# Port Employment & Accident Rates

#### Statistical Release

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# Port Employment and Accident Rates Survey: 2009/10

This Statistical Release summarises results from a survey of port authorities and port related businesses carried out for DfT by Databuild during 2009/10.

It covers employment directly involved in commercial port operations or in support of port activities in the UK, both on and off port estates, and also other people employed on port estates whose work is not directly related to port activities. The effects of indirect and induced employment elsewhere in the economy as a result of port activities are also considered, as is the incidence of accidents reportable to the HSE.

#### The key findings:

- Approximately 58,100 full time equivalent (fte) employees worked in the UK in jobs directly related to commercial port operations in winter 2009/10. The 95% confidence interval for this estimate was 53,000 – 63,200.
- Of these, around 37,000 were based on the port estate and a further 21,100 were based off the port estate. Those based off port still spent about one third of their time on the port estate.
- A further 12,200 employees worked on port estates in jobs not directly related to port activities. Estimates of employment generated elsewhere in the economy by port activities depend on the choice of multiplying factor used - from 18,000 to 96,000 using factors from other studies reviewed in this study.
- The estimated annual accident rate for all direct on-port employees was 1.1%, or 1,100 per 100,000 fte employees.
- The accident rate among all employees who were "not 100% office based" was around 50% higher than this overall average, while the accident rate for employees "not in the office" was around twice the overall average.

# 1. Port Employment Overview

- The survey estimated that in 2009/10 approximately 58,100 full time equivalent (fte) employees worked in the UK in jobs directly related to commercial port operations. The 95% confidence interval for this estimate was 53,000 63,200.
- Of these, around 37,000 were based on the port estate and a further 21,100 were based off the port estate. Of those based off the port estate, a considerable proportion spent part of their time on port this time was equivalent to around a further 7,000 ftes spent working on port.
- There were also about 12,200 others (ftes) working on port estates in jobs less directly related to port operations, including around 5,000 in partly related jobs (where it is convenient for the business to be located on the port), 700 in indirectly related jobs (businesses supplying general services to the port), and 6,500 in unrelated jobs where the port location is largely coincidental.

**Table 1: Employment Estimates** 

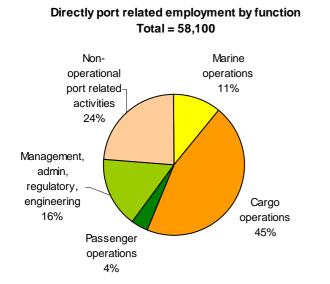
Туре	<b>Employees (fte)</b>	Range <sup>1</sup>
Directly related, on port	37,000	30,500 - 43,500
Indirectly related, on port	700	500 – 1,000
Partially related, on port	5,000	3,700 - 6,300
Unrelated, on port	6,500	2,900 - 10,000
Directly related, off port	21,100	18,800 – 23,400

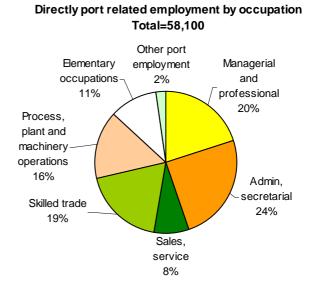
<sup>1. 95%</sup> confidence intervals

• In addition, activity at commercial ports also generates employment elsewhere in the economy, estimates of which depend crucially on the multipliers of port employment selected to represent it. Based on the highest and lowest multipliers that were used in a number of other port studies that were reviewed in this report, estimates of indirect employment (jobs in companies supplying general services to port related businesses, such as catering, cleaning or general maintenance) might range from 9,000 to 65,000 (central estimate 33,000). Estimates of induced employment (jobs generated by the personal spending power of those employed directly in ports) may range from 9,000 to 31,000 (central estimate 22,000).

### 2. Port Employment Further Results

- The first pie chart below shows that 45 per cent of all directly port related employment (both on and off-port) involved cargo operations, 11 per cent marine operations (vessel handling, mooring etc. by shore based staff), 4 per cent passenger operations and 16 per cent management, administration and other specialist services (such as engineering & maintenance, Customs, security etc.). The remaining 24 per cent involved 'non-operational' activities such as forwarding agents, shipping agents, importers/exporters etc.)
- The second pie chart below shows all directly port related employment broken down by occupational group.





- At the time of the survey (winter 2009/10), non-permanent employees accounted for about 7 per cent of all direct on-port employment by businesses. At the quietest time of year this proportion fell to about 4 per cent, while at the busiest time of year it was around 14 per cent. A proportion of these workers were recruited via employment agencies at the time of the survey agency workers accounted for about 4 per cent of direct on port employment, ranging between 3 per cent at the quietest time of year and 9 per cent at the busiest.
- Overall the results of the survey suggest a decline in port related employment since a previous survey in 2004/5. The change cannot be quantified with any precision due to the effects of sampling variation in each of the two surveys, and some methodological differences between them. What can be said is that of 17 major port authorities responding to both surveys, nine reported a decrease in employment, six an increase and one no change but overall a net decrease of 31 per cent. Among other port-related businesses, 24 per cent reported a decrease in employment in the last two years and 13 per cent an increase. A decrease is to be expected since total cargo and passenger traffic handled by UK ports were both 13 per cent lower in 2009 than in 2004, and landings of fish were 15 per cent lower.

#### 3. Port Accidents

- The estimated annual accident rate for direct on-port businesses was 1.1%, or 1,100 per 100,000 fte employees.
- The estimate for other businesses on the port estate (those indirectly, partially or unrelated to port operations) was 0.6%, or 600 per 100,000.
- An approximate estimate for the on-port accident rate for employees of off-port businesses who spend some time on the port was 0.8% or 800 per 100,000 fte (rates calculated in relation to the amount of their time spent on port).

**Table 2: Accident rate estimates** 

	Estimated	Number of	Annual rate	Annual rate per
	number of	employees	as a	100,000
	accidents <sup>1</sup>	(fte)	percentage	employees
Directly port related, on port	421	37,000	1.1	1,100
Other on port	72	12,200	0.6	600
Employees of directly related	57	7,000	0.8	800
businesses based off port, but				
spending time on port <sup>2</sup>				

- 1. Defined as the number of injuries to persons reportable to the Health and Safety Executive under RIDDOR reporting rules. Collected through the survey and grossed up for non-response and so subject to sampling variation.
- 2. Accidents and employee ftes for this group both relate to that part of their time spent on port, to give a comparable estimate of their on port accident rate.
- These estimates include some employees who are mostly or entirely office based, who are less likely to be at risk of an accident than those with more active jobs around the port.
- Therefore the survey results were analysed to explore the accident rates just among employees in more active jobs. This work suggested that among direct on port businesses, the accident rate among all employees who were "not 100% office based" was around 50% higher than the overall average.
- The work further suggested that the accident rate for direct on port employees while "not in the office" was around twice the overall average.
- These results are broadly consistent with those from membership surveys by the port industry's safety body Port Skills and Safety, whose membership mainly consists of businesses involved in cargo handling activities on ports, that is, at the more active end of direct port employment.

## 4. Strengths and weaknesses of the data

This was a voluntary survey with three components. (i) A survey of port authorities at commercial freight, passenger or fishing ports. 161 were approached, representing all ports with significant activity, of which 98 (61%) provided comprehensive data. (ii) A survey of other on port or port related businesses. This was a quota based sample, with 1,398 interviews completed. (iii) A follow up survey of employment agencies supplying the ports sector, intended primarily as a check that agency workers were fully covered in the main survey. 45 companies were interviewed, and it was estimated that around 57 agencies and labour supply companies were supplying workers to port authorities overall. This concluded that agency workers were well covered in the main survey.

The port authority interviews were conducted from November 2009 to March 2010, the business survey interviews from January to February 2010, and the agency follow-up interviews in May/June 2010.

The survey results were weighted up to provide estimates of national totals, using weights based on the number of potential respondents in the population divided by the number of responses collected.

The survey relates to land-based employment and accidents occurring onshore. Employment of seafarers and accidents occurring on board ships are not included.

Further descriptions of the definitions and categories of port employment used in this survey are given in the full report of the survey referred to in the Background Notes below.

Accidents occurring on land in ports are, as for accidents in other sectors, reportable to the Health and Safety Executive, who periodically publish data on accidents in docks. It is not the purpose of this report to supplant the reporting of accidents to HSE or HSE statistics based on these returns – the purpose of collecting accident information in this survey was to relate this information more closely to employment statistics, which are not readily available for the ports sector from regular statistical sources. (Marine accidents, including those occurring in ports, are reportable to the Maritime Accident Investigation Branch of DfT, but are outside the scope of this particular study.)

#### 5. Background notes

- 1. The full report of this study, carried out on behalf of DfT by Databuild, is available on the DfT web site: (http://www.dft.gov.uk/pgr/statistics/datatablespublications/maritime/earates).
- 2. National Statistics are produced to high professional standards set out in the National Statistics Code of Practice. They undergo regular quality assurance reviews to ensure they meet customer needs: (<a href="http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html">http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html</a>). Details of ministers and officials who receive pre-release access to these statistics up to 24 hours before release can be found on the web page referred to in note (1) above.