

OSTO Workforce Workshop Synthesis of Day 1 Discussions

Major Points

1. Generational differences in job expectations can be a retention issue. Internships and coop experiences can help address this issue.
2. Work culture can interfere with hiring and retention (e.g., high work load, long hours, high stress, under staffing, low resources, frequent shifts in priorities, bureaucracy).
3. Visibility and perception of OSTO jobs needs to be improved.
4. Technology is changing faster than the workforce can keep up.
5. Required time at sea or offshore can interfere with hiring and retention.
6. Erratic and unpredictable funding interferes with hiring and retention (e.g., observing system funding, fluctuations in price of oil).
7. Workforce diversity is too low, especially in science and engineering occupations; possible reasons are varied and unclear
8. There is a schizophrenic approach to OOS in this country (who's doing it, academia, industry, or government?).
9. Many types of engineers can be very hard to hire and retain.
10. Some science positions are hard to fill:
 - a. Geologist
 - b. Geophysicist
 - c. Hydrographer
 - d. Underwater acoustician
 - e. Quantitative modeler
 - f. Research-to-applications specialist
 - g. Science communication specialist
 - h. Application-oriented scientist
11. Hard to find or develop good managers:
 - a. lack of interest among present employees
 - b. many scientists and engineers do not want to be managers
 - c. lack of in-house training
 - d. lack of availability and competitiveness when hiring from outside
 - e. management jobs can be high stress
12. Science graduates often lack:
 - a. Adequate math course work
 - b. Science courses with sufficient rigor (math, physical science)
13. Many science graduates have a research orientation, with little awareness of, or interest in, doing operational or commercially oriented science. There's a desire for individuals skilled not just in science technology but with broader communication and management skills.
14. Often have to hire people with less than optimal education and/or experience, and then train on the job (e.g., train EE to be a computer engineer).

15. At-work training limited by lack of funds and experienced employees to provide training.
16. Military has been a good source of well trained workers with real world experience and willingness to work at sea / offshore, but this may be less true in war time.
17. Offshore industry needs a large number of electronics technicians with a fair level of technical ability.
18. For certain occupations, competition with oil and gas industry is high.
4. Significant geographic impediments to hiring and retaining employees, for example:
 - a. DC and other desirable locations are expensive
 - b. Gulf of Mexico coast perceived as undesirable
 - c. But some success in hiring people with local connections
5. Federal agencies have difficulty competing on salary for some occupations, but are more competitive on job security, life style, and benefits.
7. Significant losses in federal agencies due to retirements in last several years, and more expected.
8. Federal hiring process is slow and inefficient.
9. Many federal jobs done by contractors who are closely embedded within agency.
10. Federal agencies generally cannot hire non-US citizens, but many US graduates in science and engineering are not citizens.

Questions to consider:

1. Is the number one factor in retention the relationship with the manager?
2. What is the cost to business and society of not developing the OSTO workforce?