

The background of the slide is a deep blue space scene. On the left, a large portion of the Earth is visible, showing the Western Hemisphere with the Americas. In the upper left, a bright sun is partially obscured by a red ring of light, creating a lens flare effect. The rest of the background is filled with a field of small, distant stars.

NORTHROP GRUMMAN

DEFINING THE FUTURE

NSRP Panels Survey Results

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- Purpose of Survey

- *Crosscut support of other panel's projects*

- *Transfer of those projects to the shipbuilding, ship repair and maritime industry*

- *Measure and identify the crosscut organizational, workforce & human systems*



- Principal Investigators: Dick Boutwell & Dave Bennett, Spring 2008



Survey Emailed to All 9 NSRP Panels



NSRP Crosscut Panel Survey
Workforce Improvement Needs Assessment

1 _____

2 _____

3 _____

4 _____



Business Process

Crosscut Initiatives

Environmental

Facilities, Tooling & Risk Management

Systems

Welding

Surface Prep & Coatings

Ship Production

Product Design & Materials



Organizations Represented by 30 Respondents:



Business Process

Crosscut Initiatives

Environmental

Facilities, Tooling &
Risk Management

Systems

Welding

Surface Prep & Coatings

Ship Production

Product Design & Materials

AKER Philadelphia Shipyard Inc

Brownsville Marine Products LLC

Signal International, LLC

NSWCCD

Bollinger

NGSB-NN

AMSEC, LLC

NGSB-GC

International Ship Repair

Old Dominion University

Metro Machine Corp.

Todd Pacific Shipyards

Electric Boat

Atlantic Marine



820 Years

Question 1:



As a shipyard representative, which of the following do you feel is the most important to your organization? Rank them from 1 to 11; "1" being the most important and "11" being the least important.

- Reducing hiring costs
- Improving retention
- Worker-sharing program
- Measuring impact of training on the job
- Upgrading existing technically-skilled workers
- Development of common skill standards and certification
- Training methods for adults
- Enhancing shipbuilding and repair industry image
- Recruitment (production workforce)
- Recruitment (engineering - technical workforce)
- First-line supervision training

Additional Comments: _____

Additional Comments for question 1:



- *"There appears to be a missing generation in our workforce. Employees either Have 30 years of service or less than 10 years of experience. This leaves a large gap, with succession planning being extremely crucial."*

Manager of Engineering Services...31 years experience

- "I would think capturing the knowledge of departing senior workers would be on this list."

General Manager...40 years experience

Question 2



The shipbuilding/repair industry has a high turnover rate. Rank the following areas that you believe the turnover rate drives costs to your company with "1" being the highest cost. Use the blanks provided to include other costs of turnover, important to you, but not listed.

- Recruiting
 - Training
 - Safety
 - Productivity
 - Quality
 - Reliability (work ethic)
 - _____
 - _____

Additional Comments: _____

Question 2 Results:



Productivity (2.1 avg.)

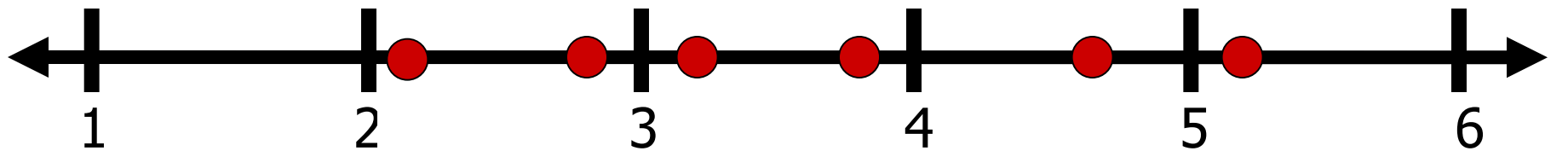
Quality (2.9 avg.)

Training (3.2 avg.)

Safety (3.8 avg.)

Recruiting (4.7 avg.)

Reliability (5.1 avg.)



Most Important

Least Important



- “Work load needs to be consistent and steady for long periods of time to build a good work force. Lay off’s and recalling of the worker’s creates a significant problems.”

Pump Shop Foreman...32 years experience

- “While recruiting to make up for attrition is costly, and somewhat measurable, the other costs are intangibles that are not as easily measured...but I think cost the business more.”

Director, HR Operations & Employment...Over 35 years experience

Question 3



Rank the order of criticality of each of the following with "1" being most important and "6" being least important:

- Lack of number or quality of skilled workers
- Lack of a standardized shipyard entry-level curriculum
- The image of shipbuilding and repair industry
- d. Career awareness among schools, parents and guidance counselors
 - Retention of existing employees
 - Aging workforce

Additional Comments: _____

Question 3 Results:



Skilled worker deficiency
(Number & Quality)
(1.8 avg.)

Aging Workforce (2.2 avg.)

Retention (3.0 avg.)

Lack of entry curriculum
(4.5 avg.)

Career Awareness
(4.5 avg.)

Image
(4.9 avg.)



Most Important

Least Important



Review of Top Responses for Questions 1-3

From Question 1: Factors most important to organizations

- *Improving retention*
- *Upgrading existing technically-skilled workers*
- *Recruitment of production personnel (as opposed to engineering/technical)*

From Question 2: Costs affected by turnover rate

- *Productivity*
- *Quality*
- *Training*

From Question 3: Critical issues

- *Lack of number or quality of skilled workers*
- *Aging workforce*
- *Retention of existing employees*

Question 4:



List any workforce development or training research you feel would support your shipyard:

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____

NOTE: 16 out of 30 chose to address this question



Categories for Question 4 Responses:

1. Skills Training

2. Workforce development

3. Evaluation

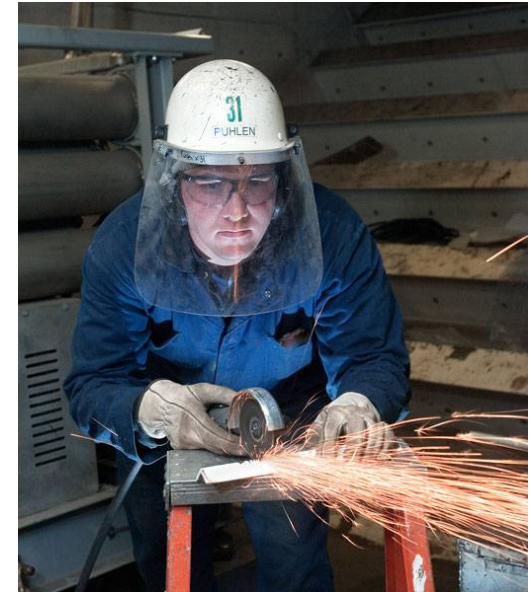
4. Shipbuilding Image



1. Skills Training

- Welding
- Entry-level training
- Standardized curriculum
- Apprentice-programs

More than 1 response



1 Response each

- Robotic training for welders
- Line heating & distortion control
- CAD & 3D modeling techniques
- Training in Spanish





2. Workforce Development

- Succession planning
- Self-paced frontline supervision
- How to process bills
- Design to reduce “brute force” work
- Increase level of technical experience before engineers placed in “program management”





3. Evaluation



- Ensure all training is measured on the job to identify ROI
- Identify positive & negative impact of long-term overtime
- Measure the “forgetting curve” and proper timing for refresher courses
- Measure NSRP savings due to RA & panel activities



4. Shipbuilding Image

- Identify & reveal positive attributes to working in a shipyard
- Coordination among industries, communities, schools, one-stops and workforce development agencies
- Engage students in local schools early
- Educate teachers & counselors
- Develop educational kits for teachers





Whereas: The Crosscut Panel is interested in the implementation of all projects to the other panels ...and

Whereas: Many projects lose momentum and do not get implemented vigorously...

Therefore: It is proposed that Crosscut acts in the role of a change agent to reduce resistance of shipyards to workforce development issues.

HOW?



How to be Strategic & Provocative

- *It is proposed that, for every project submitted, a place on the RA Form be provided for checking whether crosscut has reviewed that project.*
- *For those projects that have elements under the Crosscut Panel Mission Statement, Crosscut to receive up to 5% of total project for workforce transfer and/or organizational change implementation.*

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