



BIMCO / ISF MANPOWER 2005 UPDATE

The worldwide demand for and
supply of seafarers



December 2005



SUMMARY

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The *BIMCO/ISF Manpower Updates* are regarded as the most comprehensive assessment of global supply of and demand for merchant seafarers. This report builds on studies conducted in 1990, 1995 and 2000. It has two main purposes: to describe the current worldwide supply and demand situation for seafarers, and to make predictions for 5-10 years ahead to assist the industry anticipate changes and to take appropriate action.

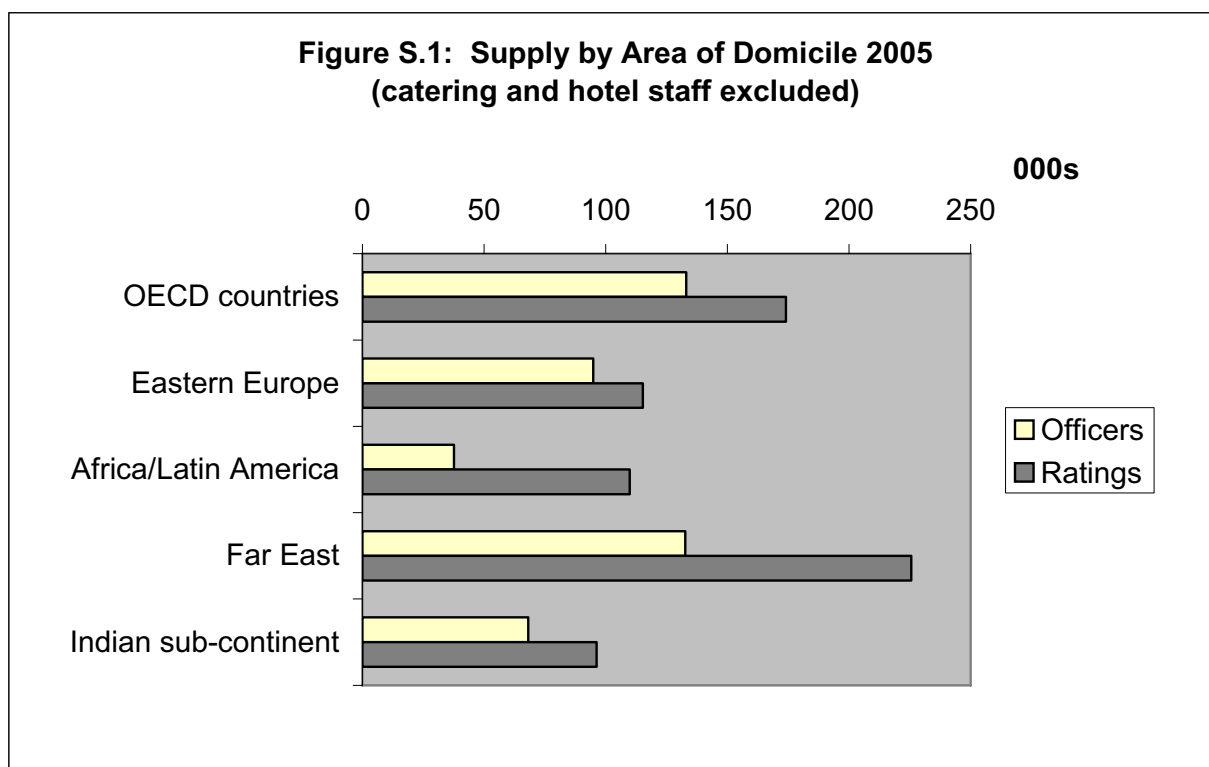
The *2005 Update* is based on data collected from questionnaires sent to governments and shipping companies, and again incorporates senior executives' and maritime administrations' views and academic analysis (provided by the Warwick Institute for Employment Research).

This Summary outlines the key conclusions and highlights key issues arising.

KEY CONCLUSIONS

Supply in 2005

An updated estimate of global seafarer supply has been produced based on the most recent national statistics provided by authorities in almost all principal labour supply and other maritime countries. The **worldwide supply** of seafarers in 2005 is estimated to be **466,000 officers** and **721,000 ratings**. The OECD countries (North America, Western Europe, Japan etc.) remain an important source of officers, although Eastern Europe has become increasingly significant with a large increase in officer numbers. The Far East and South East Asia (the "Far East"), and the Indian sub-continent remain the largest sources of supply of ratings and are rapidly becoming a key source of officers.



Source: BIMCO/ISF estimates.

Demand in 2005

As in previous studies a computer model has been used to produce global demand estimates. This involves reviewing the number, size and type of ships in the world fleet, as well as revised estimates of manning levels and back-up ratios currently applicable to different national fleets. The Seafarers' International Research Centre (SIRC) database has also been used to verify manning levels based on crew lists.

The initial demand estimate combines fleet size and manning scale information and has been calibrated to be consistent with the supply estimates. The calibration is based on the overall supply/demand balance estimates derived from comprehensive data supplied by around 100 companies. The current estimate of **worldwide demand** for seafarers is **476,000 officers** and **586,000 ratings**. The company database also includes information on nationality, age structure, wastage and attrition estimates.

Supply / Demand Balance 2005

The estimates in the table below indicate a modest theoretical worldwide **shortfall** of **10,000 officers** or **2 %** of the total workforce.

A significant overall **surplus** is estimated for **ratings**, although doubts exist as to how many are available for international service.

The calculated officer shortfall is less severe than in 2000. There is some evidence of improved supply, which in the Indian sub-continent and Far East reflects increased levels of maritime training. However, some of the main supply increases are due to one-off factors, such as better data reporting following the implementation of STCW 95 and the entry of Eastern European personnel into the commercial market following the decline of state-owned fleets. Furthermore, although the overall officer shortage is less marked than in 2000, some specialised ships and certain ranks are experiencing severe shortages. Early retirement is a factor in some countries.

The total number of ships grew by 1 % per annum between 2000 and 2005, which is in line with previous predictions, but there has been a significant increase in the number of larger vessels. The overall scale of demand for officers is higher than predicted in 2000, and seafarer demand appears to have grown more rapidly than predicted in 2000 but supply has also increased significantly.

In practice, the overall officer shortfall is probably more problematic than an estimated shortfall of 2% suggests, bearing in mind the obstacles preventing surpluses of some nationalities from compensating shortages elsewhere. Barriers include cultural and language differences, lack of international experience and seafarer nationality restrictions imposed by some flags.

Supply and Demand in 2005

Table S.1: Demand Supply Summary, 2005

	Supply (000s)	Demand (000s)	Balance (000s)
Officers	466	476	-10
Ratings	721	586	135

Source: BIMCO/ISF estimates.

Future Supply / Demand Balances

The *Update* presents various global supply / demand balance scenarios for the future. However, the central or “benchmark” scenario represents the most likely trends based on recent developments and the views of senior shipping executives. This allows for a modest expected increase in the number of ships in the world fleet of around 1 % per annum (the growth rate over the past decade). It assumes that recruitment and wastage rates will remain similar to those experienced over the past five years, based on data reported.

Despite these conservative assumptions, the current moderate officer shortage will become more severe unless maritime training is further increased and measures are taken to address wastage rates.

The forecast is sensitive to various factors explored more fully in the main report, and this is illustrated briefly by the graphical examples attached to this Summary. Despite these uncertainties, the prospects of increased demand and diminishing supply present an unfavourable situation for the industry.

Table S.2: Supply/Demand Balances

	2005		2015	
	000s	%	000s	%
Officers	-10	-2.1	-27	-5.9
Ratings	135	18.8	167	21.6

Source: BIMCO/ISF estimates.

KEY ISSUES

Changing nationalities

The results confirm that the centre of gravity of the labour market for seafarers has continued to shift from the traditional maritime countries of Western Europe, Japan and North America towards the Far East, Indian sub-continent and Eastern Europe. China has seen a significant increase in maritime labour supply, although most of the additional workforce is currently used by the Chinese-owned fleet to meet expanding domestic requirements. Some Chinese crews still experience English language difficulties.

Increased demand

During the past decade, the number of commercial fleet vessels has increased by an average 1% per annum. Overall demand for both officers and ratings has increased, partly due to new larger ships. Newbuildings have increased in number and scrapping has reduced. In general, there is little scope for further manning reductions, since international requirements, such as work hour regulations and the ISPS Code, together with commercial demands, have increased the workload on board. Therefore, even a modest future increase in ship numbers will result in additional demand for seafarers, which can only be met by increased recruitment and training. Severe shortages in some ranks and for certain specialist ships must be addressed in training plans.

Dependence on ageing OECD officers

The world fleet continues to rely heavily on officers from Europe, North America, Japan and other OECD countries. However, over 25% of these are over 50 years old, and well over 50% are over 40. Most are in senior positions such as Masters or Chief Engineers. The impact of their retirement, without adequate numbers of well trained and experienced replacements, could be severe.

Need to progress Asian seafarers to senior positions

The data suggest that, unlike OECD countries, relatively few officers from the Far East or the Indian sub-continent choose to remain at sea over age 50 (see attached age profile graphs; fewer than 8 % of officers from the Far East are over 50). This may explain why these nationalities remain under-represented in senior positions, though this may not be the only reason. It is possible that this trend might be expected in newer labour supply countries and that age profiles will mirror the OECD pattern over time but age profiles established over the last 10 years suggest this pattern has remained consistent. If substantial numbers continue to retire by the age of 50, this may challenge the assumption that Asian officers will replace retiring OECD senior officers. The retirement patterns of East European officers are not yet clear but the next five years may reveal a trend.

Need to increase recruitment and reduce wastage

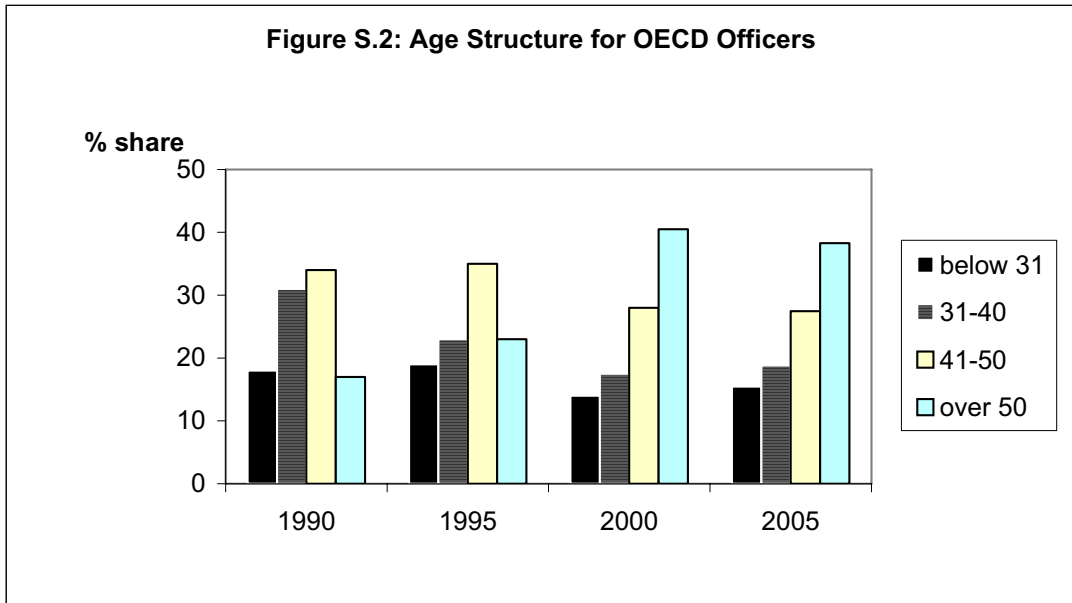
Encouragingly, overall recruitment and training levels have been increased. However, the *Update* shows that recruitment levels need to increase further to meet anticipated demand. At the same time, it is imperative to reduce numbers leaving the industry. This is particularly relevant for officer trainees, since the *Update* demonstrates that around 1 in 10 overall fails to complete training (although figures are much lower for the Indian sub-continent and Africa / Latin America). There is a need to improve selection techniques and career perceptions, as well as to understand the factors affecting retention. In some countries, consideration could be given to methods of upgrading ratings with the necessary education and skills for promotion to officer.

Need for improved data

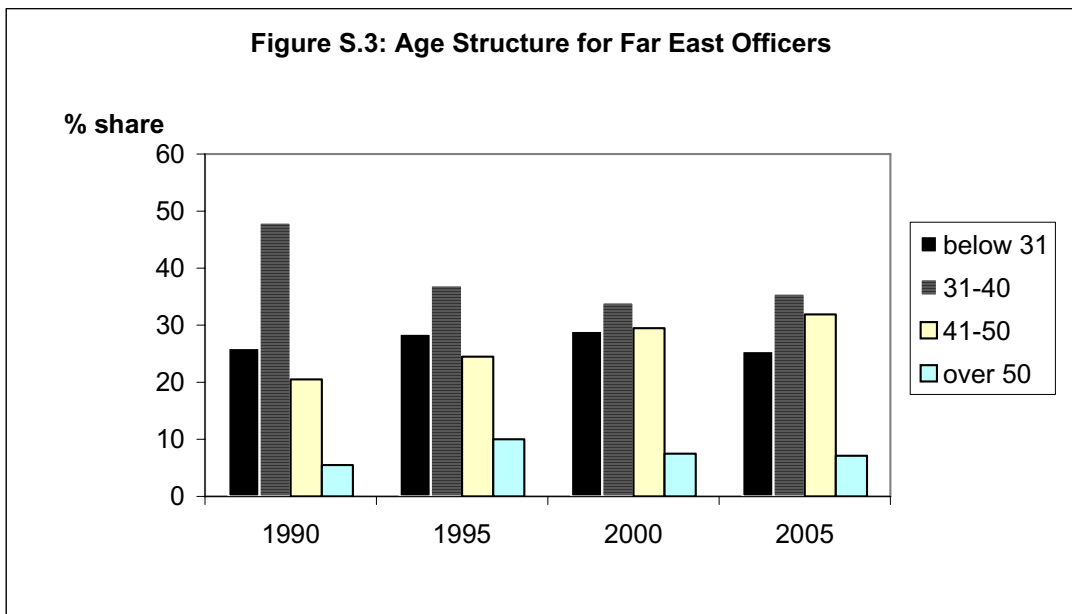
Clear improvements in basic source data were apparent from implementation of STCW 95. However, there is still a serious need for improved national data, and this *Update* highlights data weaknesses in many countries. This survey primarily aims to present a global manpower situation overview rather than a country by country analysis. Nevertheless, the data do provide pointers for action on a national basis to deal with the manpower situation, and any measures taken must be supported by good data provision.

CONCLUSION

The *2005 Update* suggests that there is a modest shortage of officers worldwide and a continuing surplus of ratings. While the shortfall of officers is smaller than estimated in 2000, certain sectors of the industry have experienced very severe shortages, and the continuing growth of the world fleet, combined with work pressures on crews, indicate that demand for qualified seafarers will continue to increase over the next decade. This demand will only be met if the increase in levels of recruitment and training is maintained and if wastage rates are reduced.

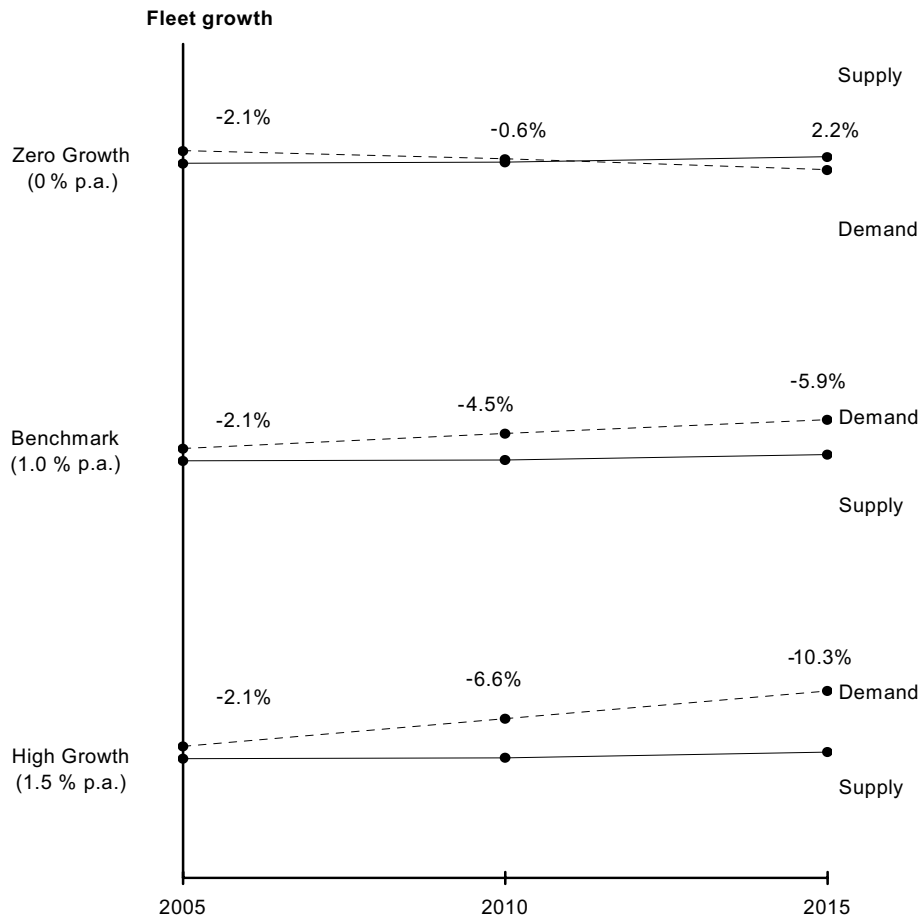


Source: BIMCO/ISF estimates from Company Surveys.



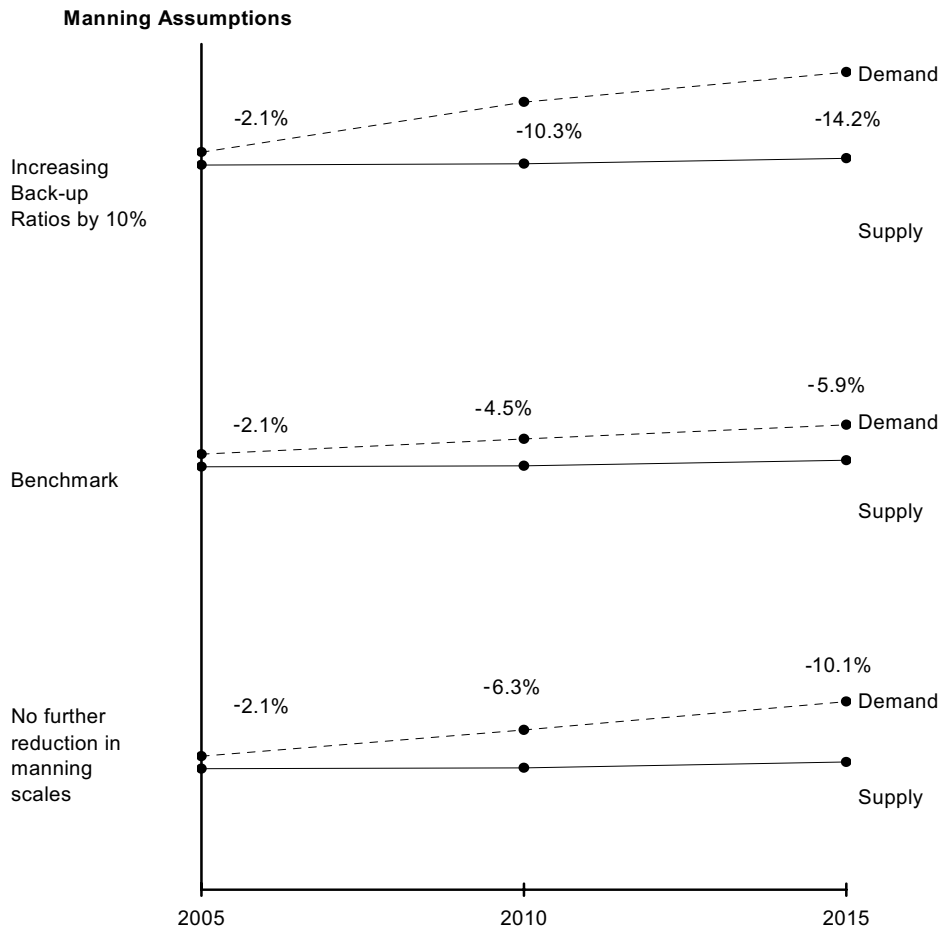
Source: BIMCO/ISF estimates from Company Surveys.

**Figure S.4: Supply-Demand Gap for Officers:
Sensitivity to Fleet Growth**



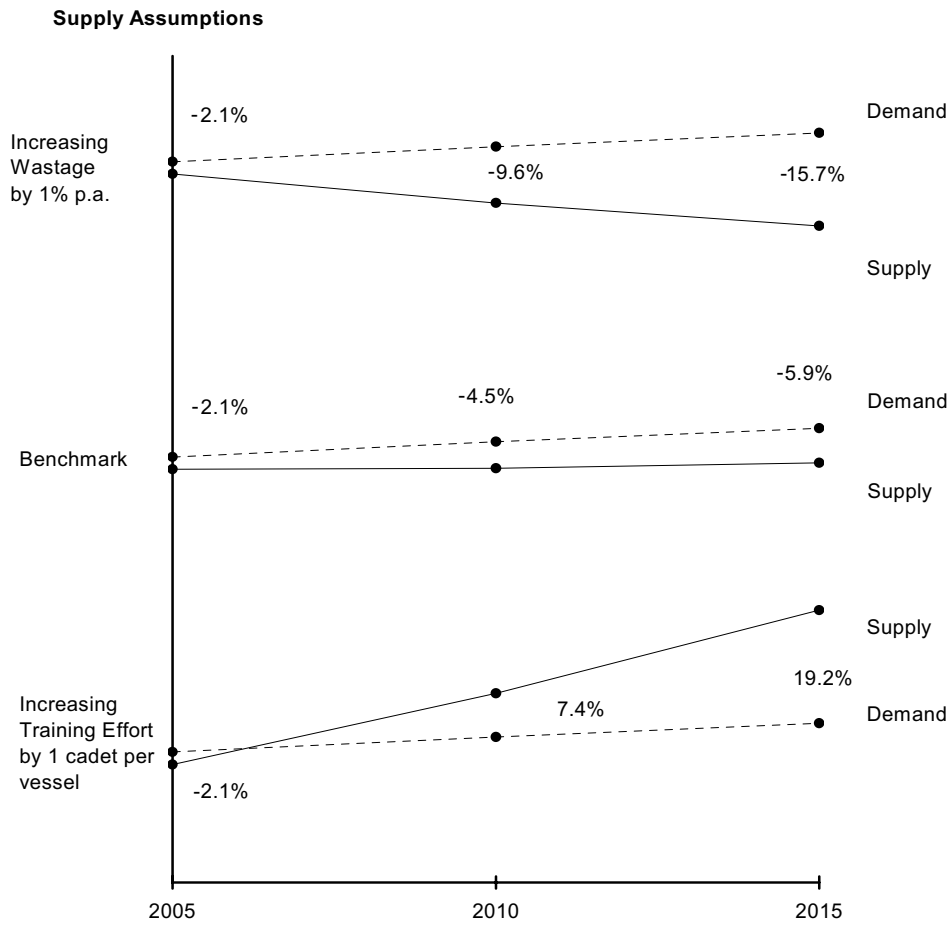
Source: BIMCO/ISF estimates based on computer model.

**Figure S.5: Supply-Demand Gap for Officers:
Sensitivity to Manning Assumptions**



Source: BIMCO/ISF estimates based on computer model.

**Figure S.6: Supply-Demand Gap for Officers:
Sensitivity to Supply Assumptions**



Source: BIMCO/ISF estimates based on computer model.