



**Health & Safety
Executive**

**OFFSHORE TECHNOLOGY
REPORT
OTO 2000 012**

**Offshore Accident Rates
for
April 1996 to March 1998**

Date of Issue February 2000

Health & Safety Executive

This report is made available by the Health and Safety Executive as part of a series of reports of work which has been supported by funds provided by the Executive. Neither the Executive, nor the contractors concerned assume any liability for the reports nor do they necessarily reflect the views or policy of the Executive.

Reports in the OTO series can be obtained
from Research Strategy Unit, Bootle, Merseyside, L20 3DL
Fax: 0151 951 3098

**Offshore Accident Rates
for
April 1996 to March 1998**

Prepared by
John Gould
HSL

SUMMARY

This paper analyses offshore population data from the September 1996 and September 1998 Inland Revenue survey with OSD accident data from April 1996 to March 1998. Accident rates per 100,000 employees are given for eight activities and 10 age ranges and additional analysis by the location of the installation is carried out on the 1997 data. This has allowed the production of an accident rate that, unlike the previous year, does not include the employees on support vessels in the calculation. Whilst the numbers of accidents for the two years are relatively small, several conclusions can be drawn from the data.

- (i) The number of employees recorded by the Inland Revenue survey has dropped by about 15% over the 12 months to September 1997.
- (ii) The number of accidents has increased over the two year period from 363 to 372 resulting in an increase in the accident rate from 1350 to 1620 accidents per 100,000 employees.
- (iii) Analysis of the 1997 data which excludes employees on support vessels has produced an accident rate of 2330 injuries per 100,000 employees. This is a more accurate reflection of the true accident rate. It cannot be used to compare previous rates.
- (iv) Drilling has been identified as the activity with the highest accident rates in 1997. This information should be discussed with industry for them to comment.

CONTENTS

	Page No
1. INTRODUCTION	1
2. POPULATION DATA	1
3. ACCIDENT DATA	2
4. ACCIDENT RATES	2
4.1 Production accident rates	3
4.2 Drilling accident rates	3
4.3 Construction and maintenance accident rates	3
4.4 Deck operation accident rates	3
4.5 Diving, Catering & Management and Transport Accident Rates	3
4.6 Accident rates by sector	3
5. DISCUSSION	4
6. CONCLUSIONS	5

	Tables	Page No
1	Number of employees from 1996 Inland Revenue data	6
2	Number of employees from 1997 Inland Revenue data	7
3	Numbers of accidents April 1997 to March 1998	8
4	Accident rates	9
5	Numbers of employees in each sector 1997	10
6	Numbers of accidents in each sector 1997	10
7	Accident rates by sector 1997	11
8	Accidents rates excluding employees on support vessels	11

	Figures	Page No
1	Population data by age range	12
2	1997 Accident rates	12
3	1997 Accident rate by activity	13
4	1997 Production accident rates by age	13
5	1997 Drilling accidents rates by age	14
6	1997 Maintenance accident rates by age	14
7	1997 Deck operations accident rates by age	15
8	1997 Accident rates by sector	15
9	1997 Production accident rates by sector	16
10	1997 Drilling accident rates by sector	16
11	1997 Maintenance & Construction accident rates by sector	17
12	1997 Deck operations accident rates by sector	18
13	1997 Accident rate for mobile and fixed installations	19

1. INTRODUCTION

Accidents reported to the HSE under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR) on the OIR9b form can give a valuable insight into the circumstances of accidents. Manipulation and alternative presentation of the data could provide a basis on which to develop the best form of action to prevent these accidents. One difficulty often encountered by accident databases is the estimation of the total population from which the data is pertinent. It is clear that a number of accidents from a small population are more significant than the same number of accidents from a large population. In recent years the offshore population has been estimated from Inland Revenue data which gave the total numbers of workers offshore on the last day of September. This data has been used to show annual trends in the offshore accident data.

For the 1996 survey the Inland Revenue supplied data broken down into the age of the employee and their occupation. The 1997 survey provided details of the number of employees for each installation thus allowing analysis by location for fixed installations. The location of the installation has been grouped into three sectors, Southern (below 56°), Central (between 56° and 59°) and Northern (above 59°) based on the installation's latitude. This additional information has allowed a more detailed analysis of the 1997/98 accident data.

2. POPULATION DATA

The 1997 Inland Revenue data contains in its "person" table not only a "principal activity code" 1-8 classifying the occupation but also a text string "principal activity" defining the activity. However there were some problems with this. The text strings did not conveniently fall into a predefined set of "legal" descriptions, and even where a description was identifiable as a member of a predefined set (for example after a spelling correction or replacement by an obvious synonym), the corresponding codes were not always as they should have been.

A computer program was therefore written to go through the person table of the inland revenue database. As read-only input the program was given a table of defined occupation strings with their corresponding codes. When it found an unrecognised occupation string in the Inland Revenue data base it highlighted the closest match in the definition table and invited the user to confirm or correct the entry Inland Revenue data base. In either case one of the predefined set of principal activity strings was entered. This procedure had to be iterated a number of times as it proved necessary to augment the definition table.

On completion the program corrected all the codes with the values given in the definitions table. The program is available for use on future years' data, but is time consuming to use if, as is the case in the 1997 data, there are a large number of different misspellings or otherwise unrecognisable strings. On the other hand it is unlikely that a quicker way could be found. It should also be noted that the 1996 data contained no principal activity entries, just a code. There is therefore no way of knowing how many 1996 entries might be wrong, but it is likely to be a significant fraction if it is no more accurate than the 1997 data.

Tables 1 and 2 summarise the population data supplied by the Inland Revenue. The activity classification system has changed over the two years. In 1996 the operator provided the

classification and failure to do so resulted in the Inland Revenue made their best guess. In 1997 Offshore Safety Division of the HSE and industry agreed which occupations should come under the various activities and this enabled a more consistent coding. Details of the correlation between the occupation and activity are given in the Annex.

The total number is multiplied by a employment factor of 1.9 to take into account offshore employees not offshore at the time of the survey. In this report the Inland Revenue figures have been quoted modified, rounded to the nearest whole number. The Inland Revenue data divides the population into eight activities with the date of birth for each employee. Tables 1 and 2 have grouped the age of the workers into 10 five year age groups and eight activities. The under 20 and over 60s make up a small proportion, 295 (~1.8%) in 1996 and 504 (~2.1%) in 1997, of the total population and there are insufficient numbers in these groups for meaningful statistical analysis. The number of employees with no date of birth or a mis-coded date rose from 59 in 1996 to 251 but still remains a very small proportion (~1%). The population data by age range for the two years is shown in Figure 1. The 1997 survey gives slightly lower numbers than the 1996 survey with the total dropping by 3853 to 23000 workers. The age range is fairly evenly distributed around the average age of 39 for both years.

The 1997 Inland Revenue data also contains information on the installation. This data combined with location data held by OSD has allowed analysis of the offshore population by the type of installation and, for fixed installations, the sector (Southern, Central and Northern). Table 5 shows the numbers of employees in each of these three sectors for fixed platforms. It was decided not to allocate sectors to mobile rigs since they could be in more than one sector over the 12 month period. Over 30% of the offshore population are not assigned to an installation on the OSD database. Most of these 6986 employees were thought to belong to one of the many support vessels used within the oil industry with a small number (<1%) not allocated to an identifiable installation. Accidents on support vessels are reported to the Department of Transport rather than the HSE.

3. ACCIDENT DATA

Table 3 shows the number of accidents for the period April 1997 to March 1998 taken from the accidents reported to the Offshore Safety Division (OSD) of the HSE, under RIDDOR. The number includes all fatalities, major injuries and over three day injuries. The data differs from the previous year by their activity classification. The 1996 accident data used the nine operation classifications. The nine operations were reduced to eight by combining the construction and modification categories. The 1997 accident data has been classified into eight categories by the injured person's occupation. This and quality improvement with OSD has resulted in fewer un-coded accidents and should be more closely aligned to the Inland Revenue definition of activity.

The number of accidents for each of the eight activities is broken down into the three geographical sectors for fixed installations in Table 6. The total number of accidents for mobile installations is also given. Drilling is still the activity that gives rise to the largest number of accidents and as expected, most of these occur on mobile installations, most of which are drilling rigs.

4. ACCIDENT RATES

Table 4 shows the accident rates per 100,000 employees for 1997. The calculation is made by dividing the number of accidents by the relevant population including the 1.9 employment factor and multiplying by 100,000.

$$\text{Accident rate per 100,000 employees} = 100,000 \times \text{number of accidents} / [\text{Inland Revenue survey} \times 1.9]$$

The 100,000 multiplier is used to ensure most of the results fall between 1 and 10,000. The 372 accidents give an accident rate of 1620 per 100,000 employees that is comparable with the previous five year's accident rates¹ of 2020, 1360, 1150, 1460 and 1350² per 100,000 employees.

Figure 2 gives the accident rates for 1996 and 1997 split into the 10 five year age ranges. The increase of the accident rate from 1996 to 1997 is evenly distributed over all the age ranges. There is a slight bias of accidents towards the lower age range. Figure 3 shows the accident rates for the various activities. It should be remembered that the classification of activity for the accidents has changed from the previous year making direct comparison impossible. The highest accident rate is for drilling activities at over twice the average accident rate. The variation of the accident rate between the activities is smaller than last year, reflecting the closer alignment of the classification system.

4.1 Production accident rates

Figure 4 shows the accident rate for production. The numbers of accidents are small for each of the age ranges but it does show that the largest number of accidents still occurs to the age range with the biggest populations and there is no apparent trend with age. This may be due to the nature of the work where operation errors would tend not to result in a reportable injury.

4.2 Drilling accident rates

Figure 5 shows the drilling accident rates. The accident rates for <21 and over 55 age ranges can be ignored as there are only a small number of employees in these ranges, increasing the uncertainty in the accident rates. The population age profile is more skewed towards the lower range than in 1996 and the distribution of the number of accidents by age shows that the accidents follow the age profile. With the exception of the 21 to 25 age range, there is a small trend of decreasing accident rate with increasing age of employee but this is less pronounced than the trend apparent in the 1996 Inland Revenue data. The 51 to 55 age range had 5 accidents out of a population of only 108. The resulting accident rate is out of step with the general trend for drilling.

¹ Taken from the offshore accident and incident statistics report, OTO97/951, October 1997

² Taken from OSD Permanent Background Note 98/07, Offshore accident rates for April 1996 to March 1997.

4.3 Construction and maintenance accident rates

Figure 6 shows the variation of accident rates with age. There is little evidence of any trends with age.

4.4 Deck operations accident rates

Figure 7 shows the accident rates for operations. The small number of employees and accidents for each age range introduces large uncertainties in the calculated rates.

4.5 Diving, Catering & Management and Transport Accident Rates

The numbers of accidents for these activities are small which makes it difficult to find any trends. No graphs have been produced for these activities.

4.6 Accident rates by sector

The Inland Revenue population data and the accident data was divided into four categories based on the type of installation and for fixed installations the geographical sector (Southern, Central and Northern) based on the location of the installation. The Inland Revenue population data includes employees on support vessels which were excluded from this analysis since most accidents on support vessels are reported to the Department of Transport rather than the HSE.

Table 7 shows the accident rates for the eight activities for fixed installations broken down into the three sectors and mobile rigs. The accident rates for each activity are identical to table 4 (same data) but generally the overall accident rates are higher because the exclusion of the offshore population allocated to vessels in the analysis. This gives an average accident rate of 2320 accidents per 100,000 employees. This is significantly higher than the rates calculated by previous methods but because of the new calculation method they cannot be compared with previous years' rates.

The accident rates excluding the offshore support population are given in table 8. The relative rates are similar to table 4 but the overall rates are higher. The accident rates for the three sectors of fixed installations and mobile rigs are shown in Figure 8 and for the individual activities in figures 9 to 11. Generally, the Southern sector has the highest accident rate. The exception to this are for operations, management and transport activities which have only a small number of accidents and it is difficult to show any trends.

Figure 12 shows the accident rate for fixed and mobile installations. The high rate for diving from fixed installation is probably due to the very small number (25) of divers.

5. DISCUSSION

The population data from the Inland Revenue has once again provided an opportunity to gain an insight into the possible circumstances of accidents. At present the population data is limited to two surveys in September 1996 and 1997 and any conclusions are tentative given

the low number of accidents. The offshore population is evenly distributed has not changed significantly and is maintained at around an average age of 39.

The data on the number of employees on each installation has resulted in the calculation of a much higher accident rate due to the exclusion of employees on the support vessels from the calculation. The calculated accident rate of 2320 per 100,000 employees is comparable with the non-fatality accident rate of 1720 per 100,000 employees for extraction and utility supply industries 1996/97.

No attempt has been made to analyse fatalities and major injuries separately. The numbers of accidents are too small for meaningful statistical analysis of this kind.

The maintenance accident rate is considerably reduced for the 1997 data. This is most probably due to the changes in the classification of activity.

The accident rates for drilling and maintenance activities are significantly higher than for other activities in 1997. Given the large number of accidents (155), these activities merits additional investigation. The 1996 trend of decreasing accident rate with increasing with age for drilling has mostly disappeared. This may be due to the initiatives in the drilling industry, changes in the population or the change in classification of accidents. The change is likely to be attributable to all three causes.

There is little scope for comment on the accident rates derived for the other activities other than that they probably do not warrant extra investigation at this time. As more Inland Revenue data is received, it will be possible to increase the resolution and identify any trends.

6. CONCLUSIONS

- (i) The number of employees recorded by the Inland Revenue survey has dropped by about 15% over the 12 months to September 1997.
- (ii) The number of accidents has increased over the two year period from 363 to 372 resulting in an increase in the accident rate from 1350 to 1620 accidents per 100,000 employees.
- (iii) Analysis of the 1997 data which excludes employees on support vessels has produced an accident rate of 2330 injuries per 100,000 employees. This is a more accurate reflection of the true accident rate. It cannot be used to compare with previous rates.
- (iv) The Inland Revenue data is a useful tool for analysing the accident data. Future data should be sought on a regular basis with continuing analysis.
- (v) Drilling has been identified as the activity with the highest accident rates in 1997. This information should be discussed with industry for them to comment.

Table 1, Number of employees from 1996 Inland Revenue data

Age Range	Number of employees											Total*
	Production	Drilling	Maintenance	Diving	Construction	Deck Ops'	Management	Transport	Not coded	Total*		
<21	25	10	6	6	6	40	34	124	4	253		
21 - 25	374	207	76	30	57	306	266	291	91	1699		
26 - 30	777	542	194	82	232	570	492	353	97	3338		
31 - 35	851	766	268	127	367	564	912	409	177	4440		
36 - 40	1034	790	374	175	483	363	933	583	213	4948		
41 - 45	1028	701	382	143	488	325	946	572	186	4771		
46 - 50	893	500	355	106	391	200	912	587	122	4066		
51 - 55	390	276	165	51	190	103	485	397	42	2098		
56 - 60	137	91	53	25	99	48	190	272	36	950		
>60	11	10	11	2	15	4	44	131	4	232		
not recorded	4	2	0	0	2	2	8	23	19	59		
Totals*	5523	3893	1885	747	2329	2523	5221	3741	990	26852		

* These totals are the totals from the Inland Revenue data multiplied by 1.9 rounded to the nearest whole number and not the table totals

Table 2, Number of employees from 1997 Inland Revenue data

Age Range	Number of employees										Total*
	Production	Drilling	Maintenance & Construction	Diving	Deck Ops'	Management	Transport	Not coded			
<21	6	34	53	0	15	19	101	23			251
21 - 25	87	485	433	2	49	118	251	67			1492
26 - 30	137	969	950	17	156	357	220	160			2966
31 - 35	186	969	1224	25	315	557	219	175			3669
36 - 40	224	771	1613	57	296	644	289	194			4089
41 - 45	359	507	1632	46	291	669	325	165			3994
46 - 50	289	276	1366	30	285	561	353	135			3295
51 - 55	182	108	688	17	213	371	238	74			1891
56 - 60	65	44	274	2	76	156	198	38			851
>60	10	13	48	0	23	30	124	6			253
not recorded	11	4	32	0	6	25	125	48			251
Totals*	1556	4180	8313	196	1725	3506	2442	1083			23000

* These totals are the totals from the Inland Revenue data multiplied by 1.9 rounded to the nearest whole number and not the table totals

Table 3, Numbers of accidents April 1997 to March 1998

Age Range	Number of accidents										Total
	Production	Drilling	Maintenance & Construction	Diving	Deck Ops'	Management	Transport	Not coded			
<21	0	5	0	0	0	0	0	0	1	6	
21 - 25	0	12	8	0	1	1	2	2	26		
26 - 30	1	41	9	0	3	1	0	8	63		
31 - 35	5	41	13	2	3	4	3	9	80		
36 - 40	2	29	14	1	7	4	1	4	62		
41 - 45	5	13	10	1	6	5	3	8	51		
46 - 50	4	4	12	0	10	2	1	8	41		
51 - 55	3	5	10	0	2	1	1	1	23		
56 - 60	1	0	2	0	3	0	0	2	8		
>60	0	0	1	0	0	0	0	0	1		
not recorded	0	3	3	4	0	0	0	1	11		
Totals	21	153	82	8	35	18	11	44	372		

Table 4, Accident rates 1997

Age Range	Accidents rate per 100,000 employees										Total
	Production	Drilling	Maintenance & Construction	Diving	Deck Ops'	Management	Transport	Not coded			
<21	0	14706	0	0	0	0	0	4348			2390
'21 to 25	0	2474	1848	0	2041	847	797	2985			1743
'26 to 30	730	4231	947	0	1923	280	0	5000			2124
'31 to 35	2688	4231	1062	8000	952	718.1	1370	5143			2180
'36 to 40	893	3761	868	1754	2365	621	346	2062			1516
'41 to 45	1393	2564	613	2174	2062	747	923	4848			1277
'46 to 50	1384	1449	878	0	3509	357	283	5926			1244
'51 to 55	1648	4630	1453	0	939	270	420	1351			1216
'56 to 60	1538	0	730	0	3947	0	0	5263			940
>60	0	0	2083	0	0	0	0	0			395
Overall	1350	3660	986	4082	2029	513	450	4063			1617

Table 5, Numbers of employees¹ in each sector 1997

	Sector					Totals ¹
	Southern	Central	Northern	Mobile	Not coded	
Production	156	627	353	158	262	1556
Drilling	8	749	1108	1186	1131	4180
Maintenance ²	469	2044	2447	1343	2008	8313
Diving	0	6	15	106	68	196
Deck Ops'	68	420	523	327	388	1725
Management	184	787	884	745	906	3506
Transport	101	372	135	220	1613	2442
Not coded	2	163	2	306	610	1083
Totals ¹	988	5168	5466	4391	6986	23000

1 These totals are the totals from the Inland Revenue data multiplied by 1.9 rounded to the nearest whole number and not the table totals

2 Including construction

Table 6, Numbers of accidents in each sector 1997

	Sector					Totals
	Southern	Central	Northern	Mobile	Not coded	
Production	5	12	4	0	0	21
Drilling	1	30	43	67	12	153
Maintenance ²	17	28	15	8	14	82
Diving	1	0	0	0	7	8
Deck Ops'	2	16	13	3	1	35
Management	0	8	6	2	2	18
Transport	0	5	0	4	2	11
Not coded	3	23	10	5	3	44
Totals	29	122	91	89	41	372

Table 7, Accident rates by sector 1997¹

Sector	Accidents rate per 100,000 employees				
	Southern	Central	Northern	Mobiles	Overall
Production	3210	1910	1130	0	1350
Drilling	13160	4010	3880	5650	3660
Maintenance ¹	3620	1370	610	6	990
Diving	0	0	0	0	4090
Deck Ops'	2920	3810	2490	920	2030
Management	0	1020	680	270	510
Transport	0	1420	0	1920	480
Overall	2940	2360	1660	2030	1620
¹ Including construction					

Table 8, Accidents rates excluding employees on support vessels

	Accident rates per 100,000 employees		
	All fixed	Mobile	Overall
Production	1850	0	1620
Drilling	3970	5650	5020
Maintenance ¹	1210	600	1300
Diving	4780	0	6280
Deck Ops'	3070	920	2620
Management	750	270	690
Transport	820	1810	1330
¹ Including construction			

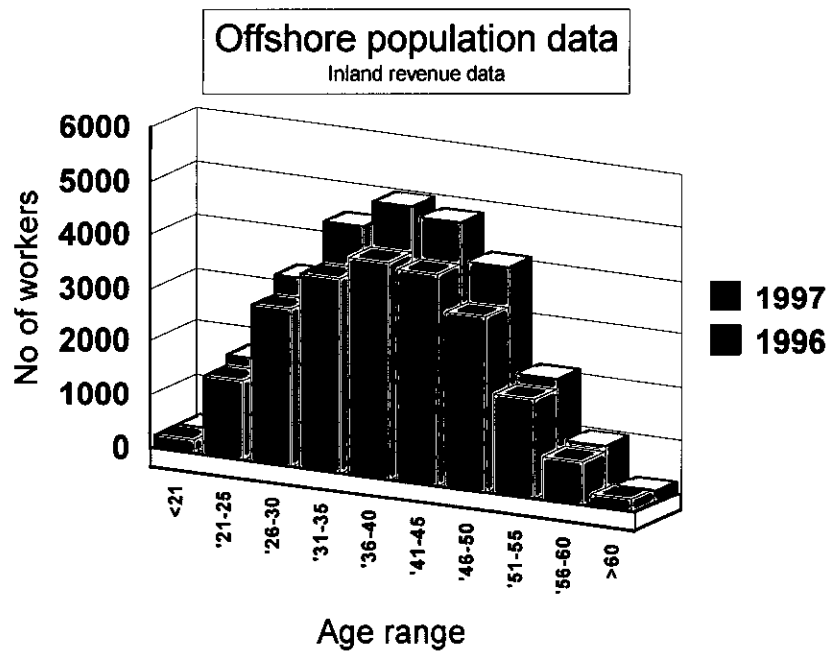


Figure 1, Population data Population data by age range

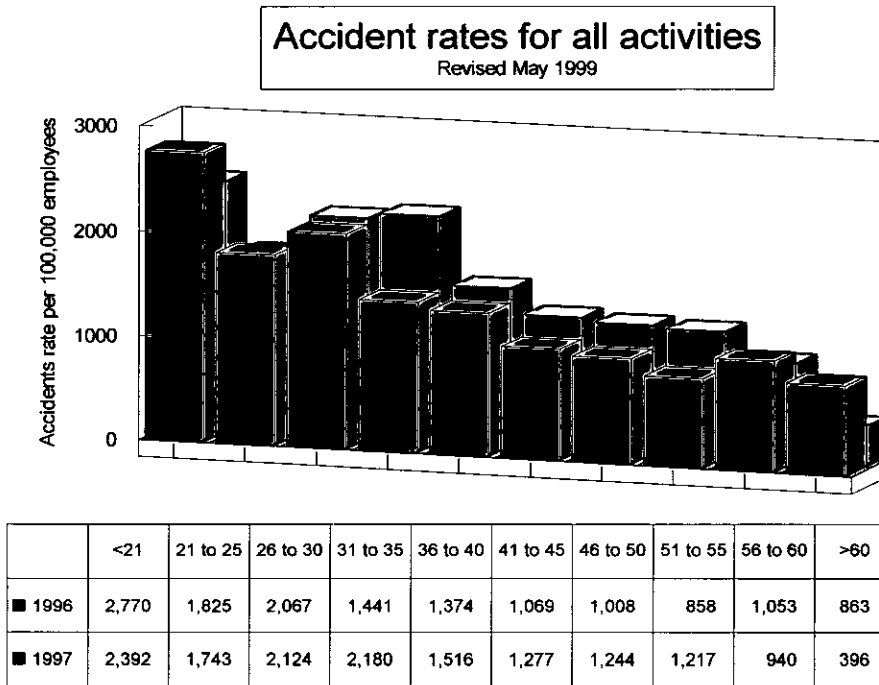


Figure 2, 1997 Accident rates

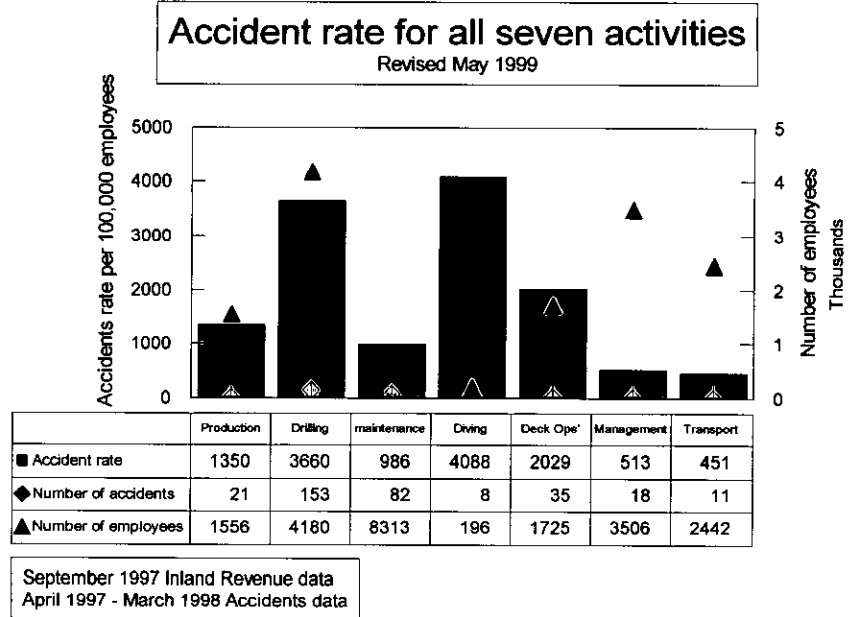


Figure 3, 1997 Accident rates by activity

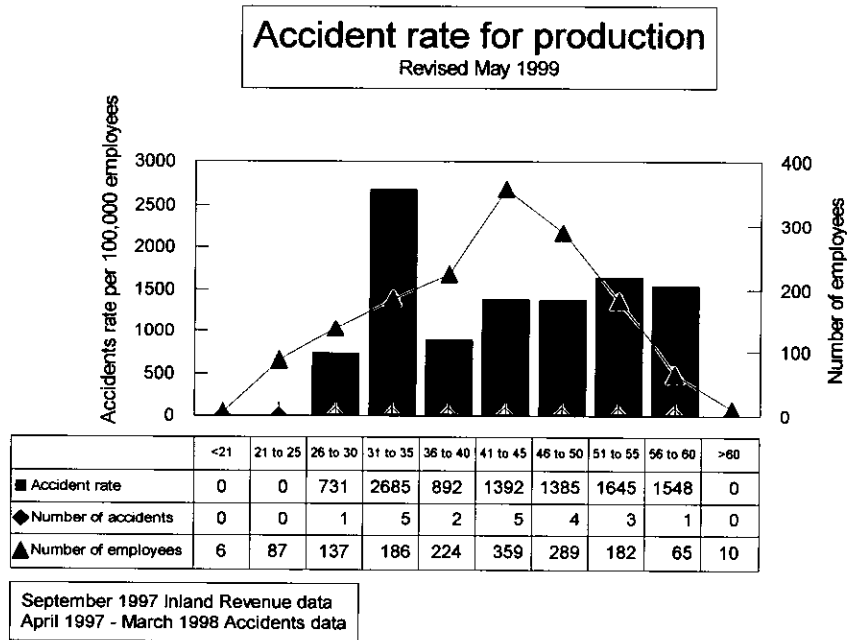
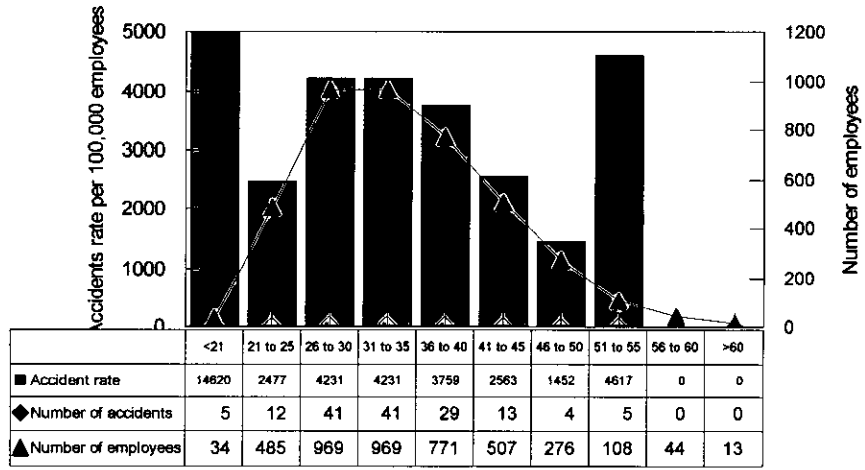


Figure 4, 1997 Production accident rates by age

Accident rate for Drilling

Revised May 1999

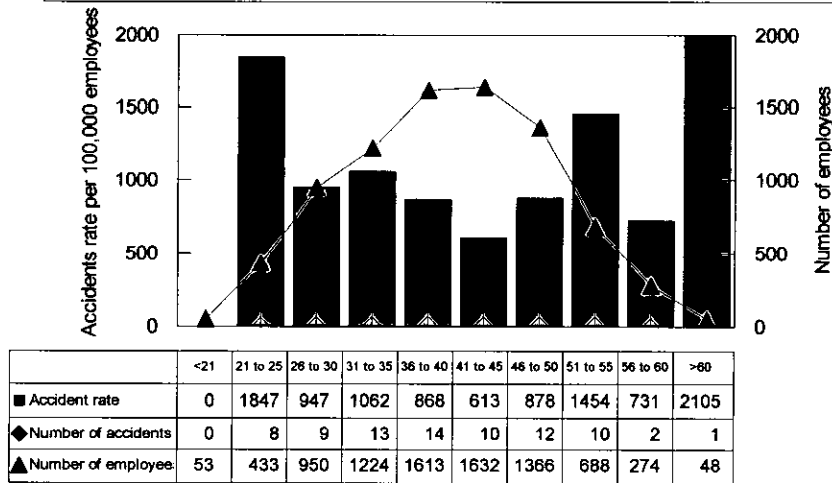


September 1997 Inland Revenue data
April 1997 - March 1998 Accidents data

Figure 5, 1997 Drilling accident rates by age

Accident rates for construction and maintenance

Revised May 1999



September 1997 Inland Revenue data
April 1997 - March 1998 Accidents data

Figure 6, 1997 Maintenance accident rates by age

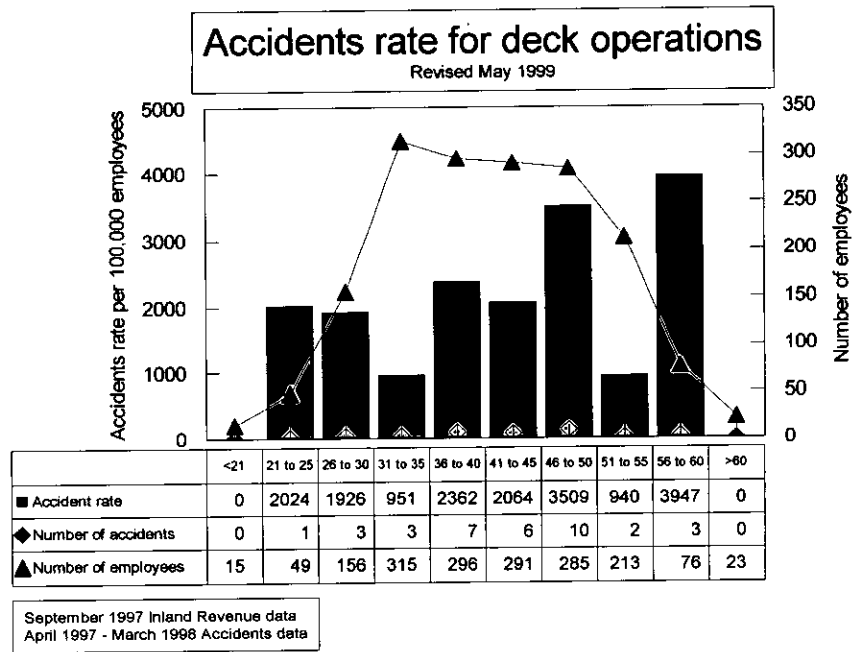


Figure 7, 1997 Deck operations accident rates by age

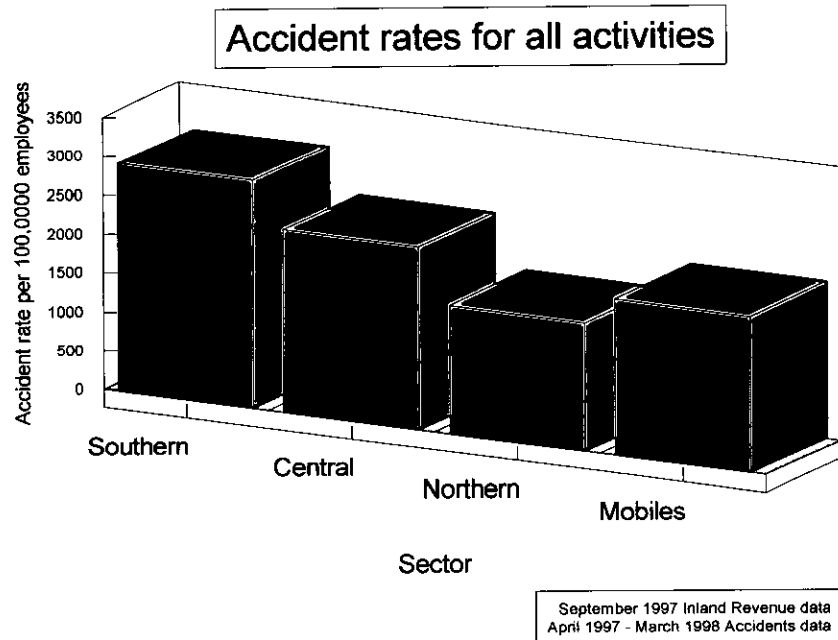


Figure 8, 1997 Accident rates by sector

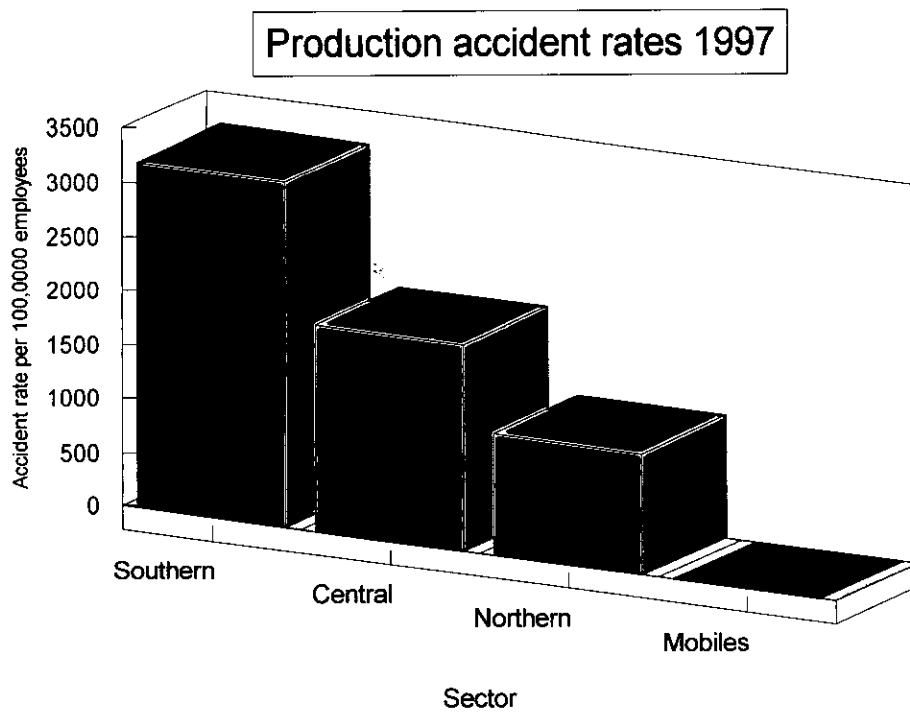


Figure 9, 1997 Production accident rates by sector

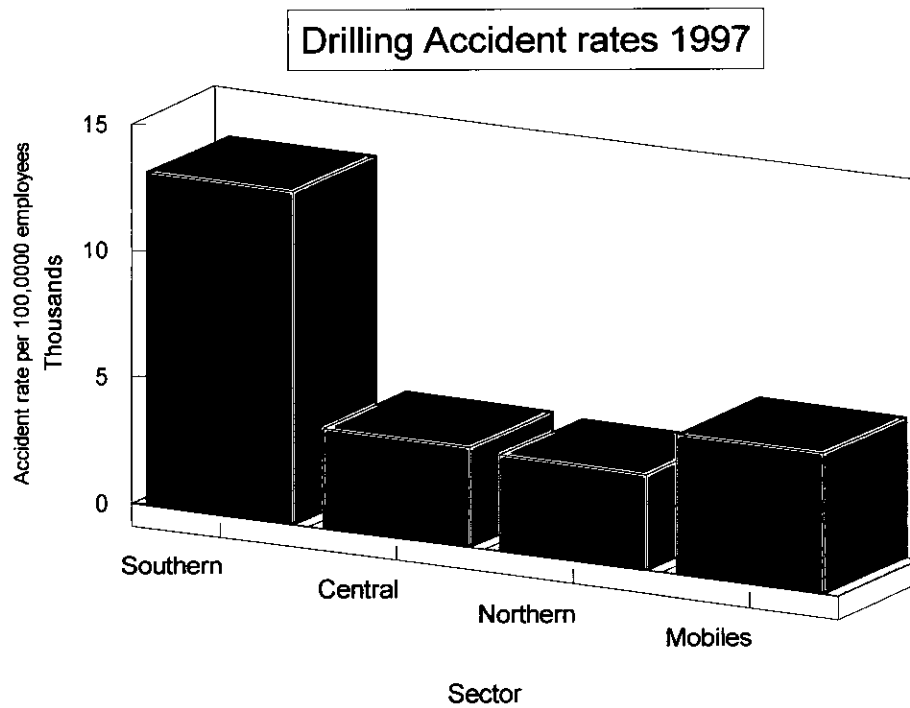


Figure 10, 1997 Drilling accident rates by sector

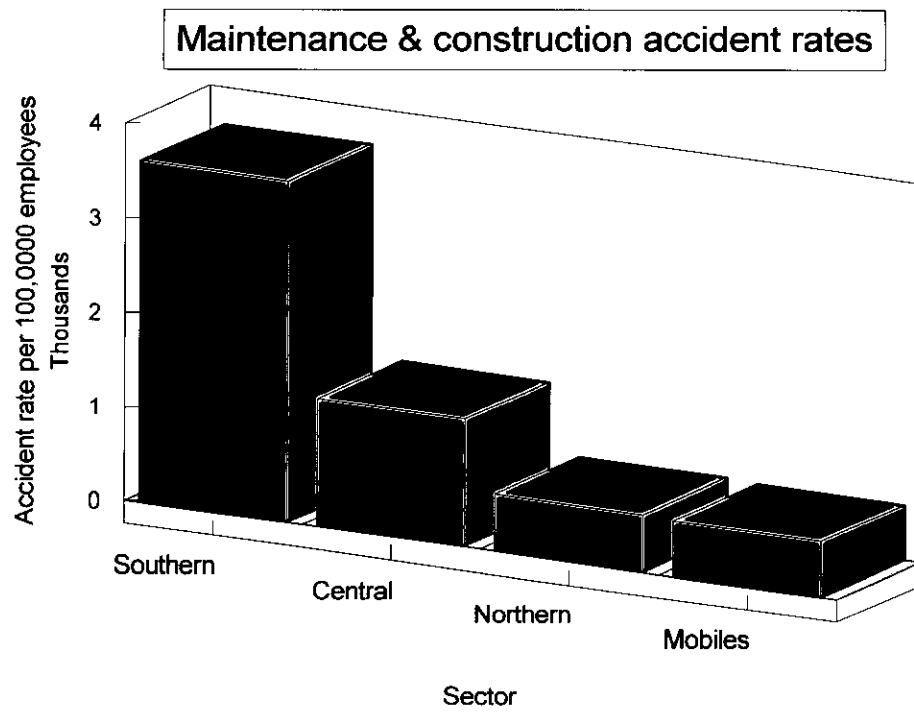


Figure 11, 1997 Construction accident rates by sector

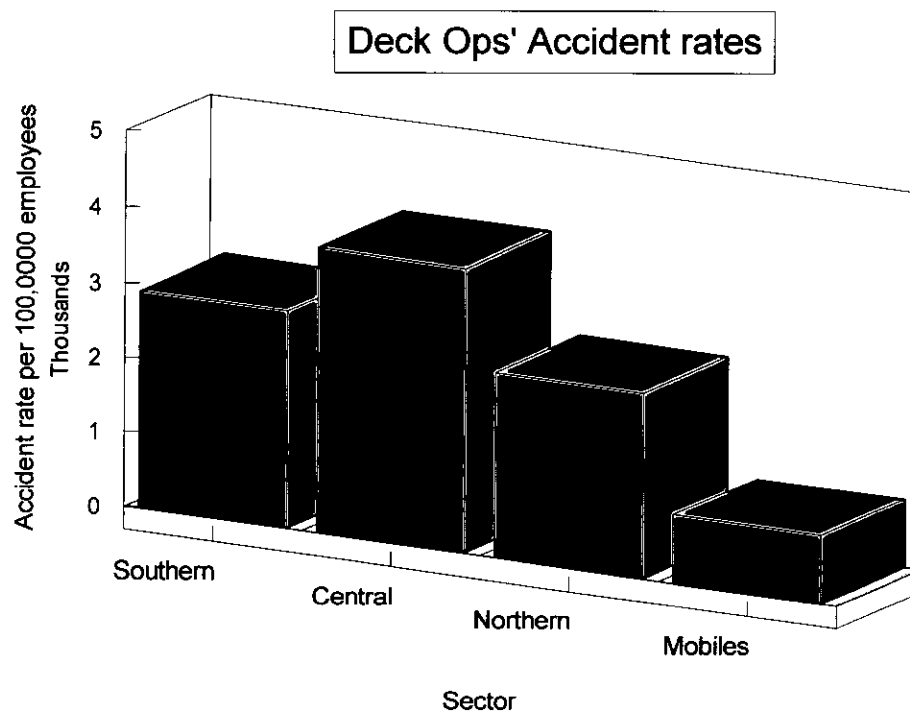


Figure 12, 1997 Deck operations accident rates by sector.

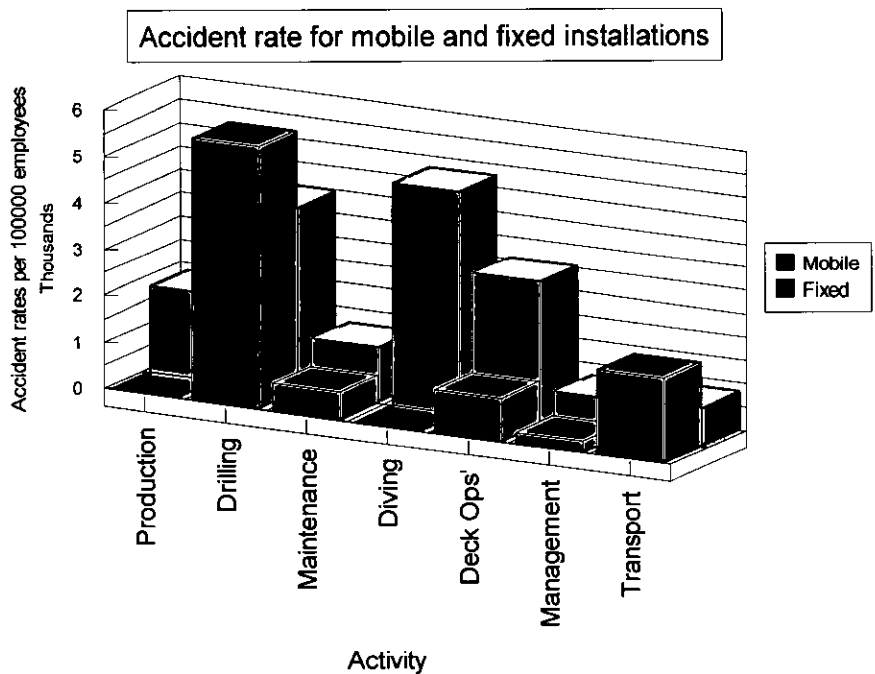


Figure 13, 1997 Accident rate for mobile and fixed installations

7. ANNEX OCCUPATION CODES, ACTIVITY CORRELATION

Code	Title	Related Activity Code
A1	Able Seaman	8 - Transport Operations
N1	Accommodation Manager	7 - Management, Administration & Catering
A2	Acting Derrickman	2 - Drilling / Workover
A3	Air Diver	4 - Diving
A4	Air Gun Technician	3 - Maintenance
A6	Assistant Deck Rigger	6 - Deck Operations
A5	Assistant Derrickman	2 - Drilling / Workover
A7	Assistant Driller	2 - Drilling / Workover
A8	Assistant Engineer	3 - Maintenance
A9	Assistant Watchman	1 - Production
EI	Banksman	6 - Deck Operations
AA	Barge Foreman	8 - Transport Operations
AB	Barge Welder	3 - Maintenance
AC	Bargemaster	8 - Transport Operations
EP	Boatswain	8 - Transport Operations
AD	Boson	8 - Transport Operations
D9	Bricklayer	5 - Construction
EJ	Butcher	7 - Management, Administration & Catering
AE	Cable Spooler	5 - Construction
AF	Caser	2 - Drilling / Workover
AG	Cementer	2 - Drilling / Workover
EG	Chef	7 - Management, Administration & Catering
AH	Chief Engineer	8 - Transport Operations
AI	Chief Officer	8 - Transport Operations
EC	Cleaner	7 - Management, Administration & Catering
AJ	Commissioning Engineer	5 - Construction
AK	Company Representative	7 - Management, Administration & Catering
AL	Crane Driver	6 - Deck Operations
AM	Crane Operator	6 - Deck Operations
AN	Deck Attendant	6 - Deck Operations
AP	Deck Crew	6 - Deck Operations
AQ	Deck Foreman	6 - Deck Operations
AR	Deck Operator	6 - Deck Operations
AT	Dep Ops Superintendent	7 - Management, Administration & Catering
AS	Deckhand	8 - Transport Operations
AU	Derrickman	2 - Drilling / Workover
AV	Diver	4 - Diving
AW	Diving Inspector	4 - Diving

Code	Title	Related Activity Code
AX	Diving Tender	4 - Diving
AY	Driller	2 - Drilling / Workover
AZ	Drilling Materials Clerk	2 - Drilling / Workover
B1	Electrical Engineer	3 - Maintenance
B2	Electrical Mechanic	3 - Maintenance
B3	Electrical Technician	3 - Maintenance
B4	Electrician	3 - Maintenance
B5	Engineer	3 - Maintenance
B6	Equipment Operator	1 - Production
EK	Fireprooffer	5 - Construction
B7	First mate	8 - Transport Operations
B8	Fitter	3 - Maintenance
B9	Floorman	2 - Drilling / Workover
BA	Foreman Painter	3 - Maintenance
BB	Foreman Rigger	6 - Deck Operations
BC	Galley Steward	7 - Management, Administration & Catering
BD	General Assistant	6 - Deck Operations
BE	General Hand	6 - Deck Operations
BF	Greaser	3 - Maintenance
BG	Grinder	3 - Maintenance
BH	Helideck Attendant	6 - Deck Operations
EM	Inspector	7 - Management, Administration & Catering
N2	Instrument Engineer	3 - Maintenance
BI	Instrument Fitter	3 - Maintenance
BJ	Instrument Technician	3 - Maintenance
IN	Insulator	5 - Construction
BK	Joiner	3 - Maintenance
BL	Labourer	6 - Deck Operations
BM	Maintenance Fitter	3 - Maintenance
BN	Mate	8 - Transport Operations
BP	Material Controller	7 - Management, Administration & Catering
BQ	Mechanical Fitter	3 - Maintenance
BR	Mechanical Specialist	3 - Maintenance
BS	Mechanical Technician	3 - Maintenance
EN	Medic	7 - Management, Administration & Catering
BT	Motorman	2 - Drilling / Workover
ED	Mud Logger	2 - Drilling / Workover
EB	Off Duty	7 - Management, Administration & Catering
EO	Offshore Installation Manager	7 - Management, Administration & Catering

Code	Title	Related Activity Code
BU	Operator	1 - Production
BV	Painter	3 - Maintenance
BW	Pipefitter	3 - Maintenance
BX	Plant Operator	1 - Production
BY	Plater	5 - Construction
EH	Platform Attendant	6 - Deck Operations
BZ	Power Technician	3 - Maintenance
C1	Production Mechanic	1 - Production
C2	Production Operator	1 - Production
C3	Production Supervisor	1 - Production
C4	Production Technician	1 - Production
C5	Radio Operator	7 - Management, Administration & Catering
C6	Representative	7 - Management, Administration & Catering
C7	Rig Clerk	2 - Drilling / Workover
C8	Rig Engineer	2 - Drilling / Workover
C9	Rig Mechanic	2 - Drilling / Workover
N3	Rig Welder	3 - Maintenance
CA	Rigger	6 - Deck Operations
CB	Rigman	2 - Drilling / Workover
CC	Roughneck	2 - Drilling / Workover
CD	Roustabout	2 - Drilling / Workover
CE	Safety Officer	7 - Management, Administration & Catering
CF	Safety Supervisor	7 - Management, Administration & Catering
CG	Safety Technician	7 - Management, Administration & Catering
CH	Saturation Diver	4 - Diving
CI	Scaffolder	5 - Construction
CJ	Scaffolding Foreman	5 - Construction
CK	Second Mate	8 - Transport Operations
EA	Second Officer	8 - Transport Operations
CL	Semi Skilled mechanic	3 - Maintenance
CM	Senior Rig Mechanic	2 - Drilling / Workover
CN	Service Technician	3 - Maintenance
ER / SMW	Sheet Metal Worker	5 - Construction
CP	Shift Foreman	6 - Deck Operations
N4	Ship's Captain / Master	8 - Transport Operations
CQ	Shotblaster	3 - Maintenance
CR	Specialist Engineer	3 - Maintenance
CS	Steward	7 - Management, Administration & Catering
EL	Stewardess	7 - Management, Administration & Catering

Code	Title	Related Activity Code
CT	Storeman	7 - Management, Administration & Catering
CU	Sub Surface Supervisor	2 - Drilling / Workover
CV	Subsea Engineer	2 - Drilling / Workover
CW	Subsea Superintendent	2 - Drilling / Workover
CY	Technician	3 - Maintenance
CZ	Telecoms Engineer	3 - Maintenance
D1	Test Engineer	3 - Maintenance
EQ	Tong Operator	2 - Drilling / Workover
D2	Toolpusher	2 - Drilling / Workover
D3	Trainee Driller	2 - Drilling / Workover
D4	Watch Stander	1 - Production
D5	Welder	5 - Construction
D6	Well Services Supervisor	2 - Drilling / Workover
D7	Wireline Technician	2 - Drilling / Workover
D8	Wireline Trainee	2 - Drilling / Workover