Garbage In, Garbage Out', *Compensation Café* [Online]. Available at: <http://www.compensationcafe.com/2016/08/garbage-in-garbage-out.html> [Accessed: 21 November 2016]
- Davis K R, Sauser W I (1991), 'Effects of alternative weighting methods in a policy-capturing approach to job evaluation: A review and empirical investigation', *Personnel Psychology*, Vol. 44, No. 1
- Defence and Canadian Armed Forces (2015), 'Pay overview', *Government of Canada* [Online]. Available at: <http://www.forces.gc.ca/en/caf-community-pay/pay-overview.page> [Accessed: 21 November 2016]
- Deloitte (2014), *Big demands and high expectations: The Deloitte Millennial Survey*, Deloitte
- Egan J (2012), 'Benefits provision during times of pay restraint', *IRS Employment Review*, September 2012, IRS
- EHRC (2016), 'How to implement equal pay', *Equality and Human Rights Commission* [Online]. Available at: <https://www.equalityhumanrights.com/en/advice-and-guidance/how-implement-equal-pay> [Accessed: 28 July 2016]
- Emolument (2016), 'Emolument Website', *Emolument* [Online]. Available at: <http://www.emolument.com/> [Accessed: 21 November 2016]
- e-reward [nd], Job evaluation factsheet, *E-reward* [Online]. Available at: <http://www.e-reward.co.uk/resources/factsheets/job-evaluation> [Accessed: 27 July 2016]
- e-reward [nd-a], Career and job family pay structures, *E-reward* [Online]. Available at: <http://www.e-reward.co.uk/resources/factsheets/career-and-job-family-pay-structures> [Accessed: 27 July 2016]
- Findlay J, Findlay P and Stewart R (2014), 'Occupational pay comparisons – easier said than done?', *Employee Relations*, Vol. 36, No.1, pp. 2-16
- GAO (1999), *Military Personnel: Perspectives of Surveyed Service Members in Retention Critical Specialties, Briefing report to Congressional Requestors*, United States General Accounting Office
- Gee S (2016), 'The market median pot of gold: Why pay benchmarking is not the answer', *Verditer* [Online]. Available at: <http://verditer.co.uk/news/pay-and-reward/the-market-median-pot-of-gold> [Accessed: 21 November 2016]
- Geldman A (2013), *Location pay and allowances: 2013 XpertHR survey*, XpertHR
- Glassdoor (2016), 'Glassdoor Website', *Glassdoor* [Online]. Available at: <https://www.glassdoor.co.uk/Salaries/index.htm> [Accessed: 21 November 2016]

Grefer J (2008), *Comparing Military and Civilian Compensation Packages*, CNA

Grefer J, Gregory D, Rebhan E (2011), *Military and Civilian Compensation: How Do They Compare?*, in ed. Office of the Undersecretary of Defense for Personnel and Readiness (2012), *The Eleventh Quadrennial Review of Military Compensation*, Defence Technical Information Center

Griffiths D (1981), 'Job Evaluation, Technical Expertise and Dual Ladders in Research and Development', *Personnel Review*, Vol. 10, Iss. 4, pp. 14 - 17

Hatton-Gore T (nd), 'How to select, devise, and use a job evaluation scheme', *XpertHR* [Online]. Available at: <http://www.xperthr.co.uk/how-to/how-to-select-devise-and-use-a-job-evaluation-scheme/155642/> [Accessed: 21 November 2016]

Hay Group (2010), *Hay Group Guide Chart - Profile Method of Job Evaluation*, Hay Group

IDS (2011), *Total Reward*, IDS HR Study 951, Incomes Data Services

IDS (2012), *Case studies on Geographically-Differentiated Pay: A research report for the OME from Incomes Data Services (IDS): Final Report*, Incomes Data Services

IDS (2014), *A review of the X Factor component: A research report for the Office of Manpower Economics from Incomes Data Services*, Incomes Data Services

Kapp L, Torreon B S (2015), *Military Pay: Key Questions and Answers*, Congressional Research Service

Kettley P (1995), *Is flatter better? Delaying the management hierarchy*, Institute for Employment Studies

Kilgour J G (2008), 'Job Evaluation Revisited: The Point Factor Method', *Compensation Benefits Review*, Vol. 40, No. 4, pp. 37-46

Lawler E (2000), *Reward Excellence: pay strategies for the new economy*, Jossey-Bass

Marsden D (2002), 'A Theory of Job Regulation, the Employment Relationship, and the Organisation of Labour Institutions'. *Industrielle Beziehungen/The German Journal of Industrial Relations*, pp. 320-347

Martin M, Whiting F (2013), *Human Resource Practice*, CIPD

Mercer (2016), 'Maximising the Value of Job Evaluation', *Mercer* [Online]. Available at: <http://www.mercer.com/our-thinking/maximising-the-value-of-job-evaluation.html> [Accessed: 28 July 2016]

MoD (2016), *Pay16: The Armed Force Pay Model*, Ministry of Defence

NJC (1997), *National Agreement on Pay and Conditions of Service*, National Joint Council for Local Government Services, 1st edition

Novartis (2016), 'Compensation & Benefits', *Novartis* [Online]. Available at: <https://www.novartis.com/careers/compensation-benefits> Accessed: 21 November 2016

OME (2014), *Private sector practice on progression: A research report for the Office of Manpower Economics from Incomes Data Services*, Office for Manpower Economics

PM Editorial (2009), 'Level pegging', *CIPD* [Online]. Available at: <http://www.cipd.co.uk/pm/peoplemanagement/b/weblog/archive/2013/01/29/level-pegging-2009-01.aspx#> [Accessed: 27 July 2016]

PwC (2015), *Comparison of Pay in the Armed Forces and the Civilian Sector: Updated pay comparability information*, Office for Manpower Economics

Schmidt W, Dworschak B (2006), 'Pay developments in Britain and Germany; collective bargaining, 'benchmarking' and 'mimetic' wages', *European Journal of Industrial Relations*, Vol. 12, No. 1, pp.89-109

Sharp R (2015), *Pay and grading structures survey 2015*, XpertHR

Throp N (nd), 'How to communicate with employees on pay and benefits', *XpertHR* [Online]. Available at: <http://www.xperthr.co.uk/how-to/how-to-communicate-with-employees-on-pay-and-benefits/152936/> [Accessed: 16 August 2016]

Towers Watson Willis (2013), *Job levelling solutions, Global Grading System and Career Map*, Towers Watson Willis

WorldatWork (2015), *Job evaluation and market pricing practices*, World at Work

XpertHR (2012), *Using market-pay comparisons: the 2012 XpertHR survey*, XpertHR

XpertHR (2013), *Job evaluation: 2013 XpertHR survey*, XpertHR