

Defence Employment 1993-94

Research Paper 95/99

13 October 1995



This paper updates research paper 94/103 and brings together the latest available national and regional statistics on defence service and civilian manpower and defence industry employment. Though there are very few statistics on regional defence employment, sections 5 and 6 of this paper attempt to estimate regional defence employment and defence dependency. In addition, a further estimate of defence employment by county is made in section 7.

Readers will also wish to consult Library Research Paper 95/98 *Defence Statistics 1995* which sets out some statistics on defence expenditure and armed forces.

Bryn Morgan
Social & General Statistics Section

House of Commons Library

Library Research Papers are compiled for the benefit of Members of Parliament and their personal staff. Authors are available to discuss the contents of these papers with Members and their staff but cannot advise members of the general public.

CONTENTS

	Page
1 Defence manpower	5
2 Defence employment - methodology	5
3 Defence employment - MoD national estimates	9
4 Defence employment - MoD regional estimates	11
5 An estimate of regional defence employment	13
6 Summary: regional employment	15
7 Estimating defence employment by county	18

1 Defence Manpower

The strength of the UK Regular Forces in April 1995 was around 240,700. However, some 48,600 of these service personnel were based outside the United Kingdom, and so only 192,100 regular servicemen are UK-based. The Ulster Defence Regiment (UDR - now known as the Royal Irish Regiment) are not included as regular forces in Ministry of Defence figures. However, at 1 April 1995 there were 2,998 full-time troops in the RIR. Table 1 looks at the deployment of UK-based Regular Forces and Ministry of Defence civilian manpower within the regions of the United Kingdom over the last decade.

In mid-1994, 37% of the UK-based service personnel were located in the South East, and 21% were located in the South West. These two regions account for the majority of UK-based servicemen with the next largest region in terms of service deployment being Scotland with around 10% of the UK-based service manpower.

In terms of civilian manpower, the South East is again the most prominent region with 40% of the UK-based civilians in 1994. The South West is second with 22% and Scotland is again third with 10% of the UK-based civilians.

The number of service personnel and civilian personnel deployed in the United Kingdom has declined consistently over the past decade, with further cuts in UK armed forces and Ministry of Defence civilians planned by the mid-1990s under *Options For Change*.

2 Defence Employment - Methodology

Whilst Ministry of Defence figures are available for the deployment of UK regular forces by region, there are no comprehensive regional figures available for defence-related employment. This paper will review what regional figures exist, and attempt to estimate the level of defence-related employment in the regions.

An important issue among defence economists and other interested parties has been the effect of defence spending on regional and local economies. In 1986, Ministry of Defence statisticians decided to investigate the possibility of producing regional estimates of defence spending and defence employment.

2.1 National Estimates

The existing method¹ devised to produce *national* estimates requires the combination of two elements. First, a breakdown of MoD expenditure with UK industry by industrial sector (using the Standard Industrial Classification (SIC)); and, second, a measure of sales per employee for each of the industries where defence is significantly large. Dividing the first by the second gives an estimate of those employed *directly on defence contracts*.

Of course work is also generated for subcontractors and others who supply the main contractors. This *indirect* employment is estimated using the industry-by-industry input-output table (produced by the Central Statistical Office) which shows the extent to which the output of each industry depends on inputs from supplying industries. The matrix is used to trace the production chain back to raw materials or imports, and the indirect employment over the whole chain is estimated by using figures of sales per employee at each stage.

Another sort of indirect employment, that generated by the additional consumer spending which arises from the defence jobs, is not included in the estimates. One can therefore draw a distinction between defence-related employment and employment dependent on defence expenditure (which includes the latter indirect employment).

The approach described above is used to produce three different employment estimates: one for equipment spending, one for non-equipment spending, and one for UK industry's exports of defence equipment. For equipment spending, the industrial breakdown of expenditure is principally derived from information held on the Ministry of Defence bill-paying computer at Liverpool, on which every contract paid is coded for industry (using a 3-digit SIC). Data on non-equipment spending (largely fuel, food and clothing) are extracted from the MoD accounting system.

Estimates of defence exports are derived from a combination of HM Customs and Excise tariff headings that can reasonably be allocated wholly to defence, and from estimates produced by the Society of British Aerospace Companies. Because exports of some equipment that has both a civil and a defence use cannot be identified, and some non-equipment projects such as military construction also cannot be identified, estimates of both defence exports and of associated employment *almost certainly fall short of the true total*.

¹ *Statement on the Defence Estimates 1988 Volume II (Cm 344-II)*

2.2 Regional Estimates

The method used by the MoD to provide a regional analysis of defence employment involves using the existing location codes on the MoD's bill-paying computer at Liverpool. This results in an analysis of MoD expenditure on equipment by region and industry, which can then be combined wherever possible with the most appropriate regional data on sales per employee to give estimates of direct employment. Because no regional information is available for non-equipment spending or for exports, no regional employment estimates are made for these two categories.

Table 1

Deployment Of UK Manpower Within The United Kingdom (a)

Region	Service Manpower: 1 July - thousands				Civilian Manpower: 1 July - thousands				%
	1980	1985	1990	1994	1980	1985	1990	1994	
North	1.2	2.3	1.8	1.9	6.3	3.6	3.1	2.6	2.3%
Yorkshire & Humberside	14.6	14.8	15.5	13.2	9.3	6.3	6.0	4.5	3.9%
East Midlands	13.9	12.9	11.9	9.3	9.1	4.7	3.5	3.7	3.2%
East Anglia	13.8	16.3	14.1	12.9	2.8	2.6	2.5	2.7	2.4%
South East	94.8	87.3	79.7	71.5	94.6	66.6	57.5	45.8	40.2%
South West	50.0	48.1	47.2	39.7	50.9	44.0	30.1	24.8	21.8%
West Midlands	9.7	9.4	8.0	5.7	11.0	9.5	8.8	8.2	7.2%
North West	2.0	2.2	1.5	2.3	12.7	3.1	3.0	2.6	2.3%
England	200.0	193.3	179.6	156.5	196.6	140.4	114.6	95.0	83.3%
Scotland	18.1	20.1	19.3	18.4	21.9	18.1	12.3	11.2	9.8%
Wales	6.9	6.3	5.3	4.8	9.5	6.5	5.5	4.9	4.3%
N Ireland (b)	11.9	9.7	11.5	12.3	3.2	2.7	2.7	2.9	2.5%
United Kingdom (c)	238.1	229.6	215.9	192.1	231.2	167.7	135.2	114.0	100.0%

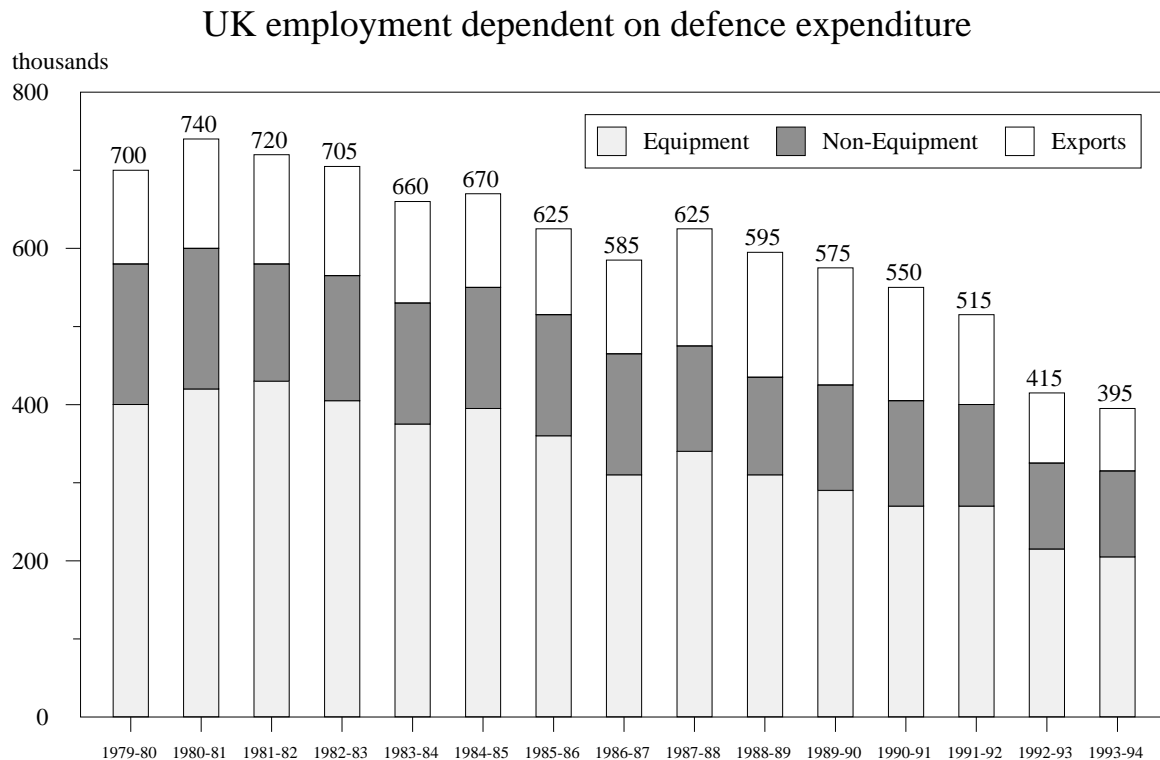
(a) This table identifies the deployment of UK Regular Forces and MOD civilians. It includes Royal Navy and Royal Marines personnel on board ships in home waters. It also includes staff in Royal Ordnance Factories up to 1984 and in the Royal Dockyards up to 1986.

(b) The figures for Northern Ireland include all personnel from other parts of the United Kingdom and from the British Army of the Rhine who are serving on emergency tours of duty, but exclude the Ulster Defence Regiment.

(c) The source from which the national totals are compiled for the Services is different from that used to obtain the United Kingdom element of global deployments. Consequently, the sum of the national figures can differ from the United Kingdom figures.

3 Defence Employment - MoD National Estimates

The latest Ministry of Defence figures available for UK employment dependent on defence expenditure refer to 1993-94. Using the method described in section 2.1, the Ministry of Defence has estimated national figures for employment dependent on MoD equipment expenditure, MoD non-equipment expenditure and exports. Figures for 1979-80 to 1993-94 are given in table 2 and illustrated in the graph below.



It can be seen that apart from a large rise in total defence employment from 1979-80 to 1980-81 and 1986-87 to 1987-88, there has been a downward trend in defence-related employment over the past decade.

Direct employment dependent on equipment expenditure, ie employment at MoD contractors, has fallen by over 52% over the period 1979-80 to 1993-94. One reason given for the general decline in equipment employment may be the increasing productivity within manufacturing industry as a whole, thereby increasing sales per head and hence lowering the estimate of employment according to the MoD methodology (see section 2.1). This falling number of jobs dependent on MoD equipment expenditure has also meant a decrease in the number of indirect jobs dependent on MoD equipment expenditure - ie jobs at defence equipment subcontractors.

Table 2

UK Employment Dependent On Defence Expenditure

	1979-80	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94(a)
thousands														
Equipment Expenditure														
direct	220	240	225	215	225	200	170	175	160	150	140	140	115	105
indirect	180	190	180	160	170	160	140	165	150	140	130	130	110	105
Non-equipment Expenditure														
direct	100	80	90	85	85	85	85	75	70	75	80	75	65	65
indirect	80	70	70	70	70	70	70	60	55	60	60	50	45	45
Total MoD Expenditure														
direct	320	320	315	300	310	285	255	250	230	225	220	215	180	170
indirect	260	260	250	230	240	230	210	225	200	200	185	180	150	145
Exports														
direct	65	75	75	70	65	60	65	75	85	75	75	60	50	40
indirect	55	65	65	60	55	50	55	75	75	75	75	55	45	40
Total Defence Expenditure														
direct	385	395	390	370	375	345	310	325	315	300	295	275	225	210
indirect	315	325	315	290	295	280	255	300	280	275	260	235	190	185
all	700	720	705	660	670	625	565	625	595	575	555	510	415	395

(a) provisional

Source: Statement on the Defence Estimates 1990, 1991 Vol II Table 6.8; Defence Statistics 1995 (HMSO) Table I.10

Employment dependent on MoD non-equipment expenditure has also shown a general decline over the decade, but not to the extent of the fall in equipment-related employment. Hence overall employment supported by MoD expenditure, both direct and indirect, has shown a marked decline over the period 1979-80 to 1993-94.

In contrast, the level of direct and indirect employment supported by defence exports from the UK showed, if anything, a slight upward trend during the 1980s, although this appears to have reversed in the 1990s. As mentioned earlier, because the defence component of exports of some equipment that has both a civil and a defence use cannot be identified, and some non-equipment projects such as military construction also cannot be identified, estimates of both defence exports and of associated employment almost certainly fall short of the true total.

4 Defence Employment - MoD Regional Estimates

As explained in section 2.2, the only regional estimates that the Ministry of Defence provide refer to direct employment dependent on MoD defence equipment expenditure. Table 3 gives a regional breakdown of defence equipment expenditure (net of VAT) and associated direct employment for 1993-94 (the latest year available) and 1985-86 (for comparison).

As can be seen from the table, there are wide differences in regional defence spending. The most important region in terms of defence equipment expenditure and associated direct employment in 1993-94 is the South East. There may be a statistical bias towards the South East arising from cases where bills are paid to head offices in London for work actually done outside the region. However, the MoD do not believe that this “head office effect” is a large one². Wales had the lowest proportion of defence equipment expenditure.

In terms of defence equipment expenditure per head, the MoD spent £240 per head in the North region and £280 per head in the South West. Wales ranked last under this measure with just £20 per head spent on defence equipment in 1993-94.

The comparison of direct employment dependent on MoD equipment expenditure in 1993-94 and 1985-86 shows clearly that in all regions except the West Midlands, direct equipment-related employment has fallen. The South East, which in 1985-86 accounted for 43% of UK direct equipment employment, accounted for just 37% in 1993-94. This contrasts with the North where the share of employment has risen from 7½% to 11% over the same period.

² *Statement on the Defence Estimates 1988 Vol II p62*

Table 3

Defence Expenditure On Equipment & Associated Direct Employment (a) 1993-94 and 1985-86

Region	Expenditure On Equipment 1993-94 (b)		Estimated Employment 1993-94 (c)		Estimated Employment 1985-86 (c)	
	£ million	%	thousands	%	thousands	%
North	750	10.0	11	11.0	15	7.5
Yorkshire & Humberside	100	1.5	1	1.0	4	2.0
East Midlands	200	2.5	3	3.0	8	4.0
East Anglia	100	1.5	2	1.5	4	2.0
South East	2,700	36.5	39	37.0	84	43.0
South West	1,350	18.5	18	17.5	22	11.0
West Midlands	550	7.5	7	7.0	7	3.5
North West	900	12.0	12	11.5	23	11.5
England	6,650	90.0	93	89.5	167	85.0
Scotland	550	7.5	8	8.0	18	9.0
Wales	50	1.0	1	1.0	3	1.5
N Ireland	100	1.5	1	1.0	8	4.0
United Kingdom	7,350	100.0	105	100.0	200	100.0

(a) All figures are rounded.

(b) Expenditure on equipment is shown net of VAT.

(c) The employment estimates are of DIRECT employment only, i.e. of those working for contractors supplying equipment to the MOD. Employment with suppliers to these contractors is not included.

Source: Defence Statistics 1995 (HMSO) Table 1.9; OPCS Population Trends Autumn 1994

The regional employment figures shown in table 3 refer only to direct employment dependent on MoD defence equipment expenditure. Nationally, however, this direct equipment-related employment accounted for just over one quarter of total defence-related employment in the UK in 1993-94. It is therefore unsatisfactory to use the existing regional figures on direct equipment-related employment when discussing the wider issue of the regional economic impact of defence expenditure. The following section attempts to estimate, albeit crudely, the total level of defence-related employment in the regions.

5 An Estimate Of Regional Defence Employment

The starting point for this estimation is the national estimates in table 2. The regional breakdown of the first set of figures (direct employment dependent on equipment expenditure) have already been given in table 3.

For *indirect* employment dependent on equipment expenditure, it is assumed that the regional distribution of the 105,000 employees in 1993-94 is exactly the same as for the direct employment supported by equipment expenditure - ie the ratio of direct to indirect employment dependent on equipment expenditure is assumed to be the same for all regions. Table 3 sets out the regional proportions which are used.

Non-equipment expenditure (largely food, fuel and clothing) is assumed to be regionally distributed according to the relative size of the UK regular forces deployed in each region, the idea being that the more service personnel in any one region, the more food, clothing and fuel expenditure is likely to be needed. However, there may in reality be a slight bias to London (which would not be taken account of in this regional assumption) because of the construction/works/fuel/energy costs associated particularly with London-based civilian staff. The latest regional distribution of the UK regular forces for July 1994 is given in table 1, and this is used in the employment estimates for 1993-94. This regional distribution is applied to the national figures for both direct and indirect non-equipment employment combined.

There is a problem when attempting to analyse export-related defence employment by region because there is no method of determining in which region the employment is based. Though one might assume that the regional pattern of export-related employment might reflect the pattern of equipment-related employment, this is not in fact the case. By far the largest category of defence exports is military aerospace products, the production of which is concentrated in only a few locations: Bristol, Preston (British Aerospace); Yeovil (Westland); Gloucestershire (Dowty Aerospace) etc.

Table 4

An Estimate Of Regional Defence Employment 1993-94 (a)

Region	Direct Equipment Employment		Indirect Equipment Employment		Total Non-equipment Employment (c)		Export-Related Employment		All Defence Industrial Employment	
	%	thousands	(b) %	thousands	(d) %	thousands	(e) %	thousands	%	thousands
North	11.0%	11	11.0%	12	1.0%	1	0.2%	0	6.1%	24
Yorkshire & Humberside	1.0%	1	1.0%	1	6.9%	8	0.5%	0	2.5%	10
East Midlands	3.0%	3	3.0%	3	4.8%	5	0.7%	1	3.0%	12
East Anglia	1.5%	2	1.5%	2	6.7%	7	1.9%	2	3.3%	13
South East	37.0%	39	37.0%	39	37.2%	41	40.7%	33	38.5%	152
South West	17.5%	18	17.5%	18	20.7%	23	26.8%	21	20.3%	80
West Midlands	7.0%	7	7.0%	7	3.0%	3	5.5%	4	5.3%	21
North West	11.5%	12	11.5%	12	1.2%	1	16.9%	14	9.9%	39
England	89.5%	93	89.5%	94	81.5%	90	93.2%	75	89.1%	352
Scotland	8.0%	8	8.0%	8	9.6%	11	2.8%	2	7.3%	29
Wales	1.0%	1	1.0%	1	2.5%	3	0.6%	1	1.5%	6
N Ireland	1.0%	1	1.0%	1	6.4%	7	3.3%	3	3.0%	12
United Kingdom	100.0%	105	100.0%	105	100.0%	110	100.0%	80	100.0%	395

(a) See section 5 for methodology.

(b) Assumes indirect equipment employment has the same regional pattern as direct equipment employment.

(c) Includes both direct and indirect non-equipment employment.

(d) Regional pattern assumed to be the same as the regional distribution of UK-based regular forces as at 1 July 1994.

(e) Regional pattern assumed to be the same as MoD regional equipment expenditure in the aerospace sector in 1993-94.

Source: Defence Statistics 1995 (HMISO) Tables 1.9, 1.10, 2.4; MoD

To make some attempt at a regional analysis of defence export-related employment, it is assumed that export employment will follow the pattern of MoD regional equipment expenditure in the aerospace industry. The basis of this assumption is that around three-quarters of *identified* defence exports from the UK in 1993 comprised military aircraft and parts, guided weapons, missiles and parts and optical equipment and training simulators³.

By allocating employment according to MoD expenditure in the aerospace sector, the regions with the most significant aerospace sectors should be identified. However, this assumption is far from perfect: it is not necessarily the case that the export pattern will follow the pattern of MoD expenditure, and not *all* defence exports are in the aerospace sector. It also assumes again that indirect employment follows the same regional pattern as direct employment. These assumptions appear to suggest that the South East accounts for 40% of export-related employment whilst the South West and the North West, where much of Britain's aerospace industry is located, account for just 27% and 17% of export employment respectively. However, as mentioned before, there may be a South East bias because of the “head office” effect (see section 4).

Table 4 thus shows the regional analysis of defence employment dependent on MoD expenditure and exports.

From this approximate analysis, it is suggested that the South East has the largest share of defence employment, with around 152,000 employees out of 395,000 in defence industrial jobs supported by MoD defence expenditure and exports. The South West, with around 80,000 employees, ranks second. Though the South East experiences the largest economic impact in absolute terms of regional defence expenditure, this is not so in relative terms when taking into account the importance of the defence sector in each regional economy. This is addressed in section 6.

6 Summary: regional employment

Of course when assessing the size of the defence sector in terms of employment in each regional economy, one must not forget to include the service and civilian manpower employed and based in each region. Though they may not contribute directly to the gross domestic product of a region, their spending power will serve to create employment and output in the region indirectly.

To summarise the estimates of regional defence employment presented in this paper, table 6 presents the estimates of defence-related industrial employment, MoD civilian employment and UK Regular Forces for each region for 1993-94, together with the proportion of regional employment that the defence sector is estimated to account for. Once again, it must be stressed that these estimates are no more than crude calculations which are highly dependent on the assumptions made in section 5.

³ *Defence Statistics 1994 Table 1.11*

Research Paper 95/99

In terms of the relative importance of the defence sector to the regional economy, one indicator is the proportion of defence employees (defence industry jobs plus MoD civilians) as a proportion of the total number of employees in the region. The South West with defence employees accounting for 6.2% of the total number of employees in 1993-94 is argued to be the most defence-dependent region on this basis. The South East, which had the largest defence-related employment and the largest share of MoD equipment expenditure, ranks second highest with 2.8% of employees in the defence sector.

The picture is changed slightly if one examines total defence-related employment - ie employees (including MoD civilians) *plus* UK-based regular service personnel - as a proportion of the workforce in employment, which is a broader measure of employment. The South West is again the most important region, with 6.9% of the workforce employed in the defence sector, well over twice the UK average. Northern Ireland, even excluding the RIR, has the second highest rate of defence employment with 4.1%. Including the 3,000 full-time Royal Irish Regiment personnel at 1 April 1994, defence-related employment in Northern Ireland would rise from 27,000 to 30,000 implying a slightly higher rate as a proportion of the workforce of 4.6%. The UK average in 1993-94 was 2.8%.

Table 5

Estimated Employment in the Defence Sector 1993-94

Region	Industrial Employment	MoD Civilians	Total Defence Employees (b)	As % Of Total Employees (c)	UK-based Regular Forces	Defence-Related Employment (d)	As % Of Workforce In Employment (e)
North	24	2.6	27	2.5%	1.9	29	2.4%
Yorkshire & Humberside	10	4.5	15	0.8%	13.2	28	1.3%
East Midlands	12	3.7	16	1.1%	9.3	25	1.4%
East Anglia	13	2.7	16	2.0%	12.9	29	3.0%
South East	152	45.8	198	2.8%	71.5	270	3.3%
South West	80	24.8	105	6.2%	39.7	145	6.9%
West Midlands	21	8.2	29	1.5%	5.7	35	1.6%
North West	39	2.6	42	1.8%	2.3	44	1.7%
England	352	95.0	447	2.5%	156.5	604	2.8%
Scotland	29	11.2	40	2.1%	18.4	58	2.6%
Wales	6	4.9	11	1.2%	4.8	16	1.4%
N Ireland	12	2.9	15	2.7%	12.3	27	4.1%
United Kingdom	395	114.0	509	2.4%	192.1	701	2.8%

(a) Direct and indirect employment supported by MoD expenditure and exports.

(b) Industrial employment plus MoD civilians.

(c) Total defence employees as a proportion of all employees in employment in March 1994.

(d) Defence employees plus UK-based regular forces.

(e) Total defence-related employment as a proportion of regional workforce in employment (employees plus self-employed plus estimated HM UK-based regular forces plus training programmes) in March 1994.

Source: Defence Statistics 1995 (HMSO); Employment Gazette (DFEE) October 1995; DFEE data on disk

7 Estimating defence employment by county

It is possible, by making similar assumptions, to estimate defence employment by county. Obviously, however, the smaller the disaggregation of the data, the less reliable the data become.

Based on the regional estimates methodology, and using some unpublished data on "defence dependence" that were made available to the European Commission⁴, table 6 sets out some estimates for defence employment by county in 1993-94. Note that employment here *excludes* export-related employment, because there is no sensible way of disaggregating the national estimates to county level. For reasons of brevity, a full description of the methodology is not included in this paper, though this is available on request.

The counties of England and Wales and the regions of Scotland are ranked according to the proportion of the workforce (civilian employees plus armed forces) employed in defence. Note that the definition of "workforce" is different in the county analysis, as it does not include the self-employed or persons on government training programmes.

Wiltshire on this measure has the highest proportion of the workforce employed in defence (12.8%) - much above the UK average of 3.0%. Cumbria ranks fourth overall for defence employment, but has the highest proportion for defence industrial employment.

Of course, estimating county defence employment data from national totals by making various assumptions as to the regional patterns of employment will always be subject to margins of error. However, in the absence of any official local area defence employment estimates, it is the only way of attempting to identify defence-dependent areas of the United Kingdom.

⁴ *The Economic & Social Impact of Reductions in Defence Spending* (European Commission 1992)

Table 6

Defence Related Employment By County in the UK in 1993-94 (excluding export-related employment)

Alphabetical list	Ministry of Defence (a)				Defence Industries (b)				All Defence Related (c)				Rank				
	Services		Civilians		Equipment		Non-equipment		Total		% workforce (d)			Total		% workforce (d)	
Wiltshire	12,717	7,527	20,244	8.4%	3,200	7,200	10,400	4.3%	31,600	12.8%	1						
Fife region	4,297	2,242	6,539	5.6%	5,400	2,400	7,800	6.7%	14,400	12.4%	2						
Hampshire	31,254	18,473	49,727	7.8%	10,100	17,800	27,900	4.3%	74,900	12.1%	3						
Cumbria	240	1,418	1,658	0.9%	18,700	100	18,800	10.0%	22,700	10.9%	4						
Devon	10,266	4,840	15,106	4.1%	9,200	5,800	15,100	4.1%	39,300	8.2%	5						
North Yorkshire	11,244	3,525	14,769	5.3%	0	6,400	6,400	2.3%	22,400	7.6%	6						
Oxfordshire	7,527	2,822	10,149	4.3%	1,000	4,200	5,200	2.2%	15,000	6.5%	7						
Gloucestershire	4,742	1,647	6,389	3.1%	3,600	2,700	6,300	3.0%	11,900	6.1%	8						
Cornwall and Isles of Scilly	3,866	454	4,320	3.0%	1,800	2,200	4,000	2.8%	9,100	5.8%	9						
Dorset	4,235	3,307	7,542	3.4%	3,100	2,400	5,500	2.4%	14,800	5.8%	10						
Essex	3,270	1,166	4,436	0.9%	20,400	1,900	22,300	4.5%	29,800	5.4%	11						
Lincolnshire	5,755	1,059	6,814	3.3%	0	3,300	3,300	1.6%	11,700	4.9%	12						
Somerset	2,902	1,437	4,339	2.6%	2,000	1,600	3,600	2.2%	8,000	4.9%	13						
Cambridgeshire	6,374	1,549	7,923	2.9%	900	3,600	4,500	1.7%	12,900	4.6%	14						
Shropshire	2,128	3,390	5,518	3.6%	200	1,200	1,400	0.9%	6,200	4.5%	15						
Avon	934	5,409	6,343	1.6%	8,600	500	9,200	2.3%	16,300	3.8%	16						
Island Areas	498	264	762	2.7%	0	300	300	1.1%	1,100	3.8%	17						
Lancashire	1,002	428	1,430	0.3%	17,500	600	18,000	3.5%	21,400	3.8%	18						
South Glamorgan	2,819	1,528	4,347	2.4%	200	1,600	1,800	1.0%	6,200	3.4%	19						
Northumberland	1,345	294	1,639	1.8%	600	800	1,400	1.5%	3,000	3.3%	20						
Grampian region	4,979	671	5,650	2.2%	0	2,800	2,800	1.1%	8,200	3.3%	21						
Surrey	6,156	1,037	7,193	1.9%	1,700	3,500	5,200	1.3%	8,700	3.2%	22						
Berkshire	3,243	3,103	6,346	1.9%	2,100	1,800	4,000	1.2%	12,800	3.0%	23						
Norfolk	4,515	843	5,358	1.9%	600	2,600	3,100	1.1%	9,900	3.0%	24						
Gwynedd	1,049	243	1,292	1.7%	100	600	700	0.9%	2,200	2.6%	25						
Tayside region	1,315	582	1,897	1.3%	1,300	700	2,000	1.3%	4,000	2.6%	26						
Isle of Wight	0	1	1	0.0%	1,100	0	1,100	2.7%	1,200	2.6%	27						
Bedfordshire	1,018	1,269	2,287	1.1%	2,300	600	2,900	1.4%	5,900	2.5%	28						
Buckinghamshire	2,841	865	3,706	1.4%	1,200	1,600	2,800	1.1%	7,400	2.5%	29						
Powys	227	406	633	1.6%	200	100	400	1.0%	1,000	2.5%	30						
Kent	4,294	2,151	6,445	1.2%	3,900	2,400	6,300	1.2%	13,700	2.4%	31						
Humburside	994	579	1,573	0.5%	5,000	600	5,600	1.7%	6,800	2.2%	32						
Leicestershire	2,546	1,391	3,937	1.1%	2,400	1,400	3,900	1.1%	8,600	2.1%	33						
Lothian region	2,017	610	2,627	0.8%	3,300	1,100	4,500	1.3%	7,000	2.1%	34						
Strathclyde region	4,649	6,214	10,863	1.3%	4,100	2,600	6,700	0.8%	18,800	2.1%	35						
Clwyd	448	1,327	1,775	1.3%	800	300	1,100	0.8%	2,900	2.0%	36						
Greater London	10,181	14,787	24,968	0.8%	33,600	5,800	39,400	1.2%	64,400	2.0%	37						
Dyfed	183	1,226	1,409	1.4%	300	100	400	0.4%	2,000	1.8%	38						

Table 6

Defence Related Employment By County in the UK in 1993-94 (excluding export-related employment)

Alphabetical list	Ministry of Defence (a)			Defence Industries (b)			All Defence Related (c)		Rank	
	Services	Civilians		Equipment	Non-equipment		Total	% workforce (d)		
		Total	% workforce (d)		Total	% workforce (d)				Total
Hereford and Worcester	1,083	2,570	3,653	0	600	600	0.2%	4,800	1.7%	39
Hertfordshire	1,093	59	1,152	5,000	600	5,600	1.4%	8,000	1.7%	40
Suffolk	1,972	348	2,320	600	1,100	1,800	0.7%	5,000	1.6%	41
Tyne and Wear	211	214	425	6,000	100	6,100	1.4%	7,100	1.5%	42
Highland region	607	133	740	0	300	300	0.4%	1,300	1.3%	43
Warwickshire	953	876	1,829	0	500	500	0.3%	2,400	1.3%	44
West Midlands	221	479	700	12,100	100	12,200	1.1%	15,400	1.2%	45
West Sussex	829	194	1,023	1,200	500	1,700	0.6%	2,900	1.0%	46
Central region	38	431	469	400	0	400	0.4%	1,000	0.9%	47
Staffordshire	1,303	994	2,297	300	700	1,100	0.3%	3,400	0.9%	48
Nottinghamshire	948	1,034	1,982	1,000	500	1,500	0.4%	3,800	0.9%	49
Derbyshire	11	111	122	2,300	0	2,300	0.7%	2,700	0.7%	50
Borders region	1	1	2	200	0	200	0.5%	200	0.6%	51
Merseyside	254	1,070	1,324	1,100	100	1,300	0.3%	2,800	0.5%	52
Cheshire	924	356	1,280	300	500	800	0.2%	2,100	0.5%	53
Cleveland	93	613	706	0	100	100	0.0%	800	0.4%	54
South Yorkshire	866	221	1,087	0	500	500	0.1%	1,700	0.4%	55
Northamptonshire	18	27	45	600	0	600	0.3%	1,100	0.3%	56
Gwent	77	110	187	200	0	200	0.1%	500	0.3%	57
Dumfries and Galloway region	8	87	95	0	0	0	0.0%	100	0.2%	58
East Sussex	20	48	68	400	0	400	0.2%	600	0.2%	59
West Yorkshire	108	141	249	1,300	100	1,300	0.2%	1,700	0.2%	60
Mid Glamorgan	4	4	8	200	0	200	0.1%	200	0.1%	61
Greater Manchester	164	794	958	0	100	100	0.0%	1,100	0.1%	62
West Glamorgan	20	22	42	100	0	100	0.1%	200	0.1%	63
Durham	53	80	133	0	0	0	0.0%	200	0.1%	64
Northern Ireland	12,312	2,940	15,252	6,300	7,000	13,300	2.4%	29,100	5.1%	
United Kingdom	193,636	114,027	307,663	210,000	110,000	340,000	1.6%	647,700	3.0%	

Notes: (a) Ministry of Defence data for 1 July 1994.

(b) Using 1992-93 Ministry of Defence employment data, 1991 estimates of defence employment by NUTS II (EC Commission) and 1991 Census of Employment

(c) Excludes employment dependent on defence exports

(d) Workforce here defined as employees plus HM forces (ie excludes training and self-employed)

Source: Centre for Defence Economics (York University)

1991 Census of Employment

Ministry of Defence Branch AS(M)1; Defence Statistics 1994

Recent papers on related subjects have been:

Defence

Research Paper

95/98	Defence Statistics 1995	13.10.95
95/45	Towards the IGC: Developing a Common Defence Policy	06.04.95
94/101	Front Line First: The Defence Costs Study	13.10.94
94/99	The Extension of the Non-Proliferation Treaty	12.10.94
94/26	Redefining British Foreign and Defence Policy	10.02.94
93/91	Defence Reviews: Past, Present? and Future?	18.10.93