



U.S. Department of Transportation  
Maritime Administration

# Maritime Operator Survey Concerning Mariner Availability

2008





## **Executive Summary**

This “Maritime Operator Survey Concerning Mariner Availability” was launched to determine whether the U.S. maritime industry has a recruitment and retention problem that the Maritime Administration should address with greater attention or resources. The results of this survey indicate that industry does have a problem with mariner availability. A larger research effort is recommended to delve into greater detail on the issues affecting each segment of the industry and how these issues are affected by Federal programs, policies and regulations.

### **Result Highlights:**

- **There appears to be industry concern over mariner manpower issues.** Just over one-fifth (21.5 percent or 164) of the 845 self-administered questionnaires were returned and considered valid by the Maritime Administration. This response rate is remarkably high for mail-in response rates which are typically low (i.e., between 3 and 11 percent of total mailings). \*See page 1\*
- **A great majority (89 percent) of the respondents attempted to hire mariners over the past year, but almost three-quarters (71 percent) of them encountered problems in recruitment.** All market segments were affected, particularly smaller operators in niche markets. In all but one market segment (by vessel type) over two-thirds (68 percent) of carriers reported recruitment problems. Only ferry operators reported a lower degree of difficulty, with some 50 percent of respondents in that category indicating problems. \*See page 4\*
- **Almost half of the respondents (45 percent) reported that they had difficulty hiring licensed deck officers and just over one-quarter (28 percent) had problems hiring unlicensed deck personnel.** Problems in hiring licensed deck personnel were most widespread for ocean and coastal dry cargo barge (85 percent) and offshore service vessel (58 percent) operators. \*See page 5\*
- **One of the proposed solutions offered by respondents included regulatory reform.** Many respondents would like to simplify, restructure, and expedite the documentation, license, TWIC (Transportation Worker Identification Card), STCW (Standards of Training, Certification, and Watchkeeping), and medical approval processes to make them less expensive, time-consuming, and daunting for potential recruits. \*See page 5\*
- **Over half of all respondents (51 percent) indicated that they have experienced some degree of difficulty retaining mariners over the past year.** \*See page 5\*
- **Eighty-eight percent of the respondents who experienced difficulty retaining mariners indicated that their operations had been impacted to some degree.** Impacts mentioned include: having to lay-up or sell vessels; inability to expand their fleet; delayed service or the loss of contracts altogether. \*See page 7\*



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- **Seventy-one percent of respondents who experienced difficulty retaining mariners indicated that they expect the difficulty to last up to five years or more.** \*See page 7\*
- **Operators also called for a national public relations effort to:** 1) increase the interest of recent high school graduates looking for immediate work in the maritime industry; 2) increase the number of high schools across the nation offering maritime curricula; 3) increase the enrollment at the Merchant Marine Academy and the state maritime schools; and, 4) improve public awareness of employment opportunities in the maritime industry.  
\*See page 8\*
- **In order to further define the dimensions of the crewing issue, a useful next step would be a full-scale formal survey research effort.** This effort should delve into greater detail on the issues affecting each segment of the industry and how these issues are affected by Federal programs, policies and regulations. Additionally, it should provide the necessary analysis that can be used to develop logical and effective solutions to ensure that there are sufficient qualified mariners to meet economic and national security requirements.  
\*See page 9\*



## **Introduction**

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Over the last five years there have been dramatic changes in the marine transportation fleets that, in turn, have affected the demand for mariners. According to the Merchant Marine Act of 1936, the Maritime Administration has been charged with fostering the development and maintenance of an adequate U.S.-flag merchant marine manned with trained and efficient citizen personnel. In order to successfully meet this mandate, the Maritime Administration must periodically determine whether a current or projected shortage of mariners exists and if so, determine if there is an operational or business impact on the U.S. merchant marine.

The “Maritime Operator Survey Concerning Mariner Availability” broadly assessed labor market conditions for U.S. merchant mariners and the results indicate that the maritime industry does have a problem with mariner availability. A larger research effort is recommended to examine in greater detail the issues affecting each segment of the industry and how these issues are affected by Federal programs, policies and regulations.

### Methodology

The target population for this survey encompassed all U.S.-flag cargo carrying and non-cargo carrying vessel operators. The Maritime Administration selected the target population from the U.S. Army Corps of Engineers “Waterborne Commerce of the United States” domestic traffic data. In all, 845 operators were selected based on vessel operations in 2005 (the latest data available).

Of the 845 surveys mailed out, 68 were returned as undeliverable. A total of 177 questionnaires were completed and returned. Of these, 13 operators stated that they did not hire crews and therefore were not counted in the calculations. On this basis, the remaining 164 valid surveys resulted in a response rate of 21.5 percent.

Due to the large number of operators and the nature of the survey, it was presented in the form of a mail-out survey in December of 2007. The five page survey instrument consisted of nine closed-ended questions and one open-ended question (see Appendix B for questionnaire). For a survey of this nature, a response rate of this magnitude is considered rather high and was achieved without the use of methods typical of mail-out surveys, such as a preceding announcement and follow-up reminder.<sup>1</sup>

### Limitations

A potential shortcoming of a mailed questionnaire, as well as other survey methods, is the variability in how the respondents react to the questionnaire and procedures. For example, two respondents may interpret a question differently from one another, while both may incorrectly respond to the question altogether. From the data collected it cannot be determined whether

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<sup>1</sup>Response rates for mail surveys are by nature lower than other surveying methods, i.e. telephone, web-based, personal interviews. According to David Frigstad, author of “Know Your Market: How to Do Low-Cost Market Research, mail survey response rates vary between 3 and 11 percent.



## **Introduction**

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this affected the survey results.

The issue of non-response error is a real concern with surveys of this nature. This type of bias occurs in situations of voluntary response, such as mail-out surveys or phone-in polls, where the people who care enough to respond are not necessarily a statistically representative sample of the actual population. Operators may have declined to reply because they do not believe mariner shortages are an issue, whereas an operator having real difficulties hiring mariners would have been much more inclined to relate their concerns. It is impossible to determine whether the 600 operators who did not respond failed to do so because they were apathetic to the issue or for a plethora of other reasons.

Cross-tabulations identified in this report may appear to be somewhat inconsistent because of the inability to differentiate between vessel types for those respondents who operate vessels in multiple segments. For example, from the identifying information, we know that Company "A" operates vessels in six different market segments. By its response to Question 1, we know Company "A" hired licensed and unlicensed mariners for deck positions in 2007. However, what cannot be determined is whether it did so in the coastal tanker segment, coastal tank barge segment, or any of the other four segments in which Company "A" operates.



## Results

In order to better understand the operators and to pinpoint where possible mariner shortages occur, the respondents were asked to indicate in which of the following 11 market segments they operate vessels. The breakdown of respondents by vessel type is shown in Figure 1. The “Other” category accounted for 38 percent of the respondents and consisted of towing/push boats, barges (other than those listed), crew boats, dredges, and harbor service vessels. Nearly half of respondents falling into the “Other” category (46 percent) described their company as operators of towing or push boat vessels.

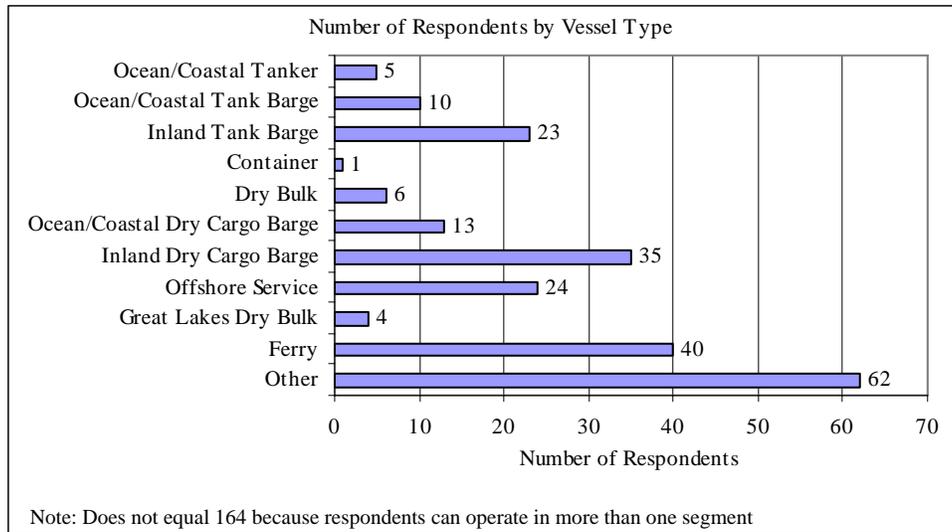


Figure 1

### Current Mariner Hiring

Those surveyed were asked if they hired mariners in 2007 other than for replacement of personnel that had left a job. Of the 153 respondents that answered the question, 48 percent indicated that they did hire mariners in excess of replacements (Figure 2). This indicates that these companies were expanding operations in 2007.

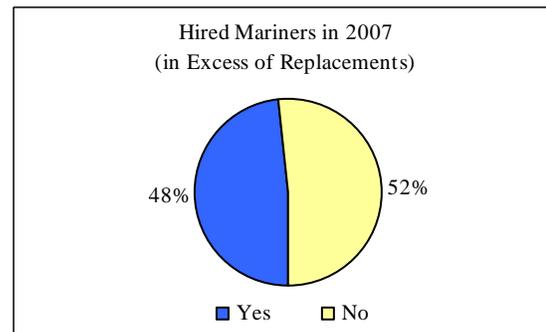


Figure 2

Of those respondents who indicated that they had hired mariners in 2007, most of them were in need of licensed and unlicensed mariners for the deck and engine departments as seen in Figure 3.

### Future Mariner Hiring

Those surveyed were also asked if they plan to hire additional mariners in 2008-2009 and 2010-2011. Combining these responses shows that of

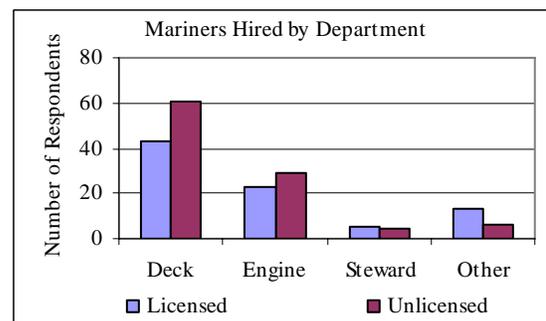


Figure 3



## Results

the 155 operators that answered the questions, 51 percent indicated that they would be hiring mariners sometime in the 2008-2011 timeframe (Figure 4). Responses to these questions indicate that the demand for more mariners will continue for at least the next several years. See Appendix A for detailed responses.

### Hiring Difficulties

Operators were asked a series of questions regarding the ability to hire mariners over the past year. Eighty-nine percent of the respondents indicated that they attempted to hire mariners in the past year. Of those, a significant number of the respondents (71 percent) encountered some degree of difficulty (Figure 5). The other 29 percent indicated that they had experienced no difficulty. Of the 164 respondents, 17 indicated that they did not attempt to hire mariners in the past year and one respondent did not answer the question.

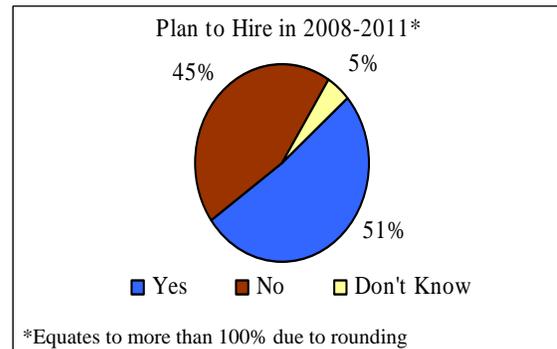


Figure 4

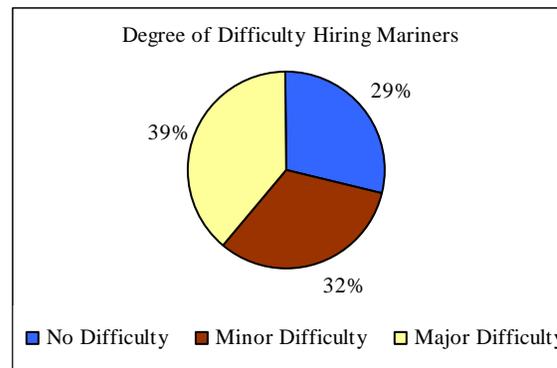


Figure 5

Upon further examination of the respondents who attempted to hire mariners in the past year, it can be seen that over 50 percent of the operators in each segment encountered difficulty hiring mariners (Figure 6). In fact, with the exception of ferry operators, over 67 percent of carriers in all vessel segments indicated difficulty in hiring mariners.

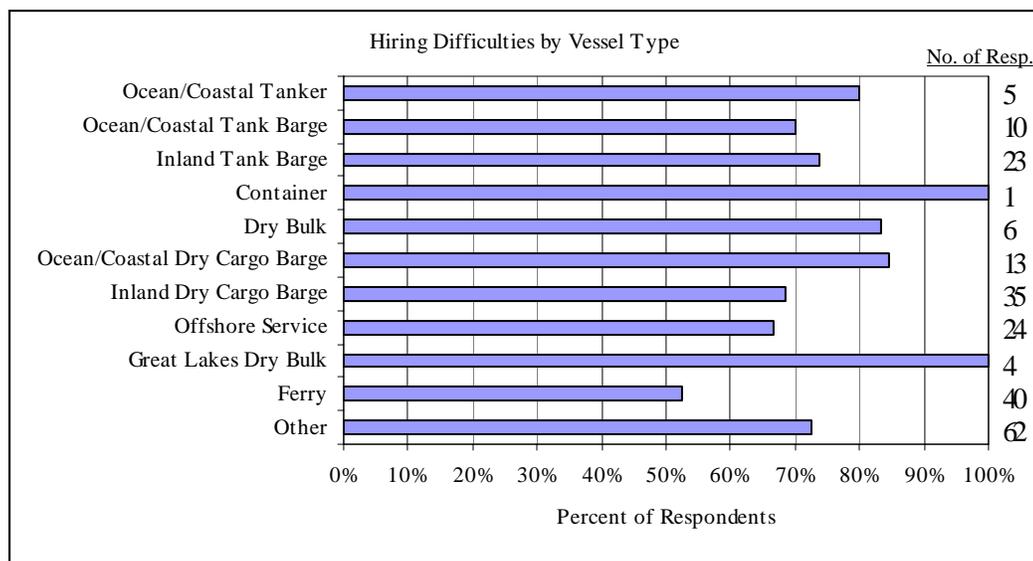


Figure 6



## Results

Of those who attempted to hire in the past year, 45 percent of respondents indicated that they had difficulty hiring licensed deck officers and 28 percent had difficulty hiring unlicensed deck personnel (Figure 7). Twenty-one percent of respondents indicated that they had difficulty hiring licensed engine officers.

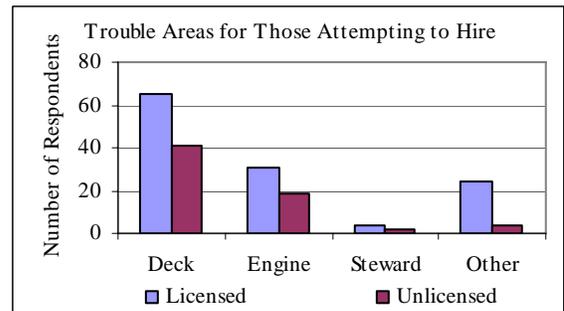


Figure 7

Operators in the market segments experiencing the most difficulty hiring licensed deck officers included the ocean or coastal dry cargo barges (85 percent of all ocean or coastal dry cargo barge operators reported difficulties) and offshore service vessels (58 percent of all offshore service vessel operators reported difficulties). Operators in those two market segments represented 23 percent of all respondents.

Some of the respondents commented that the overall pool of mariners to choose from has declined due to the increased licensing requirements. They indicate that these new requirements have created a severe lack of qualified personnel. New licensing requirements such as STCW (Standards of Training, Certification, and Watchkeeping) and TWIC (Transportation Worker Identification Card), and new requirements for the MMD (Merchant Mariners Document) seem to be having a considerable effect on the respondents' ability to hire and retain licensed mariners. New costs in time and money to meet formal classroom training requirements established by STCW appear to be negatively affecting unlicensed mariners from advancing to licensed mariners (hawsepipes). This is especially true in the offshore and towing industry where they have traditionally grown their licensed officers from entry level mariners.

### Retention Difficulties

Operators were also asked about their ability to retain mariners over the past year. While respondents did not have as much difficulty retaining mariners as they did hiring them, still over half (51 percent) indicated that they have experienced some degree of difficulty over the past year (Figure 8).

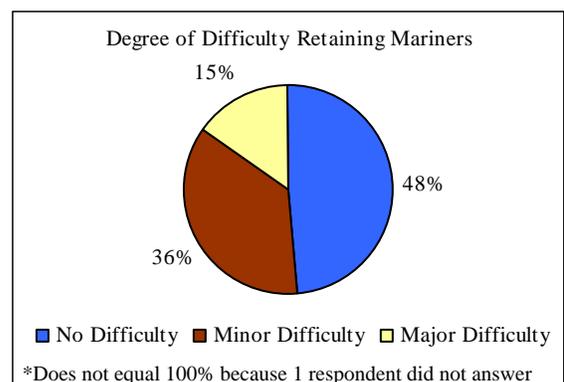


Figure 8

The carriers who experienced the most difficulty retaining mariners operated in the ocean or coastal market segments (Figure 9). All container (one) and tanker (five) operators identified difficulty, while tank barge (90 percent) and dry cargo barge (77 percent) operators also indicated problems.



## Results

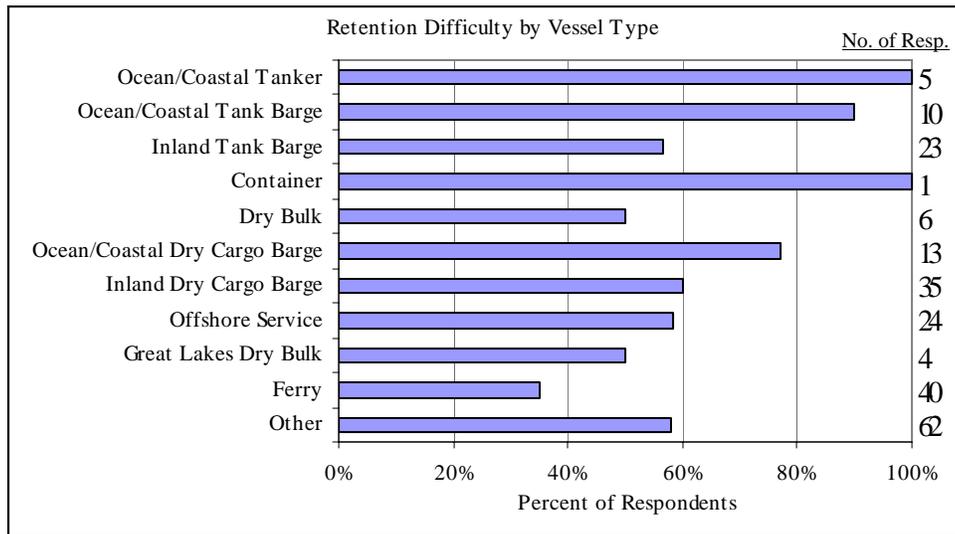


Figure 9

Of those experiencing difficulty retaining mariners in the past year, 55 percent of respondents indicated that they had difficulty retaining licensed deck officers and 49 percent had difficulty retaining unlicensed deck personnel (Figure 10). Twenty-three percent had difficulty retaining licensed engine officers.

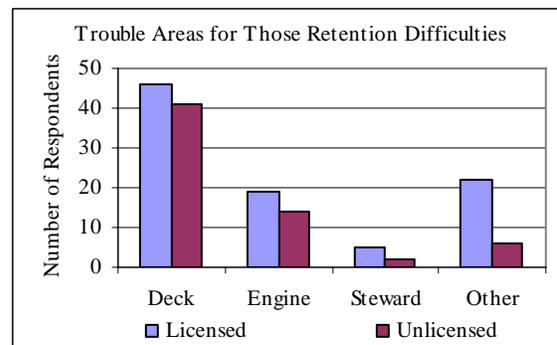


Figure 10

Operators in the market segments experiencing the most difficulty retaining licensed deck officers included the ocean or coastal dry cargo barges (62 percent of all ocean or coastal dry cargo barge operators reported difficulties) and the offshore service vessels (42 percent of all offshore service vessel operators reported difficulties). Operators in those two market segments represented 23 percent of all respondents.

Many respondents indicated that they were losing seasoned, experienced mariners to retirement without having sufficient younger, skilled mariners available to replace mariners in senior billets. Others indicated that increased wages were necessary to either retain mariners or attract new mariners and that competition with shoreside jobs remains an issue.



## Results

### Impact of Hiring and Retention Difficulties

The operators were then asked to what degree their operations had been impacted due to the difficulty of hiring or retaining mariners. The questionnaire was structured in such a way that 48 percent of respondents were directed to skip the question because they indicated they did not have difficulty retaining mariners. However, many of the respondents may have had a valid need to respond since hiring difficulties may have also impacted operations. Of the operators who were qualified to respond, 88 percent indicated that their operations had in fact been impacted to some degree (Figure 11).

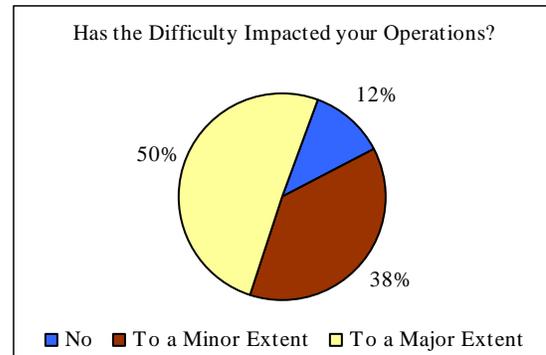


Figure 11

A few of the respondents mentioned having to lay-up or sell vessels due to an inability to crew them. Other operators stated that the lack of new crewmembers hindered their ability to expand their fleet. Still other carriers indicated that they had to delay service or lost contracts altogether due to a lack of personnel. And finally, some respondents also stated that the wages they have to offer have risen as much as 10 to 50 percent.

### Expected Duration of Difficulties

The respondents were asked how long they expected the difficulty to hire and retain mariners to last (again, the same 48 percent of respondents were ineligible to respond). Of those eligible to respond, 71 percent indicated that they expect the difficulty to last up to five years or more (Figure 12). Nineteen percent stated that they expect the difficulty to last up to three years, while the remaining 10 percent thought it would last no more than a year.

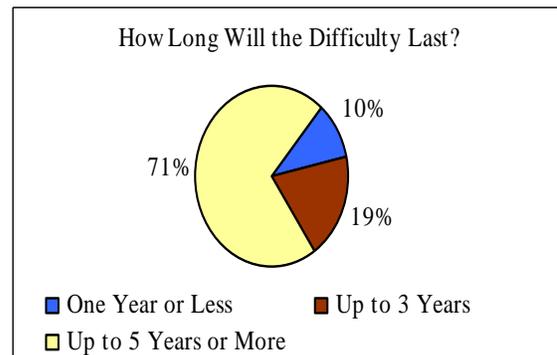


Figure 12

### Possible Solutions

Finally, the operators were asked an open-ended question about whether they could suggest any potential solutions to solve the difficulties in hiring and retaining mariners. Responses generally fell into two distinct categories: Regulatory Changes and Changes in Training and Recruitment.



## **Results**

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### Regulatory Changes

Respondents indicated that increasing regulatory requirements are having a negative impact on mariners.

- A great deal of concern was expressed over the impact of the new requirements for mariners to obtain Transportation Workers Identification Cards (TWIC). One operator commented that the additional cost and time associated with obtaining a TWIC will negatively impact operators who hire seasonal workers.
- Numerous respondents indicated that improvements in the USCG licensing and documentation process are still needed.
- Some respondents identified minor legal infractions as an impediment for hiring otherwise qualified mariners, especially officers.

### Changes in Training and Recruitment

Numerous operators indicated that the increasing training, experience, and qualifications a mariner must have and the associated time and costs are negatively impacting the pool of qualified mariners and discouraging potential mariners from entering the industry.

- Operators indicated that they were suffering from a growing shortage of pilots, particularly in the inland barge industry, but also in the Great Lakes and ferry industries.
- Operators in the towing/tug and offshore industries recommended that the curricula currently offered at the state maritime academies be expanded to provide the hands-on training necessary to work onboard these vessels.
- Operators also called for a national public relations effort to: 1) increase the interest of recent high school graduates looking for immediate work in the maritime industry; 2) increase the number of high schools across the nation offering maritime curricula; 3) increase the enrollment at the Merchant Marine Academy and the state maritime schools; and, 4) improve public awareness of employment opportunities in the maritime industry.

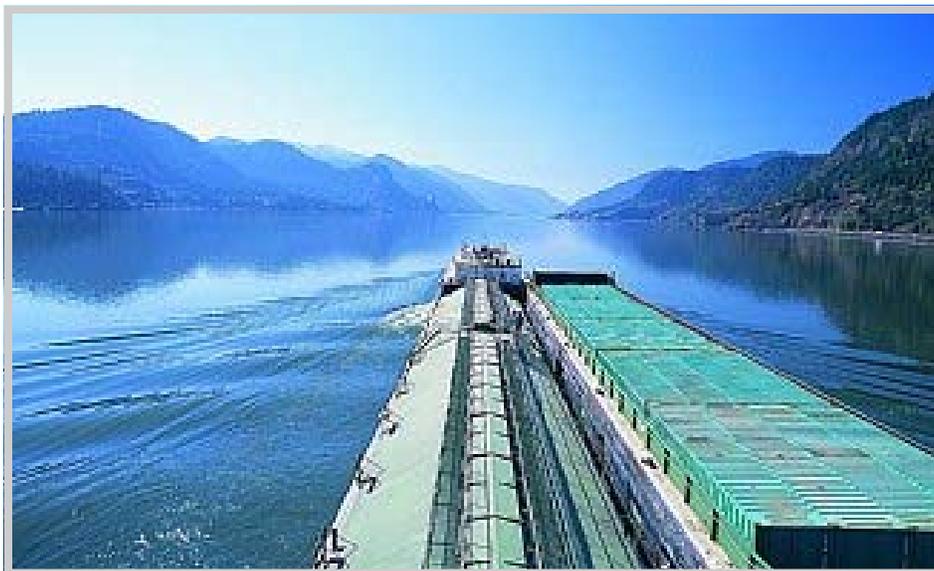


## Conclusion

Over the last five years there have been dramatic changes in the marine transportation fleets that, in turn, have affected the demand for mariners. The “Maritime Operator Survey Concerning Mariner Availability” obtained carrier feedback on whether a current or projected shortage of mariners exists and if so, determine if there is an operational or business impact on the U.S. merchant marine. Assessment of the labor market conditions for the U.S. merchant mariners ensures that the Maritime Administration and the Department of Transportation will be better equipped to design and implement the necessary policy and regulatory framework for this vital industry.

Even considering the potential non-response error of this survey, the results do indeed identify a growing concern regarding the availability of qualified mariners. Without a doubt this initial effort validates the need to explore this matter in much greater detail and warrants a full-scale survey research effort. The subsequent effort should examine the issues affecting each segment of the industry and how these issues are affected by Federal programs, policies and regulations. Additionally, it should provide the necessary analysis that can be used to develop logical and effective solutions to ensure that there are sufficient qualified mariners to meet economic and national security requirements.

The Maritime Administration is extremely grateful to the respondents for their participation.



Respondent Questionnaire Answers

Type of Vessel Service	O/C Tanker	O/C Tank Barge	Inland Tank Barge	Container	Dry Bulk	O/C Dry Cargo Barge	Inland Dry Cargo Barge	Offshore Service	GL Dry Bulk	Ferry	Other
Number of Respondents*	5	10	23	1	6	13	35	24	4	40	62

\*Number of respondents does not equal 164 because respondents can operate in more than one segment and 7 respondents indicated that they do not hire mariners

1. Did you hire mariners in 2007 other than in the ordinary course of replacement of existing mariners?\*

Type of Vessel Service	O/C Tanker	O/C Tank Barge	Inland Tank Barge	Container	Dry Bulk	O/C Dry Cargo Barge	Inland Dry Cargo Barge	Offshore Service	GL Dry Bulk	Ferry	Other
Yes	4	8	15	1	3	11	21	11	2	13	30
<i>Licensed</i>											
Deck	3	7	12	1	2	8	7	10	2	8	19
Engine	3	6	7	1	1	2	0	9	1	5	8
Steward	0	0	0	0	0	0	2	1	1	0	0
Other	0	0	1	0	1	2	5	3	0	1	6
<i>Unlicensed</i>											
Deck	4	8	13	1	2	7	18	9	2	11	21
Engine	4	8	8	1	0	3	6	8	2	2	12
Steward	1	1	0	0	0	0	1	0	1	2	1
Other	0	1	1	0	0	0	1	0	2	1	3
No	1	2	8	0	3	2	11	11	2	23	30
Don't Know	0	0	0	0	0	0	0	0	0	0	0
Did not answer	0	0	0	0	0	0	3	2	0	4	2

\*Number of respondents does not equal 164 because respondents can operate in more than one segment

2. Do you plan to hire mariners in the period 2008-2009 other than in the ordinary course of replacement of existing mariners?\*

Type of Vessel Service	O/C Tanker	O/C Tank Barge	Inland Tank Barge	Container	Dry Bulk	O/C Dry Cargo Barge	Inland Dry Cargo Barge	Offshore Service	GL Dry Bulk	Ferry	Other
Yes	4	7	16	1	5	9	21	13	3	13	27
<i>Licensed</i>											
Deck	3	6	13	1	4	8	9	10	3	7	18
Engine	3	5	7	1	2	3	1	8	2	6	9
Steward	0	0	0	0	0	0	2	1	1	0	0
Other	0	1	6	0	1	2	9	4	0	3	10
<i>Unlicensed</i>											
Deck	4	7	12	1	4	7	17	9	3	9	16
Engine	4	7	7	1	0	4	4	8	1	3	7
Steward	1	2	1	0	0	1	2	1	1	2	1
Other	0	1	1	0	0	0	2	0	2	1	3
No	1	2	7	0	1	1	9	9	1	21	27
Don't Know	0	1	0	0	0	1	2	0	0	3	4
Did not answer	0	0	0	0	0	2	3	2	0	3	4

\*Number of respondents does not equal 164 because respondents can operate in more than one segment

## Appendix - A

3. Do you plan to hire mariners in the period 2010-2011 other than in the ordinary course of replacement of existing mariners?\*

Type of Vessel Service	O/C Tanker	O/C Tank Barge	Inland Tank Barge	Container	Dry Bulk	O/C Dry Cargo Barge	Inland Dry Cargo Barge	Offshore Service	GL Dry Bulk	Ferry	Other
Yes	2	5	12	0	3	8	18	10	2	8	18
<i>Licensed</i>											
Deck	2	4	8	0	3	7	8	6	2	4	12
Engine	2	3	4	0	2	3	0	5	1	3	3
Steward	0	0	0	0	0	0	2	0	1	1	0
Other	0	0	4	0	1	2	7	2	0	1	5
<i>Unlicensed</i>											
Deck	2	5	10	0	2	6	14	7	2	5	9
Engine	2	5	5	0	0	4	6	6	2	3	4
Steward	1	1	0	0	0	0	1	0	1	1	1
Other	0	1	1	0	0	0	1	0	2	1	3
No	1	2	5	0	1	1	9	9	1	14	24
Don't Know	2	3	6	1	2	2	5	2	1	12	14
Did not answer	0	0	0	0	0	2	3	3	0	6	6

\*Number of respondents does not equal 164 because respondents can operate in more than one segment

4. Within the past year or currently, have you had difficulty hiring mariners?\*

Type of Vessel Service	O/C Tanker	O/C Tank Barge	Inland Tank Barge	Container	Dry Bulk	O/C Dry Cargo Barge	Inland Dry Cargo Barge	Offshore Service	GL Dry Bulk	Ferry	Other
Have not attempted to hire	0	1	4	0	0	1	5	0	0	5	4
No	1	2	2	0	1	1	6	8	0	14	11
Minor difficulty	2	4	6	0	1	4	6	6	2	13	14
Major difficulty	2	3	11	1	4	7	18	10	2	8	31
Did not answer	0	0	0	0	0	0	0	0	0	0	1

\*Number of respondents does not equal 164 because respondents can operate in more than one segment

5. If the answer to Question 4 is "No" or "Have not attempted to hire" please proceed to Question 6. If you have had difficulty hiring mariners, in what department(s)?\*

Type of Vessel Service	O/C Tanker	O/C Tank Barge	Inland Tank Barge	Container	Dry Bulk	O/C Dry Cargo Barge	Inland Dry Cargo Barge	Offshore Service	GL Dry Bulk	Ferry	Other
Licensed	3	5	11	1	4	11	11	14	4	13	31
Deck	3	5	11	1	4	11	11	14	4	13	31
Engine	3	5	6	1	3	3	4	11	2	5	12
Steward	0	0	0	0	0	0	2	0	0	0	1
Other	0	0	4	0	1	1	9	4	0	2	14
<i>Unlicensed</i>											
Deck	1	2	6	0	2	3	13	7	3	8	17
Engine	1	2	4	1	0	1	4	7	3	4	8
Steward	0	0	0	0	0	0	1	0	0	1	0
Other	0	0	0	0	0	0	1	2	1	1	3
Not Applicable - See #4	1	3	6	0	1	2	11	8	0	19	13
Did not answer	0	0	2^	0	0	0	0	1^	0	1^	1^

\*Number of respondents does not equal 164 because respondents can operate in more than one segment ^Respondent answered positive for Question 4 but did not answer Question 5

## Appendix - A

6. Within the past year or currently, have you had difficulty in retaining mariners?\*

Type of Vessel Service	O/C Tanker	O/C Tank Barge	Inland Tank Barge	Container	Dry Bulk	O/C Dry Cargo Barge	Inland Dry Cargo Barge	Inland Dry Cargo Barge	Offshore Service	GL Dry Bulk	Ferry	Other
No	0	1	10	0	3	2	13	10	10	2	26	26
Minor difficulty	5	7	7	1	1	6	11	9	9	2	12	23
Major difficulty	0	2	6	0	2	4	10	5	5	0	2	13
Did not answer	0	0	0	0	0	1	1	0	0	0	0	0

\*Number of respondents does not equal 164 because respondents can operate in more than one segment

7. If the answer to Question 6 is "No" please proceed to Question 10. If you have had difficulty in retaining mariners, in what department(s)?\*

Type of Vessel Service	O/C Tanker	O/C Tank Barge	Inland Tank Barge	Container	Dry Bulk	O/C Dry Cargo Barge	Inland Dry Cargo Barge	Inland Dry Cargo Barge	Offshore Service	GL Dry Bulk	Ferry	Other
<i>Licensed</i>												
Deck	3	3	7	1	2	8	8	10	10	0	10	20
Engine	3	3	4	0	2	3	1	8	8	0	4	6
Steward	0	0	0	0	0	0	3	1	1	0	0	0
Other	0	2	3	0	0	1	7	2	2	0	1	12
<i>Unlicensed</i>												
Deck	1	2	5	0	2	5	16	9	9	2	6	15
Engine	0	1	2	0	0	1	1	5	5	2	2	6
Steward	0	0	0	0	0	0	1	0	0	0	1	0
Other	0	1	0	0	0	0	3	1	1	1	1	3
Not Applicable - See #6	0	1	10	0	3	2	13	10	10	2	26	26
Did not answer	0	1^	0	0	0	1^	0	0	0	0	1^	0

\*Number of respondents does not equal 164 because respondents can operate in more than one segment ^Respondent answered positive for Question 6 but did not answer Question 7

8. How long do you expect the difficulty hiring and/or retaining mariners to last?\*

Type of Vessel Service	O/C Tanker	O/C Tank Barge	Inland Tank Barge	Container	Dry Bulk	O/C Dry Cargo Barge	Inland Dry Cargo Barge	Inland Dry Cargo Barge	Offshore Service	GL Dry Bulk	Ferry	Other
One year or less	1	1	2	0	0	1	0	0	3	0	2	1
Up to three years	3	2	3	1	1	1	3	2	2	0	0	8
Up to five years or more	1	6	7	0	1	7	19	5	5	2	11	23
Not Applicable - See #6	0	1	10	0	3	2	13	10	10	2	26	26
Did not answer	0	0	1	0	1	2	0	4	4	0	1	4

\*Number of respondents does not equal 164 because respondents can operate in more than one segment

9. Has the difficulty you have experienced or expect to experience in hiring and/or retaining mariners impacted your business operations and plans or do you think that it will in the future?\*

Type of Vessel Service	O/C Tanker	O/C Tank Barge	Inland Tank Barge	Container	Dry Bulk	O/C Dry Cargo Barge	Inland Dry Cargo Barge	Inland Dry Cargo Barge	Offshore Service	GL Dry Bulk	Ferry	Other
No	1	0	0	0	0	0	1	1	2	0	4	2
To a minor extent	2	3	6	0	1	4	7	6	6	0	4	11
To a major extent	2	6	7	1	2	7	14	6	6	2	6	22
Not Applicable - See #6	0	1	10	0	3	2	13	10	10	2	26	26
Did not answer	0	0	0	0	0	0	0	0	0	0	0	0

\*Number of respondents does not equal 164 because respondents can operate in more than one segment

## Appendix - B

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U.S. Department  
of Transportation

**Maritime  
Administration**

Administrator

1200 New Jersey Avenue, S.E.  
Washington, D.C. 20590

November 28, 2007

Dear Human Resources Director:

The Maritime Administration is asking you to participate in a survey of U.S. merchant cargo vessel operators to determine if there is a current or projected shortage of mariners and the possible impact of such a shortage. We are also asking you to suggest possible solutions to any perceived shortage. If the survey reveals the existence or expectation of a shortage, we plan to undertake a more extensive follow-up survey to assess the magnitude of the problem in greater detail together with causes and potential long-term remedies. We are grateful for your help. Your answers will assist us in focusing on critical employment issues facing the nation's maritime industry.

The survey is enclosed together with a prepaid envelope for your response. Your company's response and detailed comments will be kept confidential. The aggregated responses for all companies will be published in a report and we will send you a copy. Thank you for taking the time in this important endeavor.

Sincerely,

A handwritten signature in black ink, appearing to read "Sean T. Connaughton".

Sean T. Connaughton  
Maritime Administrator

Enclosures

2133-New

**MARAD Maritime Operator Survey  
Concerning Mariner Availability**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2133-New. Public reporting for this collection of information is estimated to be approximately 20 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are voluntary. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: Information Collection Clearance Officer, Maritime Administration, MAR-390, Room W26-310, 1200 New Jersey Avenue, SE, Washington, DC 20590.

Name of Individual Respondent \_\_\_\_\_  
Company Affiliation \_\_\_\_\_  
Respondent Telephone Number \_\_\_\_\_  
Respondent Fax Number \_\_\_\_\_  
Respondent E-mail Address \_\_\_\_\_  
Date \_\_\_\_\_

Type of Vessel Service (Put an X for what is applicable)

Ocean or Coastal Tanker \_\_\_\_\_  
Ocean or Coastal Tank Barge \_\_\_\_\_  
Inland Tank Barge \_\_\_\_\_  
Ocean Container \_\_\_\_\_  
Dry Bulk \_\_\_\_\_  
Ocean or Coastal Dry Cargo Barge \_\_\_\_\_  
Inland Dry Cargo Barge \_\_\_\_\_  
Offshore Service \_\_\_\_\_  
Great Lakes Dry Bulk \_\_\_\_\_  
Ferry \_\_\_\_\_

Other (Please describe) \_\_\_\_\_

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Instructions:

For the purposes of this survey we define a mariner as a person actively engaged in the operating and/or crewing of commercial vessels.

Please complete the survey form and return it in the enclosed envelope. We would appreciate receiving your response by December 31, 2007.

1. Did you hire mariners in 2007 other than in the ordinary course of replacement of existing mariners?

Yes \_\_\_\_\_ Please indicate department(s) below

	<u>Licensed Officers</u>	<u>Unlicensed Mariners</u>
Deck	_____	_____
Engine	_____	_____
Steward	_____	_____
Other	_____	_____
No	_____	
Don't know	_____	

2. Do you plan to hire mariners in the period 2008-2009 other than in the ordinary course of replacement of existing mariners?

Yes \_\_\_\_\_ Please indicate department(s) below

	<u>Licensed Officers</u>	<u>Unlicensed Mariners</u>
Deck	_____	_____
Engine	_____	_____
Steward	_____	_____
Other	_____	_____
No	_____	
Don't know	_____	

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3. Do you plan to hire mariners in the period 2010-2011 other than in the ordinary course of replacement of existing mariners?

Yes \_\_\_\_\_ Please indicate department(s) below

	<u>Licensed Officers</u>	<u>Unlicensed Mariners</u>
Deck	_____	_____
Engine	_____	_____
Steward	_____	_____
Other	_____	_____
No	_____	
Don't know	_____	

4. Within the past year or currently, have you had difficulty hiring mariners?

Have not attempted to hire \_\_\_\_\_

No \_\_\_\_\_

Minor difficulty \_\_\_\_\_

Major difficulty \_\_\_\_\_

5. If the answer to Question 4 is "No" or "Have not attempted to hire" please proceed to Question 6. If you have had difficulty hiring mariners, in what department(s)?

	<u>Licensed Officers</u>	<u>Unlicensed Mariners</u>
Deck	_____	_____
Engine	_____	_____
Steward	_____	_____
Other	_____	_____

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6. Within the past year or currently, have you had difficulty in retaining mariners?

No \_\_\_\_\_

Minor difficulty \_\_\_\_\_

Major difficulty \_\_\_\_\_

7. If the answer to Question 6 is No, please proceed to Question 10. If you have had difficulty in retaining mariners, in what department(s)?

	<u>Licensed Officers</u>	<u>Unlicensed Mariners</u>
Deck	_____	_____
Engine	_____	_____
Steward	_____	_____
Other	_____	_____

8. How long do you expect the difficulty in hiring and/or retaining mariners to last?

One year or less \_\_\_\_\_

Up to three years \_\_\_\_\_

Up to five years or more \_\_\_\_\_

9. Has the difficulty you have experienced or expect to experience in hiring and/or retaining mariners impacted your business operations and plans or do you think that it will in the future?

No \_\_\_\_\_

To a minor extent \_\_\_\_\_

To a major extent \_\_\_\_\_

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Please comment on the impact, if any. (REMINDER: We will keep all comments confidential.)

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10. If you believe that there are current problems in hiring and/or retaining mariners, or that these problems will exist in the future, can you suggest any potential solutions?

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Thank you for your time and cooperation.