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Ocean Science, Technology, and Operations Workforce Study Industry Senior Executive Survey

The Marine Advanced Technology Education (MATE) Center and the Naval Postgraduate School (NPS) are leading an effort to assess the state of the nation's ocean science, technology, and operations (OSTO) workforce. One of the major goals of this project is to support the future development of the U.S. OSTO workforce. To help achieve this goal, we are surveying senior executives to obtain information on their ocean-related industries. These are confidential surveys. The data from your completed survey will be entered into a large database for aggregate statistical analyses only and will not be linked to you or your company by name.

This project is funded by the National Oceanographic Partnership Program. Additional information about this project can be found at:

www.marinetech.org/OSTO

For this survey, the term ocean workforce refers to the portion of your company's workforce involved in ocean-related activities. Examples of these activities include: collection and analysis of ocean data; forecasting of the marine environment; marine navigation; sea floor surveying; design and manufacture of equipment, structures, ocean-going vessels, vehicles, and instruments; marine transportation; installation and maintenance of offshore pipeline and cable; offshore oil and gas exploration and production, including support operations; etc. This survey will take you approximately 20 minutes to complete, and we will send you a stylish laser pointer pen as a thank you for your time.



This survey is co-sponsored by the Marine Technology Society

This form can be filled out electronically and emailed to osto@marinetech.org, or you can fax it to (727) 894-6821 or mail it to the MATE Center at Monterey Peninsula College, 980 Fremont St., Monterey, CA 93940.

Thank you,

Deidre Sullivan, *MATE Center Director*
Tom Murphree and Leslie Rosenfeld, *Naval Postgraduate School*
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Please complete as many questions as you can. Rough estimates and/or partial completions are still very helpful.

1. Please provide us with:

- a. **Your name:** _____
- b. **Your job title or occupation:** _____
- c. **The name of your company:** _____
- d. **The zip code of your company's headquarters:** _____
- e. **Your email address:** _____

2. Is your company: strictly ocean-related partially ocean-related

If such a division can be made, please answer all survey questions for just the ocean-related portion of your company.

3. How many people are in your company's ocean workforce? _____

4. Who are the present users of your products and services, and for which of these users do you expect your business to grow in the next five years?

	Present users	Growth Expected
Aquaculture/fishing industries	<input type="checkbox"/>	<input type="checkbox"/>
Educators and students	<input type="checkbox"/>	<input type="checkbox"/>
Environmental advocacy organizations	<input type="checkbox"/>	<input type="checkbox"/>
Health, safety and emergency managers	<input type="checkbox"/>	<input type="checkbox"/>
Industry (e.g. communications, oil & gas, shipping, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Media	<input type="checkbox"/>	<input type="checkbox"/>
Military and homeland security organizations	<input type="checkbox"/>	<input type="checkbox"/>
Ocean modelers, analysts or forecasters	<input type="checkbox"/>	<input type="checkbox"/>
Policy makers; resource/environmental managers	<input type="checkbox"/>	<input type="checkbox"/>
Recreational users	<input type="checkbox"/>	<input type="checkbox"/>
Researchers (Scientific)	<input type="checkbox"/>	<input type="checkbox"/>
Utilities (e.g. power, water, waste management)	<input type="checkbox"/>	<input type="checkbox"/>
Other (<i>Please specify below</i>)		
_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>

5. For which occupations in your company's ocean workforce do you have the most trouble hiring and/or retaining workers, and why? Please fill in the occupation(s) in the top row and select pertinent factors by placing an X in subsequent rows. Please add additional factors to the end of the table, if needed.

Factors ↓	List Occupations →				
Lack of training / education programs					
Undesirable geographic location					
Time spent at sea or away from home					
Inadequate monetary compensation					
Inadequate benefits					
Difficulty bringing foreign workers to U.S.					
Competition for workers within your industry					
Competition for workers outside your industry					

6. How do you expect your company's ocean workforce to change in the next 2-5 years, and why do you expect these changes? In the table below, please provide information on the expected changes that apply to your company. For each change, please comment on the affected occupations and any other aspects of the change. Add additional changes at the bottom of the table, if needed.

Expected Changes	Affected Occupations or Other Aspects of Expected Change
Increase in number of employees	
Decrease in number of employees	
New occupations to be added	
Occupations to become obsolete due to technological advances	
New knowledge / skills to be required of employees	
New licensing / certification requirements	
Increased outsourcing to non-U.S. workers	

7. What are your company's major ocean workforce challenges, and how is it dealing with them?

8. In what ways could educational institutions and government organizations assist your company in dealing with your ocean workforce challenges?

9. List occupations or skill sets in ocean science, technology, or operations for which you feel a new professional certification might be useful in recruiting, retaining, evaluating, and/or promoting employees.

10. Is your company involved in ocean observing, analysis, and/or forecasting systems?

- Yes
 No
 I don't know

11. Please add any other comments regarding the ocean workforce or professional certification for oceanographic professionals.

Ocean-Related Occupations in Your Company

Please complete if time allows. Rough estimates and/or partial completions are fine.

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Occupations	Number of workers	Number of positions currently open	How many new positions will be added over the next 2 years	Minimum annual pay (with bonuses & overtime)	Maximum annual pay (with bonuses and overtime)	Are you having difficulty hiring and/or retaining staff in this area?
Design, Operation, and Maintenance of Infrastructure and Equipment						
Divers and Diving Support Personnel						
Engineer - Electrical						
Engineer - Mechanical						
Engineer - Petroleum						
Engineer - Structural						
Engineer - Other						
Machinist, Welder, Fabricator, Carpenter						
Ship Officers and Crew						
Technicians - Electrical						
Technicians - Mechanical						
Underwater Vehicle Pilot/Operator						
Data Collection, Analysis, Modeling, Monitoring, and Forecasting						
Biological Scientist/Oceanographer						
Chemical Scientist/Oceanographer						
Geologist, Geophysicist, Geological Oceanographer, Petroleum Geologist						
GIS/Remote Sensing Analyst						
Hydrographic Surveyor						
Mathematician, Statistician, Operations Analyst						
Physical Scientist, Physical Oceanographer, Meteorologist, Hydrologist, Environmental Modeler/ Analyst/Forecaster						
Social Scientist, Economist						
Technician, Research Assistant						
Data and Information Management						
Software Engineer						
Computer Programmer						
Computer Support Personnel, including Network System Analysts						
Database Administrator						
Information Technology Manager						
Education, Outreach, and Public Relations						
Communications/Public Relations						
Education/Outreach Specialist						
Project Planning and Management						
Project/Program Manager						
Resource Manager						
Other non-administrative job titles/functions may be added below						

To receive a laser pointer pen as a thank you gift, please provide your name and address here: