ForcesWatch

ARMY RECRUITMENT:
COMPARATIVE COST-EFFECTIVENESS
OF RECRUITING FROM AGE 16 VERSUS AGE 18

September 2014

SUMMARY

A. The Ministry of Defence (‘MoD’) had completed its cost-benefit analysis into the recruitment of minors into the armed forces by June 2014 but as of September 2014 has yet to publish it.

B. However, the MoD has disclosed separately that in the financial year 2013-14, the per-capita cost of Phase 1 (initial) training for each recruit who enlisted aged between 16 and 17.5 and completed training (at the Army Foundation College in Harrogate) was £68,751. This figure is between three and four times as high as the per-capita cost of Phase 1 training at the adult training establishments in Catterick and Pirbright.¹

C. In order for recruitment of minors to be cost-effective on this basis, their army careers after training would have to be four times as long as those who enlist as adults, but they are only about one third longer on average.²

D. The marked cost difference is due mainly to the relatively high drop-out rates among those who enlist as minors (36% of minors vs. 25% of adults between 2010-11 and 2012-13)³ and also the much longer Phase 1 training (12 months for minors vs. 3 months for adults).

E. Our own cost-benefit analysis, shown below, indicates that in 2013-14, it cost the taxpayer approximately £50 million more for the army to recruit from age 16 than it would had all enlistees been aged 18 or above. In addition, the army could have recruited 211 fewer people overall, due to the lower drop-out rate among adult recruits. This analysis factors in costs of recruitment and Phase 1 training, as well as the differential drop-out rates and average career length of minors and adults enlisting in the army. (Cost of adult training is based on training at the Infantry Training Centre in Catterick (‘ITC Catterick’) alone; costs of training adults at Pirbright are slightly higher than at Catterick but still represent much better value for money than training at Harrogate.)

F. Whether the Army Foundation College at Harrogate (‘AFC Harrogate’) is considered a training establishment or an education college, it is a highly costly means of recruiting new soldiers and its contribution to their educational attainment compares poorly with opportunities available in the civilian life. By joining the army, these young people, if they underachieved at secondary school, miss out on the opportunity to re-take their GCSEs. At the same time, the policy diverts resources from the recruitment of adults, which is a more cost-effective age group to target.

G. The cost-ineffectiveness of the policy adds to widespread concerns about the ethics of recruiting and training from age 16. Britain’s policy – unique in Europe and very rare worldwide – has been criticised at the United Nations, in parliamentary committees, and by human rights groups, churches, and unions. An ICM poll in 2013 found that 70% of British adults who answered a free question about the appropriate minimum age of recruitment into the army specified age 18 or above.⁴ Only one in five thought it should be 16 or less.

H. We believe the case to cease recruiting from age 16 is now overwhelming. We urge a full, independent review of the policy, with a view to phasing out the recruitment of minors as an unnecessary, cost-ineffective, and fundamentally unethical practice.
1. BACKGROUND

1.1. Following concerns raised by the House of Commons Defence Committee about the cost-effectiveness of recruiting minors (those under the age of 18) into the army, in October 2013 the MoD agreed to carry out a cost-benefit analysis of the policy and tasked the army with the project.  

1.2. The MoD agreed to publish the findings in early 2014, but to date has not yet done so, although answers to Parliamentary Questions (PQs) show that the army had completed the work between 29 January and 16 June 2014.  

2. PER CAPITA COSTS OF PHASE 1 TRAINING AT JUNIOR AND ADULT TRAINING ESTABLISHMENTS

2.1. Despite the absence of a report to date, on 23 July 2014 the MoD disclosed that the per-capita cost for Phase 1 (initial) training of soldiers who enlist youngest (between 16 and 17.5 years of age) is very high, at £68,751 in 2013-14. Normally, all recruits in this age group are trained at AFC Harrogate. This figure is approximately four times that for Phase 1 training for recruits who enlist aged 17.5 years and above at ITC Catterick (£16,853), and more than three times that at the Army Training Centre in Pirbright (‘ATC Pirbright’) (£20,253). (These figures include salaries but exclude costs of marketing, recruitment and Phase 2 (trade) training.)

2.2. The substantially higher cost of training Junior Soldiers is mostly due to two factors: a) the relatively high drop-out rates among Junior Soldiers when compared with adult recruits (35.9% vs. 25.0%); and b) the longer duration of their Phase 1 training (12 months vs. 3 months).

3. INFLUENCE OF AVERAGE CAREER LENGTH AND DROP-OUT RATES

3.1. The MoD has sought to justify the extra expense of recruiting from age 16 by claiming that ‘the greater length of service of Junior Entry personnel results in the Army having to recruit and train fewer personnel’, but this is not true. On a pound-for-pound basis, in order for AFC Harrogate to represent value for money, Junior Entry soldiers trained there would have to remain in the army four times as long as those trained at ITC Catterick and three times as long as those trained at ATC Pirbright. In fact, the average career length of infantry recruits who enlist as minors is only one third (35%) longer than that of adult infantry recruits. The difference in career length is broadly similar in the other main army corps.

3.2. In any case, the marginally longer average career length among younger recruits who successfully complete training is effectively cancelled out by their higher drop-out rate during training (see 2.2, above).

4. EDUCATIONAL VALUE OF TRAINING FOR JUNIOR SOLDIERS

4.1. The MoD has further sought to defend the current policy by pointing ‘to highly valuable vocational training opportunities which result in some 85% leaving initial training with Level 2 qualifications in literacy and numeracy’. Anecdotally, some recruits prefer the teaching during army training than their experience of school, but these are short-duration, low-grade qualifications that compare poorly with GCSEs. The Department for Education has affirmed that the failure of the ‘most vulnerable’ young people to achieve ‘critical’ GCSE level qualifications ‘harms their prospects for progressing in education or training and finding a job’. GCSEs are not in the curriculum for army trainees and only very rarely attained by trained soldiers. As such, AFC Harrogate represents a highly costly way to ensure that a relatively small number of young people from disadvantaged backgrounds make only marginal improvements to their educational attainment. By joining the army so young, recruits miss out on the stronger education and training offer available in the civilian sector.

5. COST-BENEFIT ANALYSIS: FINDINGS

5.1. The basic analysis outlined above shows that AFC Harrogate, which cost £62 million to run last year, is an extremely expensive way either to recruit new soldiers or to support the education of young people.

5.2. In addition, we have conducted our own cost-benefit analysis of recruiting from age 16 versus age 18, factoring in the costs of training, trainee drop-out rates, and average career length, based on soldiers joining the trained strength in FY 2013-14.
5.3. Our findings are that the taxpayer would save approximately £50 million per annum if the minimum age of recruitment were raised to 18; it would also result in the army needing to find about 211 fewer new recruits annually, based on current numbers joining the trained strength.

6. **THE CALCULATIONS**

6.1. **Training routes according to age at enlistment.**

6.1.1. Recruits aged between 16 years and 17 years, 5 months are trained at AFC Harrogate to the end of Phase 1 (basic training), after which they transfer to another training establishment for their Phase 2 (trade training). If they complete Phase 2 they are deemed to have joined the trained strength, although they cannot be deployed to war zones or on peace-keeping operations until the age of 18. The duration of this training route is approximately one year and three months (based on infantry recruits).

6.1.2. All recruits older than 17 years, 5 months at enlistment join adult training establishments: normally ATC Pirbright or ITC Catterick. The duration of this training route, at approximately six months for infantry recruits, is much shorter than that for their younger counterparts.

6.2. **Methodology.**

6.2.1. Our calculation is based on the per-capita cost of recruitment and training to the end of Phase 1 for each recruit who proceeds to the trained strength having started training at AFC Harrogate versus ITC Catterick. Thus, cost-effectiveness is based on how many recruits complete training, rather than how many enlist. The cost of Phase 2 training has been excluded because it varies widely by role but not by age at enlistment.

6.2.2. We then adjust this per-capita figure according to the average post-training career length of soldiers who join the trained strength. We base this adjustment on the known average career lengths in the infantry for those who enlisted under and over the age of 18. (Enlistees in other army corps have proportionally similar career lengths according to age at enlistment.) This produces a per-capita recruitment and Phase 1 training cost for each recruit who progresses to the trained strength, adjusted for an average career length of 10 years, allowing a like-for-like comparison of the cost-effectiveness of recruiting minors versus adults.

6.2.3. We then multiply this adjusted per-capita figure by the number of recruits joining the trained strength in order to produce the full cost of training the cohort for a nominal ten years of army service.

6.2.4. We then indicate the financial saving that would have accrued in the same year, had all recruits been enlisted as adults and trained through the ITC (Catterick) route. We are unable to do a similar calculation for ATC Pirbright due to the limited available data but the difference between the cost of Phase 1 training in each institution is small and would have little effect on the result.

6.2.5. Finally, we use the same calculations to show how many fewer recruits the army would have to find each year if it only recruited adults, due to the lower drop-out rate in this age group.
7. SUMMARY CALCULATIONS.

Our summary calculations are shown in the table below. The full calculations, shown with sources, are set out in full in the appendix.

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<table>
<thead>
<tr>
<th>2013-14</th>
<th>Recruitment and training costings by age at enlistment</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Entry via ITC Catterick vs. AFC Harrogate, adjusted for drop-out rates and average career length)</td>
<td></td>
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**Note:** letter references in right-hand column refer to figures in the main calculation - see appendix

### ITC CATTERICK ROUTE (for recruits aged 17.5 and above at enlistment)

<table>
<thead>
<tr>
<th>Intake</th>
<th>2,810</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less dropped out</td>
<td>680 (24.2%)</td>
<td>D</td>
</tr>
<tr>
<td>Number entering trained strength</td>
<td>2,130</td>
<td>E</td>
</tr>
</tbody>
</table>

- Per-capita cost per successful trainee (recruitment, selection, Phase 1 training): £35,158 | J |
- Adjusted per-capita cost for nominal 10-year career post-training: £48,493 | M |
- (Post-training career length for those who complete infantry training and were over 18 at enlistment): 7 years, 3 months | L |

### AFC HARROGATE ROUTE (for recruits aged 16-17.5 at enlistment)

<table>
<thead>
<tr>
<th>Intake</th>
<th>1,370</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less dropped out</td>
<td>492 (35.9%)</td>
<td>Q</td>
</tr>
<tr>
<td>Number entering trained strength</td>
<td>878</td>
<td>T</td>
</tr>
</tbody>
</table>

- Per-capita cost per successful trainee (recruitment, selection, Phase 1 training): £90,397 | X |
- Adjusted per-capita cost for nominal 10-year career post-training: £92,715 | AA |
- (Post-training career length for those who complete infantry training and were under 18 at enlistment): 9 years, 9 months | Z |

### EXPECTED SAVING FROM RAISING MINIMUM AGE OF RECRUITMENT TO 18 (estimate based on ITC entry route)

| No. recruits expected to enter trained strength via AFC route in 2014-15 | 878 | CC |
| Current proportion of ITC starters at Phase 1 entering trained strength | 75.8% | DD |
| Adult recruitment required to achieve same number entering trained strength, allowing for drop-outs | 1,159 | EE |

- Cost of recruitment, selection and training for 1,159 adult recruits | £30,874,330 | HH |
- Current cost of same outcome for juniors via AFC route | £81,419,298 | II |

Financial saving, accounting for drop-out rates and career length | £50,544,968 | JJ |
Saving in intake (no. of trainees not required) | 211 | KK |

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8. CONCLUSION

8.1. The MoD has continued to claim that enlisting from ages 16 and 17 represents good value for money to the taxpayer, but its own figures have shown that for several years the opposite has been true. Our own analysis, based on those figures, underlines this conclusion. The recruitment of minors into the British armed forces is a financially unsound means of both meeting the trained strength requirement and of providing education to young people.

8.2. Britain is the only country in the European Union and one of fewer than 20 worldwide to recruit from age 16. The policy has been criticised by the United Nations Committee on the Rights of the Child, the House of Commons and House of Lords Joint Committee on Human Rights, the House of Commons Defence Committee, senior Members of Parliament in the main parties and in both Houses, Amnesty International, UNICEF UK, Children in Scotland, the Children’s Rights Alliance (England), the Church of Scotland, the Bishops of the Church of Wales, and the largest teaching union, the National Union of Teachers.

8.3. We have also brought evidence to light showing the added mental health risk of recruiting from age 16, the elevated long-term risk of death and injury in this age group due to over-representation in infantry roles, and the higher rate
of discharge due to injury during training on account of the undeveloped musculoskeletal system of minors when compared with adults.  

8.4. An ICM poll in 2013 found that 70% of British adults who answered a free question about the appropriate minimum age of recruitment into the army specified age 18 or above. Only one in five thought it should be 16 or less.

8.5. Currently, 27.5% of recruits to the army are aged under 18 at enlistment. This would appear to indicate the army’s dependence on recruiting minors, but the proportion drops markedly once it is adjusted for the high drop-out rate in this age group. For example, of infantry trainees who joined the trained strength in 2013-14, only 13% had enlisted as Junior Soldiers (aged 16–17.5). These would all have progressed through the expensive AFC Harrogate route. This low rate is typical of the last five years.

8.6. The recruiting policies of other countries provide further evidence that recruiting from age 16 is operationally unnecessary. For example, most EU states now enlist from age 18 and all field armed forces of comparable size to the UK’s as a proportion of their population.

8.7. The case to end the recruitment of minors into the British armed forces is now overwhelming. We urge the government to change the policy at the earliest opportunity.

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Child Soldiers International and ForcesWatch, September 2014.
### Recruitment and training costings for 2013-14: Entry via ITC Catterick vs. AFC Harrogate, adjusted for drop-out rates and average career length

#### Entry at ITC Catterick

| A | Phase 1 and 2 | £33,706 | Hansard: HC Deb, 2 September 2014, c214W |
| B | Phase 1 only (calculated as 1/2 of Phase 1 and 2) | £16,853 | A / 2 |
| C | Intake for Phase 1 | 2,810 | D / E |
| D | Dropped out before completing Phase 2 and joining trained strength | 680 | Hansard: HC Deb, 23 June 2014, c99W (See note) |
| E | Number entering trained strength | 2,130 | Hansard: HC Deb, 23 June 2014, c88W (See note) |
| F | Cost of training cohort at Phase 1 | £35,896,890 | B x E (See note) |

#### Recruitment and selection costs

| G | Per person enlisting | £13,875 | Hansard: HC Deb, 20 May 2013, c491W-492W |
| H | Cohort (full intake) | £38,988,750 | C x G (See note) |
| I | Derived cost per person progressing to trained strength | £18,305 | H / E |

#### Combined recruitment and Phase 1 training costs

| J | Per person progressing to trained strength | £35,158 | B + I |
| K | Cohort (i.e. total cost) | £74,885,640 | E x J |

L Post-training career length for those who complete infantry training and were over 18-7 years, 3 months | Hansard: HC Deb, 25 June 2014, c223W (See note) |

M | Adjusted cost for nominal 10-year career post-training |
| N | Per person | £48,493 | J / L x 10 |
| | Cohort | £103,290,538 | E x M |

#### Entry at AFC Harrogate

| O | Per-capita cost of Phase 1 training for recruits progressing to trained strength | £68,751 | Hansard: HC Deb, 2 September 2014, c214W |
| P | Intake for Phase 1, starting in 2012-13 for expected completion of Phase 1 in 2013-14 | 1,370 | Hansard: HC Deb, 23 June 2014, c92W |
| Q | Drop-outs before completing Phase 2 | 492 | P x 36.2% (Estimated - see note) |
| R | Drop-outs before completing Phase 1 | 260 | Hansard: HC Deb, 23 June 2014, c92W |
| S | Expected drop-outs after completing Phase 1 and before completing Phase 2 | 232 | Q - R |
| T | Expected progression to trained strength | 878 | P - Q |

#### Recruitment and selection costs

| U | Per person enlisting | £13,875 | Hansard: HC Deb, 20 May 2013, c491W-492W |
| V | Cohort (full intake) | £19,008,750 | P x U |
| W | Derived cost per person progressing to trained strength | £21,646 | V / T |

#### Combined recruitment and Phase 1 training costs

| X | Per person progressing to trained strength | £90,397 | O + W |
| Y | Cohort (i.e. total cost) | £79,383,816 | T x X |

Z Post-training career length for those who complete training - ITC - based on infantry | Hansard: HC Deb, 25 June 2014, c223W (See note) |

M | Adjusted cost for nominal 10-year career post-training |
| N | Per person | £92,715 | X / Z x 10 |
| | Cohort | £81,419,298 | T x AA |

#### Expected financial saving from replacing recruitment of 16-17.5 year olds with recruitment of adults only (based on ITC entry route)

| CC | No. recruits expected to enter trained strength via AFC route in 2014-15 | 878 |
| DD | Current proportion of ITC starters at Phase 1 entering trained strength | 75.8% |
| EE | Adult recruitment requirement to achieve same number entering trained strength | 1,159 |
| FF | Cost of recruitment and selection | £16,074,531 | U x EE |
| GG | Cost of Phase 1 training | £14,799,799 | B x CC (See note) |
| HH | Total hypothetical cost of recruitment, selection and Phase 1 training | £30,874,330 | FF + GG |
| II | Current cost of same outcome via AFC route | £81,419,298 | i.e. BB |
| JJ | Financial saving, accounting for drop-out rates and career length | £50,544,968 | II - HH |
| KK | Saving in intake (no. of trainees not required) | 211 |

#### Notes

| D | Based on 2013-14 drop-out figures |
| E | Based on 2013-14 completion figures i.e. Phase 2 completions at ITC (2,450) less those who had started at AFC (320). |
| F | Phase 2 completions x Per-capita Phase 1 training cost (ITC starters only). |
| H | Intake x per-capita recruitment cost. |
| L | Career length 7 years 9 months less duration of training 6 months. |
| Q | Estimated based on average drop-out rate during last three financial years for which data are available (2010-11 to 2012-13) for those enlisted under age of 18: 35.9%. |
| Z | Career length 11 years less length of training 1 year 3 months |
| CC | Based on current number of AFC starters expected to complete Phase 2. |
| GG | Based on current per capita cost of recruits at ITC entering trained strength. |
ABOUT FORCESWATCH AND CHILD SOLDIERS INTERNATIONAL

Child Soldiers International is an international human rights research and advocacy organisation. We seek to end the military recruitment and the use in hostilities, in any capacity, of any person under the age of 18 by state armed forces or non-state armed groups. We advocate for the release of unlawfully recruited children, promote their successful reintegration into civilian life, and call for accountability for those who unlawfully recruit or use them.

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ForcesWatch scrutinises the ethical basis of the recruitment of young people into the British armed forces. We carry out and publish research, advocate changes to policy, raise public awareness of the issues and challenge the armed forces on their recruitment practices, especially those aimed at the youngest and most disadvantaged groups.

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NOTE

This report may be copied and distributed freely after the embargo date.

Clarifications and corrections from interested parties are welcome.

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ENDNOTES AND REFERENCES

1 Hansard: HC Deb, 2 September 2014, c214W. Figure for Phase 1 training at ITC Catterick derived by dividing by two the combined cost of Phase 1 and 2 training.

2 The average career length of infantry recruits who enlist under the age of 18 is exactly 11 years, of which the first year and three months is spent in training (i.e. 9 years, 9 months are spent as part of the trained strength). For those who enlist over the age of 18, average career duration is 7 years, 9 months, including six months’ training (i.e. 7 years, 3 months in the trained strength). Therefore, the average post-training career length of an infantry recruit who enlists under the age of 18 and successfully completes training is approximately one third (35%) longer than for adult recruits. The difference is broadly similar in other army corps. Hansard: HC Deb, 25 June 2014, c223W.


4 ICM interviewed a random sample of 2,018 adults aged 18+ in Great Britain online between 28 March and 1 April 2013. Surveys were conducted across the country and the results were weighted to the profile of all adults. (ICM is a member of the British Polling Council and abides by its rules.) All adults were asked: ‘In your opinion, what should be the minimum age to join the British army? (This is regardless of whatever you believe the minimum age is at the moment)’. 1,792 respondents expressed a view. Of these, 1,249 (69.7%) responded with ages from 18 upwards; 185 (10.3%) responded with ‘17’ and 358 (20.0%) responded with ages up to 16. See http://child-soldiers.org/research_report_reader.php?id=653
4 Hansard: HC Deb, 29 January 2014, c596W; Hansard: HC Deb, 16 June 2014, c360W-361W.
5 Hansard: HC Deb, 2 September 2014, c214W.
6 Figure for Phase 1 training at ITC Catterick derived by dividing by two the combined cost of Phase 1 and 2 training. Hansard: HC Deb, 2 September 2014, c214W.
7 See footnote 3.
8 Hansard: HC Deb, 2 September 2014, c214W.
9 See footnote 2.
10 Hansard: HC Deb, 2 September 2014, c214W.
11 See footnote 2.
12 Hansard: HC Deb, 2 September 2014, c214W.
14 In 2013, only 20 trained soldiers of a total of approximately 85,000 gained a GCSE in English and the same number gained a GCSE in maths. Hansard: HC Deb, 25 November 2013, c35W.
15 Less than 1,000 trainees per year pass out from AFC Harrogate.
16 Hansard: HC Deb, 23 June 2014, c88W-c90W.
18 In 2008 the UN Committee on the Rights of the Child called upon the UK to review the policy of recruiting under-18s into the armed forces and expressed concern that ‘[t]he active recruitment policy may lead to the possibility of targeting those children who come from vulnerable groups’. UN Committee on the Rights of the Child, ‘Consideration of Reports Submitted by States Parties Under Article 8 of the Optional Protocol to the Convention on the Rights of the Child on the Involvement of Children in Armed Conflict – Concluding Observations: United Kingdom (CRC/C/OPAC/GBR/CO/1)’, [Online], 2008. Cited 10 September 2013. Available from: http://www2.ochhr.org/english/bodies/crc/docs/AdvanceVersions/CRC.C.OPAC.GBR.CO.1.pdf, p.3.
30 British Army (2013), ‘Initial Training Group Policy Document: Care for the Under-18s’, 3 June 2013, information obtained under the Freedom of Information Act. The document states: ‘18. Physical Fitness and Performance. Recent data have demonstrated that both male and female JE [Junior Entry] Recruits are twice as likely to be medically discharged with training-induced injuries compared to SE [Standard Entry] Recruits. Whilst this may be partly related to their skeletal and muscular immaturity ..., it may also be related to their physical fitness and capacity for physical performance, which is still developing.’ p. 5.
31 ICMI interviewed a random sample of 2,018 adults aged 18+ in Great Britain online between 28 March and 1 April 2013. Surveys were conducted across the country and the results were weighted to the profile of all adults. (ICM is a member of the British Polling Council and abides by its rules.) All adults were asked: ‘In your opinion, what should be the minimum age to join the British army? (This is regardless of whatever you believe the minimum age is at the moment)’ 1,792 respondents expressed a view. Of these, 1,249 (69.7%) responded with ages from 18 upwards; 185 (10.3%) responded with ‘17’ and 358 (20.0%) responded with ages up to 16. See http://child-soldiers.org/research_report_reader.php?id=653
32 The army recruited 6,440 trainee soldiers in 2013-14, of whom 1,770 (27.5%) were aged 16 or 17 at the point of enlistment. Ministry of Defence (2014), ‘UK Armed Forces Annual Personnel Report: 1 April 2014 [Table 7]’, (London: Ministry of Defence).
33 In 2013-14, 2,450 trainees completed Phase 2 infantry training at ITC Catterick and joined the trained strength, of whom 320 (13%) had started at AFC (Harrogate). Similar figures for ATC Pirbright are not available but are likely to be proportionally similar. Hansard: HC Deb, 23 June 2013, c88W.
34 Ibid.