Department for Transport

Seafarers in the UK Shipping Industry: 2020

In this publication
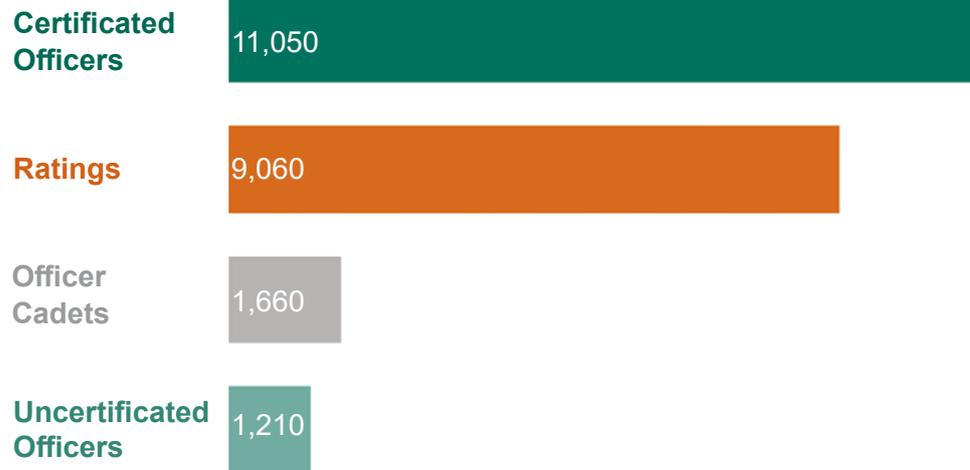
An estimated 22,970 UK seafarers were active at sea in 2020, with overall numbers being broadly stable in recent years.

UK seafarers active at sea by type 2020 ([SFR0101](#))

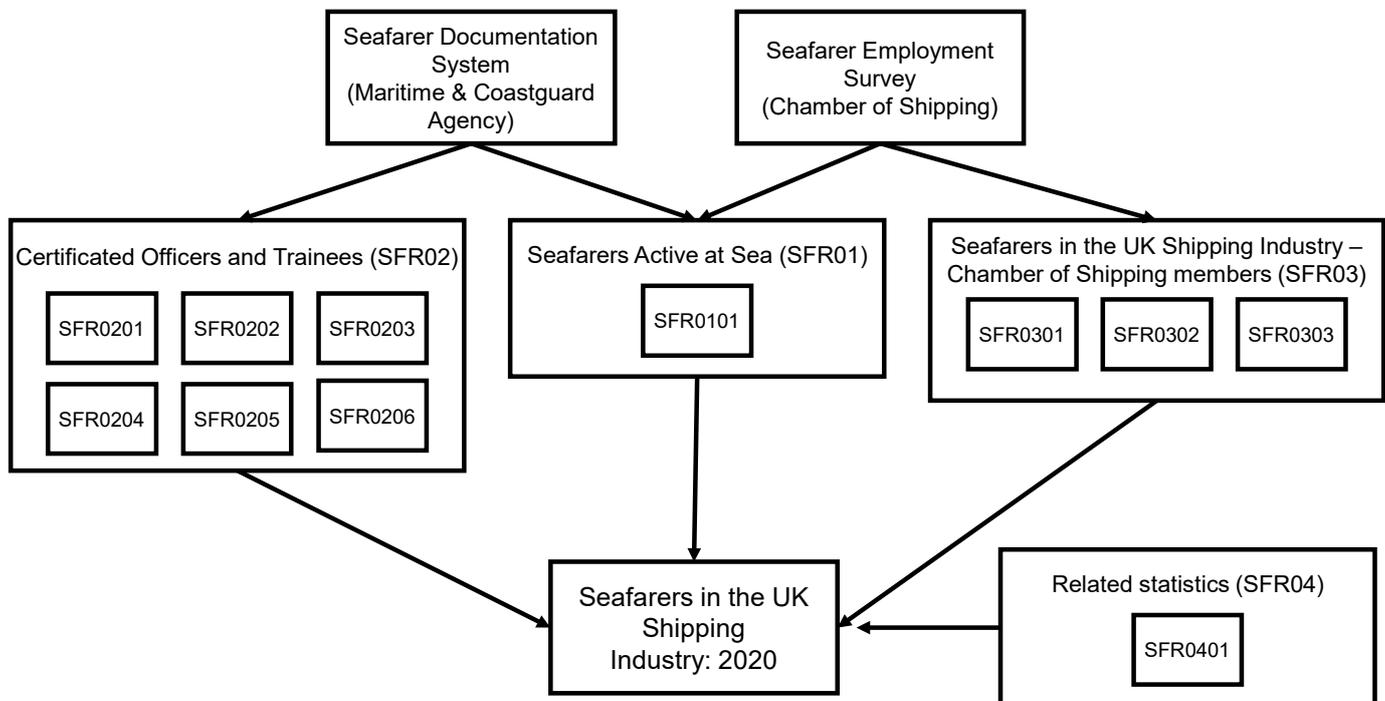| Type	Count
Certificated Officers	11,050
Ratings	9,060
Officer Cadets	1,660
Uncertificated Officers	1,210

► **To note for 2020 figures:** While seafarers part of the UK Shipping Industry in 2020 may have been placed on furlough due to the coronavirus (COVID-19) pandemic, these will still be included in Chamber of Shipping employment (CoS) figures and MCA certificate data and thus be represented as 'active at sea' in this data. CoS UK seafarer employment figures are stable compared to 2019, suggesting seafarers included in this data are active at sea or could be on furlough.

► There has been an overall downward trend in the number of UK seafarers over the past 15 years. However, between 2012 and 2020 numbers have been broadly stable with the exception of 2018, due to a large increase in Ratings explained by changes in the data coverage of the CoS data.

► The majority of UK seafarers active at sea were male (83%), with larger female representation in Uncertificated Officers and Ratings.

► There were 42,920 certificates to work on UK vessels issued by the Maritime and Coastguard Agency in 2020, 15,370 of these were UK nationals. These figures have been broadly stable since 2010.

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About this release

This release presents a range of statistics relating to the number of seafarers working in the UK shipping industry, including the best current estimate of the number of UK nationals active at sea. These figures are used to monitor broad trends in employment of seafarers and are used by the Department for Transport, industry bodies and trade unions.

Graphical representation of publication data sources

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┌──────────────────────┐        ┌──────────────────────┐
│ Seafarer Documentation│        │  Seafarer Employment │
│        System         │        │        Survey        │
│ (Maritime & Coastguard│        │ (Chamber of Shipping)│
│        Agency)        │        │                      │
└──────────────────────┘        └──────────────────────┘
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Certificated Officers and Trainees (SFR02)

| SFR0201 | SFR0202 | SFR0203 |
| SFR0204 | SFR0205 | SFR0206 |

Seafarers Active at Sea (SFR01)

SFR0101

Seafarers in the UK Shipping Industry – Chamber of Shipping members (SFR03)

| SFR0301 | SFR0302 | SFR0303 |

Seafarers in the UK Shipping Industry: 2020

Related statistics (SFR04)

SFR0401

Data sources

This release presents figures from two main data sources:

► **Section 2** presents data on officers who have certificates allowing them to work in the UK shipping industry, derived from data held by the Maritime and Coastguard Agency (MCA) in their Seafarer Documentation System. These figures should provide good estimates of seafarers with certificates, however, it is not possible to tell from the data whether individuals are active at sea. Therefore, it is assumed that 84% of those holding certificates are active at sea and that their retirement age is 62. See accompanying Technical Note for more information on methodology.

► **Section 3** is based on data collected via the annual Seafarer Employment Survey conducted by the UK Chamber of Shipping (CoS) of their member companies. This provides seafarer employment figures for member companies, of all ranks. Chamber membership does not cover all companies operating in the UK industry meaning that these figures do not provide complete coverage (with no uplift currently made to account for this).

The two sources are combined to produce an estimate of UK seafarers **active at sea** as set out in **section 1** - the best estimate of UK nationals working at sea in 'merchant navy' roles. This includes any UK national working on a registered vessel in a regular sea-going capacity (excluding fishing vessels).

Other relevant information is presented where possible, including on Officer Cadets (from MCA, **section 2**), maritime apprenticeships (Department for Education, **section 4**) and seafarer projections to present the fullest range of available statistics on seafarers.

Coverage and key definitions

Coverage. These statistics relate to the UK shipping industry, though this is not easy to define precisely. MCA data relates to officers of all nationalities who hold certificates to work on UK registered vessels; CoS data relates to member companies, which typically means that they will have some interest or base in the UK (though the seafarers they employ may work on vessels registered in another country). Tug owner companies were included for the first time in the 2018 figures.

Active at sea. This statistical release refers to seafarers 'active at sea'. This is defined as any seafarer working regularly in a sea-going activity. This release assumes 16% of certificated seafarers are not currently active at sea[1].

Time period covered. MCA and CoS data reflects the industry as at June 30th of each year.

Trends over time. These figures are intended to provide broad indications of trends over time, however CoS data can fluctuate for a number of reasons including changes in CoS membership or in the industry. No adjustment is made for these effects, so any large fluctuations in year-on-year trends should be treated with caution.

1. United Kingdom Seafarers Analysis 2004, D Glen, J Dowden and R Wilson, London Metropolitan

Seafarer types

To serve as a **Certificated Officer** on a merchant ship, a Certificate of Competency (CoC) or equivalent must be obtained; in the UK these are issued by MCA.

Trainee Officers, or **Cadets**, are not part of a ship's crew but are on board to gain experience.

Uncertificated Officers are those without certificates who are employed in technical or catering/hotel functions, mainly in the cruise and ferry sectors.

Ratings are semi-skilled experienced workers who are not required to revalidate their competencies as certificated officers are, or other staff without maritime training (e.g. hotel and catering staff).

A definition for '**active at sea**' is available on page 3.

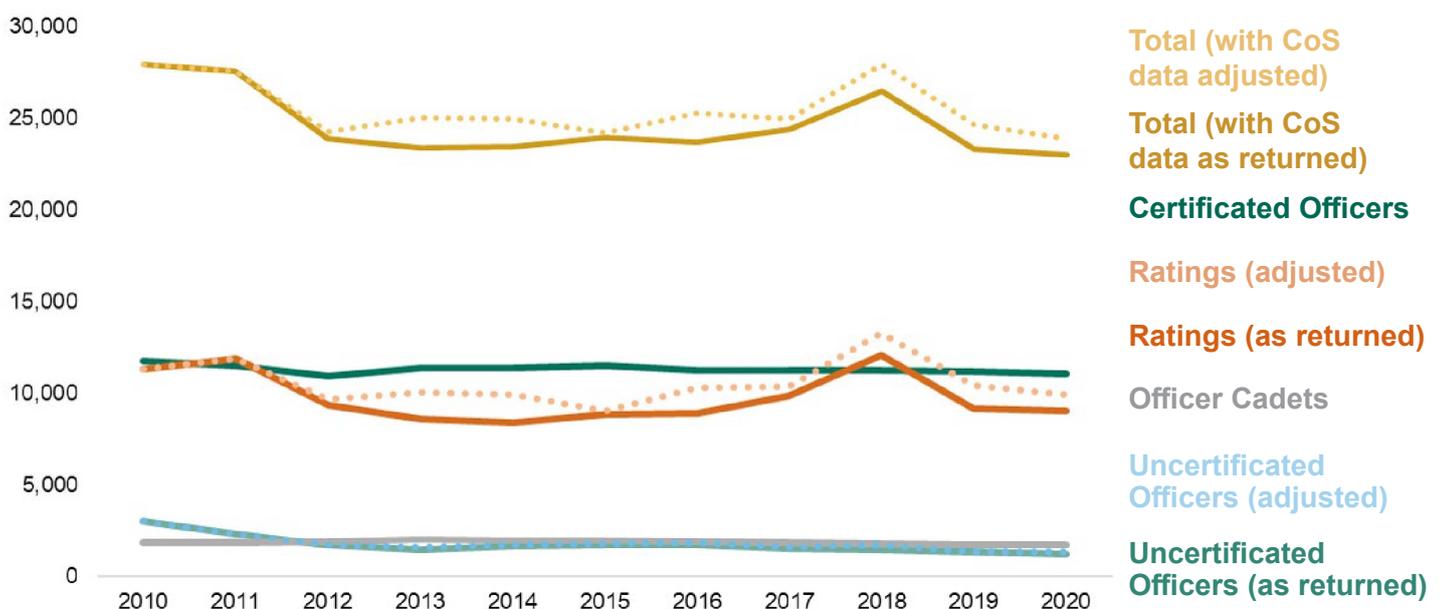**An estimated 22,970 UK seafarers[2] were active at sea in 2020.** This estimated figure is based on returns from the CoS without adjusting for non-response and MCA certificate data. Ratings and Uncertificated Officers active at sea estimates are based on data as returned in the CoS survey, with Cadet estimates based on MCA data. Certificated Officer estimates are also based on MCA data with an active at sea and retirement assumption applied. The active at sea assumption has not been changed to account for Officers who might be on furlough during the coronavirus pandemic and so these seafarers will still be included in CoS company employment figures and MCA certificate data.

Figures for 2020 show there was an estimated 11,050 Certificated Officers, 1,210 Uncertificated Officers and 9,060 Ratings active at sea with a further 1,660 Officer Cadets in training at sea in the 2019/20 financial year.

Experimental statistics have been developed which account for non-response in the CoS survey and provide a better representation of seafarer employment in the Chamber. These have been included in the chart below to show the impact of the adjustment on overall trends for Ratings, Uncertificated officers and the total seafarers active at sea.

When using this adjustment, there were an estimated 23,900 UK seafarers at sea in 2020, of which 1,280 are Uncertificated Officers and a further 9,910 are Ratings. While trends overall are similar to the

UK seafarers active at sea by type, 2010 - 2020 (SFR0101)

Legend:
- Total (with CoS data adjusted)
- Total (with CoS data as returned)
- Certificated Officers
- Ratings (adjusted)
- Ratings (as returned)
- Officer Cadets
- Uncertificated Officers (adjusted)
- Uncertificated Officers (as returned)

2. These figures do not capture all UK seafarers active at sea. Ratings and Uncertificated Officers employed by CoS non-member companies, or by member companies that did not respond to the annual survey are omitted; past attempts to collect data from non-member companies suggest that they employ some UK seafarers though a relatively small number of UK nationals compared to CoS members. No attempt is made to adjust for seafarers collected in the CoS survey where nationality is not recorded. Taken together, these factors could mean that the total number of UK seafarers is undercounted by a few thousand.

previously published estimates, the adjustment gives an indication of the slightly higher level of seafarers that we would expect to measure if all companies were returning data. The similarity in trends shows that the figures that were previously published were of generally good quality and a good representation of the CoS membership. The adjustment provides a larger uplift and some changes in trends in some years.

This is a developing area where we continue to welcome user views. The new methodology is described in more detail in the annex (pg.12) as well as ways for users to provide feedback. Further details on the impact of the adjustment on breakdowns by different characteristics are also available in the annex. Depending on user demand and feedback we will look to continue the development of the adjustments and further roll them out to published tables.

The overall trend in the number of UK seafarers since 2003 has been downward. Figures fell from previously higher levels in 2012 and have remained broadly stable since, with the exception of 2018. In 2018, there was an uptick in the number of seafarers, driven by an increase in Ratings. This change partly reflects changes in membership of the CoS. This affects the number of Ratings recorded in particular. Thus the interpretation of these trends should be made with caution. Figures for total UK seafarers active at sea in 2020 were relatively stable from 2019.

Seafarer certification

Under STCW95[3], seafarers preforming deck or engine officer roles on commercial vessels are required to hold a **Certificate of Competency (CoC)** or equivalent.

Non-UK officers graduating from UK colleges obtain the same CoC as UK nationals. Some non-UK CoC holders will proceed to work on UK registered vessels while others will use the UK CoC to work on non-UK registered vessels.

Officers with training from outside the UK are required to hold a **Certificate of Equivalent Competency (CEC)** before working as a deck or engine officer on a UK registered vessel.

Figures for Master (Yachts) Certificated Officers have been included from 2010 for the first time in this release. Figures before 2010 are not comparable as they do not include these certificates. This change has not impacted overall yacht trends and overall certificate totals have been updated to reflect the additional certifications.

The estimates in this section make no assumptions about whether seafarers holding certificates are active at sea.

3. The International Convention on Standards of Training, Certification and Watchkeeping sets qualification standards for personnel working on seagoing merchant ships.

As of July 2020, 42,920 seafarers held seafarer certificates issued by MCA, including 27,400 Certificates of Competency (CoCs) and 11,200 Certificates of Equivalent Competency (CECs). Of these certificates, 15,370 were held by UK nationals.

These figures relate to certificates issued, and some of those holding certificates will not be working at sea. It is likely that many UK nationals with CoCs and those holding CECs will be working on UK flagged ships, or in the UK industry, however this is less likely for non-UK nationals who obtain CoCs in the UK.

Seafarer certificates issued by MCA held in July 2020 (SFR0203)

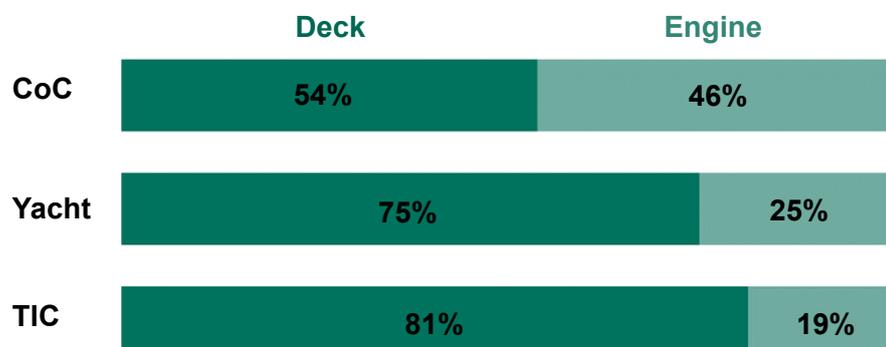| UK nationals (all certificates)	Non-UK nationals CoCs	Non-UK nationals CECs	Non-UK nationals other
36%	34%	26%	5%

Total: 42,920

UK Officers

The majority of UK nationals with certificates held CoCs (13,270), with a further 1,710 holding yacht certificates, 300 Tug and Inshore Craft (TIC) certificates and 90 CECs.

Of those with CoCs, the trends over time in the numbers holding deck and engine certificates have been similar, with there generally being slightly more deck officers than engine.

In 2020, CECs have a similar proportion of deck and engine certificate holders to CoCs. However, Officers holding yacht or TIC certfcates are substantially more likely to classified as a deck certification than engine.

Proportion of UK officers (aged under 62) holding deck or engine certificates in 2020, by certificate type (SFR0201)

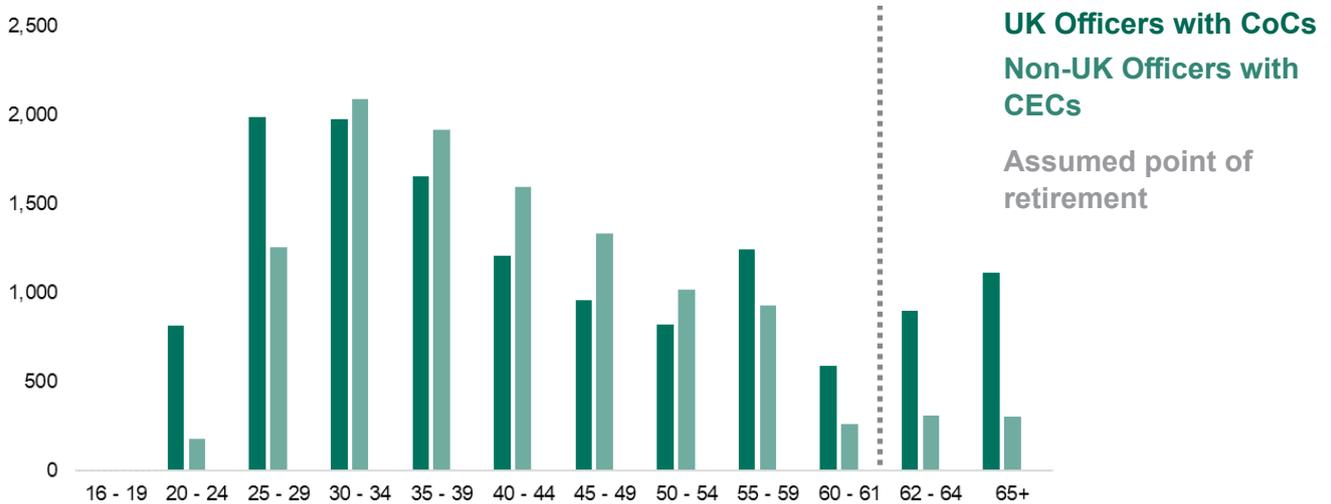|	Deck	Engine
CoC	54%	46%
Yacht	75%	25%
TIC	81%	19%

Electro-technical Officers

Electro-technical Officers (ETO) have been included for the first time in this release within the engineer CoCs grouping. ETOs on board a vessel maintain and repair any systems with an electronic element. Since the introduction of this certification in 2015 the group has steadily increased in size. As of 2020, all of this group (330) are UK nationals.

The vast majority (97%) of UK officers with CoCs were male in 2020. This varied from 95% of deck officers to 99% of engineering officers. The proportions of deck and engineers that are male has remained the same since 2018.

In 2020, there were more UK nationals holding CoCs than non-UK nationals holding CECs in age groups under 30 and over 55 years old. There were more Non-UK nationals holding CECs in age groups between 30 and 55 years old. The ageing profile of UK seafarers was one of the issues identified in the 2015 Maritime Growth Study.

Age distribution of UK officers with CoCs and non-UK officers with CECs, 2020 (SFR0202)
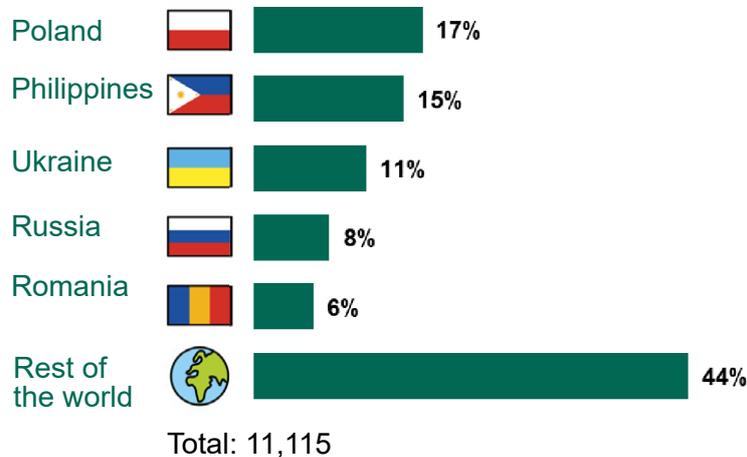

Non-UK Officers

The number of non-UK nationals with valid **CECs** has been stable since 2018, with 11,115 of these seafarers in 2020. Together, Polish, Filipino, Ukrainian, Russian and Romanian nationals accounted for around 57% of non-UK officers holding UK **CECs**.

In 2020, 14,470 non-UK nationals held valid **CoCs** issued in the UK which is broadly stable from last year. The majority of these seafarers are Indian (74%), and all of the top 5 countries are members of the Commonwealth.

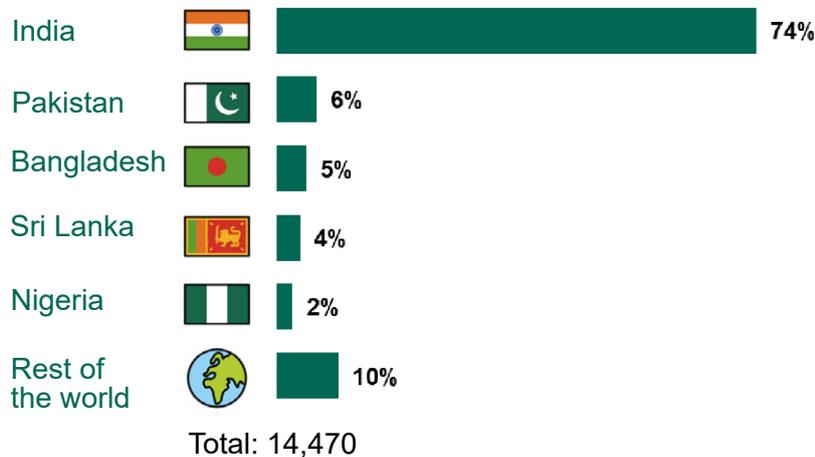Nationality distribution of non-UK Officers with CECs and CoCs, 2020 (SFR0204, SFR0205)

Non-UK Officers with CECs
CoC equivalent certification training received outside the UK

Country	%
Poland	17%
Philippines	15%
Ukraine	11%
Russia	8%
Romania	6%
Rest of the world	44%

Total: 11,115

Non-UK Officers with CoCs
Certification training received in the UK

Country	%
India	74%
Pakistan	6%
Bangladesh	5%
Sri Lanka	4%
Nigeria	2%
Rest of the world	10%

Total: 14,470

Officer Trainees

Cadets can take up to four years to get a certificate of competency from the MCA. New entrants are supported by the SMarT1 scheme.

The figures shown here are derived from monthly financial claims submitted to the MCA by training providers. Estimates of the total number of Cadets in training are calculated as an average of the number in training in each month of the financial year.
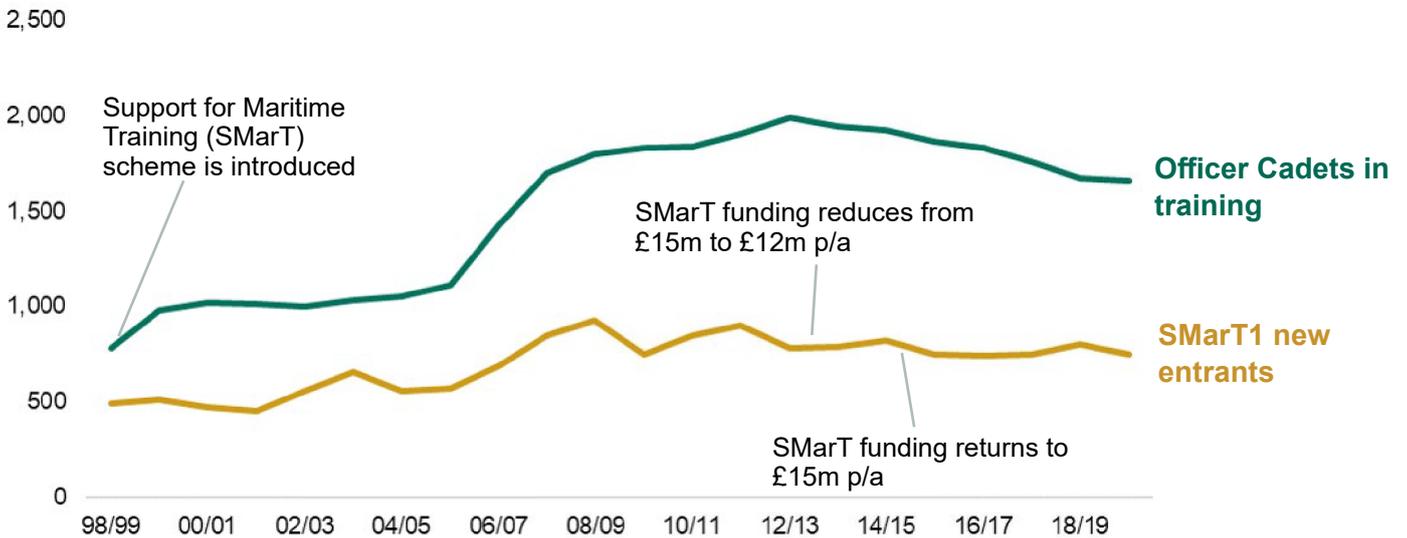
Officer trainees

The estimated number of Officer Cadets in training for the financial year 2019/20 was 1,660. In the same year, the number of new entrants under the SMarT1 scheme was 750. Both these figures are similar to 2018/19.

The number of SMarT trainees tends to reflect the level of SMarT funding, as can be seen in the chart below. In 2018 a doubling of the future level of SMarT funding was announced, with an expected increase in the number of new entrants in future years.

Additional data supplied by MCA highlighted that 14% of new SMarT entrants in 2019/20 were female, up from 10% in 2018/19.

Officer Trainees, 1998/99 to 2019/20 (SFR0206)

CoS Seafarer Employment Survey

The figures in this section are based on the UK Chamber of Shipping Seafarer Employment Survey (previously manpower survey), an annual survey carried out since 2002, which asks about crew employed including details of age, gender and nationality.

The survey is essential for providing estimates of UK Uncertificated Officers and Ratings active at sea. This data is unavailable from the MCA source which only provides information on certificates held by officers.

The survey response rate of companies in scope of the survey for 2020 was 86%, a similar response rate to 2019.

The CoS data does not provide complete coverage, and trends over time can be impacted by changes in membership or operations. For example, if a large company decided to move its operations or crewing outside the UK, this could result in large fluctuations in the figures. However, the data provides the best available source for monitoring patterns and broad trends of employment in the UK shipping industry.

Uncertificated Officers and Ratings

These Officers are mainly employed by the cruise and ferry industry where large scale changes can rapidly take place affecting employment patterns, causing these trends to be volatile. For example, the total number of Ratings in the catering/ hotel/ other sector has fluctuated the last five years. This is largely due to new companies joining and leaving the UK Chamber of Shipping.

In 2020, it is estimated that UK nationals accounted for 19% of the 86,140 seafarers active at sea working for companies within the membership of the UK Chamber of Shipping.
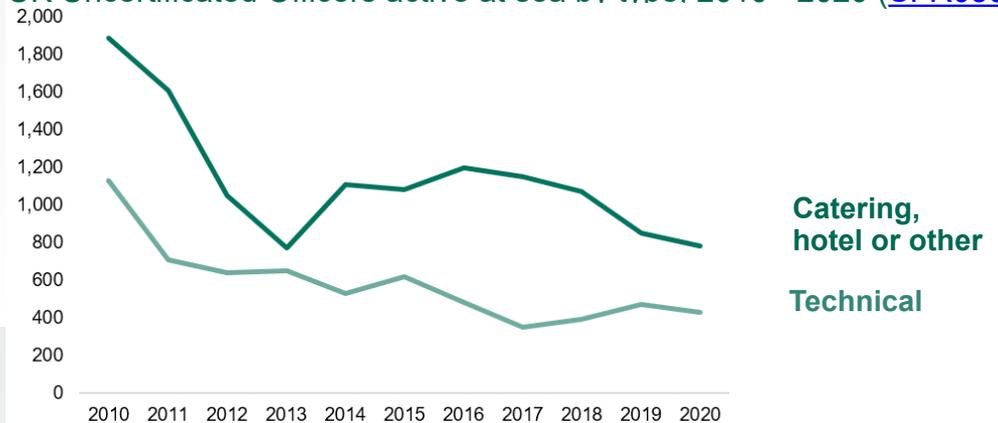**Of these UK nationals, 83% were male and 50% were aged 40-61.**

UK Uncertificated Officers and Ratings: trends by type

The figures in this section are based on data as returned from the CoS survey. Experimental statistics were included in section one of this publication which account for non-response in the CoS survey and provide a better representation of seafarer employment in the Chamber. For details on this methodology please refer to the annex.
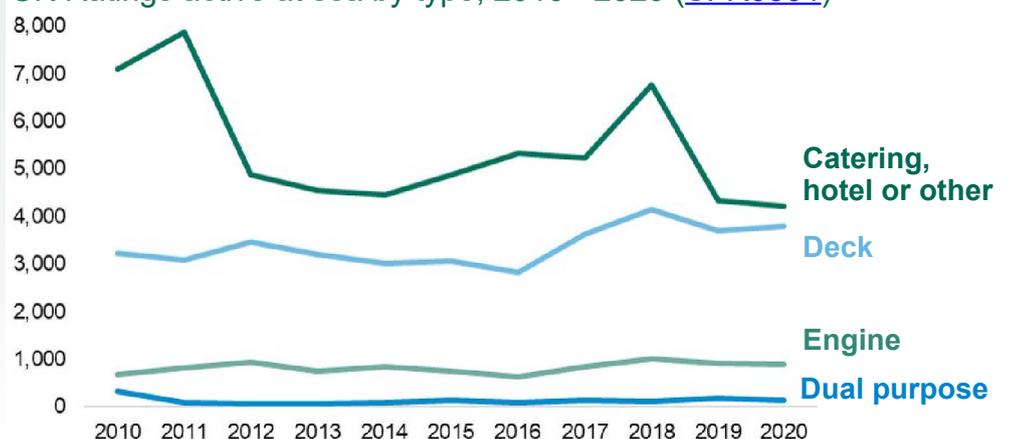
The number of UK Uncertificated Officers is estimated to be 1,210 in 2020, accounting for around 7% of all UK seafarers active at sea. This proportion has been relatively stable since 2017 relative to all seafarers surveyed in those respective years.

The number of UK Ratings in 2020 is consistent with levels seen from 2012, accounting for 55% of UK seafarers active at sea in CoS companies in 2020. The exception to this trend is a 23% increase in 2018, explained by a large company moving their business to the UK in 2018 and the subsequent fall in 2019 by a different large company leaving the membership. When broken down by department, Uncertificated Officers and Ratings figures appear stable since last year.

UK Uncertificated Officers active at sea by type, 2010 - 2020 (SFR0301)

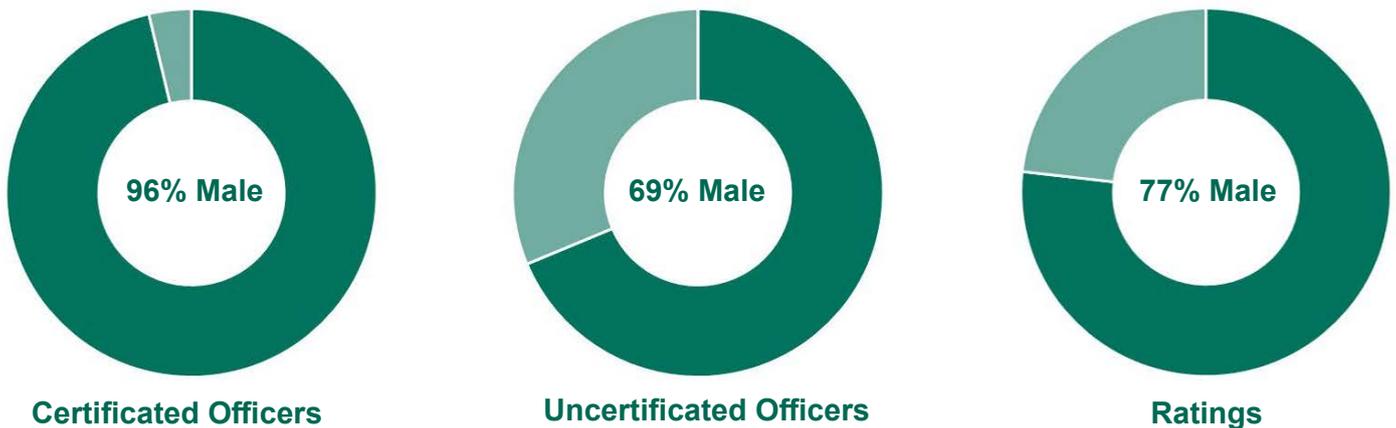### UK Ratings active at sea by type, 2010 - 2020 (SFR0301)

Age and gender profiles of UK seafarers active at sea

In 2020, 50% of UK seafarers were aged 40 to 61. However, deck and engine Ratings tended to be older on average than other seafarers with 70% and 64% of these groups aged 40 to 61 respectively. In comparison, 39% of hotel/catering/other Ratings and 47% of Uncertificated Officers were aged 40 to 61[4].

The majority of UK seafarers active at sea in 2020 were male (83%); of Certificated Officers 96% were male. Amongst Ratings, men accounted for an estimated 98% of deck and 99% of engine Ratings, compared with 62% for the hotel/catering/other grouping.

Gender distribution of UK seafarers active at sea (CoS members), 2020 (SFR0302)

96% Male
Certificated Officers

69% Male
Uncertificated Officers

77% Male
Ratings

Nationality groups

The EEA is comprised of the EU and Norway, Iceland, Leichtenstein.

The seafarer nationality was unknown for around 2% of the total recorded in the 2020 survey, with around 4% of Certificated Officers not having nationality recorded, lower than previous years.

Seafarers active at sea by nationality

In 2020, an estimated 19% of the seafarers active at sea with CoS member companies were UK nationals, with 16% of seafarers being from European Economic Area (EEA) countries.

An estimated 42% of Certificated Officers were from the UK, with 32% from EEA countries. In comparison, 14% of Ratings were UK nationals and a further 73% of this group were from outside the EEA. Non-EEA Ratings increased substantially in 2020, primarily due to returns from the cruise sector, who employ a large number of Ratings and have reported a fluctuating number of Ratings in recent years.

Seafarers active at sea (CoS members) by type and nationality, 2020 (SFR0303)

	UK nationals	EEA	Non EEA	Unknown nationality	
All seafarers active at sea	19%	16%	63%	2%	Total: 86,140
Certificated Officers	42%	32%	22%	4%	Total: 14,640
Uncertificated Officers	21%	29%	47%	3%	Total: 5,840
Ratings	14%	11%	73%	2%	Total: 65,670

4. Trends from CoS figures should be intrepreted with caution due to year on year changes in CoS membership.

Seafarer projections

The full report containing the latest UK seafarer projections was published in 2017.

A summary of the key findings from the projections was published alongside the 2016 seafarer statistics.

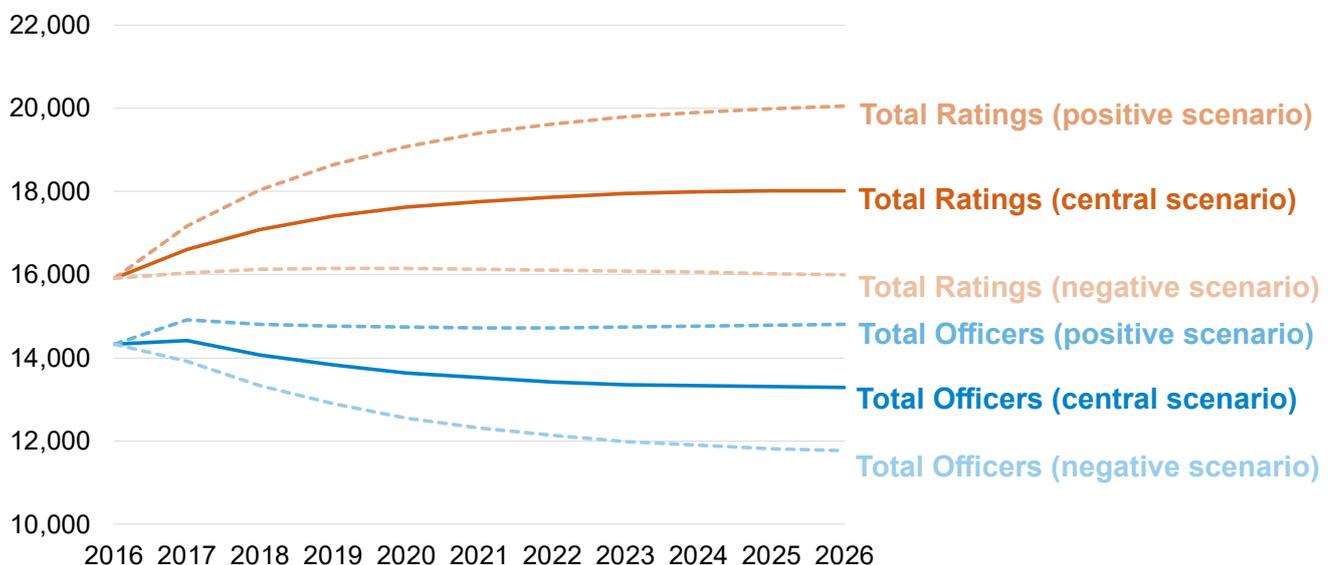A data table showing the key projections is included as part of these statistics, table SFR0401.

This section briefly summaries data available on seafarers and trainees available from other published sources, in areas where users of these statistics have expressed interest.

Seafarer projections

The latest seafarer projections were published in 2016; although based on the same underlying data as presented in these statistics, numbers were the results of a modelling approach which made a number of adjustments and assumptions, and so are not directly comparable.

The figures projected an increase in the supply of UK Ratings, and a decrease in the supply of total UK Officers - though sensitivity scenarios were also produced. These projections were published before the coronavirus pandemic and so do not reflect any impact of the pandemic.

Sensitivity scenarios for the supply of UK seafarers, 2016 to 2026 (SFR0401)

Total Ratings (positive scenario)
Total Ratings (central scenario)
Total Ratings (negative scenario)
Total Officers (positive scenario)
Total Officers (central scenario)
Total Officers (negative scenario)

Apprenticeships data

Information on the number of apprenticeship starts, numbers and achievements is published by the Department for Education and Education and Skills Funding Agency as part of their FE data library on apprenticeships.

Maritime apprenticeships

Apprenticeships are jobs with structured training which give apprentices a foundation to their career. Information on apprenticeships in the maritime sector is available via the Maritime Skills Alliance.

Currently limited statistics are available, but the latest show that the number of able seafarer (deck) apprenticeships starts was as follows:

2017/18: 61 starts

2018/19: 45 starts

2019/20 (reported to date): 60 starts (link to data for all years)

These figures provide an indication of the number of ratings currently being trained via apprenticeships, but there are other apprenticeships related to maritime where statistics are not readily available.

Introduction

One of the data sources used by the Department in the Seafarers in the UK Shipping Industry annual report is the annual Seafarer Employment Survey conducted by the UK Chamber of Shipping (CoS) of their member companies. This survey provides seafarer employment figures for ship owning or operating member companies. However, this survey is affected by the response rate. In a given year, if one member company employing a large number of seafarers does not respond to the survey this could impact the number of seafarers reported that year, and make the figures less comparable year-on-year. This is the issue addressed in the methodology detailed in this annex.

This survey is further influenced by changes in CoS membership. When a company leaves or joins the CoS this changes the number of seafarers employed by member companies, thus affecting the trends over the years. This reflects the fact that CoS' membership does not include all companies that are deemed in scope of the survey. As such, the survey does not provide figures for every seafarer employed in the UK shipping industry. While the methodology discussed in this annex does not address this issue, the Department will be looking to explore approaches to account for this in the future.

The Department has developed a method which estimates seafarer employment figures for those member companies who do not respond to the survey in a given year. This allows the trends and figures the Department reports on to remain representative of the CoS members as a whole. This is particularly important as the response rate can be variable across the years.

Table 1: CoS member companies deemed in scope of the survey and their response rate, by year

Year	Companies in Scope	Companies Returning Data	Response Rate
2010	69	68	99%
2011	74	74	100%
2012	68	64	94%
2013	74	59	80%
2014	72	65	90%
2015	72	67	93%
2016	71	61	86%
2017	72	68	94%
2018	89	69	78%
2019	93	81	87%
2020	92	79	86%

Table 1 shows the number of member companies deemed in scope of the survey each year and the response rate of these companies. Although response rates remain very high overall, they vary year-on-year and are on a slightly decreasing trend. In 2018, there was a noticeable increase in the number of companies deemed in scope of the survey as a large number of companies in scope of the survey became members of CoS in that year. The lowest response rate occurred in 2018 at 78%, although higher rates of 87% and 86% have been recorded in 2019 and 2020 respectively. Moreover, even for a similar response rate, the size of the companies who do not respond influences the size of the impact of non-response on the overall trends.

Defining the UK Shipping Industry

When the survey began the Department worked with the CoS to outline a clear definition of the UK shipping industry. For a CoS member company to be included in the annual report they must meet the following criteria:

► Crews must be managed from the UK, Isle of Man or Channel Islands

► The company and its operational purpose must be deemed part of the shipping industry

By this definition companies who are all non-UK crewed, manage their crewing operations wholly outside the UK or are outside of the shipping industry (e.g. most drilling companies) are deemed out of scope of the report. For non-responding companies to be accounted for by estimating their employed seafarers they must meet the same criteria.

Estimating Seafarer Figures for Non-Respondents

If a company does not provide data in a given year then their employment figures from the nearest previous year are used with a growth rate applied. A growth rate is applied to account for any change in trends that may have occurred since the company last provided figures. This growth rate is calculated using data for companies who provided data across both years. For example, for 2020 figures, if a company last provided figures in 2018, companies who returned data in both 2020 and 2018 would be used to calculate a growth rate. The growth rate is calculated using the following formula:

Looking at companies that <u>replied across both years:</u>

$$Growth\ Rate = \frac{Sum\ of\ Seafarers\ in\ year\ estimating\ for}{Sum\ of\ Seafarers\ in\ year\ estimating\ from}$$

Once a growth rate is calculated, this is applied to the company's nearest previous year figures to give an estimate of seafarers employed by the company in the year that is estimated for. This process is run across all years from 2010 onwards.

The seafarer figures are estimated with a different growth rate at all breakdown levels currently available in the annual release - by seafarer type, department, age group, gender and nationality. Calculating adjustments at this lower level accounts for the fact that trends over time are different for different groups of seafarers (e.g. by gender and age). This also allows for consistency in the published breakdowns, and more in-depth breakdowns and analysis of the CoS membership.

Where a breakdown includes unknown values (e.g. where a company has not provided certain demographic data such as age breakdowns) an overall year-on-year growth rate of all seafarers is applied, meaning the estimated figures grow in line with the total amount of seafarers in member companies. This prevents the over-estimation of missing breakdowns due to the prevalence of unknown values in any given year, which are assumed to be in line with overall seafarer trends.

There are instances where companies have never provided a return, but are in scope of the estimation. For these companies the mean number of seafarers employed per company in that year, once outliers (particularly large or small companies) are removed, has been applied. Going forward, the Department will be investigating further the best method to account for these

companies and will look to incorporate this in the next release. The options the Department will be investigating are:

▶ Keeping the current method of applying the mean seafarer employment figures for each year once outliers are removed

▶ Using fleet data to calculate the average number of seafarers for companies of similar fleet sizes

▶ Investigating the use of Safe Manning documents which provide information about the minimum number of seafarers required to work on each ship

The Department welcomes feedback from users on the suitability of the exploratory approaches described above at maritime.stats@dft.gov.uk.

The largest gap in time over which figures are estimated is 8 years (in one instance a company who did not return data in 2015 had last returned data in 2007). As the growth rates are based on a large amount of companies due to the consistency of CoS members, the growth rates are considered to be robust enough to show the changes in the shipping industry over large periods of time.

Table 2: CoS members accounted for by estimating their employed seafarers and the proportion these estimated seafarers make-up of the overall total, by year

Year	Companies Estimated	Proportion of Seafarers Estimated
2010	1	0.1%
2011	0	0.0%
2012	4	1.9%
2013	15	11.2%
2014	7	4.6%
2015	5	1.4%
2016	10	6.9%
2017	4	1.8%
2018	20	5.0%
2019	12	4.9%
2020	13	5.0%

Table 2 shows the number of companies accounted for by estimating their employed seafarers in each year and the proportion these estimated seafarers represent of the total seafarer employment figures. It should be noted a larger number of companies being imputed for in one year does not necessarily imply a larger proportion of seafarers estimated, as if the non-responding companies historically employed a small number of seafarers their estimated seafarers will also be smaller. The largest proportion of seafarers estimated was 11% in 2013 with 15 companies not returning data. In 2020, 5% of the seafarer figures were estimated, a similar level to 2019. Overall, the proportion of seafarers estimated is small in any given year meaning the seafarer employment figures are largely comprised of actual data returns from CoS member companies.

Overall estimation results

When estimated figures are combined with the returned data supplied by CoS to give a full picture of CoS membership, the trends are generally similar to the published figures based on raw company returns only. This shows that the figures that were previously published were of generally good quality and a good representation of the CoS membership. The estimation provides a larger uplift and some changes in trends in some years, the reasons for this are outlined below.

Chart 1: Seafarers of all nationalities active at sea by year, adjusted vs as returned
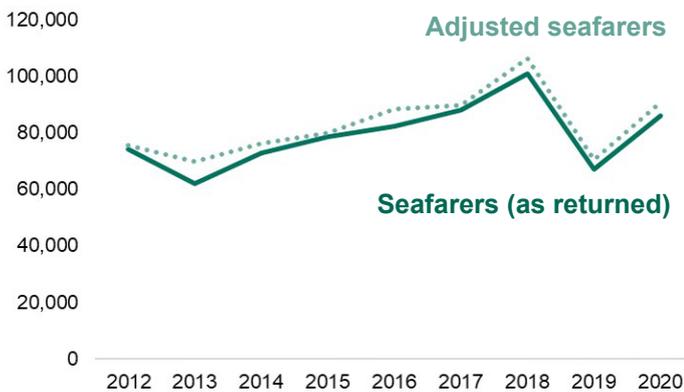

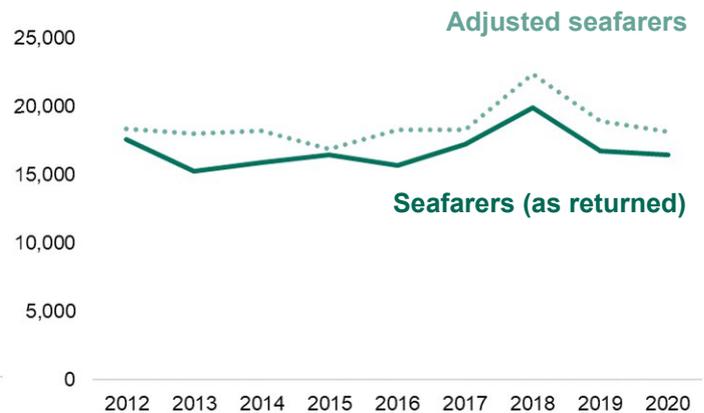### Chart 2: UK Seafarers active at sea by year, adjusted vs as returned

Chart 1 shows that there was a larger uplift in 2013 and 2016 for seafarers of all nationalities active at sea, this is because there was a lower response rate from those companies deemed in scope of the survey and a larger proportion of the data was estimated as shown in table 2.

Chart 2 shows that in 2014, there was a larger uplift among UK-national seafarers compared to other years, due to two larger companies who employed a large number of UK seafarers being accounted for. This illustrates the effect of larger companies in the estimation process. While 2015 had a similar in scope response rate to 2014 (93% in 2015, 90% in 2014), its uplift from the estimation was smaller because the companies estimated for were companies with low seafarer employment figures in the years previous.

Estimation results by seafarer type

Chart 3: UK Ratings active at sea, adjusted vs as returned
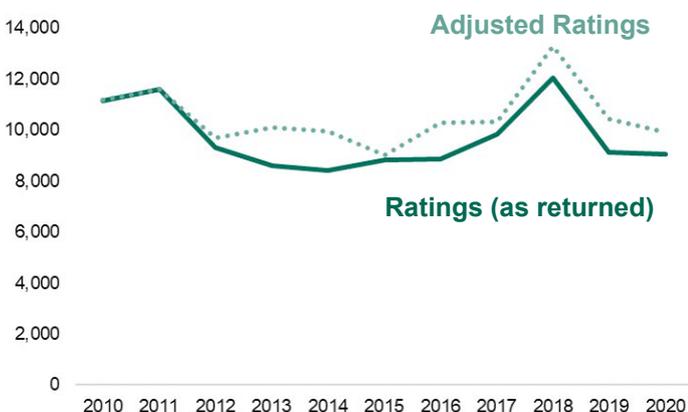

Chart 4: UK Uncertificated Officers active at sea, adjusted vs as returned

When observing the trends by seafarer type (charts 3 and 4), larger fluctuations in trends of estimated seafarers compared to raw figures can be seen in Ratings, although they follow broadly the same pattern. These larger differences between estimated and raw figures is due to Ratings often being a larger group of seafarers in a company, therefore where a company that employs Ratings does not return in a given year this is likely to cause a larger uplift from estimation than other seafarers types. Uncertificated Officers only receive notable, but small, uplifts in 2016 and 2018 and so trends remain stable in this group.

Chart 5: UK Ratings active at sea by department (Engine & Dual Purpose), adjusted vs as returned
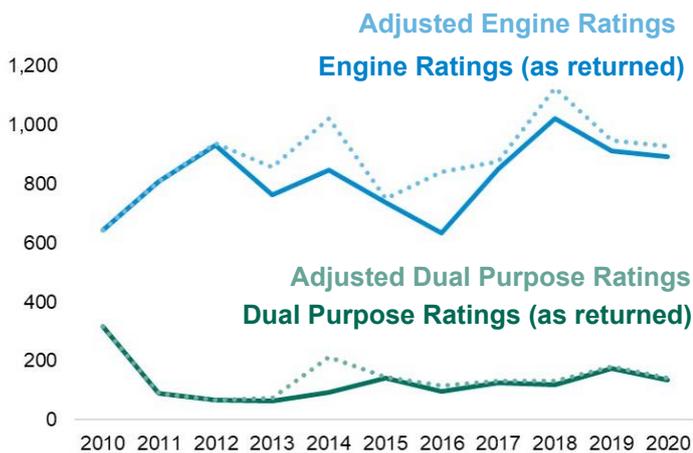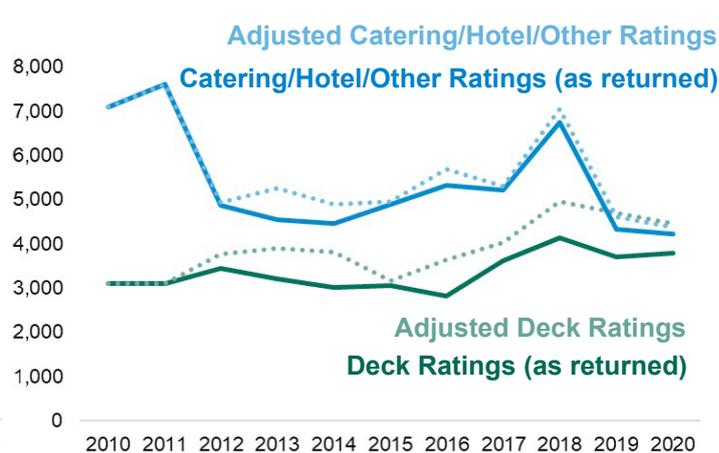
Chart 6: UK Ratings active at sea by department (Deck & Catering/Hotel/Other), adjusted vs as returned

Charts 5 and 6 further demonstrate the impact of certain types of companies being estimated. These uplifts appear more varied in some groups, such as Dual Purpose Ratings. This is due to this group being employed in low numbers by companies who historically have had a higher response rate to the survey. In 2014 one company who normally employs a larger number of Dual Purpose Ratings did not reply to the survey, causing a larger uplift from the estimation in that year. It is worth noting that smaller breakdowns of seafarers are more sensitive to growth rates estimated between years.

Engine Ratings are normally employed in small numbers, with some companies with larger fleets employing a larger number of this group. Where one of these larger companies does not reply to the survey in a certain year, this causes a large uplift such as in 2014 and 2016.

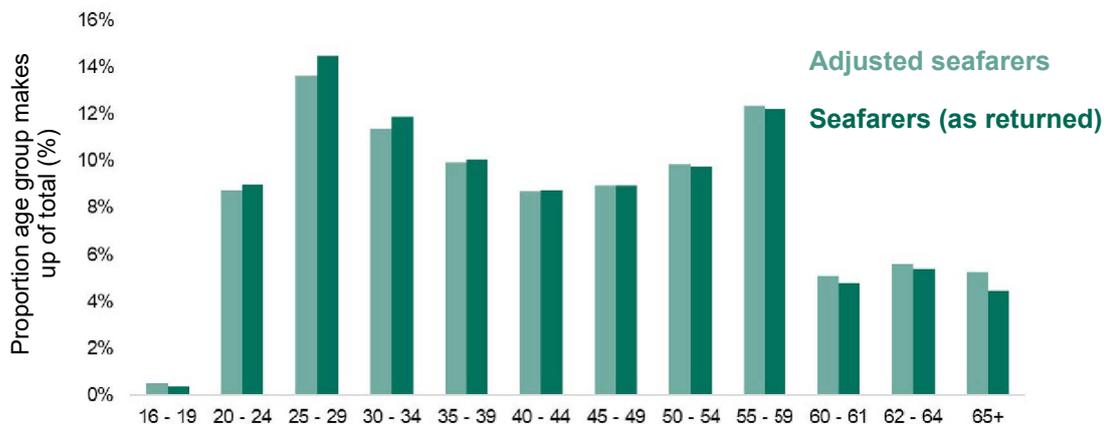## Impact of estimation on demographic proportions in 2020

When broken down by gender, the proportions of seafarers who are female in 2020 across all seafarer types and departments remain similar once estimation is applied, as can be seen in Table 3.

Table 3: Proportion of seafarers in 2020 who are female in data as returned and when adjusted, by type and department

Type	Department	Proportion Female (as returned)	Adjusted Proportion Female
All seafarers active at sea		17%	15%
Certificated Officers	Deck	5%	4%
	Engine	2%	2%
	All Certificated Officers	4%	3%
Uncertificated Officers	Technical	45%	44%
	Catering/Hotel/Other	1%	1%
	All Uncertificated Officers	31%	30%
Ratings	Deck	2%	2%
	Engine	1%	1%
	Catering/Hotel/Other	39%	38%
	General Purpose/Dual Purpose	0%	0%
	All Ratings	23%	21%

Chart 7 shows the proportion of seafarers in each age group (of which age is known) in 2020. When comparing the proportion each age group makes up of the total sample across estimated and raw data, the proportions are similar across all age groups.

Chart 7: Age distribution of seafarers by proportion of age group in 2020, as returned and adjusted

Feedback and next steps

The Department is proposing to implement this estimation for non-response in future releases and for the estimated figures to replace the raw CoS figures from 2010 onwards in the release and published tables. We welcome your feedback on this approach, and whether this meets your needs. If you wish to provide feedback please contact us at maritime.stats@dft.gov.uk.

We will continue to monitor and publish the response rate to the survey and ensure this remains high so that estimated seafarers continue to only make up a small portion of the overall total. If implemented, we will monitor the performance of this methodology in estimating seafarer employment figures for CoS member companies by monitoring the stability of the trends over time and the growth rates used to estimate figures. Further refinements to this method are expected to be made, particularly based on the findings of the investigation into the most appropriate way to

account for member companies who have never returned to the survey and the feedback provided by users around this.

Following on from the implementation of this methodology we will look to explore approaches to account for seafarers not employed by CoS member companies but would be deemed part of the UK shipping industry. Previously, the Department has collected data on seafarers active at sea working for companies outside the membership of the CoS. Unfortunately, this data proved to be insufficient to allow improved estimates to be published. Therefore, we welcome feedback and suggestions from users on suitable approaches to accounting for these seafarers at maritime. stats@dft.gov.uk.

Wider context

The figures in section one do not attempt to count everyone who works in a seagoing capacity in the UK; the focus is on the 'merchant navy' for which seafarer certification is managed by the MCA. The following are other groups that are outside the scope of this publication but may be considered to be in seafarer roles:

► The **Royal Navy**, which has a regular trained strength of around 40,000 based on [Ministry of Defence statistics](#) (however the [Royal Fleet Auxiliary](#) is included in the above estimates)

► **Fishermen** – there were an estimated 12,000 UK fishermen in 2019 based on statistics compiled by the [Marine Management Organisation](#).

► **Superyachts** – most UK nationals working as crew aboard yachts will not be in scope of the above statistics (though Officers with MCA certificates to work on yachts will be included). Industry estimates place the number of UK nationals working in the superyachts sector at 19,000.

► **Workboats** – those working on smaller vessels, such as those in companies belonging to the [National Workboat Association](#), are unlikely to be covered though no estimate is available.

► **Inland waterways** – MCA has issued 3,600 [Boatmaster licences](#) for work on inland waters and near coastal work over the five years to mid-2017.

► Those working in **roles on shore**.

It is possible that seafarers can belong to more than one of these groups. Producing an overall estimate of all UK nationals working at sea from the available data is challenging.

Further information

Data tables. This release is a summary of a larger set of data tables, charts and documentation on seafarer statistics available from the Department for Transport website at: https://www.gov.uk/government/statistics/seafarers-in-the-uk-shipping-industry-2020.

Technical and background quality information. A technical note (data sources, methods, definitions and data issues) and backround quality report (quality of statistical outputs) can be found here: https://www.gov.uk/government/publications/maritime-and-shipping-statistics-guidance.

National Statistics. These statistics are badged as National Statistics meaning that they are produced to high professional standards set out in the [Code of Practice for Statistics](#). These statistics were designated as National Statistics in February 2013. More information can be found here: https://www.gov.uk/government/publications/maritime-and-shipping-statistics-national-statistics-status

Details of Ministers and officials who receive pre-release access to these statistics up to 24 hours before release can be found here: https://www.gov.uk/government/publications/pre-release-access-lists-for-maritime-and-shipping-series.

Next update. The next update in this annual series is provisionally scheduled for December 2021.

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