INDIAN SEAFARING OFFICERS

Compensation and Benefits Survey 2012

FOSMA

A Initiative

Conducted by

ISF HR Services

ISF

Foreign Owners Representatives and Ship Managers Association (FOSMA) is the pioneer Association of Foreign Ship-owners Representatives, Foreign Ship Managers, Ship Manning Agents in India. Established in 1989, FOSMA has today risen to its present eminent position comprising of thirty two member companies representing majority of Indian Seafarers working on foreign flag vessels.

FOSMA is actively involved in representing the views of the industry, and working along with the maritime administration of India in matters relating to Recruitment and Placement of Seafarers, Merchant Shipping, Maritime Education and Training, Assessment, Examination and Certification Matters, Maritime Labour Conventions, STCW matters, etc.

FOSMA has also been running its own maritime training institutes for the general benefit of all seafarers at Kolkata, Delhi, Haldia and Mumbai, with a spread of courses from pre-sea to Master / Chief Engineer.

ISF HR Services, established in 2003, is a company actively involved in Training and Consultancy in Human Resource and Management areas and is a part of the ISF Group (www.isfgroup.in). Other activities of the Group include maritime training, distance learning programmes, maritime audits and surveys, software development and E-learning (www.ispelearning.com).

The following members of the ISF HR Services have been involved in the survey, statistical analysis and authoring the **"ISF Seafaring Officers Wages Benchmarking Report – 2011".**

Pawan Kapoor is the Chief Executive of ISF HR Services. He is a marine engineer, with career spanning 31 years, during which he has sailed for 10 years and has worked ashore in the maritime education sector for 20 years. With over 12 years experience in developing and managing training organizations, he has used his experience in writing several project/feasibility reports for institutes in India.

Poonam Kapoor has a Masters degree in Economics and is currently pursuing her doctorate in **"International Trade in Services with special focus on Maritime Trade"** at the Mumbai University.

Participating Companies

The following FOSMA member and non member companies have participated in this benchmarking exercise:

1. Andromeda Shipping (India) Pvt. Ltd.
2. Campbell Shipping Pvt. Ltd.
3. Chellaram Shipping Pvt. Ltd.
4. Confidence Shipping Co. Pvt. Ltd.
5. Dockendale Ship Management (India) Pvt Ltd.
6. Dynacom Tankers Management Ltd.
7. ELITE Mariners Pvt. Ltd.
8. Genoa Maritime (Cyprus) Ltd.
9. G S Marine Services Pvt. Ltd.
10. Herald Maritime Services Pvt. Ltd.
11. IMS Ship Management Pvt. Ltd.
12. K Line Ship Management Co. Ltd. (KLSM)
13. K Steamship Agencies Pvt. Ltd
14. Medallion Marine Pvt. Ltd.
15. MMS Maritime (India) Pvt. Ltd.
16. Nortrans Maritime Services
17. NYK Shipmanagement PTE Ltd.
18. Orient Ship Management & Manning Pvt. Ltd.
19. Scorpio Marine Management (India) Pvt. Ltd
20. Sea Team Management (India) Pvt. Ltd.
21. Seaspan Crew Management India Pvt. Ltd.
22. Selandia Crew Management(India) Pvt. Ltd.
23. V. Ships India Pvt. Ltd
24. Wallem Shipmanagement (India) Pvt. Ltd.
25. Wilhelmsen Ship Management (India) Pvt. Ltd.
26. World Tankers Management Pte. Ltd.

Abbreviations Used

- CAGR – Compound Annual Growth Rate
- FSO - Floating Storage and Offloading unit
- LNG – Liquefied Natural Gas
- LPG – Liquefied Petroleum Gas
- Max – Highest value in a set of data
- Min – lowest value in a set of data
- P10 – 10th percentile in the set of data
- P25 – 25th percentile in the set of data
- P75 - 75th percentile in the set of data
- P90 – 90th percentile in the set of data
- PCC – Pure Car Carrier
- RORO – Roll-on / roll-off ship
- SD – Standard Deviation
- USD – United States Dollars

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1. Introduction

1.1. Aim of the study

To provide empirical evidence for supporting decision making for ship owners, managers and manning agencies while budgeting crew costs and for taking informed decisions pertaining to existing Indian manpower for their sustained marketability.

1.2. Target population covered during survey

This study has been carried out on Indian deck and engineering officers on board ships of foreign companies having manning, management or liaison offices in India. The total number of Indian officer onboard positions covered in this survey is **6609** from **26** companies. Some of the ship management companies have several clients whose wage scales are different. In such cases the clients have been treated for the purpose of survey as separate companies. The total number of respondent companies/sub companies are **34**.

The breakup of participating companies in various categories is given in below table. Category 1 companies are those which have less than 200 officer positions onboard, Category 2 are between 200-500 officer positions on board and Category 3 are those with more than 500 officer positions onboard.

Company Type	Category 1 Less than 200 officers onboard	Category 2 Between 200 to 500 officers on board	Category 3 500 plus officers on board	Total
Ship Owning Companies	7	2	1	10
Ship Management Companies	6	1	2	09
Recruiting Agencies	4	0	2	6
				25

While the total number of companies participating in this survey is 26, one of the ships owning respondent company is provided manning by two recruiting agencies who are also participants in this benchmarking survey. For this reason the total number of respondents above is worked out as 25.

2. Executive Summary

FOSMA Wages Benchmarking Survey Report 2012 is a strategic tool for companies to have an overview of the existing market scenario helping in strategizing their company position and yet having the best talent from the industry. It makes one aware of the most critical inputs for developing a compensation and benefits strategy:

- Industry wages for all the ranks
- Demand and Supply trends of the industry
- Future trends of the industry

The report highlights the following:

- Current wages of all the ranks and other additional benefits ,
- Overall view of the trends from 2007, yearly growth and compound growth.
- Comparison of the wages of the junior ranks with foreign nationals
- Current availability of seafarers
- Relation between wages and availability of competent seafarers.

Seafarers' availability and the dip in overall earnings for ship owners are the reason for stabilization of wages compared to previous years and in some cases the wages are being reduced.

There is still a large pool of seafarers available to be absorbed in the market but the Indian seafarers seem to be have lost their preferred status. However this can be restored provided some real aggressive steps are taken by decision makers at all levels to improve the quality, enhance their moving up the ladder and further rationalize the wages.

3. Wages Benchmarking – 2012

This section presents the analysis of 2012 wages for the seafarers derived from the data shared by the participating companies. The outcomes have been presented in form of tables for various ship types as well as each rank under different ship types. The tables display statistical analysis like Mean, Median, Percentiles and Standard Deviations etc. for each rank for efficient decision making. A brief explanation of the various statistical tools used has been included in the appendices.

3.1. Oil Tankers

Total respondents: 24 companies (70.58%). However the actual number of sea faring officers could not be determined from the data made available.

Master

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	10000	10500	10813	11308	11518	12438	12500	13000	883
Final Year Wages	11500	12720	13050	13400	13381	13758	14300	14560	676

Chief Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	9800	10421	10533	11152	11322	12225	12300	12900	871
Final Year Wages	10900	12530	12875	13287	13208	13481	14200	14310	728

Chief Officer / Second Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	7000	8222	8497	9006	8847	9250	9505	9750	618
Final Year Wages	8100	9504	9785	9987	10014	10419	10570	11110	591

Second Officer / Third Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	3995	4216	4355	4516	4541	4800	4818	5000	277
Final Year Wages	4250	4662	4788	4916	4966	5117	5399	5500	308

Electrical Officer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	3200	4007	4415	4600	4515	4803	5000	5050	473
Final Year Wages	4250	4846	5088	5336	5246	5458	5540	6000	351

Third Officer / Fourth Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	2500	3159	3475	3663	3603	3800	3892	4421	376
Final Year Wages	2800	3800	3800	3857	3939	4100	4410	4620	347

Deck Cadet

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	281	350	391	450	454	516	575	640	95
Final Year Wages	321	400	450	484	508	593	638	750	105

Trainee / Jr. Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	350	415	561	675	747	787	1359	1387	319
Final Year Wages	365	450	561	700	790	827	1362	1387	324

3.2. Chemical Tankers

Total respondents: 12 companies (35.29%). However the actual number of sea faring officers could not be determined from the data made available

Master

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	10500	10500	10813	11600	11552	12200	12400	12800	811
Final Year Wages	12605	13100	13325	13765	13611	13850	14300	14300	514

Chief Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	10400	10473	10500	11450	11316	11925	12300	12500	804
Final Year Wages	12474	12910	13255	13450	13480	13788	14170	14300	528

Chief Officer / Second Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	8200	8487	8500	8950	8997	9513	9595	9700	542
Final Year Wages	9786	9815	9950	10275	10216	10425	10590	10600	302

Second Officer / Third Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	3995	4205	4363	4500	4506	4650	4800	5000	279
Final Year Wages	4653	4751	4819	5000	5020	5134	5380	5500	258

Electrical Officer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	3200	3734	4334	4550	4447	4850	5000	5000	554
Final Year Wages	4833	5060	5188	5400	5367	5437	5680	6000	301

Third Officer / Fourth Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	3000	3210	3344	3600	3563	3725	3980	4050	313
Final Year Wages	3750	3800	3836	3950	4043	4213	4475	4500	267

Deck Cadets

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	350	350	388	425	431	455	542	550	70
Final Year Wages	400	400	450	450	493	525	650	650	88

Trainee / Jr. Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	350	400	506	600	595	675	782	800	146
Final Year Wages	400	440	561	700	638	700	786	800	140

3.3. LPG

Total respondents: 6 companies (17.65%). However the actual number of sea faring officers could not be determined from the data made available.

Master

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	10705	11228	11813	12100	11900	12308	12372	12400	632
Final Year Wages	12605	12878	13163	13600	13717	14225	14672	15045	895

Chief Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	10574	11037	11578	11905	11730	12148	12249	12300	634
Final Year Wages	12474	12687	12928	13405	13547	14100	14549	14897	913

Chief Officer / Second Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	8486	8893	9325	9500	9373	9675	9725	9750	468
Final Year Wages	9786	9968	10163	10300	10302	10400	10637	10875	360

Second Officer / Third Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	4253	4287	4365	4600	4595	4775	4899	4998	289
Final Year Wages	4545	4599	4690	4900	4983	5225	5449	5598	403

Electrical Officer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	4433	4517	4650	4900	4814	5000	5025	5050	251
Final Year Wages	4833	4992	5200	5375	5364	5513	5725	5900	361

Third Officer / Fourth Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	3298	3449	3613	3725	3737	3966	4036	4050	283
Final Year Wages	3750	3775	3812	3974	3995	4191	4236	4250	222

Deck Cadets

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	400	420	450	468	474	500	530	550	56
Final Year Wages	450	457	468	500	514	500	590	650	79

Trainee / Jr. Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	600	620	650	700	686	700	749	782	68
Final Year Wages	650	670	700	700	706	700	749	782	47

3.4. LNG

Total respondents: 2 companies (5.88%). However the actual number of sea faring officers could not be determined from the data made available.

Master

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	15077	15084	15095	15114	15114	15132	15143	15150	52
Final Year Wages	15077	15364	15795	16514	16514	17232	17663	17950	2032

Chief Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	14625	14657	14704	14783	14783	14861	14909	14940	223
Final Year Wages	14625	14937	15404	16183	16183	16961	17429	17740	2203

Chief Officer / Second Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	10275	10385	10551	10827	10827	11102	11268	11378	780
Final Year Wages	11378	11558	11827	12277	12277	12726	12995	13175	1271

Second Officer / Third Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	4723	4818	4962	5200	5200	5439	5582	5677	675
Final Year Wages	5323	5358	5412	5500	5500	5589	5642	5677	250

Electrical Officer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	4623	4795	5053	5483	5483	5913	6171	6343	1216
Final Year Wages	5673	5740	5841	6008	6008	6176	6276	6343	474

Third Officer / Fourth Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	3453	3563	3729	4005	4005	4281	4447	4557	781
Final Year Wages	3953	4013	4104	4255	4255	4406	4497	4557	427

Deck Cadets

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	450	450	450	450	450	450	450	450	0
Final Year Wages	450	450	450	450	450	450	450	450	0

Trainee / Jr. Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	650	870	1200	1750	1750	2299	2629	2849	1555
Final Year Wages	650	870	1200	1750	1750	2299	2629	2849	1555

3.5. Bulk Carriers / Self Unloaders

Total respondents: 16 companies (47%). However the actual number of sea faring officers could not be determined from the data made available.

Master

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	7733	7915	8113	8375	8396	8725	8963	9000	405
Final Year Wages	8638	8815	9200	9463	9416	9595	9800	10440	456

Chief Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	7600	7789	8025	8225	8266	8413	8885	9000	411
Final Year Wages	8563	8650	9011	9328	9274	9493	9685	10240	440

Chief Officer / Second Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	6000	6372	6744	6966	6903	7143	7385	7500	413
Final Year Wages	6715	7118	7377	7550	7516	7781	7830	8025	338

Second Officer / Third Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	3000	3656	3819	3952	3943	4180	4354	4400	349
Final Year Wages	3400	3805	3945	4200	4177	4375	4569	4730	342

Electrical Officer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	2647	3304	3944	4200	4164	4603	4821	5200	669
Final Year Wages	3400	4185	4293	4525	4626	4967	5181	5800	561

Third Officer / Fourth Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	2300	2850	3021	3150	3245	3477	3795	4000	437
Final Year Wages	2500	3100	3290	3475	3442	3675	3707	4240	404

Deck Cadets

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	350	350	400	459	508	575	620	1000	161
Final Year Wages	400	450	450	570	571	618	710	1000	154

Trainee / Jr. Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	350	390	606	782	856	1025	1362	1650	385
Final Year Wages	350	498	663	861	928	1150	1362	1750	380

3.6. Ro Ro / PCCs

Total respondents: 6 companies (17.6%). However the actual number of sea faring officers could not be determined from the data made available.

Master

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	7830	7894	7969	8075	8295	8660	8915	9000	494
Final Year Wages	8930	8943	9016	9395	9530	9903	10254	10500	628

Chief Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	7600	7737	7893	8000	8205	8580	8878	9000	548
Final Year Wages	8700	8723	8846	9320	9384	9738	10111	10400	658

Chief Officer / Second Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	6190	6470	6775	6925	6874	7075	7228	7355	396
Final Year Wages	6715	7014	7334	7490	7656	7842	8465	9000	769

Second Officer / Third Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	3800	3820	3848	3941	4034	4138	4340	4500	268
Final Year Wages	4065	4068	4103	4227	4428	4423	4990	5500	547

Electrical Officer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	2647	3334	4023	4067	3977	4401	4530	4560	693
Final Year Wages	4367	4469	4578	4650	4858	4858	5455	6000	587

Third Officer / Fourth Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	2700	2950	3213	3325	3252	3444	3480	3500	295
Final Year Wages	3300	3350	3438	3625	3696	3717	4112	4500	427

Deck Cadets

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	350	375	400	425	423	464	468	468	47
Final Year Wages	450	450	450	459	464	468	484	500	20

Trainee / Jr. Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	350	409	501	625	583	650	716	782	153
Final Year Wages	450	457	468	650	610	700	749	782	146

3.7. Container Vessels

Total respondents: 8 companies (23.5%) in case of the top four ranks. However the actual number of sea faring officers could not be determined from the data made available.

Master

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	7830	7879	7944	8000	8192	8313	8831	8900	417
Final Year Wages	8800	8891	8949	9200	9284	9643	9800	9800	398

Chief Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	7600	7670	7790	7912	8008	8118	8449	8750	372
Final Year Wages	8600	8670	8734	9085	9082	9348	9538	9650	385

Chief Officer / Second Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	6190	6445	6664	6800	6774	6950	7115	7150	308
Final Year Wages	6715	6775	7184	7450	7338	7585	7660	7800	387

Second Officer / Third Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	3800	3800	3840	3903	3981	4140	4184	4200	170
Final Year Wages	4065	4069	4093	4200	4276	4383	4558	4740	237

Electrical Officer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	2647	3309	3885	4031	4001	4430	4616	4700	682
Final Year Wages	4367	4477	4560	4700	4742	4905	5026	5200	280

Third Officer / Fourth Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	2700	2930	3157	3325	3380	3658	3875	4050	433
Final Year Wages	3300	3300	3375	3625	3639	3903	3952	4050	295

Deck Cadets

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	350	350	388	425	427	476	500	500	61
Final Year Wages	400	435	450	459	465	500	500	500	35

Trainee / Jr. Engineer

Figures in $ per month

Components	Market								
	Min	P10	P25	Median	Mean	P75	P90	Max	SD
First Year Wages	350	477	581	650	770	741	1169	1750	453
Final Year Wages	450	517	606	700	799	741	1169	1750	433

3.8. FSO / FPSO

There were only two sets of data available for this category. Hence the figures cannot be given out in view of maintaining confidentiality of participants. The tables of statistical figures could not be created as it is not possible to generate valid conclusions with minimal data.

The average wages in this category are as below:

- Master USD 11950.
- Chief Engineer USD 11900.
- Chief Officer and Second Engineer USD 9381.
- Second Officer and Third Engineer USD 6360.
- Electrical Officer USD 4905.

3.9. Off Shore Vessels

There was only one set of data available for this category. Hence the figures cannot be given out in view of maintaining confidentiality. The tables of statistical figures could not be created as it is not possible to generate valid conclusions with minimal data.

The range in which wages are offered to various ranks are:

- Master USD 14000 – 15000.
- Chief Engineer USD 11500 - 13500.
- Chief Officer and Second Engineer USD 9400 - 10300.
- Second Officer and Third Engineer USD 6500-7000.
- Electrical Officer USD 7000-7200.
- Third Officer and Fourth Engineer USD 5000-5200

4. Additional Benefits for Seafarers - The Industry Trends

This section presents the benchmarking for additional benefits offered to seafarers for 2012. The data analysis has been presented in tables for each rank. The tables display the percentage of companies offering the particular benefit. It also shows the amount of benefits offered. Additional remarks have been made for better understanding and utility.

4.1. Master / Chief Engineer

S.N.	Benefit Head	%age Respondents offering the Benefit	Quantum/Range of Benefit in USD terms	Remarks
1	**Standby Wages**	54	USD 0-3500	Most companies offer 15 days of standby wages at 50% of basic. In some cases the standby amount is paid irrespective of person being on standby or not.
2	**Hardship Allowance**	8	USD 200-250	Paid per month for ships more than 13 years of age
3	**Family Carriage, Air Travel, Travel Insurance on company account**	81	On actual	The limit on the travel expenditure varies from company to company. Some have a cap on the maximum expenditure towards travel while some have no limit but may restrict the travel to once in a year.
4	**Wages during Training Days**	62	Basic Wages/fixed allowances (ranging between 20-45 USD) during training days.	Some companies also offer standby wages during training days. One ship owner also offers full wages during training days as the staff in on round the year wages. Additionally Travel and Boarding and lodging costs are paid by all companies.
5	**Family Medical Coverage**	31		Medicare or similar coverage is offered in general. Most companies go for floater coverage.
6	**Pension Scheme**	0	3%	In one case 3% of annual income is accumulated to be paid after 5 years.
7	**Loyalty**	35	USD 20- 650 per month.	Paid basis number of years of service with company or a lumpsum amount per year.

4.2. Chief Officer / Second Engineer

S.N.	Benefit Head	%age Respondents offering the Benefit	Quantum/Range of Benefit in USD terms	Remarks
1	**Superior Certificate Allowance**	88	USD 100-400	Offered per month to those with Class I (Masters or Chief Engineers) license.
2	**Standby Wages**	54	USD 0-2500	Most companies offer 15 days of standby wages at 50% of basic.
3	**Hardship Allowance**	8	USD 200-250	Paid for ships more than 13 years of age
4	**Family Carriage, Air Travel, Travel Insurance on company account**	69	On actual	The limit on the travel expenditure varies from company to company. Some have no limit but may restrict the travel to once in a year.
5	**Wages during Training Days**	62	Basic Wages/fixed allowances (ranging between 20-45 USD) during training days.	Some companies also offer standby wages during training days. One ship owner also offers full wages during training days as the staff in on round the year wages. Additionally Travel and Boarding and lodging costs are paid by all companies.
6	**Family Medical Coverage**	31		Medicare or similar coverage is offered in general. Most companies go for floater coverage.
7	**Pension Scheme**	0	3%	In one case 3% of annual income is accumulated to be paid after 5 years.
8	**Loyalty**	31	USD 20- 650 per month.	Paid basis number of years of service with company or a lumpsum amount per year.

4.3. Second Officer / Third Engineer

S.N.	Benefit Head	%age Respondents offering the Benefit	Quantum/Range of Benefit in USD terms	Remarks
1	**Superior Certificate Allowance**	85	50-300	For Holding Class II COC
2	**Standby Wages**	46	0-1800	Most companies offer 15 days of standby wages at 50% of basic.
3	**Family Carriage, Air Travel, Travel Insurance on company account**	58	On actual	While family carriage is allowed by most companies, the airfare, travel insurance, etc is to be borne by the officer. There is however a limit to the number of families onboard ships.
4	**Wages during Training Days**	62	Basic Wages/fixed allowances (ranging between 20-45 USD) during training days.	Additionally Travel and Boarding and lodging costs are paid by all companies.
5	**Paid Study Leave/ Examination Subsidy**	12		In one case two months basic to 6 months total wages is paid while in another case one month basic after 3 months of service
6	**Family Medical Coverage**	23		Medicare or similar coverage is offered in general. Most companies go for floater coverage.
7	**Loyalty**	19	20-300	Paid basis number of years of service with company or a lumpsum amount per year.

4.4. Electrical Officer

S.N.	Benefit Head	%age Respondents offering the Benefit	Quantum/Range of Benefit in USD terms	Remarks
1	**Standby Wages**	46	0-1800	Most companies offer 15 days of standby wages at 50% of basic.
2	**Family Carriage, Air Travel, Travel Insurance on company account**	62	On actual	While family carriage is allowed by most companies, the airfare, travel insurance, etc is to be borne by the officer. Only in 10% cases the company pays for the airfare of junior officers once in two contracts.
3	**Wages during Training Days**	62	20-80	Additionally Travel and Boarding and lodging cost is paid by all companies.
4	**Family Medical Coverage**	23		Medicare or similar coverage is offered in general. Most companies go for floater coverage.
6	**Loyalty**	19	20-300	Paid basis number of years of service with company or a lumpsum amount per year.

4.5. Third Officer / Fourth Engineer

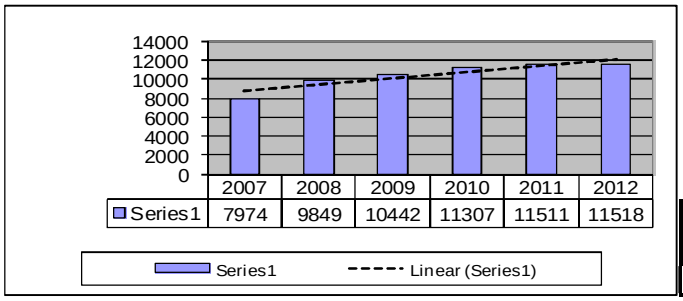
S.N.	Benefit Head	%age Respondents offering the Benefit	Quantum/Range of Benefit in USD terms	Remarks
1	**Superior Certificate Allowance**	20	50-200	For Holding Class II COC.
2	**Standby Wages**	46	0-1400	Most companies offer 15 days of standby wages at 50% of basic.
3	**Family Carriage, Air Travel, Travel Insurance on company account**	58	On actual	While family carriage is allowed by most companies, the airfare, travel insurance, etc is to be borne by the officer.
4	**Wages during Training Days**	58	20-80	Additionally Travel and Boarding and lodging costs are paid by all companies.
5	**Paid Study Leave/ Examination Subsidy**	20		In one case two months basic to 6 months total wages is paid while in another case one month basic after 3 months of service
6	**Family Medical Coverage**	23		Medicare or similar coverage is offered in general. Most companies go for floater coverage.
7	**Loyalty**	19	20-300	Paid basis number of years of service with company or a lumpsum amount per year.

5. Wage Trends over the Years (2007-2012)

This section represents the trends of the rate of increase in average wages for the seafaring officers from 2007 – 2012. First year wages for each rank have been taken for computation. The data has been presented in the form of graphs for various ship types as well as each rank under different ship types. Trend lines have been displayed for better understanding. In addition, tables of Year - On - Year increase in wages have been included to display the increase in average wages as compared to the previous years. The CAGR (Compounded Annual Growth Rate) as a percentage has also been mentioned.

5.1. Oil Tankers

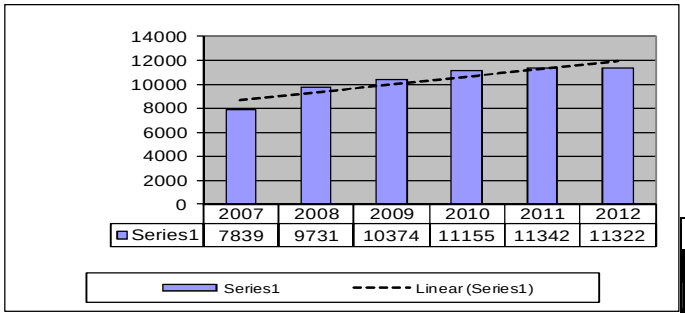
Master



CAGR: 7.05%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
23.51	6.03	8.28	1.81	0.06

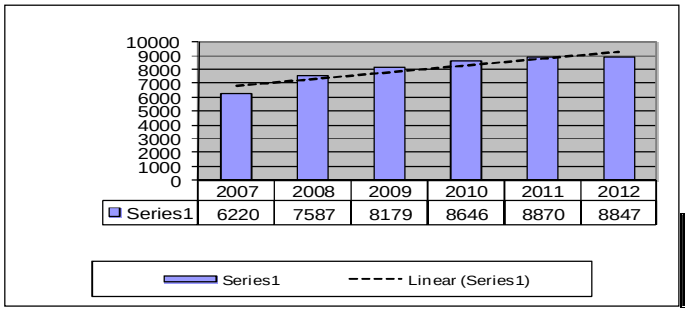
Chief Engineer



CAGR: 7.01%

Year on Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
24.14	6.60	7.52	1.68	-0.18

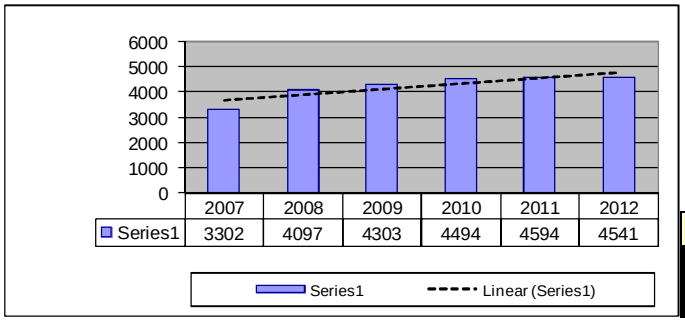
Chief Officer / Second Engineer



CAGR: 6.75%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
21.98	7.80	5.72	2.59	-0.26

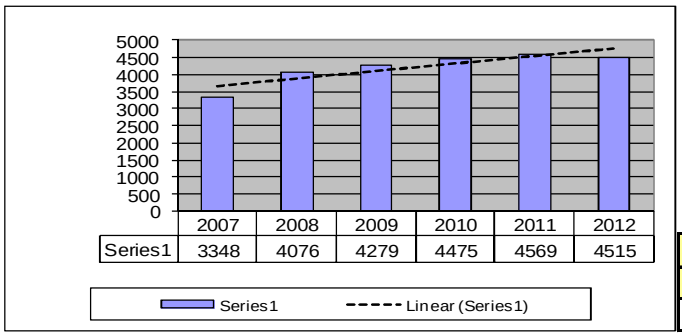
Second Officer / Third Engineer



CAGR: 5.82%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
24.10	5.02	4.44	2.21	-1.14

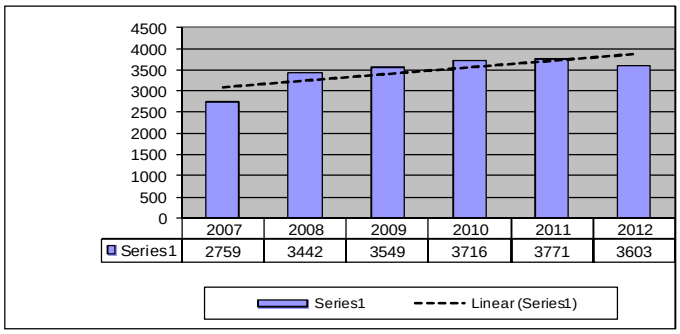
Electrical Officer



CAGR: 5.53%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
21.73	5.00	4.56	2.10	-1.17

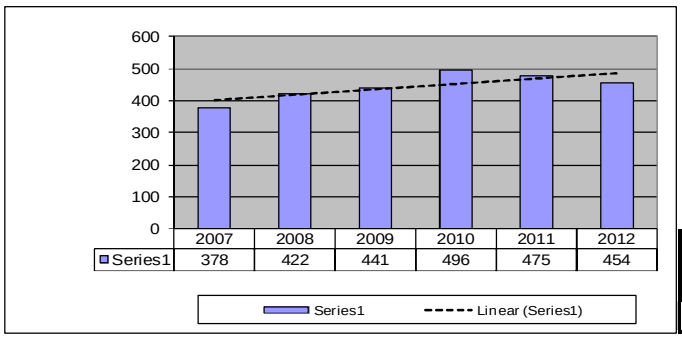
Third Officer / Fourth Engineer



CAGR: 4.84%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
24.76	3.12	4.69	1.49	-4.45

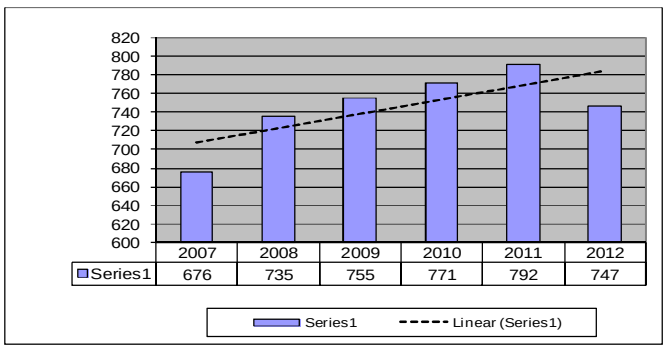
Deck Cadet



CAGR: 4.05%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
11.82	4.49	12.34	-4.09	-4.55

Trainee / Jr. Engineer

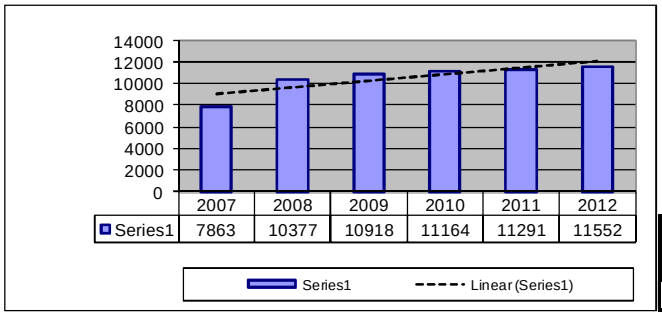


CAGR: 2.14%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
8.77	2.72	2.15	2.61	-5.64

5.2. Chemical Tankers

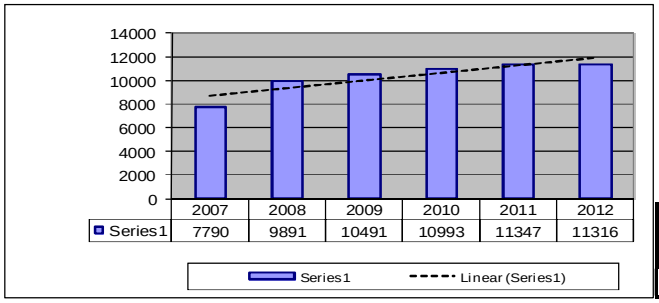
Master



CAGR: 6.49%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
31.97	5.22	2.25	1.14	2.32

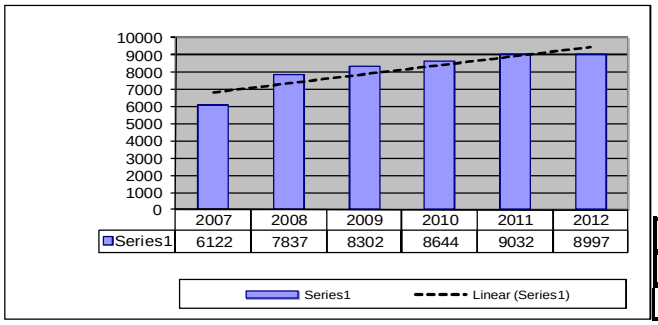
Chief Engineer



CAGR: 6.87%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
26.97	6.07	4.78	3.22	-0.27

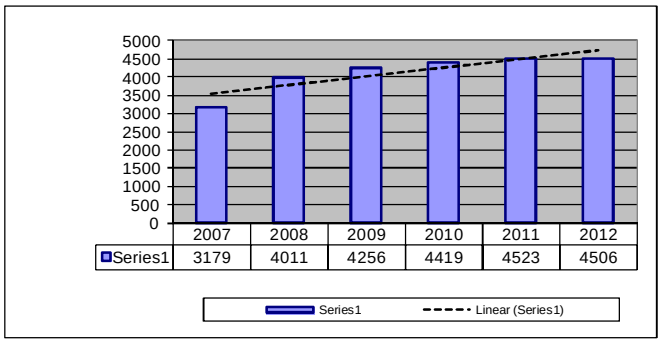
Chief Officer / Second Engineer



CAGR: 7.07%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
28.02	5.93	4.12	4.49	-0.38

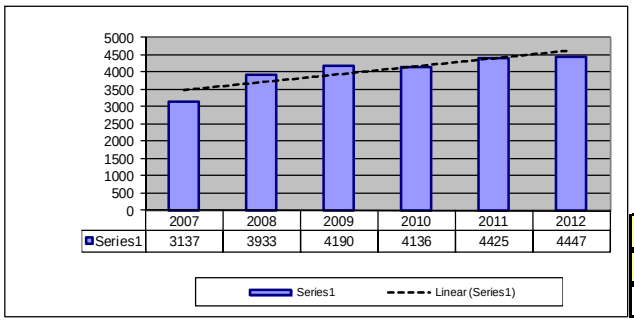
Second Officer / Third Engineer



CAGR: 6.31%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
26.16	6.11	3.82	2.36	-0.38

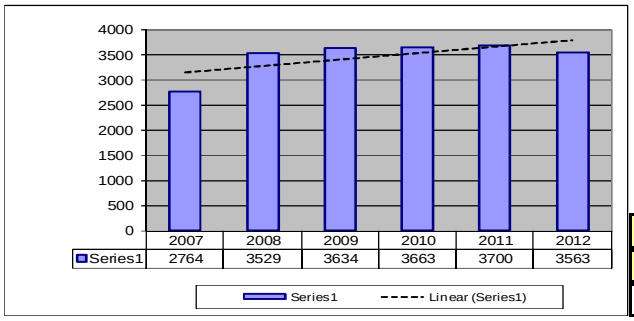
Electrical Officer



CAGR: 6.14%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
25.39	6.52	-1.28	7.00	0.50

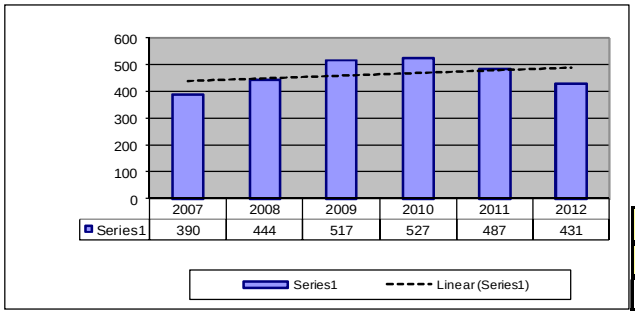
Third Officer / Fourth Engineer



CAGR: 4.14%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
27.70	2.98	0.78	1.03	-3.71

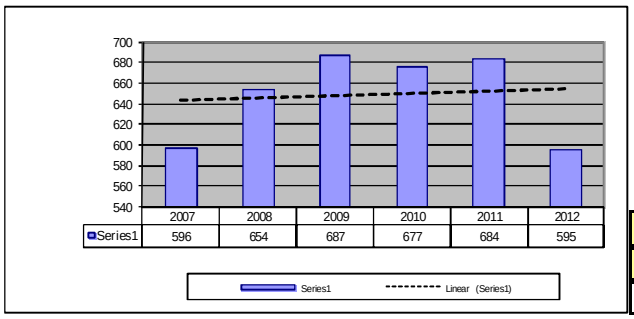
Deck Cadet



CAGR: 2.31%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
13.91	16.49	1.89	-7.52	-11.60

Trainee / Jr. Engineer

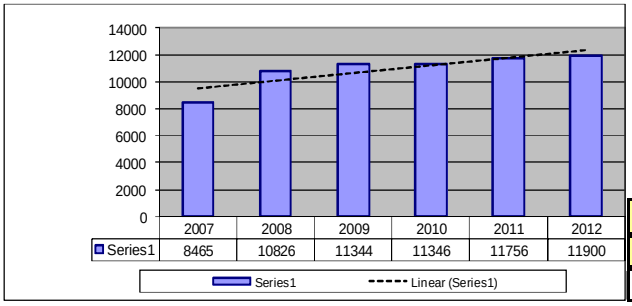


CAGR: 0%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
9.73	4.98	-1.53	1.17	-13.09

5.3. LPG

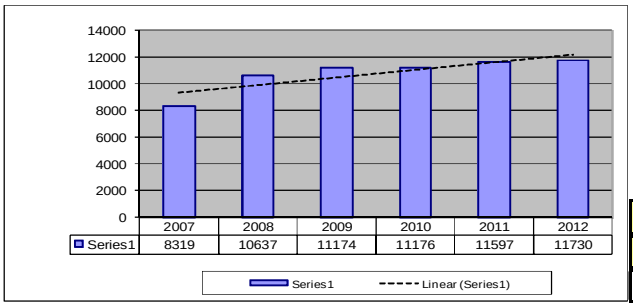
Master



CAGR: 5.73%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
27.89	4.79	0.01	3.61	1.23

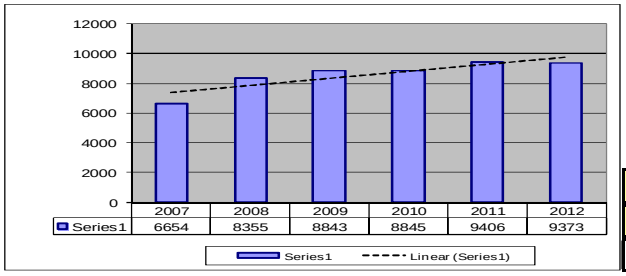
Chief Engineer



CAGR: 5.81%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
27.86	5.05	0.01	3.77	1.15

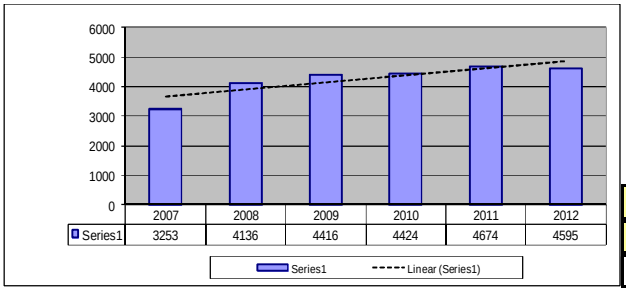
Chief Officer / Second Engineer



CAGR: 6.09%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
25.56	5.85	0.02	6.34	-0.36

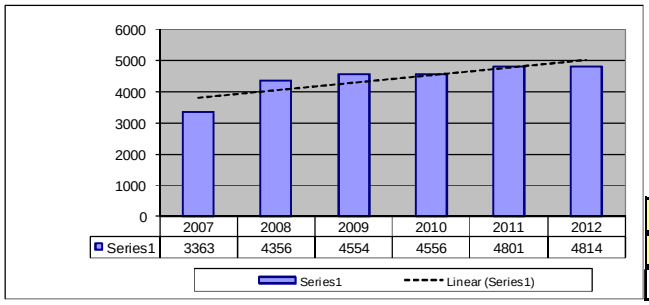
Second Officer / Third Engineer



CAGR: 6.17%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
27.17	6.76	0.19	5.66	-1.70

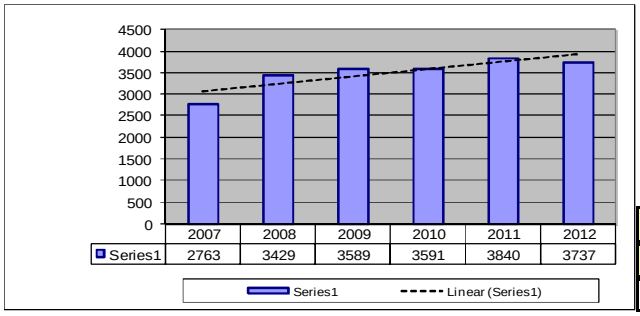
Electrical Officer



CAGR: 6.14%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
29.52	4.56	0.04	5.37	0.27

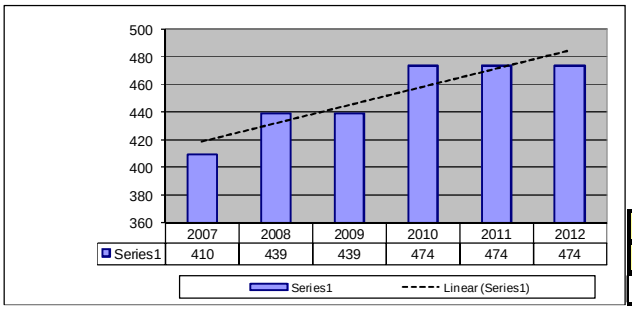
Third Officer / Fourth Engineer



CAGR: 5.42%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
24.07	4.68	0.05	6.94	-2.70

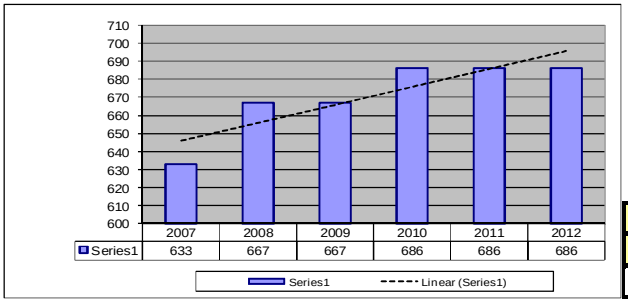
Deck Cadet



CAGR: 2.98%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
7.23	0.00	7.83	0.00	0.00

Trainee / Jr. Engineer

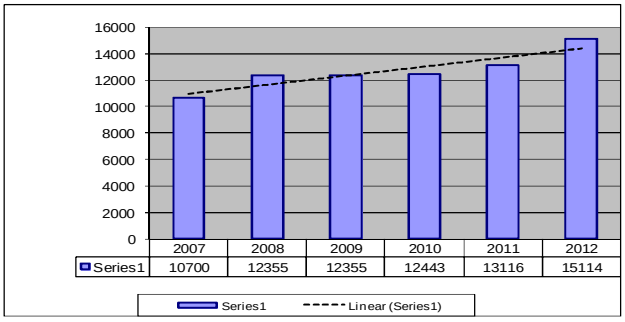


CAGR: 1.51%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
5.37	0.00	2.97	0.00	0.00

5.4. LNG

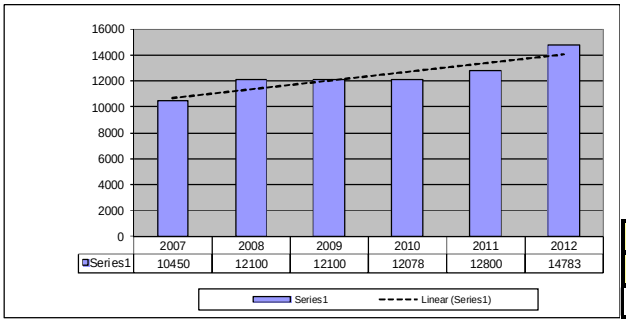
Master



CAGR: 5.62%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
15.47	0.00	0.71	5.41	15.23

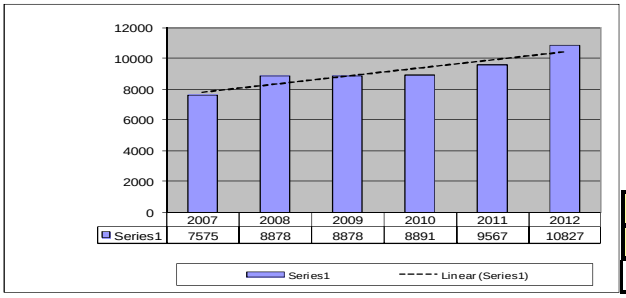
Chief Engineer



CAGR: 5.58%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
15.79	0.00	-0.18	5.98	15.49

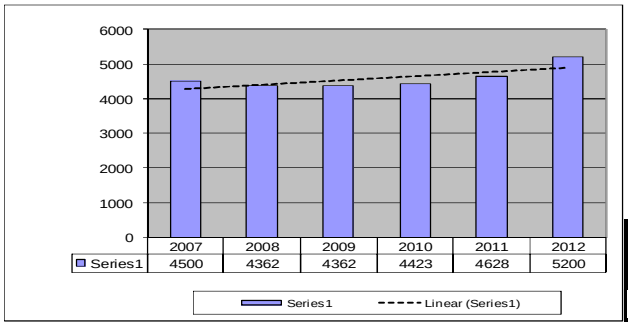
Chief Officer / Second Engineer



CAGR: 5.92%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
17.19	0.00	0.15	7.61	13.16

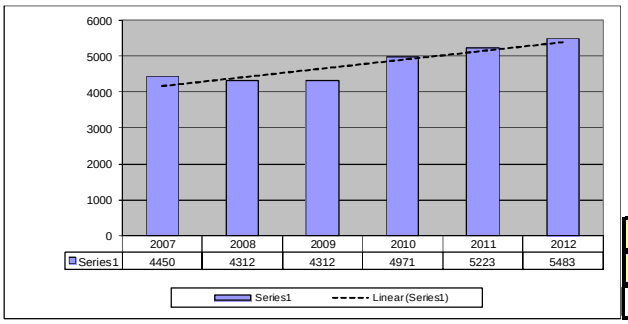
Second Officer / Third Engineer



CAGR: 2.65%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
-3.08	0.00	1.40	4.64	12.36

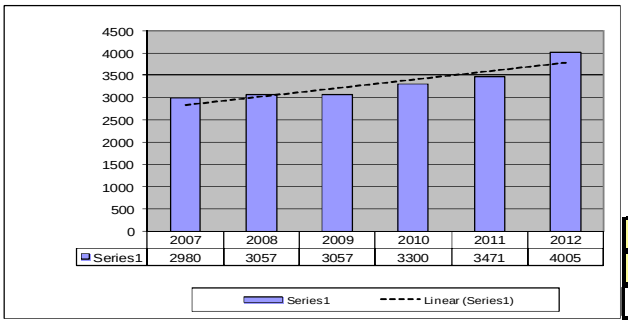
Electrical Officer



CAGR: 5.16%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
-3.11	0.00	15.30	5.07	4.97

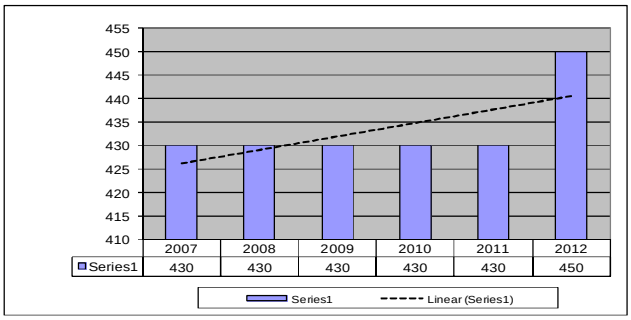
Third Officer / Fourth Engineer



CAGR: 5.69%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
2.57	0.00	7.96	5.18	15.40

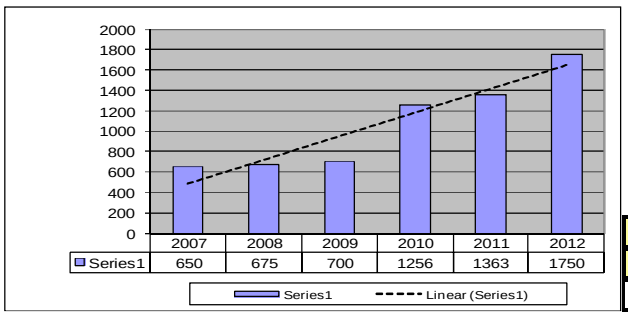
Deck Cadet



CAGR: 0.65%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
0.00	0.00	0.00	0.00	4.65

Trainee / Jr. Engineer

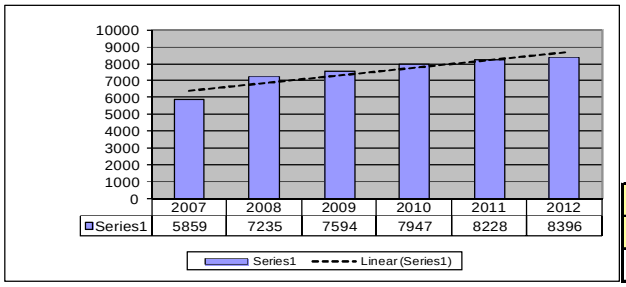


CAGR: 20.70%

Year On Year Increase in Wages for the industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
3.85	3.70	79.38	8.52	28.39

5.5. Bulk Carriers / Self Unloaders

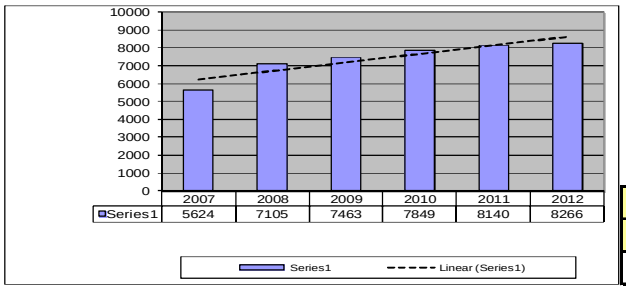
Master



CAGR: 6.58%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
23.48	4.97	4.65	3.53	2.05

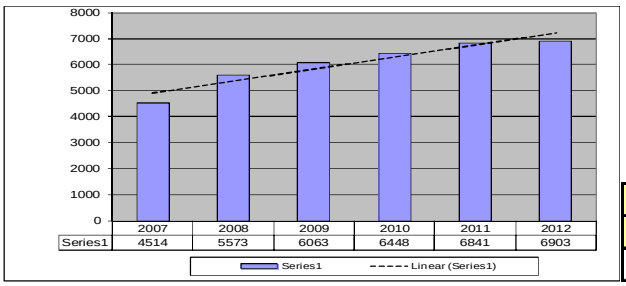
Chief Engineer



CAGR: 7.05%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
26.33	5.04	5.18	3.70	1.55

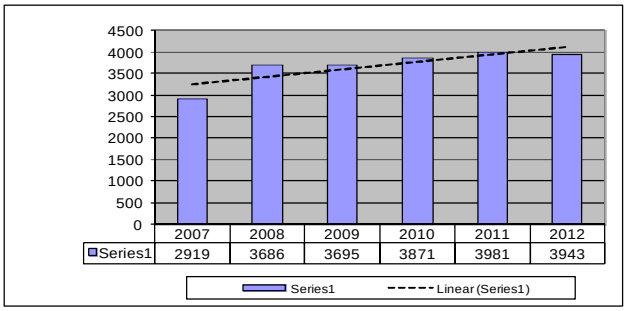
Chief Officer / Second Engineer



CAGR: 8.33%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
23.48	8.79	6.34	6.10	0.90

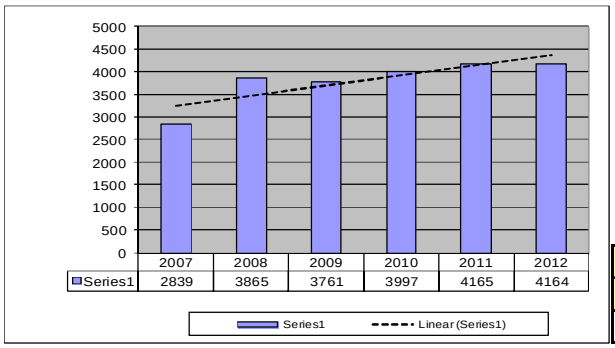
Second Officer / Third Engineer



CAGR: 5.22%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
26.27	0.23	4.75	2.85	-0.94

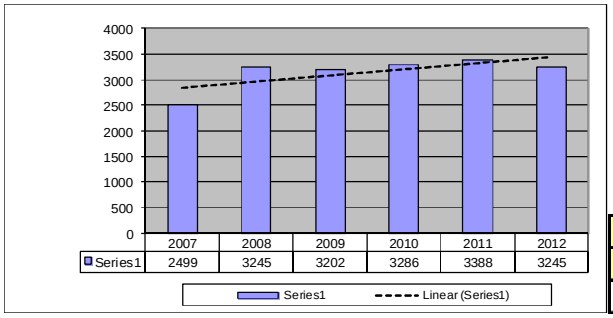
Electrical Officer



CAGR: 6.49%

Year On Year Increase in Wages for the Industry				
2007 - 08	**2008 - 09**	**2009 - 10**	**2010 - 11**	**2011 - 12**
36.15	-2.70	6.29	4.20	-0.03

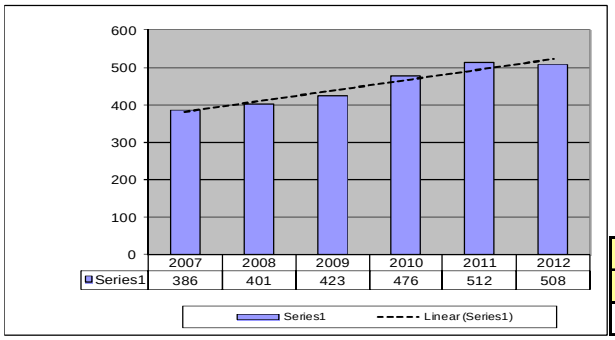
Third Officer / Fourth Engineer



CAGR: 4.26%

Year On Year Increase in Wages for the Industry				
2007 - 08	**2008 - 09**	**2009 - 10**	**2010 - 11**	**2011 - 12**
29.87	-1.34	2.64	3.11	-4.24

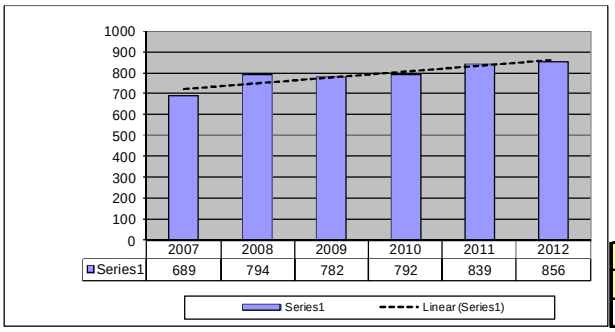
Deck Cadet



CAGR: 6.55%

Year On Year Increase in Wages for the Industry				
2007 - 08	**2008 - 09**	**2009 - 10**	**2010 - 11**	**2011 - 12**
3.92	5.38	12.58	7.52	-0.76

Trainee / Jr. Engineer

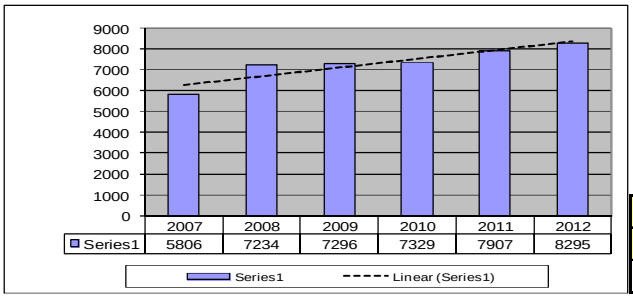


CAGR: 3.66%

Year On Year Increase in Wages for the Industry				
2007 - 08	**2008 - 09**	**2009 - 10**	**2010 - 11**	**2011 - 12**
15.26	-1.53	1.27	5.96	1.93

5.6. Ro Ro / PCCs

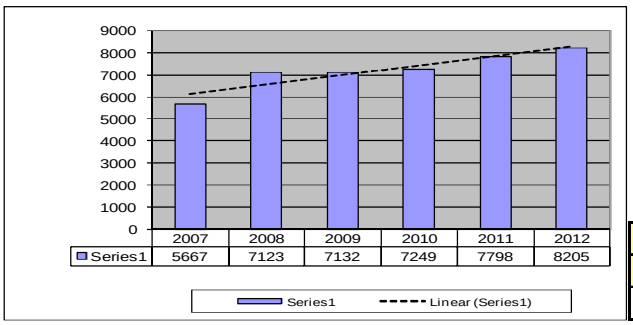
Master



CAGR: 6.05%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
24.59	0.86	0.46	7.89	4.90

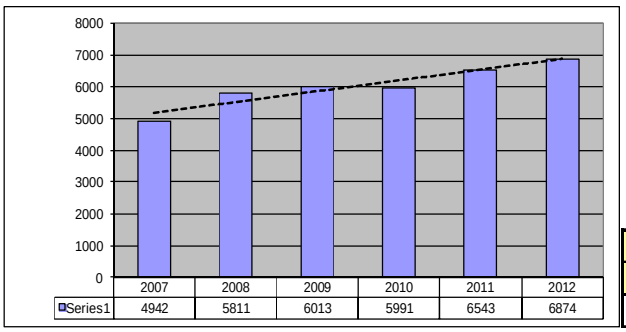
Chief Engineer



CAGR: 6.30%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
25.70	0.13	1.63	7.59	5.21

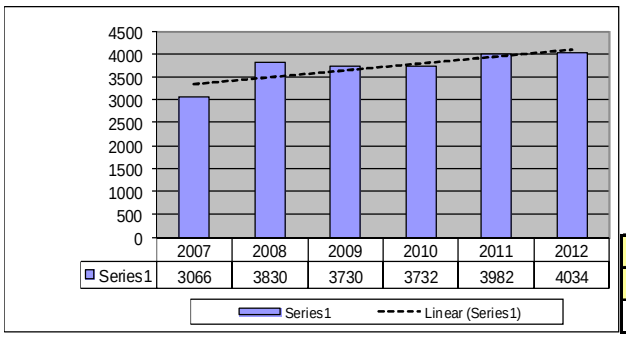
Chief Officer / Second Engineer



CAGR: 5.89%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
17.59	3.48	-0.38	9.23	5.06

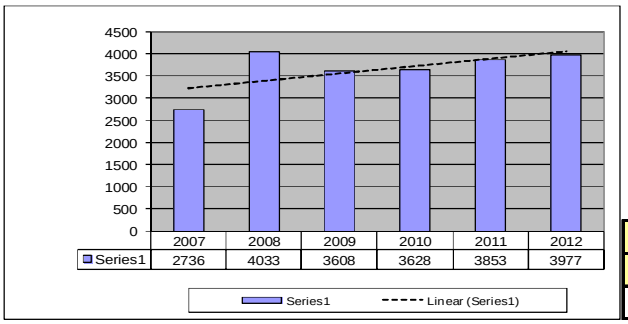
Second Officer / Third Engineer



CAGR: 4.34%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
24.91	-2.62	0.05	6.70	1.30

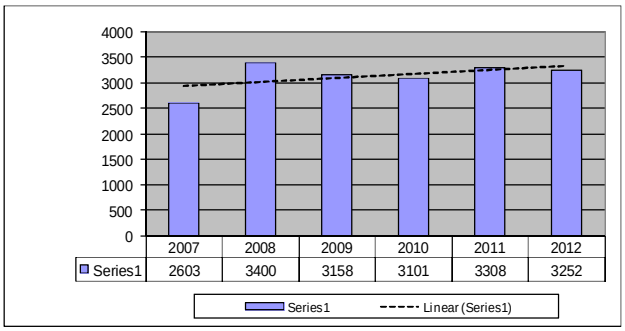
Electrical Officer



CAGR: 5.10%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
47.41	-10.53	0.56	6.21	3.20

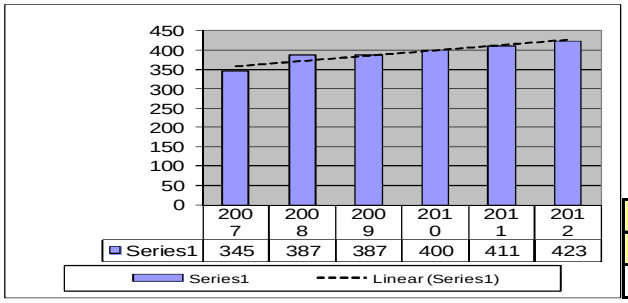
Third Officer / Fourth Engineer



CAGR: 2.93%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
30.58	-7.09	-1.81	6.68	-1.72

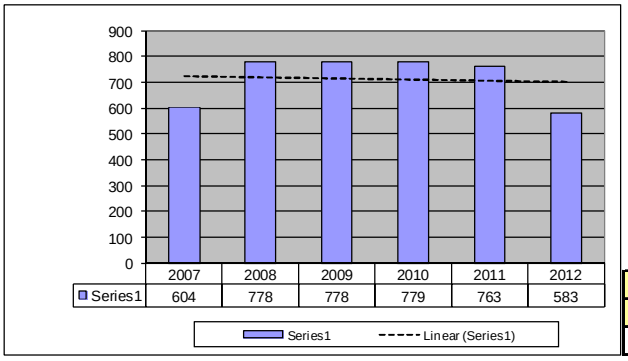
Deck Cadet



CAGR: 3.57%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
11.97	0.00	3.41	2.88	2.76

Trainee / Jr. Engineer

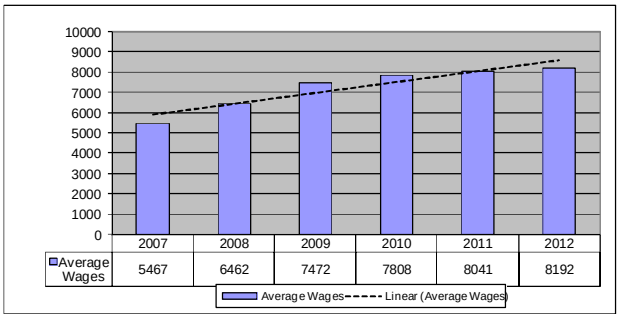


CAGR: -0.65%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
28.76	0.00	0.18	-2.04	-23.58

5.7. Container Vessels

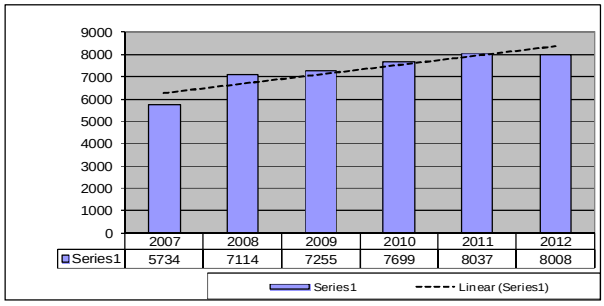
Master



CAGR: 8.09%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
18.20	15.63	4.50	2.99	1.88

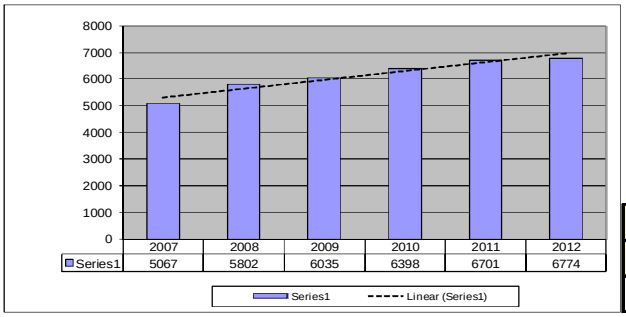
Chief Engineer



CAGR: 6.17%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
24.08	1.97	6.12	4.40	-0.37

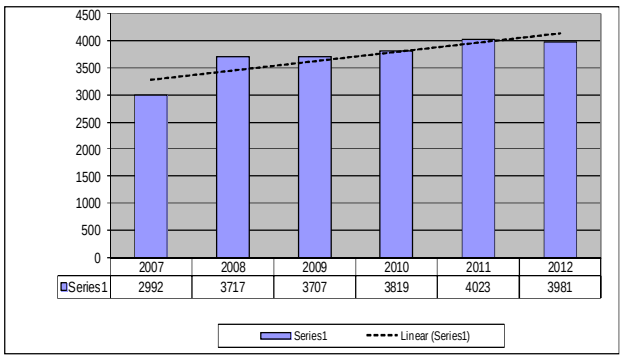
Chief Officer / Second Engineer



CAGR: 5.71%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
14.51	4.01	6.02	4.73	1.09

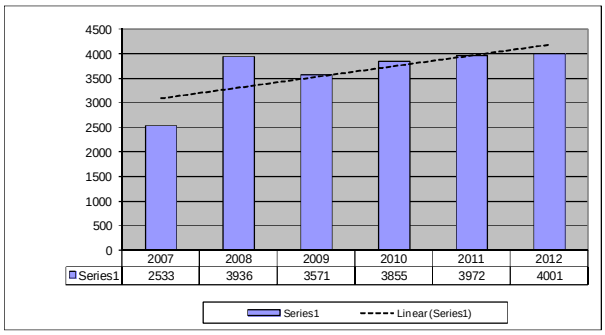
Second Officer / Third Engineer



CAGR: 4.96%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
24.20	-0.27	3.04	5.34	-1.04

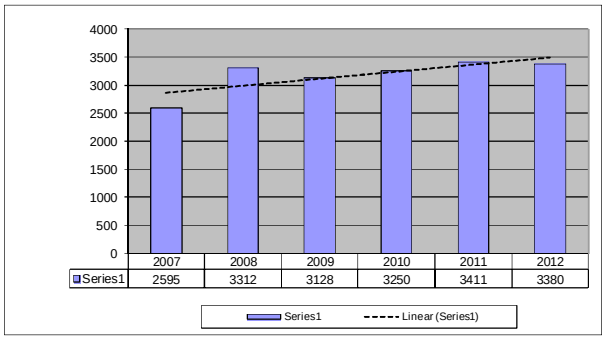
Electrical Officer



CAGR: 7.07%

Year On Year Increase in Wages for the Industry				
2007 - 08	**2008 - 09**	**2009 - 10**	**2010 - 11**	**2011 - 12**
55.39	-9.28	7.95	3.05	0.73

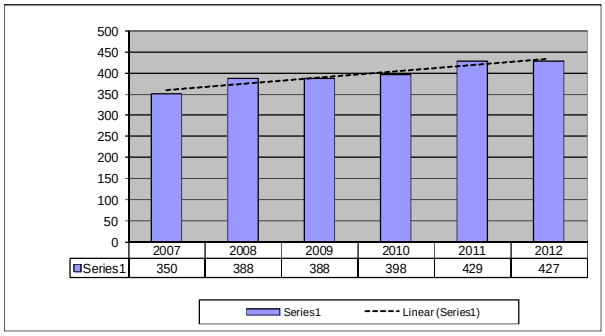
Third Officer / Fourth Engineer



CAGR: 4.22%

Year On Year Increase in Wages for the Industry				
2007 - 08	**2008 - 09**	**2009 - 10**	**2010 - 11**	**2011 - 12**
27.61	-5.55	3.91	4.94	-0.92

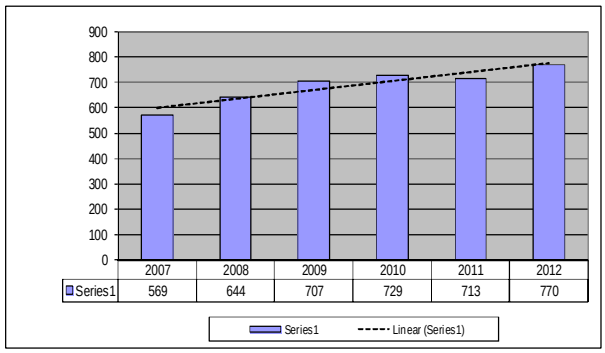
Deck Cadet



CAGR: 3.84%

Year On Year Increase in Wages for the Industry				
2007 - 08	**2008 - 09**	**2009 - 10**	**2010 - 11**	**2011 - 12**
10.61	0.00	2.55	7.84	-0.33

Trainee / Jr. Engineer

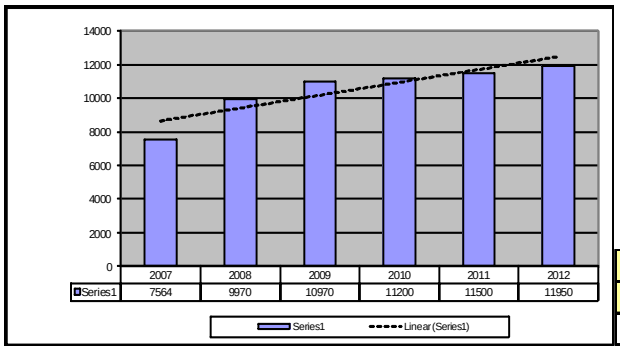


CAGR: 5.42%

Year On Year Increase in Wages for the Industry				
2007 - 08	**2008 - 09**	**2009 - 10**	**2010 - 11**	**2011 - 12**
13.19	9.70	3.15	-2.21	8.05

5.8. FSOs / FPSOs

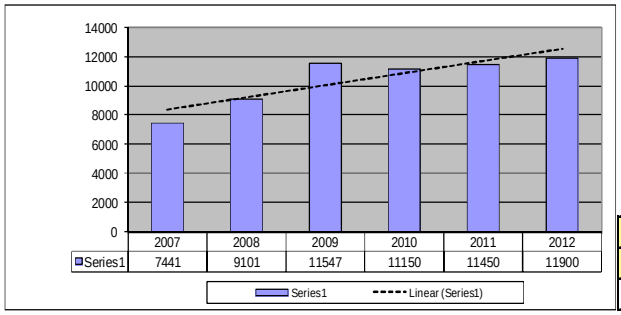
Master



CAGR: 8.13%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
31.81	10.03	2.10	2.68	3.91

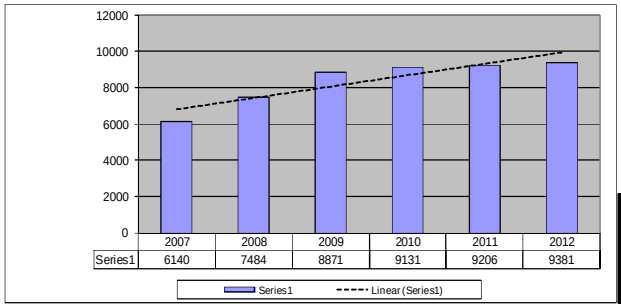
Chief Engineer



CAGR: 8.95%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
22.32	26.87	-3.44	2.69	3.93

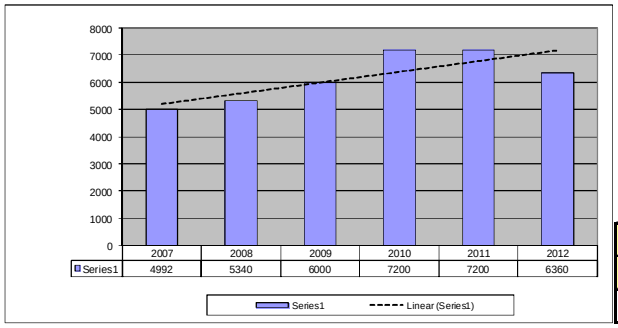
Chief Officer / Second Engineer



CAGR: 8.24%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
21.90	18.53	2.93	0.82	1.90

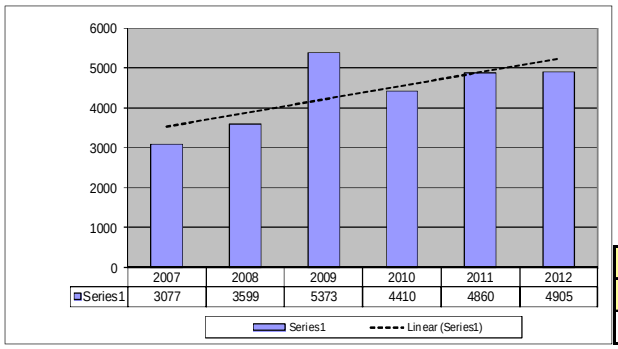
Second Officer / Third Engineer



CAGR: 6.76%

Year On Year Increase in Wages for the Industry				
2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12
6.96	12.37	20.00	0.00	-11.67

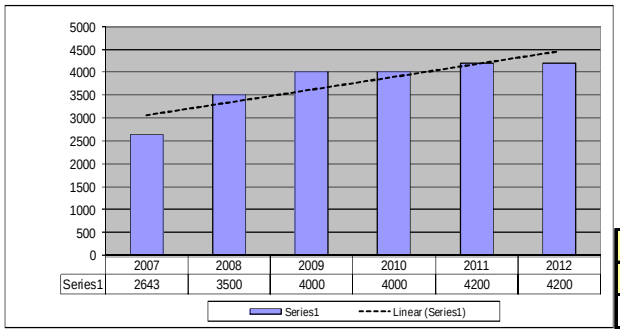
Electrical Officer



CAGR: 9.06%

Year On Year Increase in Wages for the Industry				
2007 - 08	**2008 - 09**	**2009 - 10**	**2010 - 11**	**2011 - 12**
16.96	49.30	-17.93	10.20	0.93

Third Officer / Fourth Engineer



CAGR: 8.52%

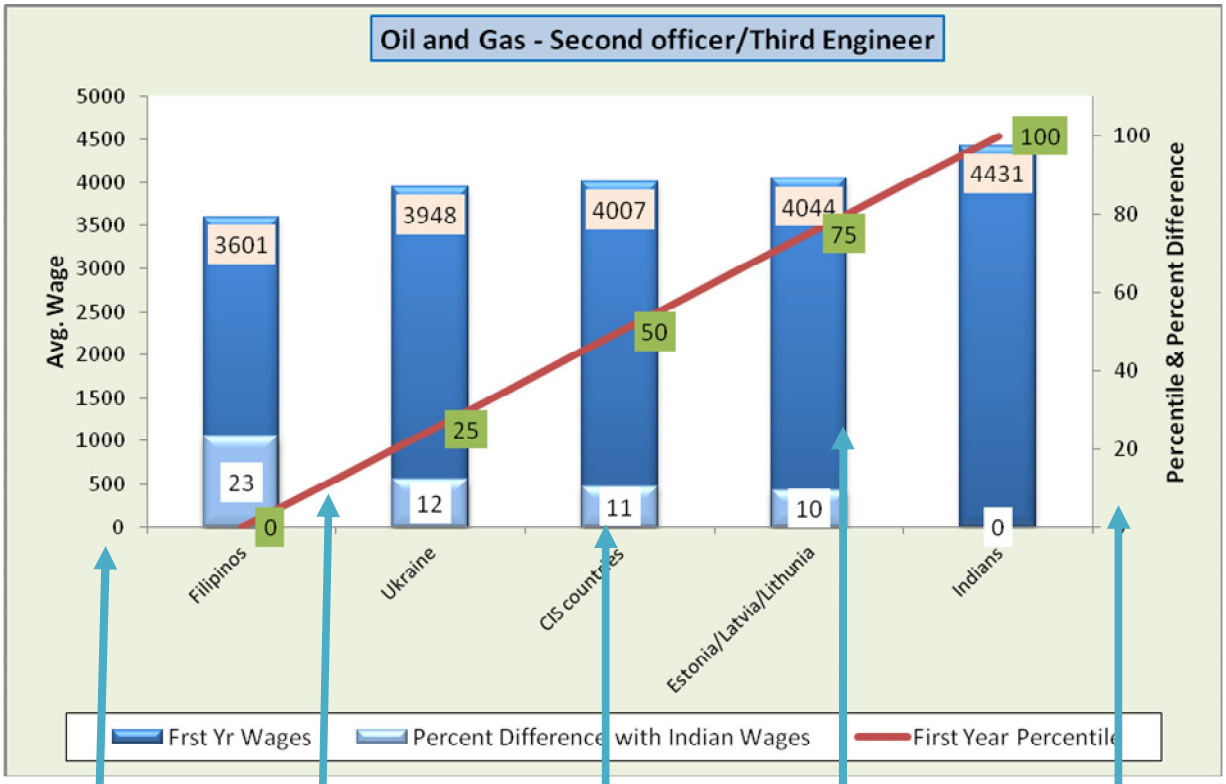
Year On Year Increase in Wages for the Industry				
2007 - 08	**2008 - 09**	**2009 - 10**	**2010 - 11**	**2011 - 12**
32.43	14.29	0.00	5.00	0.00

6. Wage Comparison of Indian Junior Officers with Foreign Nationalities

6.1. Guide to interpret the data on the graphs

The below graphs indicate the following:

1. Average First year or the minimum wages of each of the nationalities for each type of the ship for each lower rank.
2. Percent difference between Wages of foreign nationalities with that of Indian wages for each type of the ship for each lower rank.
3. Percentile of various nationalities in ascending order for each type of the ship for each lower rank.



Primary Axis representing average wages of various nationalities

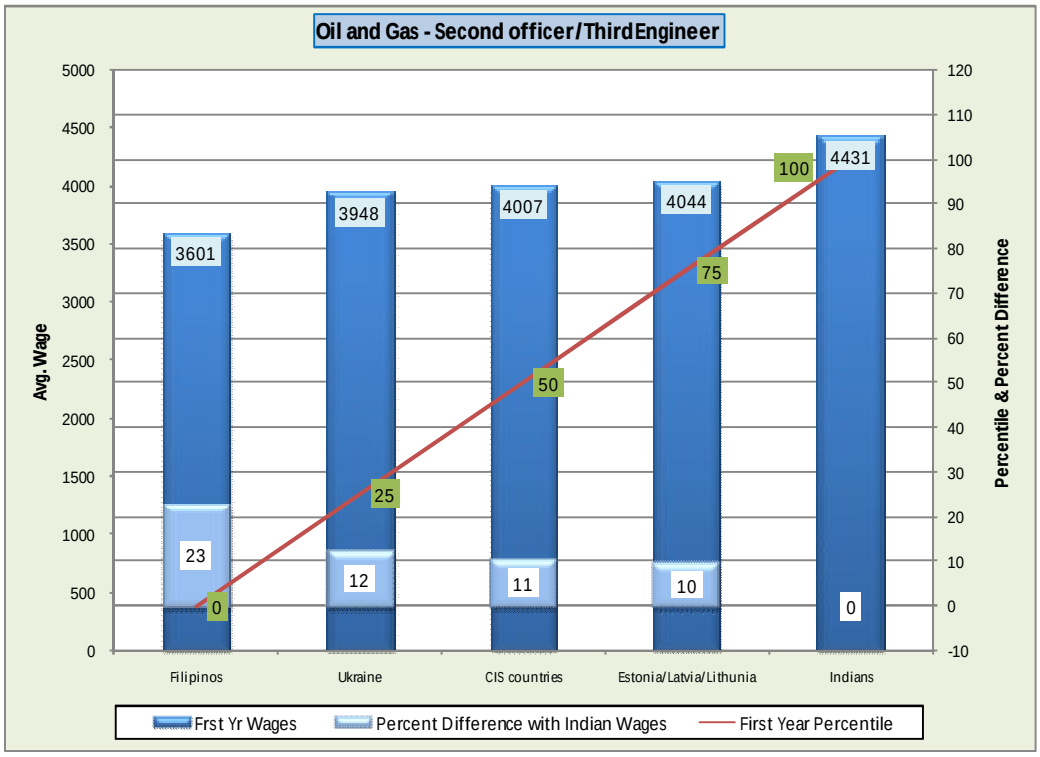
Percentile of various nationalities in ascending order

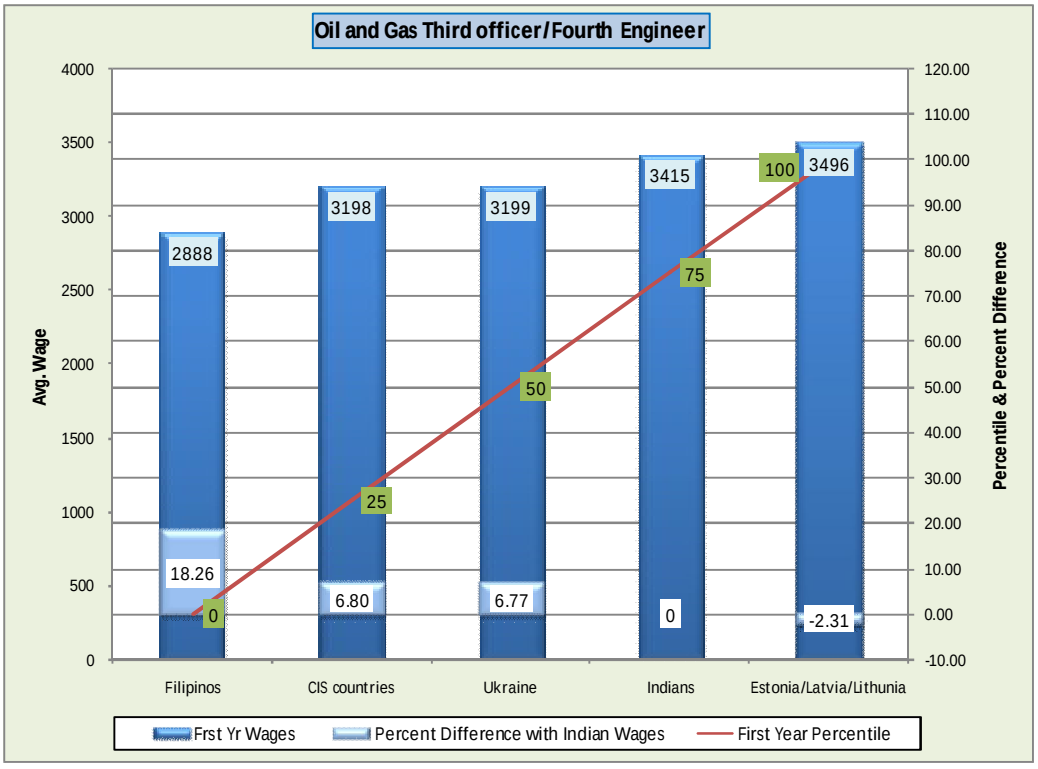
Percent Difference between Foreign nationalities wages with that of Indian wages

First year wages of various nationalities

Secondary axis representing Percentile and Percent difference of various nationalities wages with that of Indian wages.

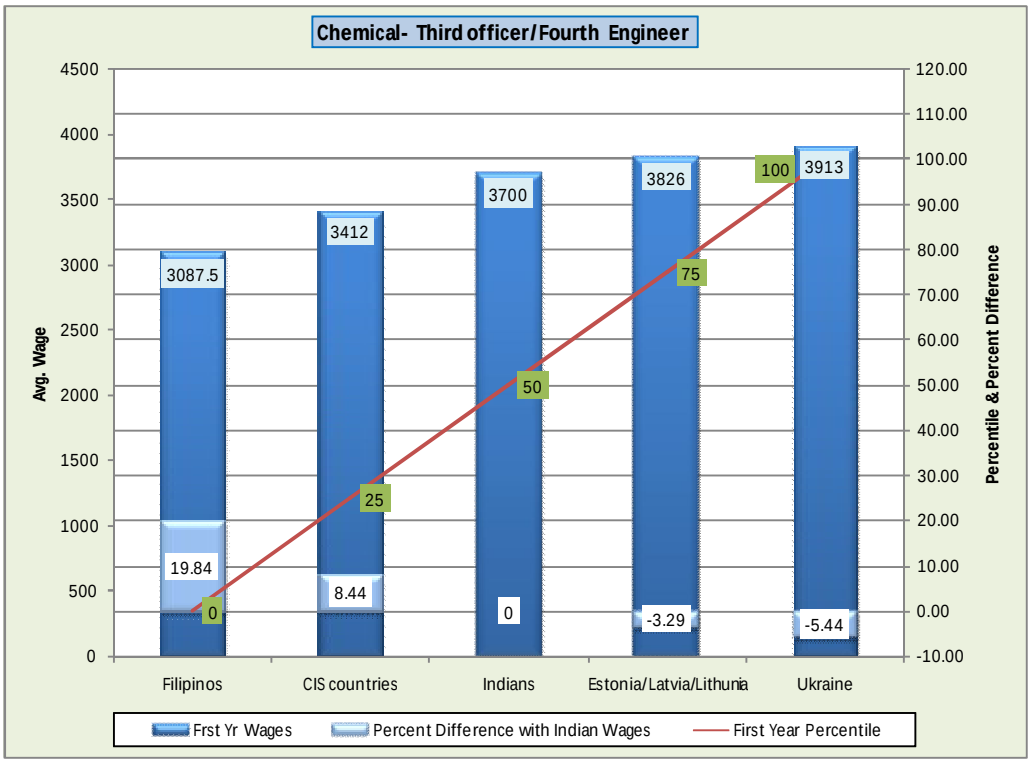
6.2. Oil and Gas



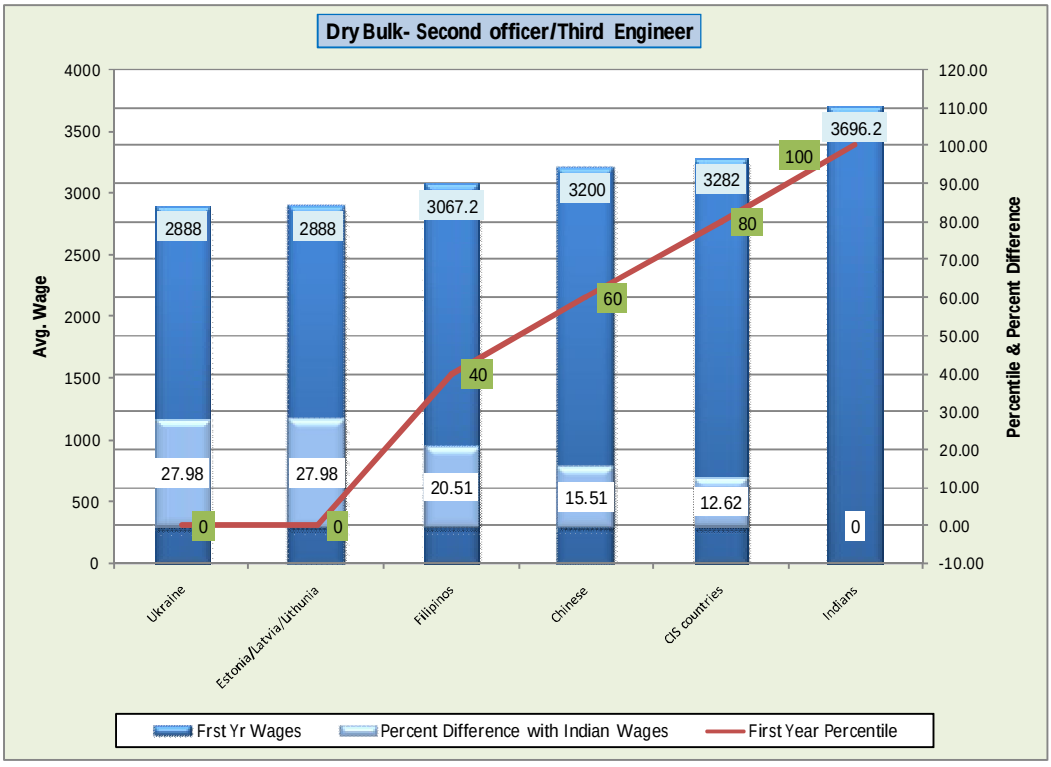


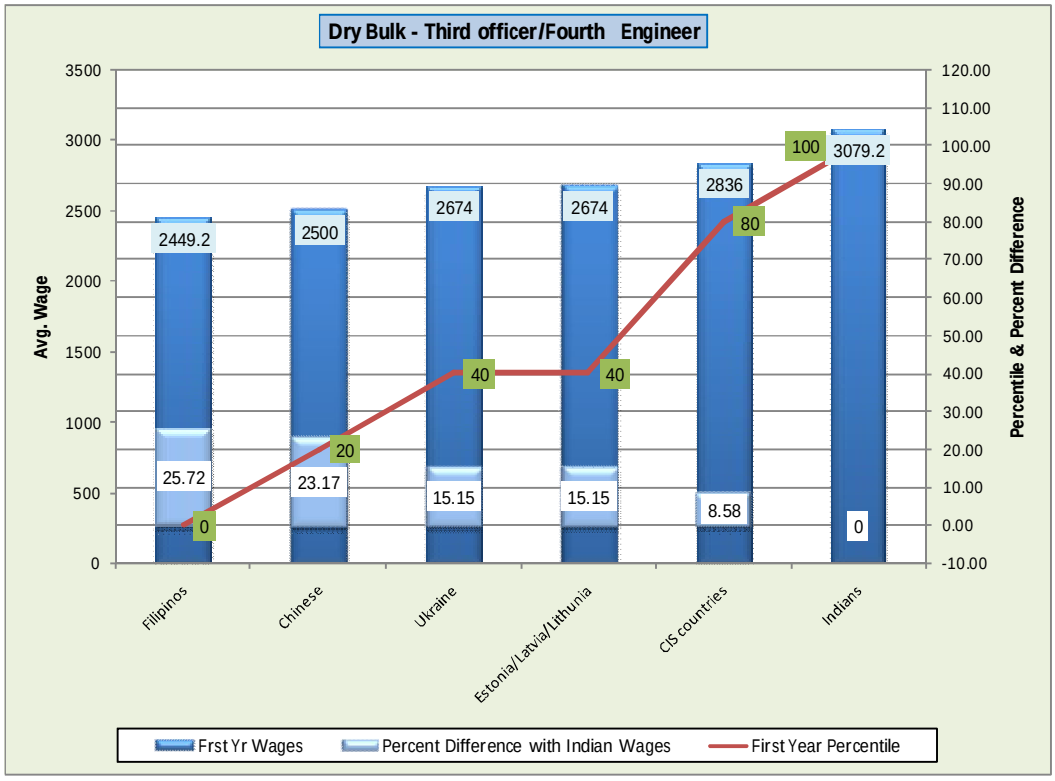
6.3. Chemical


Chemical- Second officer/Third Engineer
Avg. Wage
Percentile & Percent Difference
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
-10.00
3775
3915
4154
4577
4664
23.55
19.13
12.28
1.90
0
0
25
50
75
100
Filipinos
CIS countries
Estonia/Latvia/Lithunia
Ukraine
Indians
Frst Yr Wages
Percent Difference with Indian Wages
First Year Percentile

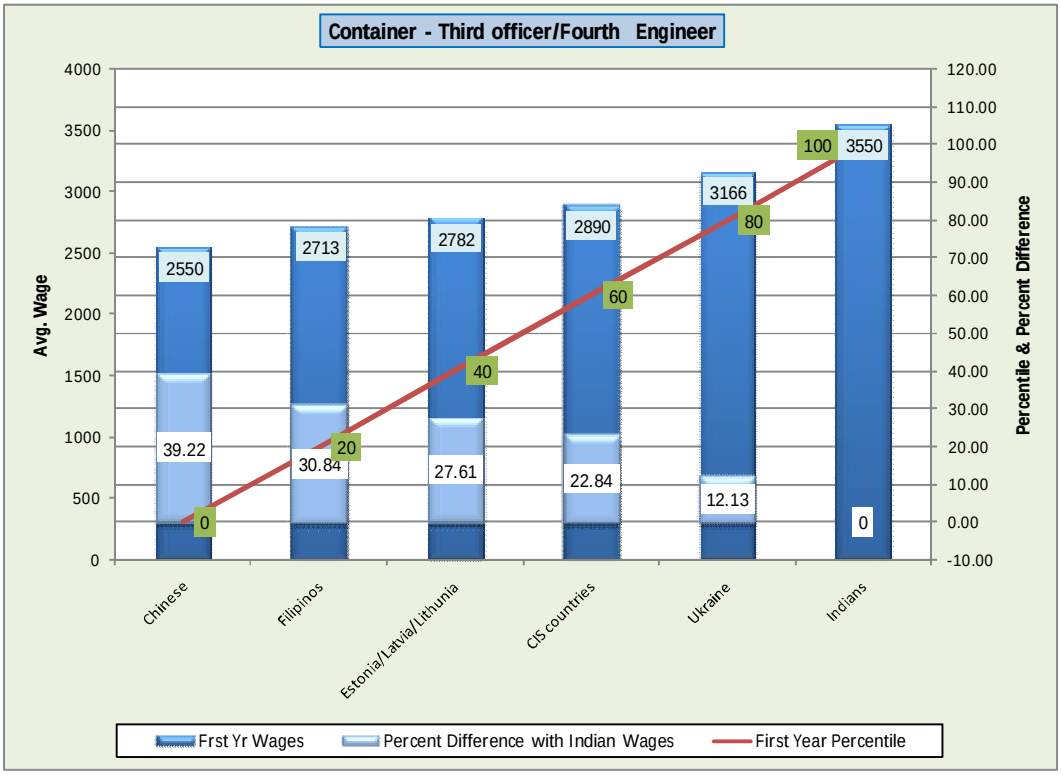

Chemical- Third officer/Fourth Engineer
Avg. Wage
Percentile & Percent Difference
4500
4000
3500
3000
2500
2000
1500
1000
500
0
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
-10.00
3087.5
3412
3700
3826
3913
19.84
8.44
0
-3.29
-5.44
0
25
50
75
100
Filipinos
CIS countries
Indians
Estonia/Latvia/Lithunia
Ukraine
Frst Yr Wages
Percent Difference with Indian Wages
First Year Percentile

6.4. Dry Bulk


Dry Bulk- Second officer/Third Engineer
Avg. Wage
Percentile & Percent Difference
4000
3500
3000
2500
2000
1500
1000
500
0
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
-10.00
2888
2888
3067.2
3200
3282
3696.2
27.98
27.98
20.51
15.51
12.62
0
0
40
60
80
100
Ukraine
Estonia/Latvia/Lithunia
Filipinos
Chinese
CIS countries
Indians
Frst Yr Wages
Percent Difference with Indian Wages
First Year Percentile


Dry Bulk - Third officer/Fourth Engineer
Avg. Wage
Percentile & Percent Difference
3500
3000
2500
2000
1500
1000
500
0
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
-10.00
2449.2
2500
2674
2674
2836
3079.2
25.72
23.17
15.15
15.15
8.58
0
0
20
40
40
80
100
Filipinos
Chinese
Ukraine
Estonia/Latvia/Lithunia
CIS countries
Indians
Frst Yr Wages
Percent Difference with Indian Wages
First Year Percentile

6.5. Container



6.6. Conclusions

Wage Comparison of Indian Junior Officers with Foreign Nationalities was done with the data received from 4 companies.

As seen in the above graphs, Indian junior officers' wages is higher than that of other nationalities except for following cases:

- Third Officer/Fourth Engineer in Oil and Gas wherein Estonians are the higher than Indians by 2.31%
- Third Officer/Fourth Engineer in Chemical tankers wherein Indians are the third highest, followed by Estonians which are higher than Indians by 3.29% and Ukrainians higher than Indians by 5.44%.

7. Survey Outcomes, Conclusions and Recommendations

7.1. Seafarers Wage Trends

Wages of seafarers are affected by several factors. The major influencing factor is supply and demand of seafarers. In an economic slowdown coupled with officer shortage scenario, wages have to be sustained or increased by companies to attract the right people to run the ships. However this increase is not as sharp as observed when there is shortage of seafarers during economic boom scenario.

For the years 2005-2010, the CAGR for Management level officers was 14% while for 2007-2012 the CAGR has reduced to its half i.e. 7%. This is evident from the year on year increase wherein the wages were increasing sharply from 2007 to 2010, followed by stability in 2010 and 2011 with marginal increase. During the years 2011 to 2012 the year on year increase was negligible and wages by and large remained stagnant.

For the operational level officers that CAGR during 2005-2010 was 11% whereas CAGR in 2007-2012 has been 5%. From 2005 to 2010 there was a substantial increase in wages, followed by stability during 2010 to 2011 and now reduction 2011 to 2012 for operational level officers.

7.2. Availability of Indian Seafaring Officers

Besides FOSMA, the other major shipping associations like INSA and MASSA are also involved in Indian seafaring officers' supply. Based on various industry inputs, our assumption is that the 5595 officer positions (not considering the cadets onboard positions) covered through this survey represent approximately 1/3rd of the total Indian officers' onboard positions worldwide.

This indicates that there are around 18000 total onboard positions currently occupied by Indian officers. Assuming 1.5 to 2 times of this being the total active officers (including those on leave), gives us a figure of around 27000 to 36000 active Indian officers with foreign going licenses.

The number of officers enrolled in the national database of Indian seafarers - INDOS is given the Table below:

DETAILS OF SEAFEARERS IN DATABASE AS ON 21/08/2012					
SR NO.	**CATEGORY**	**RANK**	**Manual**	**On-line**	**Total**
1	**NL**	**NUMBER OF CERTIFIED NAUTICAL OFFICERS**			
		EXTRA MASTER		0	0
		MASTER OF A FOREIGN GOING SHIP	6627	230	6857
		MASTER OF A HOME TRADE SHIP / MASTER (NCV)	215	5	220
		MATE OF A FOREIGN GOING SHIP	2228	67	2295
		MATE OF A HOME TRADE SHIP / CHIEF MATE (NCV)	215	6	221
		NWKO (NCV)	604	4	608
		NWKO(F.G)	1	2	3
		SECOND MATE OF A FOREIGN GOING SHIP	7074	89	7163
		TOTAL	**16964**	**403**	**17367**
2	**EL**	**NUMBER OF CERTIFIED ENGINEERING OFFICERS**			
		EXTRA FIRST CLASS ENGINEER	1	0	1
		MARINE ENGINEER OFFICER CLASS I	4907	174	5081
		MARINE ENGINEER OFFICER CLASS II	3656	127	3783
		MARINE ENGINEER OFFICER CLASS III (CHIEF ENGINEER OFFICER NCV)	87	81	168
		MARINE ENGINEER OFFICER CLASS III (SECOND ENGINEER OFFICER NCV)	230	3	233
		MARINE ENGINEER OFFICER CLASS IV	6462	28	6490
		MARINE ENGINEER OFFICER CLASS IV (NCV)	517	81	598
		SEA GOING ENGINE DRIVER	27	11	38
		TOTAL	**15887**	**505**	**16392**
3	NL	CADETS DECK **(PRE SEA)**	7,266	12615	19881
4	EL	CADETS ENGINEERING **(PRE SEA)**	6,852	12104	18956
5	GL	GENERAL PURPOSE CREW **(PRE SEA)**	18,141	16797	34938
6	CL	RATING CATERINGS **(PRE SEA)**	4,956	3706	8662
7	PL	POLYVALENT CADETS **(PRE SEA)**	70	119	189
8	DL	RATINGS DECK	6,872	1152	8024
9	RL	RATING ENG	2,485	163	2648
		TOTAL	**46642**	**46656**	**93298**

10		**ANY OTHER CATEGORY**			
	LL	ELECTRICAL OFFICERS	1746	617	2363
	ML	MEDICAL OFFICERS	3	16	19
	XL	XL (FITTER/ PURSER/ERPO/POM)	4872	452	5324
	XL	RADIO OFFICERS **(COC HOLDER (AS SND))**	465	196	661
	YL	ANY NATIONAL CDC & EXPERIENCE SEA-SERVICE	1932	4679	6611
	ZL	UNDERGONE 4 BASIC MODULAR COURES & NO SEA-SERVICE	64814	86912	151726
		TOTAL	**73832**	**92872**	**166704**
		GRAND TOTAL	**153325**	**140436**	**293761**

The total number of registrations in the INDOS database including even those seafarers who may have got registered but have never sailed onboard ship is 293761.

The total registered officers with foreign going licenses are around 34032 as listed below. However this number does not give the actual figure of active seafaring officers.

FOREIGN GOING OFFICERS	2012
MASTER OF A FOREIGN GOING SHIP	6857
MATE OF A FOREIGN GOING SHIP	2295
SECOND MATE OF A FOREIGN GOING SHIP	7163
MARINE ENGINEER OFFICER CLASS I	5081
MARINE ENGINEER OFFICER CLASS II	3783
MARINE ENGINEER OFFICER CLASS IV	6490
ELECTRICAL OFFICERS	2363
Total	34032

The above table clearly indicates a surplus at 2nd Mate and Class IV engineers level where as the numbers in category of Mates and Class II engineers are fewer. This confirms the continued shortage of Chief Officers and 2nd engineers.

7.3. Overall prospects for Indian seafarers

Prior to setting in of the recession, the future demand of seafarers was projected to be fairly large by most of the key studies on manning requirements. To cite an example, Drewry Annual Report Manning (2009) had concluded that the current shortfall for officers was 33,000 and was projected to rise to 43,000 by 2013.

However as the overall situation has been deteriorating since 2008-09, the market outlook has changed substantially. The conclusions of BIMCO 2010 report indicated that the demand supply gap was narrowing down. Drewry too in their 2012 report state, that owing to market uncertainty and declining vessel supply, the gap between demand and supply of officers has narrowed in 2011 to 16,000.

It may be appropriate then to state that the competition for seafaring jobs is getting tougher. What are the prospects of the Indian officers in this changing scenario?

To find whether the Indian seafarers were gaining or losing grounds, we studied the available data from 13 participating companies for the period 2006-2010 to find how the positions onboard (including trainees) were changing. These 13 companies' onboard positions (4834) represent 73% of the total population covered (total onboard positions - 6609) and approximately 26% of the total Indian slots onboard foreign and Indian vessels (estimated to be around 18000).

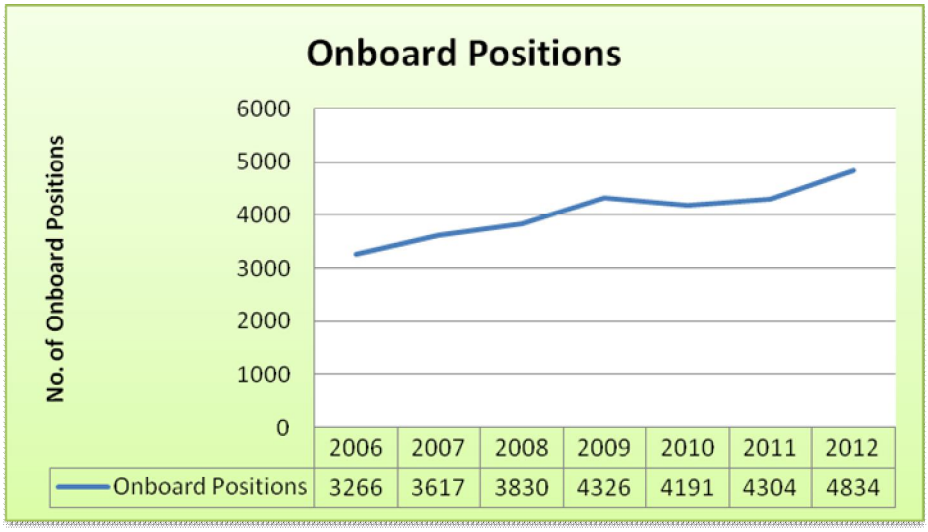


Figure 7.1: Change in onboard positions

The graph in Figure 7.1 above indicates that barring a drop in numbers from 2009 to 2010, there has been an overall gain in numbers. The YOY growth of same is depicted below graph in Figure 7.2.

Despite this gain in onboard positions, in absence of numbers from other main seafaring nations like Philippines, China, Myanmar, etc, the competitive edge of Indian officers over other nationalities could not be established.

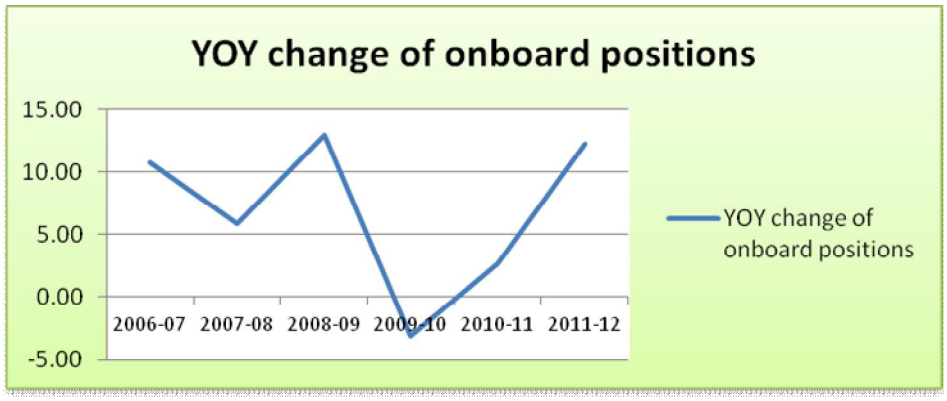


Figure 7.2: Year on Year change in onboard positions

On the other hand it may be appropriate to state that Indians may not be the first choice always when it comes to finding suitable nationality to run new vessels coming in to the world fleet. Perhaps the wages of Indian officers are one of the main reasons for this loss of competitive edge as established in the Section 6 of this report.

There are several other reasons especially the attitudes of Indian seafarers being discussed/talked about for this loss of edge, but there is no empirical evidence available to establish it.

This inference about loss of competitive edge of Indian seafarers could also be drawn from the graph in Figures 7.3 and 7.4. These give the overall increase in world tonnage and number of ships worldwide (Source: UNCTAD, Growth in world seaborne trade). It will be observed that there has been a substantial rise in number of ships in the world fleet over the years, more so between 2010 and 2011 which is close to 18.8 % where as the growth in Indian onboard positions (Figure 7.1) is only 2.6 %.

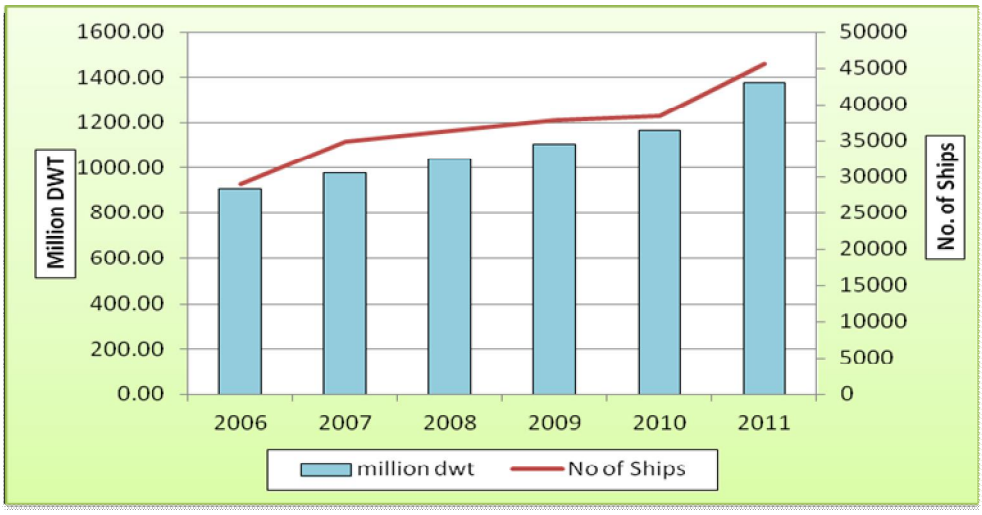


Figure 7.3: Worldwide change in DWT and number of ships

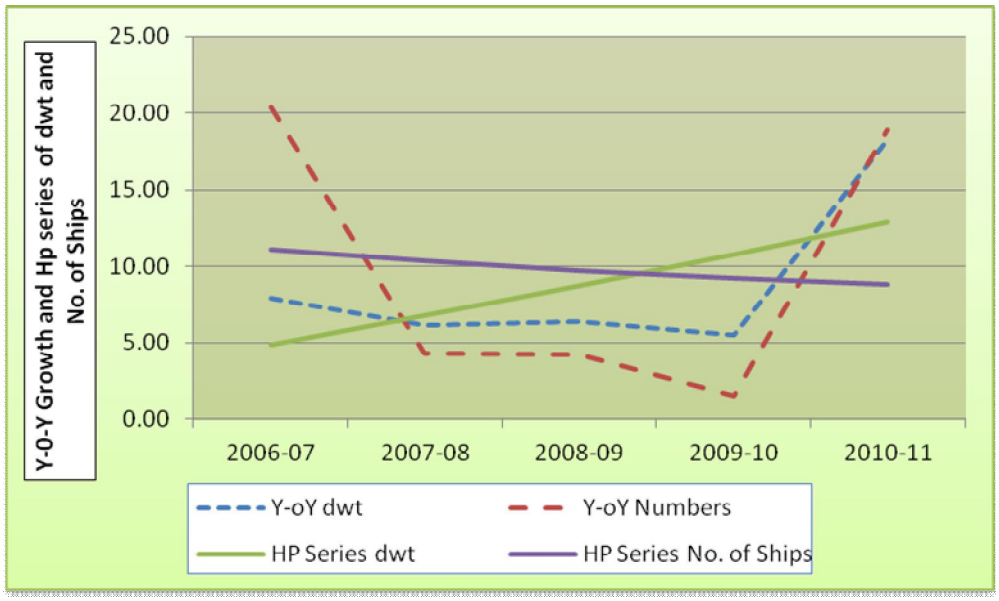


Figure 7.4: Worldwide YOY change in DWT and number of ships

7.4. Trends on Trainee Inductions:

The increase in number of trainees in companies throughout the period 2005 to 2008 was affected as the recession set in. This is shown in the data obtained from the 11 companies who could provide consistent data since 2005 till date. The effect of recession on decisions

pertaining to trainee intake is evident from the data. Unfortunately in the long run this decision may result in shortage of seafarers.

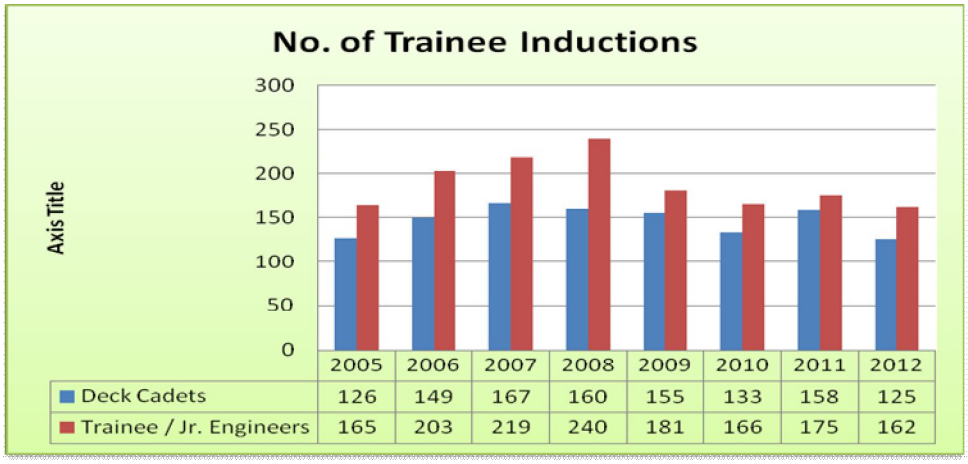


Figure 7.5: Change in Trainee Inductions

7.5. Training Institute Capacities and Placement Scenario

As per DG Shipping at present the total number of seats available in the institutes is around 6500. With decline in numbers being absorbed by companies and several companies not being able to honor their promised intakes, the placements at most of the institutes are poor.

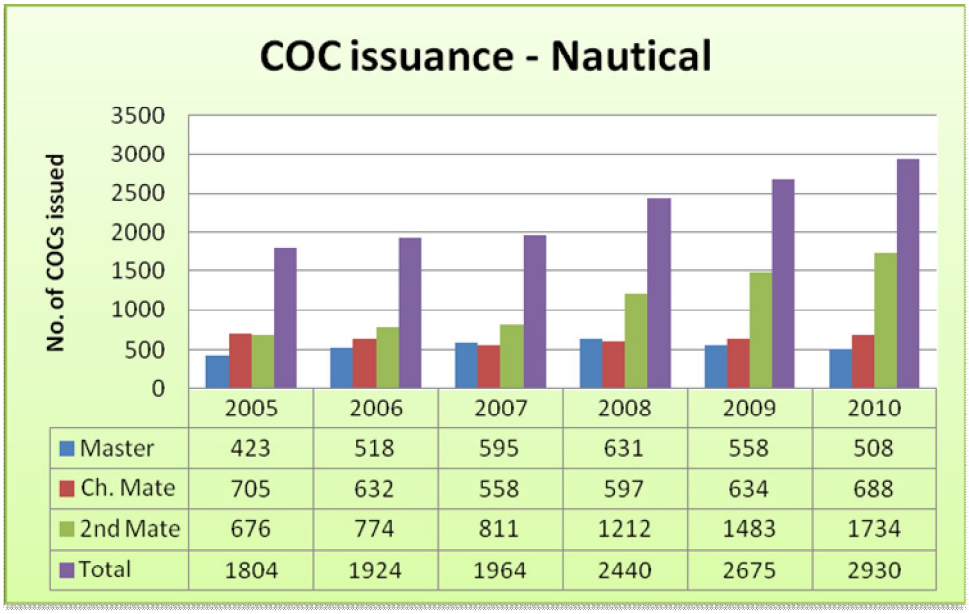
As an example, the DNS programme placements till date are 71%, while other streams of deck degree programmes have only 57% placements (Source: DGS website).

7.6. COC Examination Trends

The number of candidates passing on yearly basis at the COC examinations has been on the rise. This is evident from the data on nautical COC displayed in Figure 7.6 below. Overall, the increase in number of candidates passing various COC examinations has seen a CAGR of 10.93%.

The number of candidates passing examination on yearly basis depends on several factors including the capacities at MMDs, number of candidates appearing for the examinations, and perhaps their competence standard. It is a well known fact that many candidates go to

other countries for obtaining their COC. The number of such candidates is not available from any common database.



	2005	2006	2007	2008	2009	2010
Master	423	518	595	631	558	508
Ch. Mate	705	632	558	597	634	688
2nd Mate	676	774	811	1212	1483	1734
Total	1804	1924	1964	2440	2675	2930

Figure 7.6: COC Issuance

7.7. Conclusions

The focus of the present report has been the analysis of existing wages of seafaring officers and to study the overall manpower situation as far as Indian seafarers are concerned.

While during boom time, higher cost of human resource can be accepted, the same cannot be justified in times of severe recession even if there is a shortage of manpower. Higher wages in diminishing business situation put a lot of pressure on the entire industry.

The years 2004-2008 saw a steep rise in the wages, while in the years 2009 and 2010 the wages had a marginal increase. The years 2011 and 2012 have seen the wages remaining stagnant or being reduced in some cases, especially for the junior officers on board ships. So the correction seems to have been initiated!

However it is felt that there is room for further reductions in this category as there is huge surplus of junior officers available and also a large number of cadets in the system (Ref INDOS number table on Pages 51 and 52).

How well this reduction will improve the seemingly lost competitive edge of Indian officers over its foreign counterparts is the question we face. The authors of this report feel that there is a possibility of restoring the past glory of Indian seafarers provided some real aggressive steps are taken by decision makers. These are listed in our recommendations below.

7.8. Recommendations

1. Further reduction in wages of junior officers on board ships to bring them at par with other nationalities who are their main competition.
2. Training of young seafarers should continue and companies should have more berths created for accommodating the trainees.
3. Training Institutes need to be monitored more closely for their product. Substandard institutes should be watched closely and their improvement supported.
4. Improvement in COC studies and examination administrative processes to ensure timely production of better quality officers. Innovative and modern methods may be adopted for examination system, COC issuance.
5. Improvement in data base maintained with various institutional bodies and their regular updates are essential. Even companies need to streamline their own data upkeep.
6. Regular studies of the Indian manpower market involving all the interested parties and coverage of a larger representative population would be most desirable.

Appendix 1 - Statistical Data Analysis Tools

Arithmetic Mean

The arithmetic mean is the **Average** of a set of values. It is the sum of all the values in a set divided by the number of data in the set. The mean is not necessarily the middle value in a set of data. It is also not the most appearing value which is called **Mode**. The middle value in a set of data is called as **Median**. Half of the population lies above it while the other half of the population lies below it.

Percentile

Percentile is the value of a variable below which a certain percent of observations fall. So the 10th percentile is the value (or score) below which 10 percent of the observations may be found.

The 25th percentile is also known as the **First Quartile** (Q1); the 50th percentile as the M **Median** or **Second Quartile** (Q2); the 75th percentile as the **Third Quartile** (Q3).

Standard Deviation

The standard deviation of a set of data is a computational representation of the variability of the population with regard to the variable. It shows the nature of the deviation of the data from the mean of all the data in the set. In probability theory and statistics, standard deviation is a measure of the variability, a data set, or a probability distribution. A low standard deviation indicates that the data points tend to be very close to the **Mean**, whereas high standard deviation indicates that the data are spread out over a large range of values.

Z - Score

In statistics, a standard score indicates how many standard deviations an observation is above or below the mean. It is a dimensionless quantity derived by subtracting the population mean from an individual raw score and then dividing the difference by the population standard deviation. This conversion process is called standardizing or normalizing.

A standard score or Z score is the measure of the position of the data under the normal distribution curve.

Trend line

In statistics, linear regression refers to any approach to modeling the relationship between variables denoted y and variables denoted X, such that the model depends linearly on the unknown parameters to be estimated from the data.

YOY Growth

The calculation is based on the straight-line growth rates method. The formula used for Straight line growth rate calculation is:
X = (1 / N) * (E - B) / B
Where,

B = wages in previous year.
E = wages in following year.
N = number of years between beginning and ending year, which in the present study is 1.

CAGR

The compound annual growth rate (CAGR) is calculated by taking the nth root of the total percentage growth rate, where n is the number of years in the period being considered. The year-over-year growth rate of various sectors over a time series is calculated. The formula used is as follows:
CAGR = {Ending Value / Beginning Value} {1 / #of years} -1
The compound annual growth rate (CAGR) is calculated by Semi log method.

The CAGR calculator is a useful tool when determining an annual growth rate of data whose value has fluctuated widely from one period to the next. CAGR is often used to describe the growth over a period of time.

Hodrick-Prescott Filter:

The Hodrick-Prescott filter (HP) is a mathematical tool used in real business cycle to separate the cyclical component of a time series from raw data. It is used to obtain a smoothed non-linear representation of a time series, which is more sensitive to long-term than to short-term fluctuations. This method was developed by Robert Hodrick and Edward Prescott 1997.

Application of the Hodrick-Prescott Filter to the basic series Y gives a filtered series. The adjustment of the sensitivity of the trend to short-term fluctuations is achieved by modifying a multiplier λ, the parameter λ is a positive number which penalizes the variability in the growth component. It determines the smoothness of the series.