

**Facilities, Tooling &
Risk Management Panel
Workers' Compensation/
Safety Committees Joint Meeting**

**June 10 - 11, 2009
New Orleans, LA**

***Safety Benchmarking in
Private and Public Shipyards***

Steve Labrecque (EB)

Public/Private Shipyard Benchmarking Initiatives

- OSHE Director's Conference (pre-2008)
 - PNSY, PHNSY, NNSY, PSNSY, EB, NGMS
 - NAVSEA 04R led
 - 2x per year
 - Safety and Environmental leads from all submarine yards attend
 - Formal presentations
 - Informal sharing of best practices
 - Networking/relationship building

Public/Private Shipyard Benchmarking Initiatives

- Injury Rate/Data Sharing (2008 – current)
 - 8/26/08 - Washington Navy Yard (Big Six, SUPSHIP, NAVSEA 04R)
 - 1/09 – SECNAV letters to CEOs
 - 1Q09 – NAVSEA04R visits SYs
 - Overall focus
 - Improve subcontractor safety
 - Eliminate fatalities
 - Encourage/incentivize VPP participation and mishap reduction
 - Develop more meaningful metrics to ensure “real safety” is improved

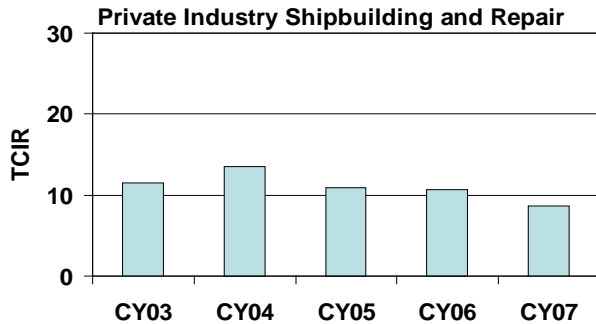


Naval Shipyards and Private Industry Shipbuilding and Repair Facilities Injury Rates

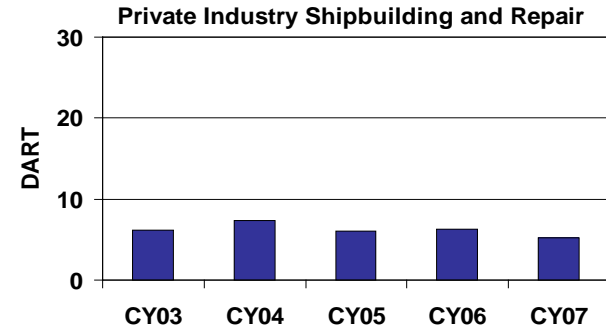
Injury Rates for all Private Industry Shipbuilding and Repair Facilities (Based on Bureau of Labor Statistics)

TCIR █
DART █

TOTAL CASE INCIDENT RATE (TCIR)

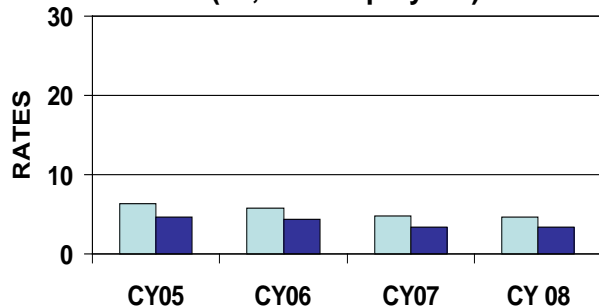


DAYS AWAY, RESTRICTED or TRANSFERRED (DART)

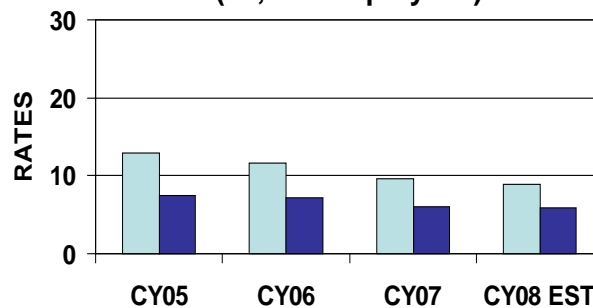


Injury Rates for Navy Shipbuilding and Repair Shipyards

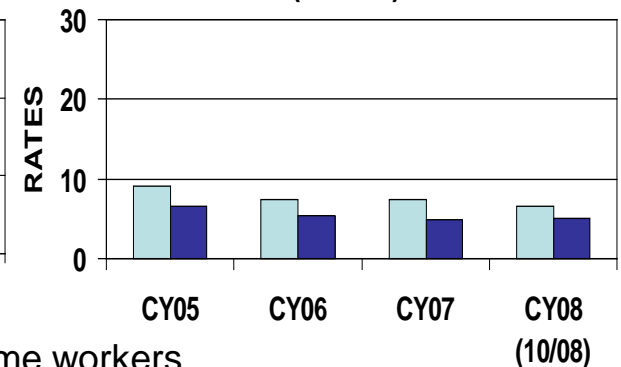
All Naval Shipyards (26,700 Employees)



Big Six Private Shipyards (50,000 Employees)



Private Repair Shipyards (MSMO)

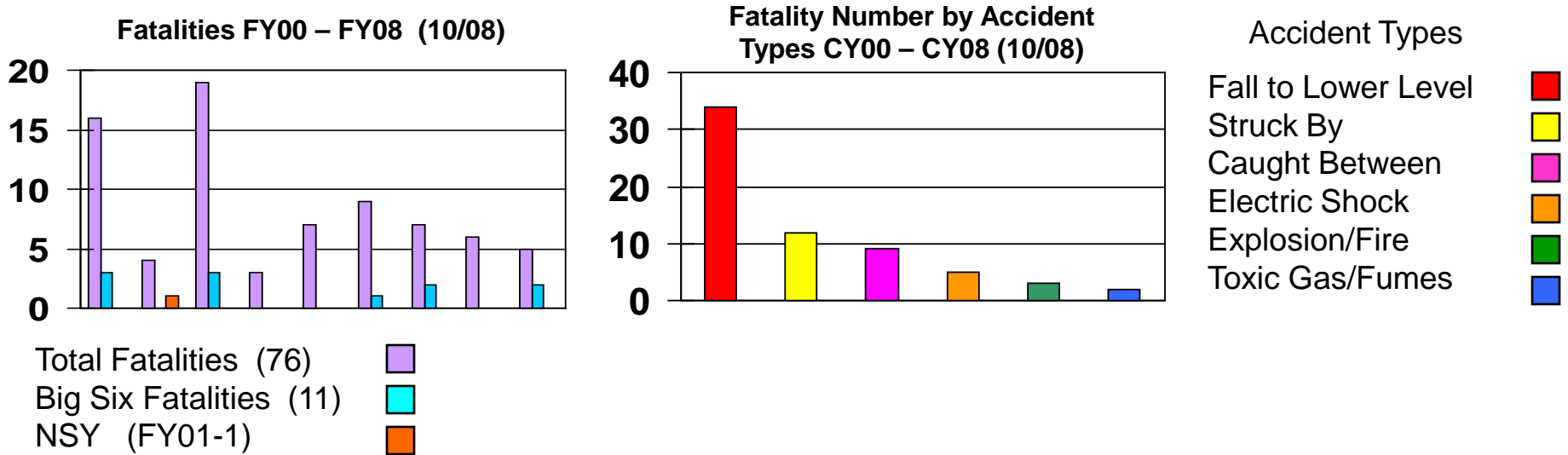


Rates = Cases per 100 equivalent full-time workers

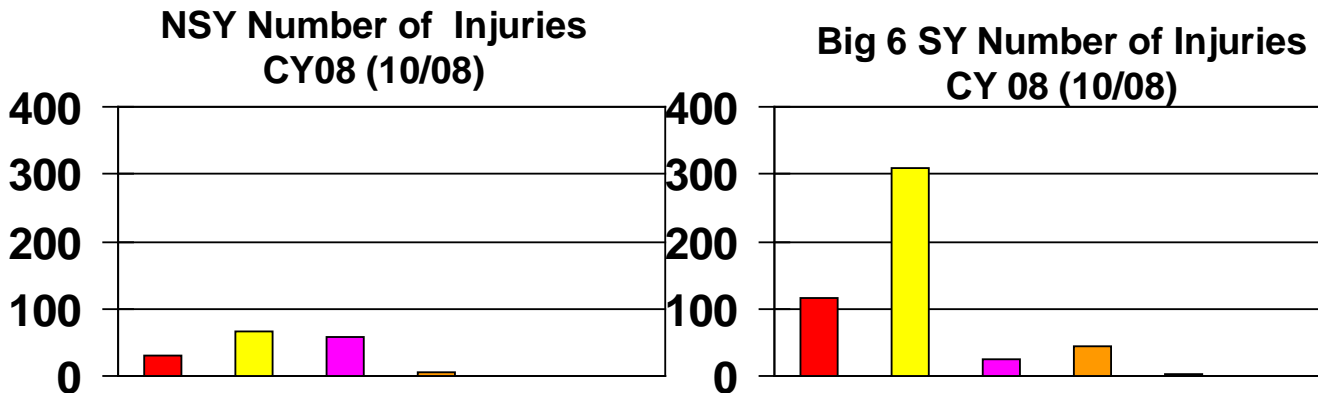


Analysis of Fatalities at Shipyards

Analysis of Total Fatalities Reported to OSHA by All Shipbuilding and Repair Shipyards FY00 –FY08



Analysis of CY08 Injuries of the Top 6 Accident Type Categories



Analysis

1. NSY Fall Protection Program is Working
2. Big Six “Falls” is an area of concern
3. “Struck By” and “Caught Between” needs more analysis

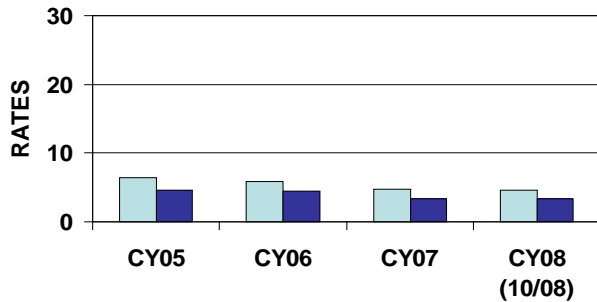


Analysis of Blue Collar Workforce

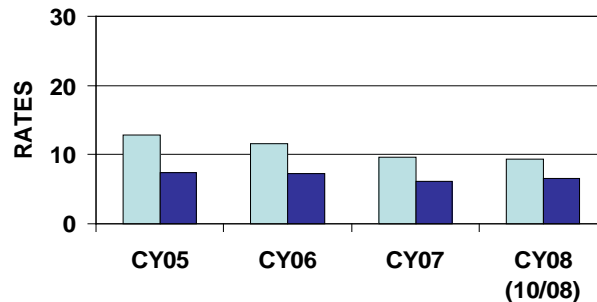
TCIR █
DART █

Injury Rates for Civilian Workforce

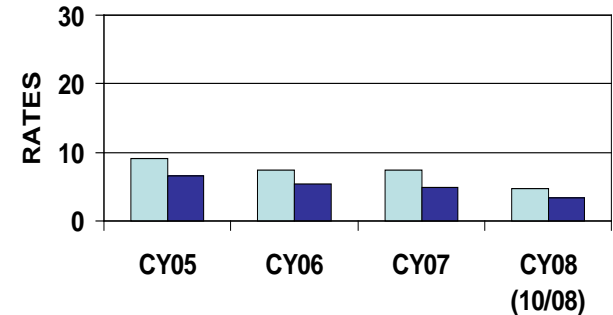
All Naval Shipyards



Big Six Private Shipyards

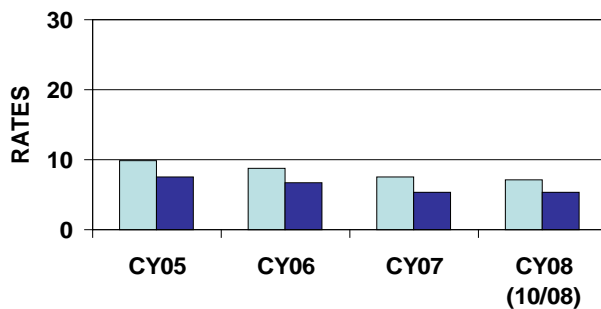


Private Repair Shipyards (MSMO)

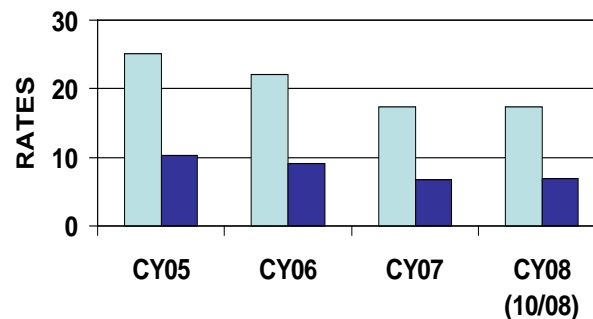


Injury Rates for Blue Collar Workforce

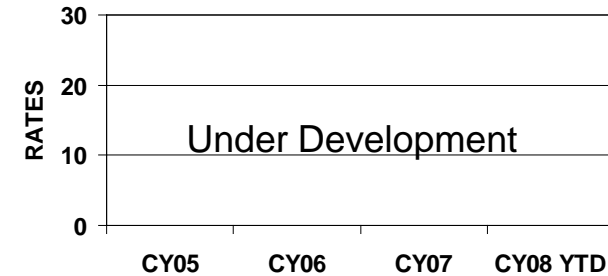
All Naval Shipyards - Blue Collar



Big Six Private Shipyards - Blue Collar



Private Repair Shipyards (MSMO) - Blue Collar



This Big Six chart is under development, rates are estimates.

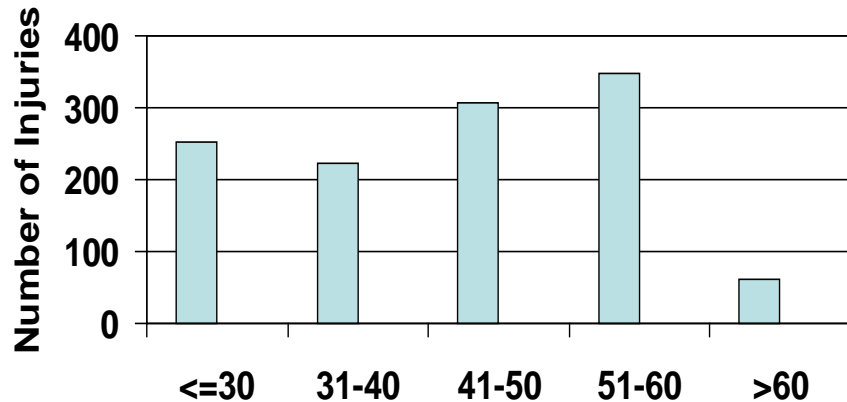
Rates = Cases per 100 equivalent full-time workers



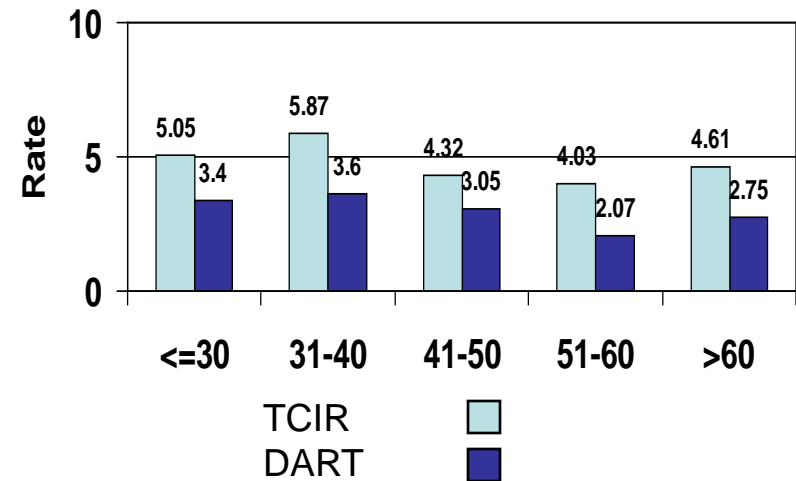
Naval Shipyards TCIR and DART by Age Group

TCIR & DART for CY 08 Segregated by Age Groups for the Naval Shipyards

Naval Shipyard Number of Injuries by Age Group CY08

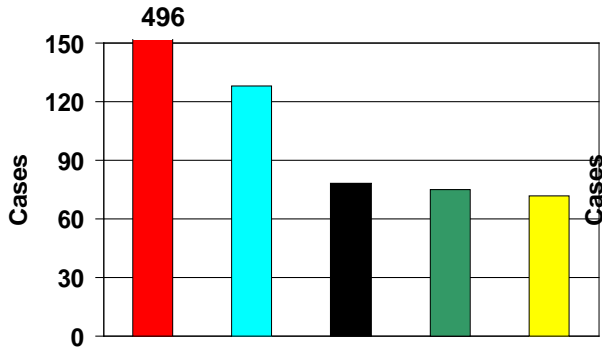


Naval Shipyard Injury Rates by Age Group CY08

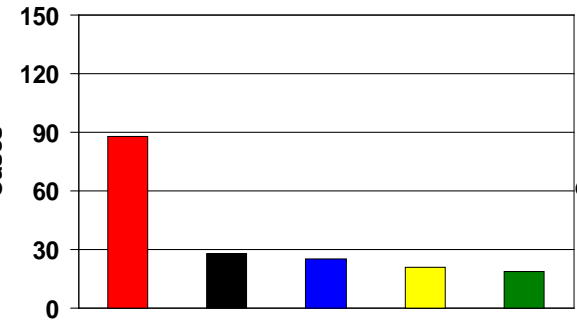


Analysis of Naval Shipyard Injuries CY08

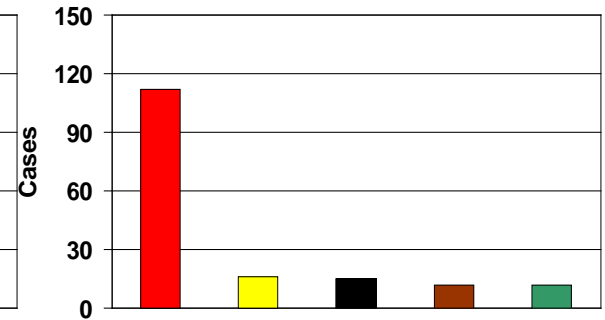
All Age Groups



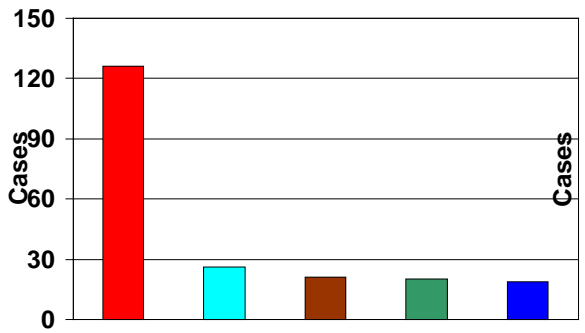
< 30 Age Group



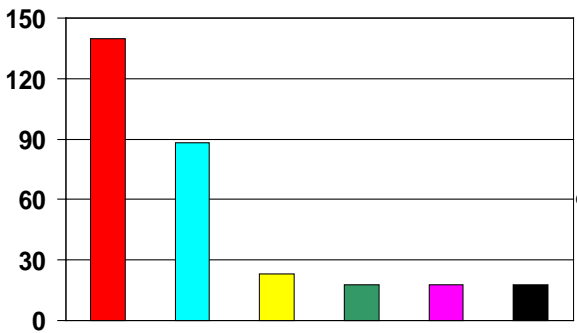
31 - 40 Age Group



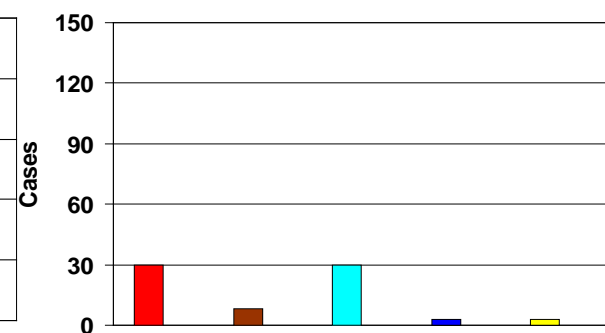
41 - 50 Age Group



51 - 60 Age Group



61 > Age Group



Ergonomic ■
 Exposure to Noise ■
 Struck By ■
 Caught Between ■

Struck Against ■
 Rubber or Abraded ■
 Fall to Same Level ■
 Fall to Lower Level ■

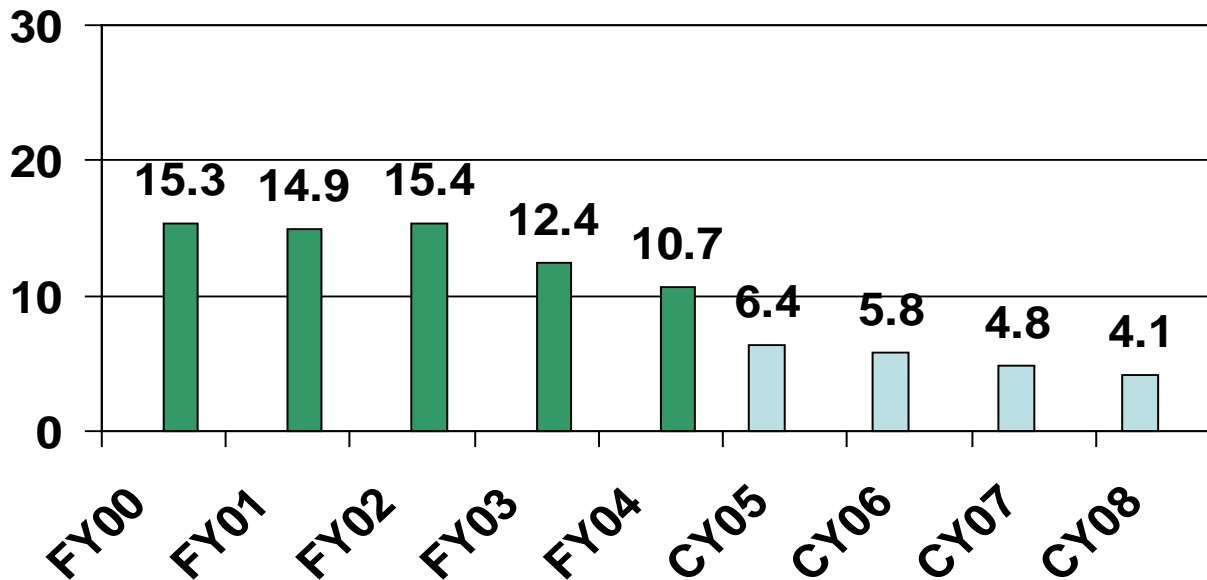
■ Ergonomic Accident Types includes overexertion and repetitive motion accidents.



Naval Shipyard Total Case Incident Rates (TCIR) for 2005 - 2008 Total Case Rate for 2000 - 2004

TCIR per CY 
Total Case Rate per FY 

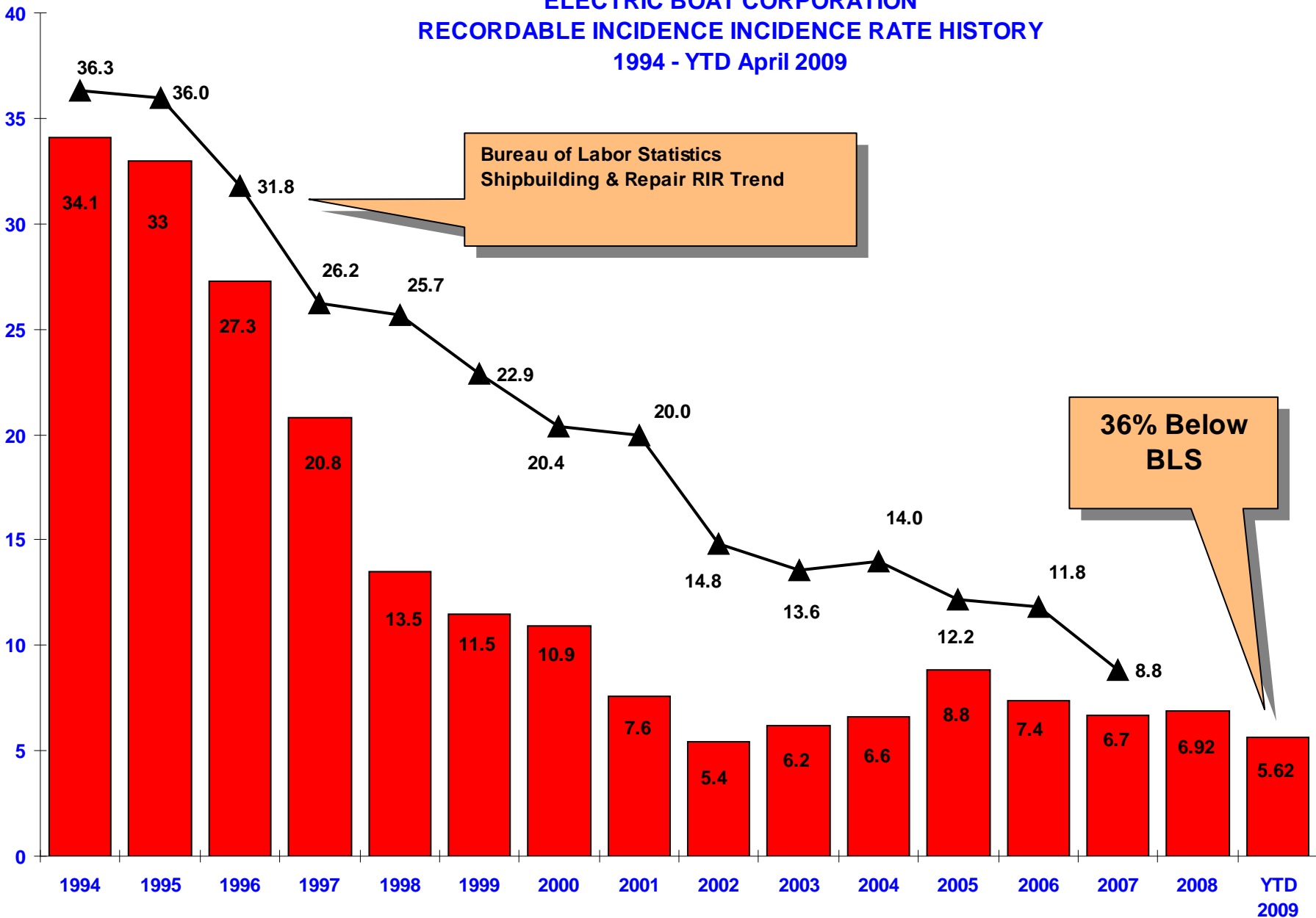
All Naval Shipyards



Rates = Cases per 100 equivalent full-time workers

Naval Shipyard VPP efforts began in FY02

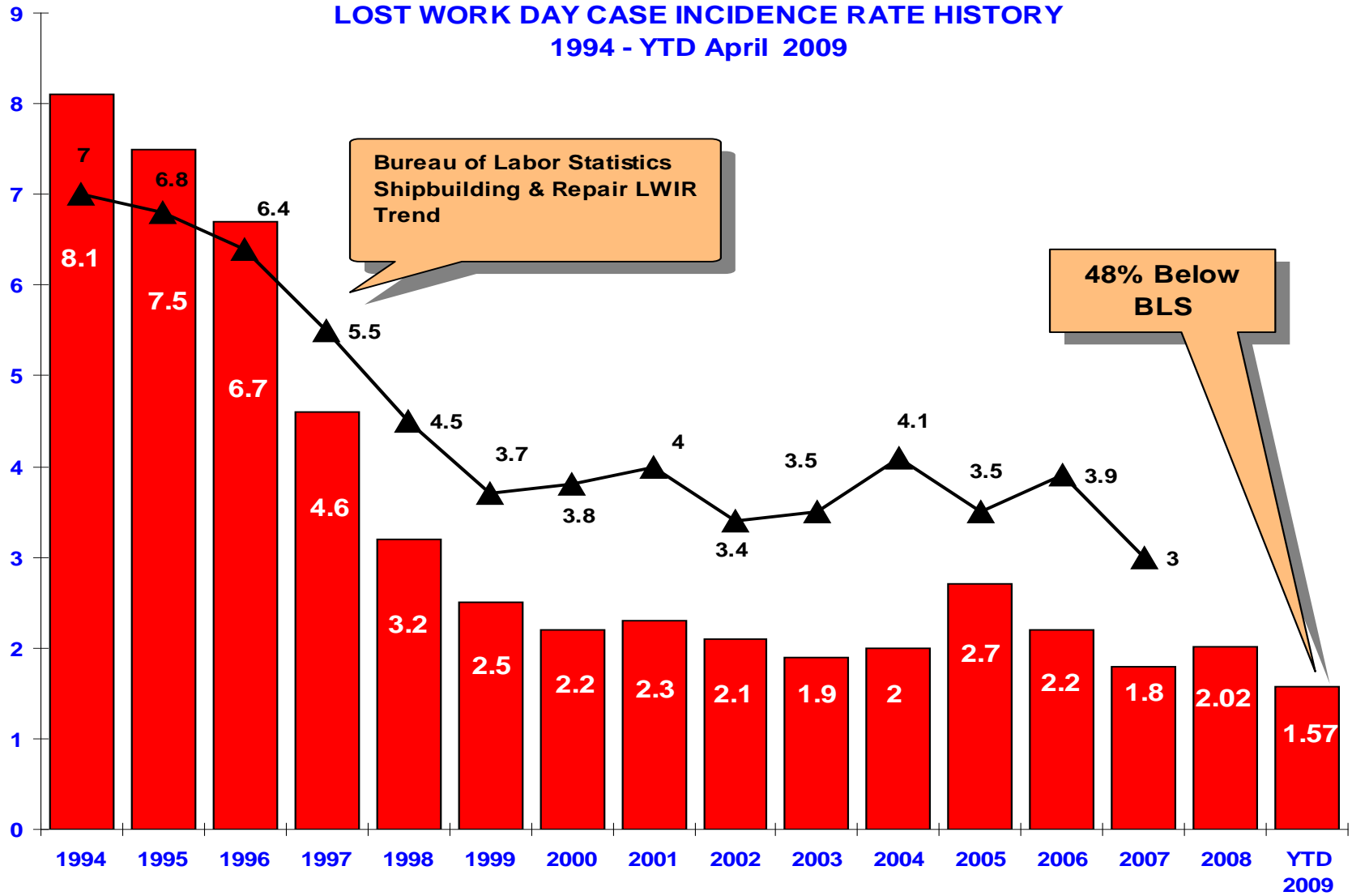
ELECTRIC BOAT CORPORATION RECORDABLE INCIDENCE INCIDENCE RATE HISTORY 1994 - YTD April 2009



Bureau of Labor Statistics
Shipbuilding & Repair RIR Trend

36% Below
BLS

**ELECTRIC BOAT CORPORATION
LOST WORK DAY CASE INCIDENCE RATE HISTORY
1994 - YTD April 2009**



EB Corporation vs Naval Shipyard Totals

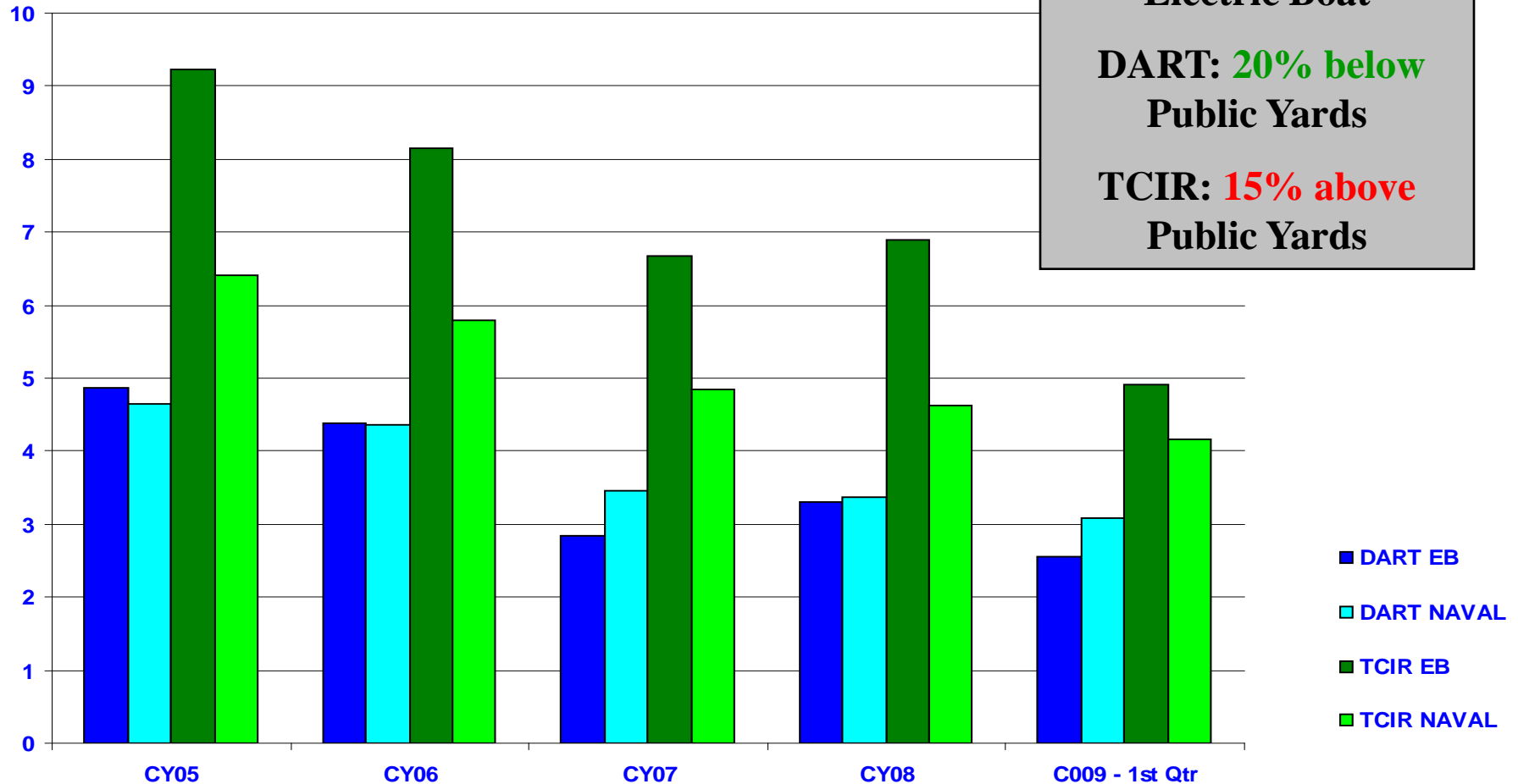
TCIR = Total Cases per 100 Employees

DART = Days Away, Restricted or Transferred
Cases per 100 Employees

BLS Ship Building and Repairing Private
Industry 2007 Rate

TCIR: 8.7

DART: 5.2



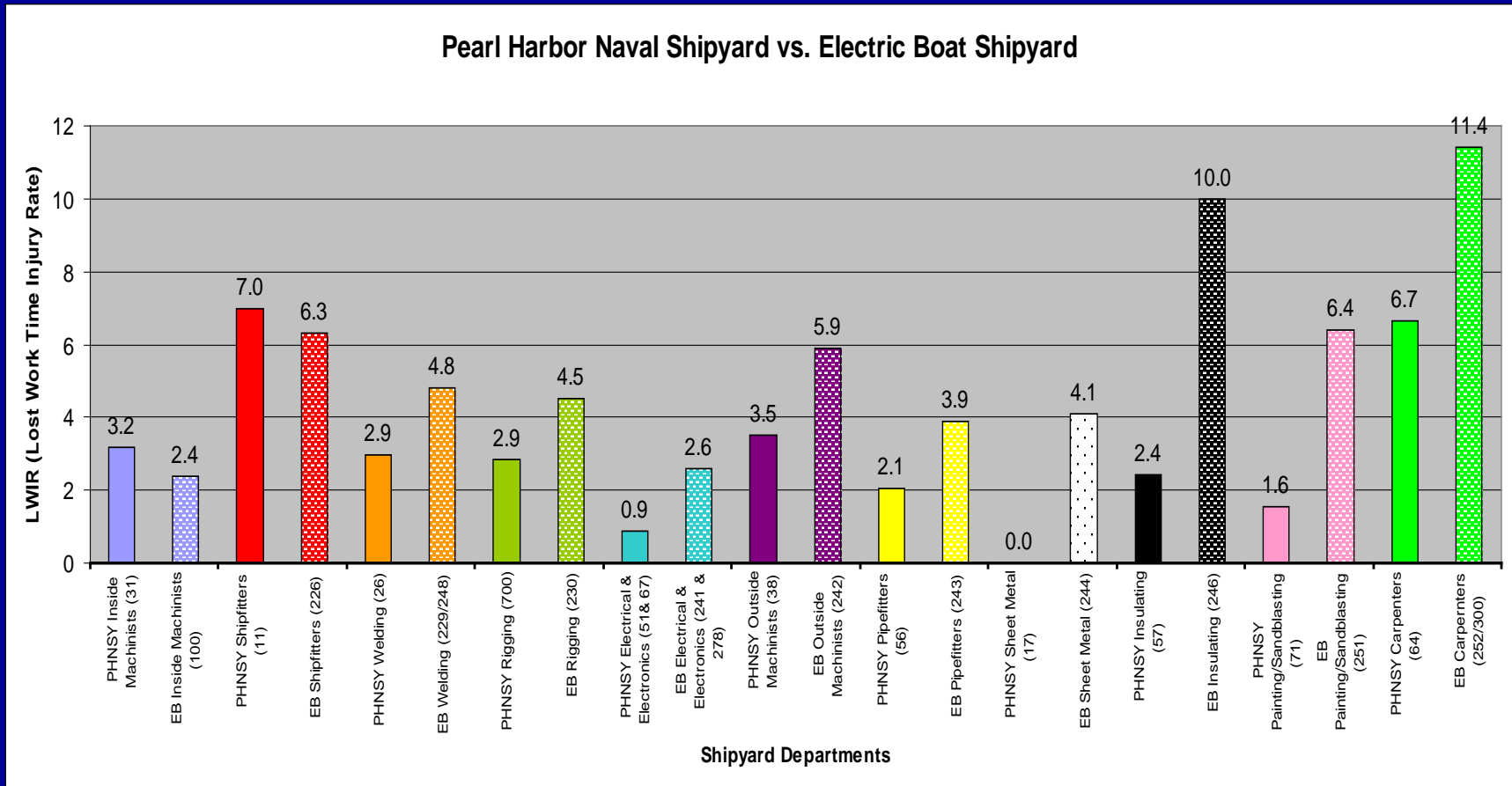
EB Groton/PHNSY “Deep Dive”

- Shared details on all 2008 blue collar injuries
- Matched up codes/departments to allow direct comparison (hours worked nearly identical)
- Focusing in on three trades to start
 - Painters, Welders, Machinists
- Weekly 1-hour telecons
 - Safety, trade superintendents, CACI, NAVSEA 04R
- Pre-cursor to possible focused visit(s)

EB Groton/PHNSY “Deep Dive”

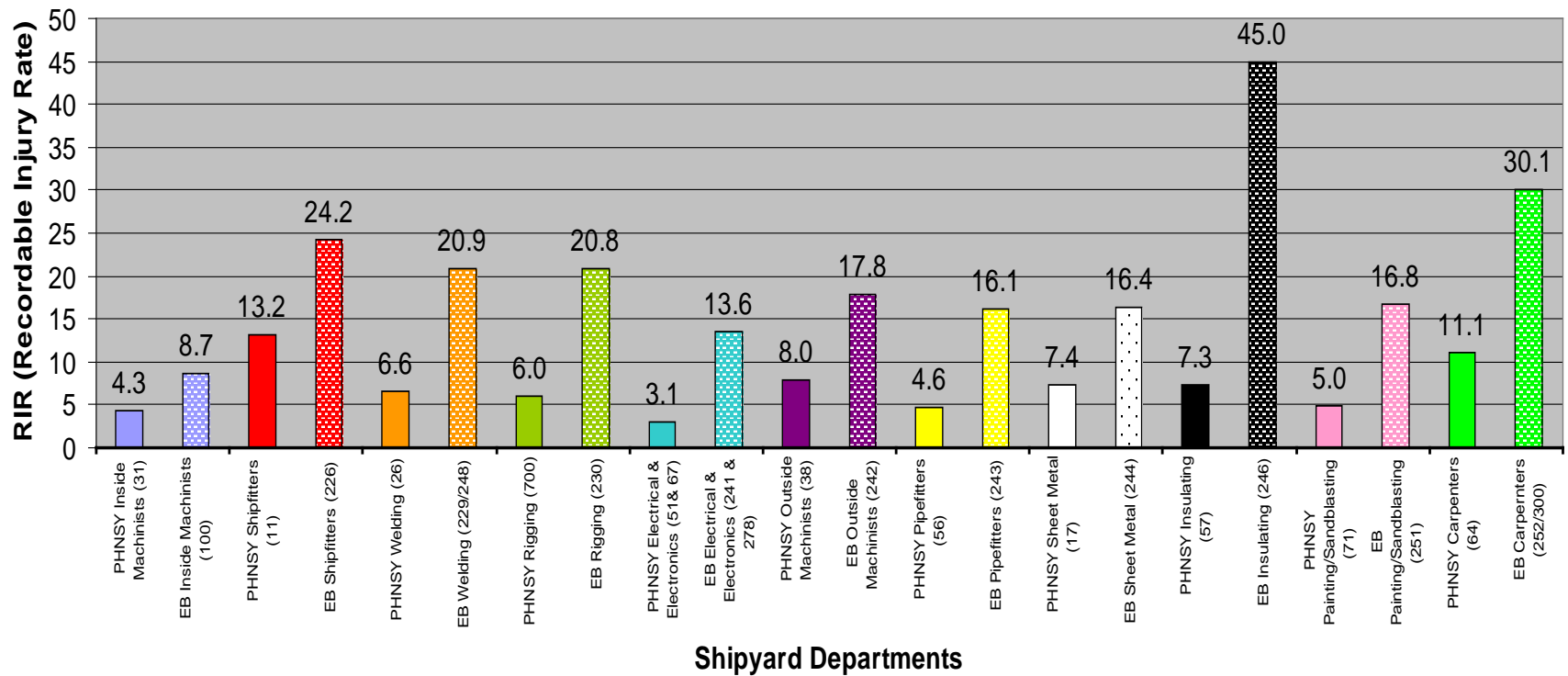
- Discussing key variables:
 - Workforce demographics (age, service years)
 - Recordkeeping
 - PPE
 - Shop vs. ship work mix
 - Processes
 - Employee engagement (posters/bulletins)
 - Ergonomics (stretching programs)
- Sharing various data

EB Groton vs. PHNSY – 2008 (LWIR)



EB Groton vs. PHNSY – 2008 (RIR)

Pearl Harbor Naval Shipyard vs. Electric Boat Shipyard

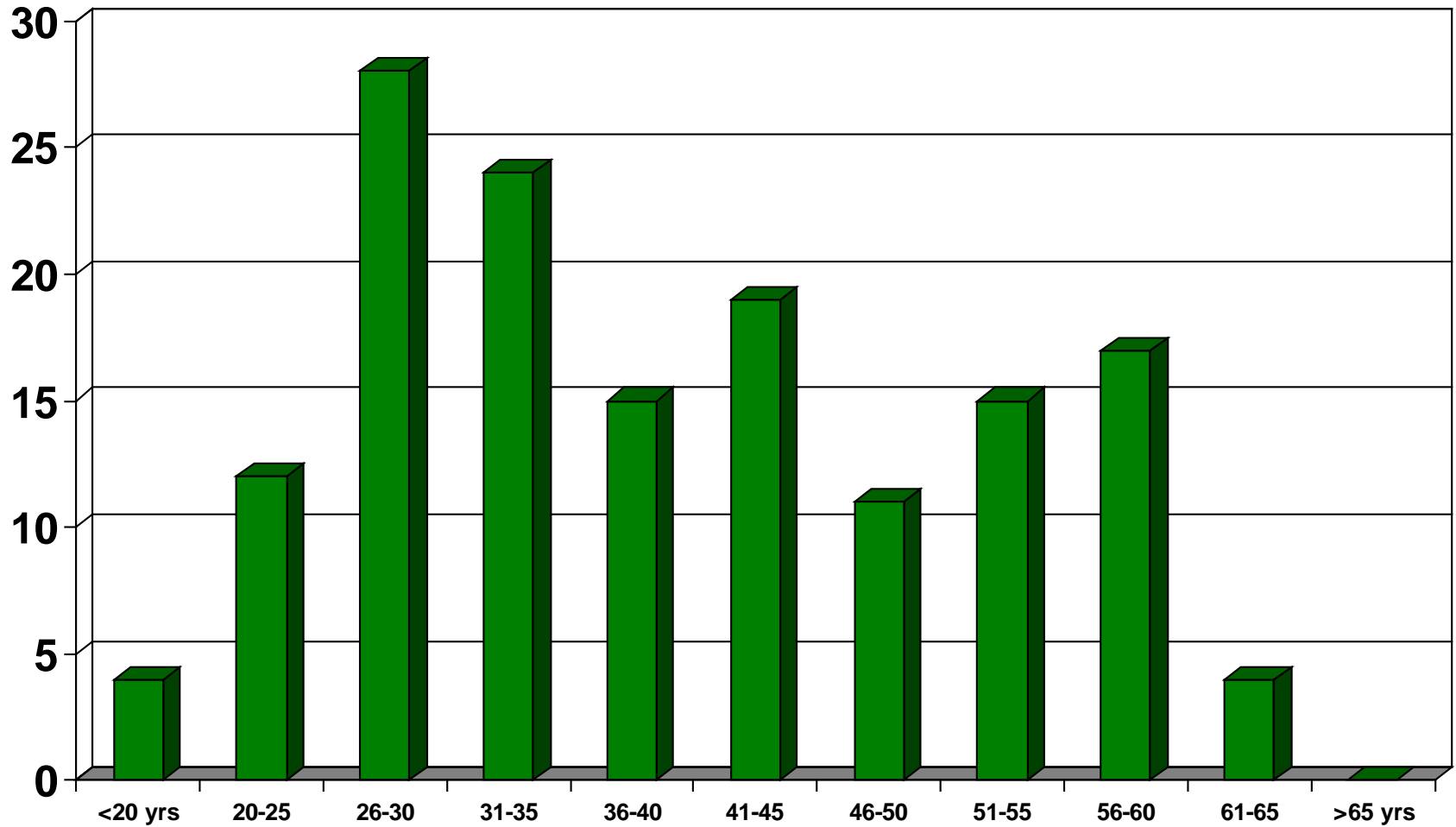


EB Groton vs. PHNSY: Welders

- EB Groton
 - 2008 LWIR: 4.8
 - 134 welders
 - 14 w/ <5 years exp.
 - Average Age: 52.5 yrs
 - Average Exp: 25.5 yrs
 - 75% mechanized
 - 20% SMAW
 - 5% GTAW
 - 15 accumulated trauma injuries YTD 2009
- PHSNY
 - 2008 LWIR: 2.9
 - 131 welders
 - 21 apprentices
 - 110 journeymen
 - Average Age: 41 yrs
 - Average Exp.: 16 yrs
 - 90% SMAW
 - 0 accumulated trauma injuries YTD 2009
 - Keys:
 - VPP/awareness
 - Stretch/flex
 - Mono-goggles for grinding
 - Carts for welders
 - Safety posters
 - Ergonomic consultant (Human Tech)
 - Biweekly "OSHgrams"

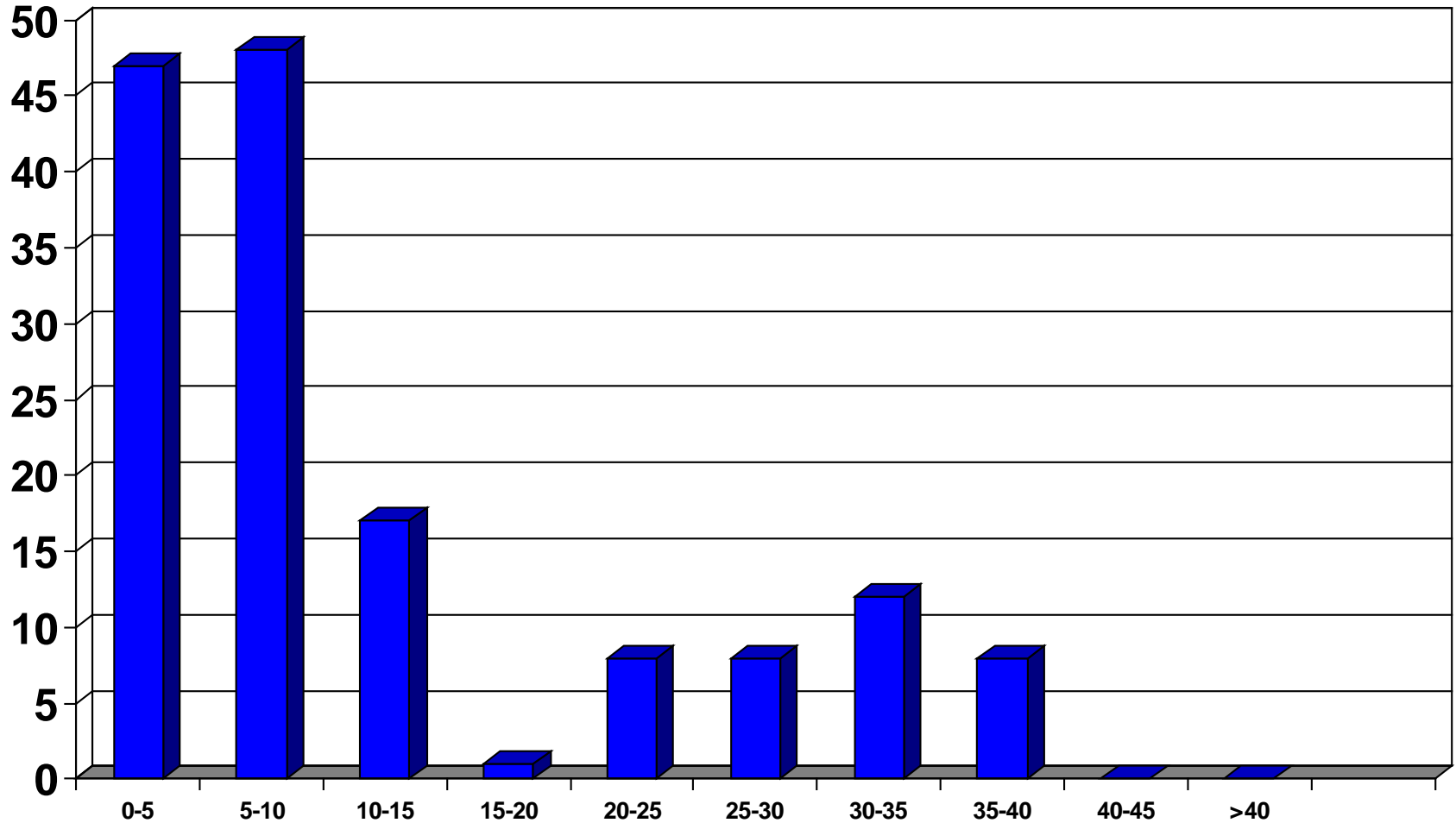
Shop 71 Painters

(Average Age: 39.5 Yrs)



Shop 71 Painters

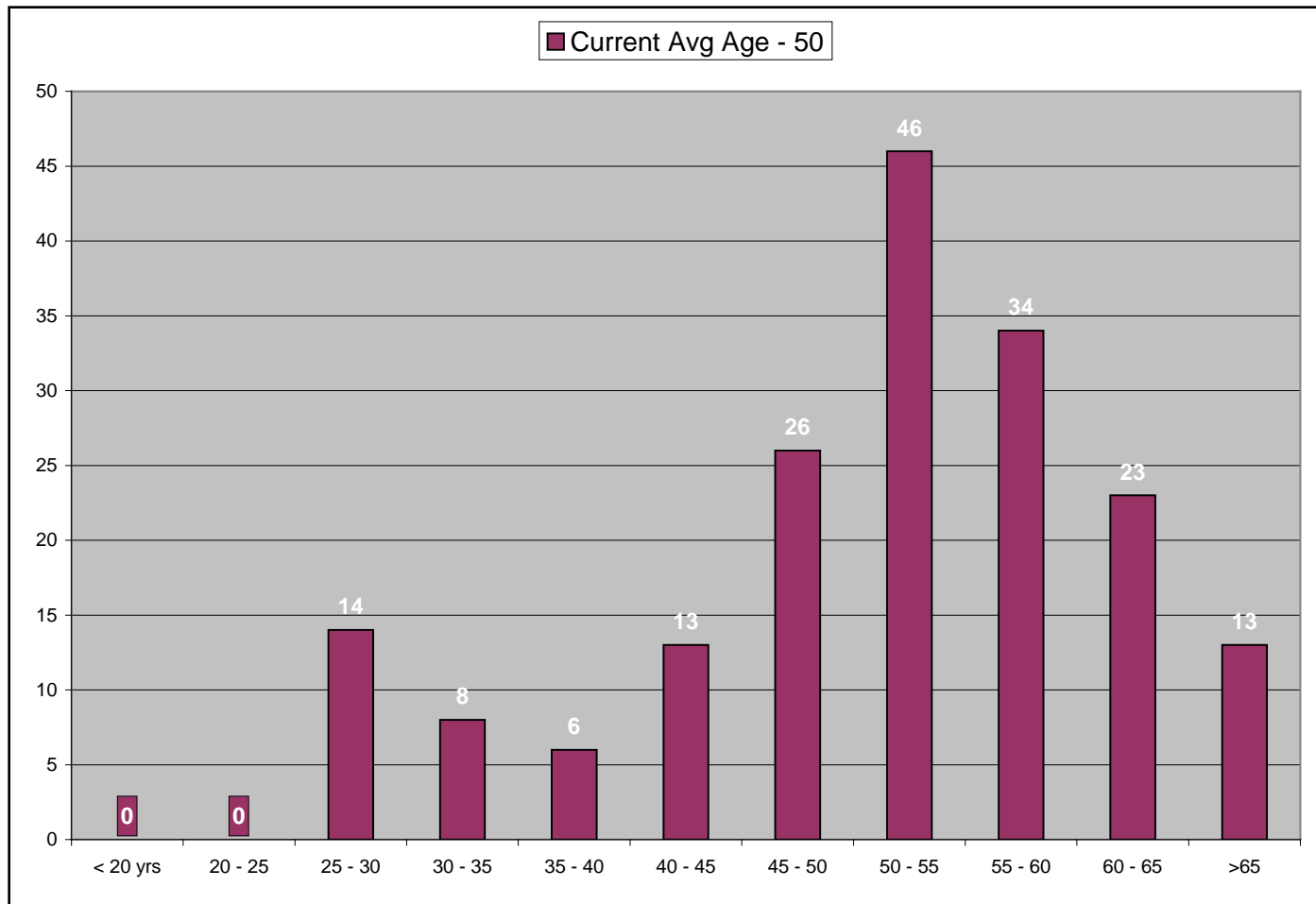
(Average Service Years: 11.6)



6 Females, 143 Males

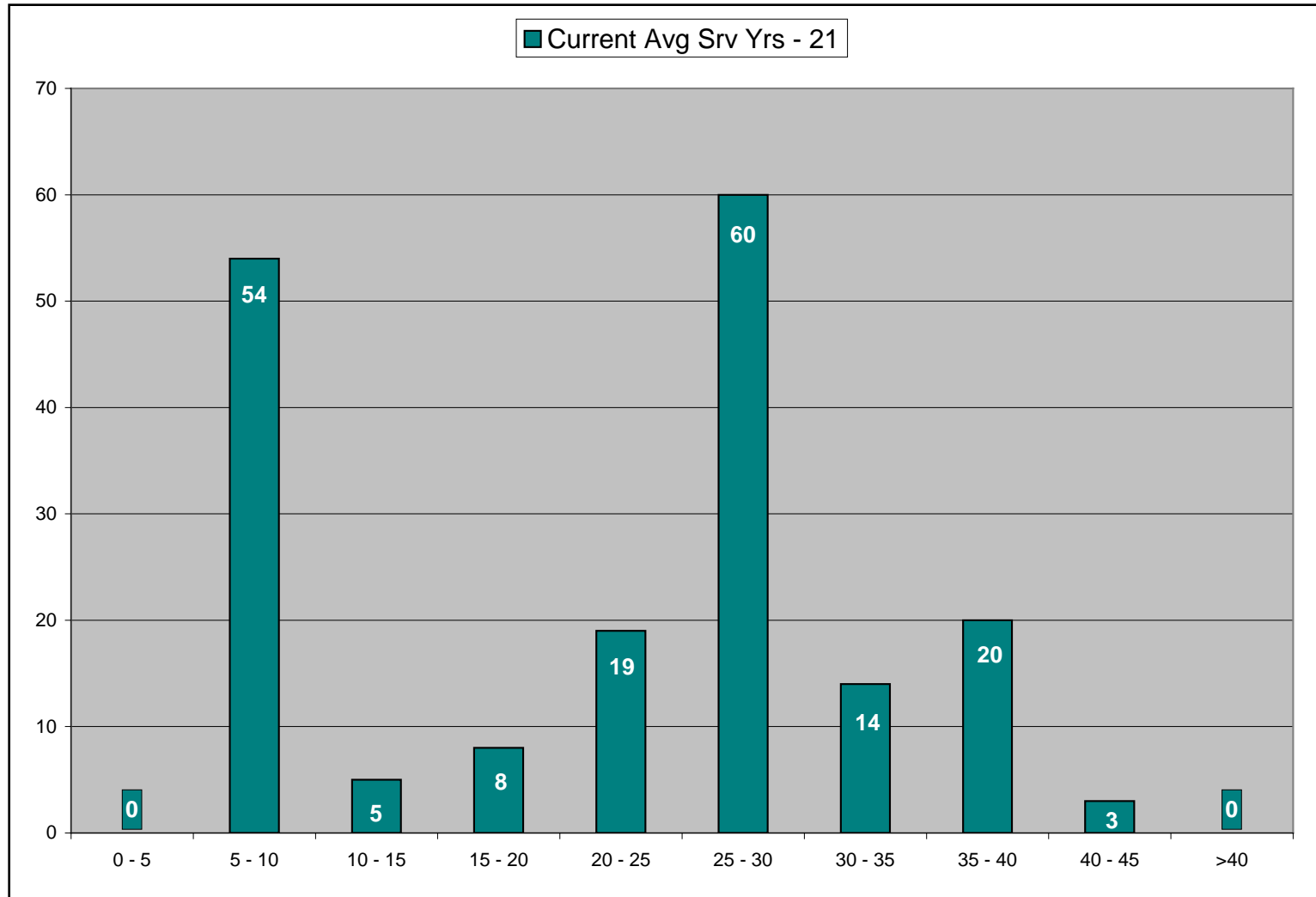
EB Groton Painters

(Average Age: 50)



EB Groton Painters

(Average Service Years: 21)



Next Steps

- EB and PHNSY
 - Complete analysis of Painters and Machinists
 - Assess value of focused benchmarking visits
 - Continue to share documents/posters/bulletins
- NSRP Project Idea
 - Establish team w/ rep's from members yards
 - Visit each yard and capture best practices
 - Issue summary report and out brief shipyards CO's/presidents