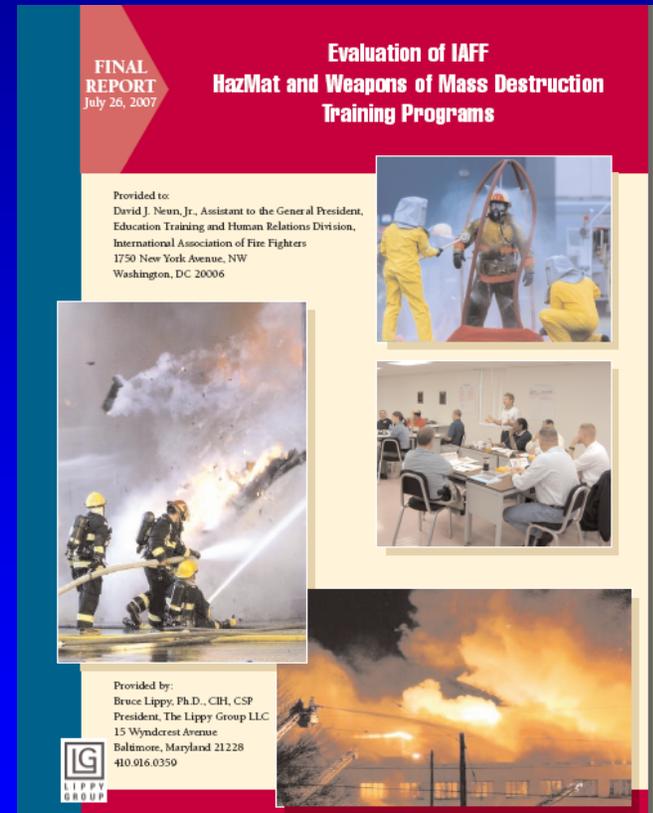


Evaluation of the IAFF Hazmat and WMD Training Programs

**WETP Fall Technical
Workshop,
10-18-07, Sheraton Chapel Hill,
Chapel Hill, NC**

Patrick Morrison
Assistant to the General President
International Association of Fire
Fighters

Bruce Lippy, Ph.D., CIH, CSP
President, The Lippy Group, LLC



Introductory Comments

Patrick Morrison
Assistant to the General President
IAFF



Bruce Lippy

President, The Lippy Group

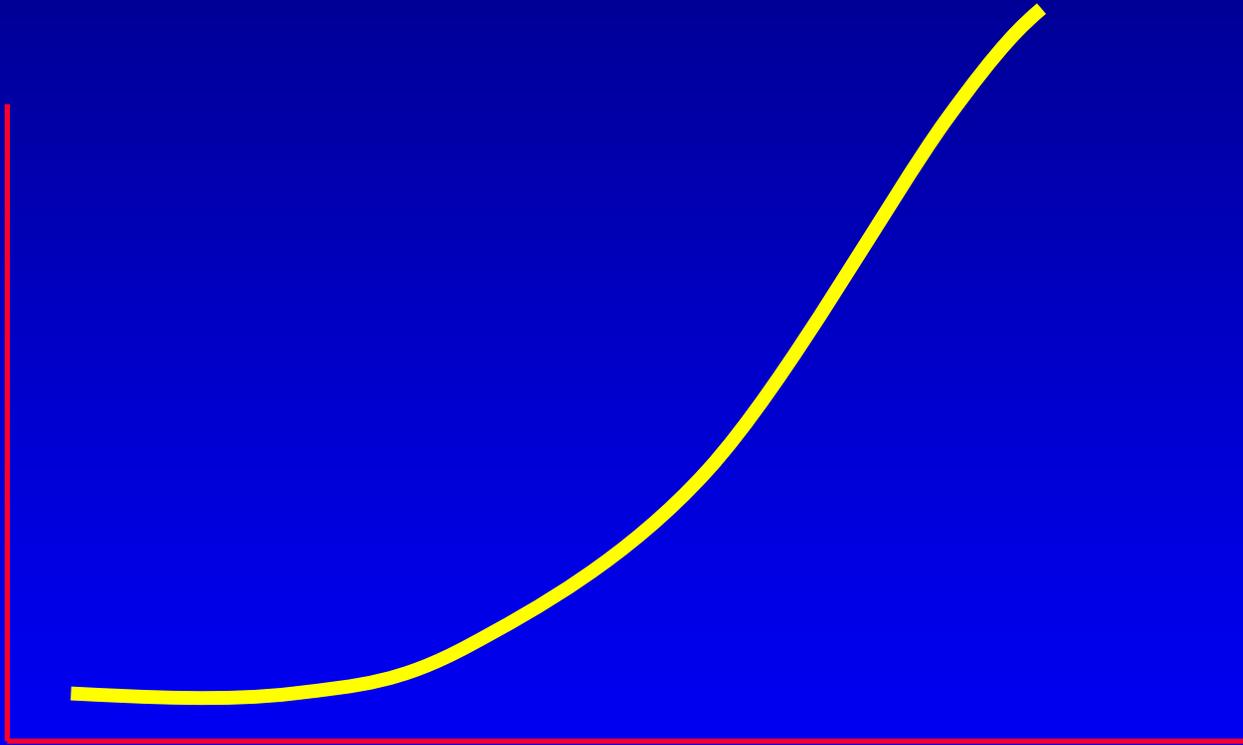


Lippy Group Company Picnic 2007



First row, left to right: Lippy, B.

Lippy Group Corporate Metrics



Evaluation Team

- Bruce Lippy, Ph.D., CIH, CSP
- James Weeks, Sc.D., CIH
- Bernard Mizula, MS, CHS-V, CET, RPIH

IAFF provided us
an office and full
access



Bruce Lippy's experience with fire fighting



Setting duckpins for the
Manchester, MD Fire
Company



Evaluation approach

1. Interviews of board members, headquarters staff, and students
2. Evaluation of NIEHS and DHS progress reports
3. Focus groups with IAFF instructors
4. Analysis of IAFF student database
5. Comparison of findings against recommendations from guidance documents
6. Onsite evaluation of training program
7. Follow-up interviews of federal, state and county officials



Final Issues for evaluation

1. **Methods of communication**
2. **Student database**
3. **Student registration process**
4. **Class records (storage, accuracy, etc.)**
5. **Class sizes**
6. **Make-up of instructor cadre**
7. **Current programs**
8. **New programs**
9. **Instructor resource center**
10. **Blended learning**



Evaluation timeline

Initial discussions	March 06
Interviews, observations and data analysis	Sep to Nov 06
Presentation to General President and Advisory Board of initial findings	Oct 06
Evaluation of presentation at Trainers Exchange	March 07
Draft reports	March to May 07
Final report (v. 12)	July 07



Broad Finding:

**NIEHS
Minimum
Criteria is
excellent basis
for program
evaluation**



WORKSHOP REPORT

 **NIEHS**
National Institute of
Environmental Health Sciences

Worker Education and Training Program

Minimum Health and Safety Training Criteria:

GUIDANCE FOR

**Hazardous Waste Operations and
Emergency Response (HAZWOPER)
HAZWOPER-Supporting and
All-Hazards Disaster
Prevention, Preparedness, & Response**



A collage of three images related to hazardous waste operations. The left image shows a large fire or explosion with firefighters in the foreground. The middle image shows several workers in white protective suits and respirators working in a hazardous environment. The right image shows a worker in an orange protective suit and respirator giving a thumbs-up gesture.

Based upon
NIEHS/WETP National Technical Workshop — March 30-April 1, 2005

National Clearinghouse for Worker Safety and Health Training
Operated by MDB, Inc. • Washington, DC • 202.231.0060 • www.wetp.org

January 2006

Is there evidence that the program is accomplishing its objectives?

IAFF ranked #2 in cost per contact hr.

(NIEHS Annual Report 2003)

Data from the NIEHS Hazmat Training Program results for 2003

Rank		# of Courses	# of Workers Trained	Contact Hrs	Total \$	Total \$/ Workers Trained	\$/Contact hour
1	HMTRI	1095	15728	166274	1116962	\$71.02	\$6.72
2	IAFF	160	3089	89432	864403	\$279.83	\$9.67
3	IUOE	600	12255	161992	1959396	\$159.89	\$12.10
4	UMDNJ	952	18853	159968	2248005	\$119.24	\$14.05
5	UAB	132	2487	33148	512615	\$206.12	\$15.46
6	UC	589	9282	87324	2011169	\$216.67	\$23.03
7	PACEWIU	458	8770	55972	1761819	\$200.89	\$31.48
8	Laborers-ACG	473	5975	146548	5266116	\$881.36	\$35.93
9	UCLA	141	2507	29695	1076389	\$429.35	\$36.25
10	CPWR	251	3942	74110	2938271	\$745.38	\$39.65
11	ICWUC	193	3408	48003	2293260	\$672.90	\$47.77
12	George Meany	59	719	11088	606016	\$842.86	\$54.66
13	AFSCME	105	1460	12542	761017	\$521.24	\$60.68
14	NPRF	107	1855	21212	1613191	\$869.64	\$76.05
15	UML	62	852	15200	1170738	\$1,374.11	\$77.02
16	IUUAW	128	2887	9771	930918	\$322.45	\$95.27
17	SEIU	81	1196	9220	938389	\$784.61	\$101.78
	Total	5586	95265	1131498	29559000		

IAFF ranked 7/17 in cost per student (NIEHS Annual Report 2003)

Rank		# of Courses	# of Workers Trained	Contact Hrs	Total \$	Total \$/ Workers Trained	\$/Contact hour
1	HMTRI	1095	15728	166274	1116962	\$71.02	\$6.72
2	UMDNJ	952	18853	159968	2248005	\$119.24	\$14.05
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17	U Mass Lowell	62	852	15200	1170738	\$1,374.11	\$77.02
	Total	5586	95265	1131498	29559000	\$511.62	\$43.39
						Average	Ave
						\$363.90	\$30.13
						standard deviation	std.dev



IAFF Number of trainees Projected v. actual, (FY96 – FY04)

C. PROGRESS REPORT/COMPLIANCE WITH TERMS OF PRIOR AWARDS

Workers Trained

Grant Year	Projected number of trainees	Actual number of trainees	Projected number of classes	Actual number of classes	Percent trainees exceeded	Number of contact hours
FY96	400	459	*		5	10,920
FY97	400	561	*		40	18,732
FY98	400	461	*		15	10,040
FY99	400	596	*		49	14,196
FY00	400	700	11	36	75	14,864
FY01	400	1,324	11	61	331	43,320
FY02	400	964	11	44	241	27,416
Supplemental WTC-1	*	51	*	2	NA	43,320
Supplemental WTC-2	*	154	*	8	NA	1,632
FY03	400	685	11	38	71	20,848
WTC-2 Carryover	*	2,315	*	117	NA	67,160
FY04	400	824	11	45	206	37,472
Supplemental WTC-3	*	89	*	4	NA	6,520

*denotes no specific goals set



Are appropriate facilities and staff available and committed to the program?

- YES!
- “Training coordinators” are key to effectiveness
- Staff meetings short, focused and productive
- “Lead” instructor facilitates communication with the training site and with headquarters
- Training at the host site with their equipment



Methods of Communications Recommendation



Emphasize prerequisites for courses, particularly T-t-T, and don't rely solely on the requesting organization



Methods of Communications Recommendations

Include more actual case studies in reports to NIEHS

NIEHS official:*

“Firefighters save lives every day, but their progress reports don’t reflect that sufficiently, they can be boring.”

*Ted



Student Database

- Impressive File-Maker Pro database maintained by an outside contractor for the last 8 years
- 38,000 records in database described as a “learning management system”



System covers shipping, finance, and classes

IAFF_Main - □ ×

Main **LIVE**

Jonathan McHugh 

What's Happening



Login Date : September 14, 2006

User Status

User : McHughJ
 Status : Active
 Group : Administrator
 Title : Database Consultant
 Role : Consultant
 Session : 1804

Navigation

General	Finance	Classes	Help
Main People Correspondence Correspondence Templates Calendar Districts States Locals Members	Purchase Orders Vendors Grants Grant Areas Marketing	Requests Clients Projects Classes Instructors Programs Formats Materials Students	General Roles Log Business Processes Data Dictionary Reports

Wizards

Create a Person	Create a Purchase Order	Create a Client	Change your password
Create a Material	Create a Vendor	Create a Project	
	Create a Grant	Create a Class	
	Create a Grant Year	Create an Instructor	Create ODP Submission

Current Classes - (One week ahead and one week behind today)

CIN	Location	Format	Coord	Start	End
7829-02	Lehigh Valley	DEPT	ScD	9/18/2006	9/22/2006
8144-01	Lehigh Valley	DEPT	CT	9/18/2006	9/22/2006
8171-05	Chicago	IND	CT	9/18/2006	9/22/2006
8217-13	Chicago	DEPT	CT	9/11/2006	9/15/2006
8217-14	Chicago	DEPT	CT	9/18/2006	9/22/2006
8225-11		SWT	TH	9/13/2006	9/20/2006
8205-12	Phoenix	SWT	DM	9/14/2006	9/29/2006
8205-13	Phoenix	SWT	DM	9/14/2006	9/29/2006
8208-02	WMD_MARYLAND	SAA	DM	9/11/2006	9/13/2006
8256-01	Phoenix	IND	ScD	9/11/2006	10/13/2006

Current Material Shipments - (One week ahead and one week behind today)

CIN	Location	Ship	Arrive
8144	Lehigh Valley, PA	Ship 01	9/12/2006 9/15/2006
8236	Greenfield, MA	Ship 01	9/13/2006 9/13/2006
8069	New York, NY	Ship 08	9/14/2006 9/16/2006
8051	Broward County, FL	Ship 07	9/13/2006 9/18/2006
8075	Miami Dade, FL	Ship 07	9/15/2006 9/19/2006
8259	WMD_IDAHO, ID	Ship 01	9/13/2006 9/18/2006

100 - □ ×

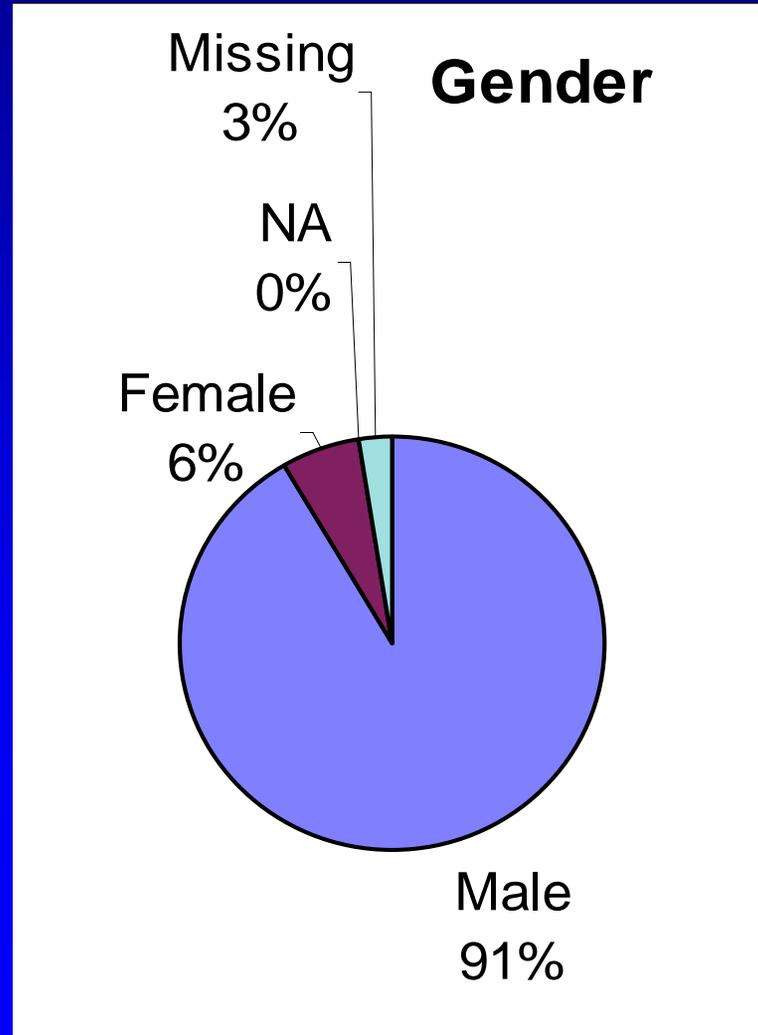


IAFF Shipping Process

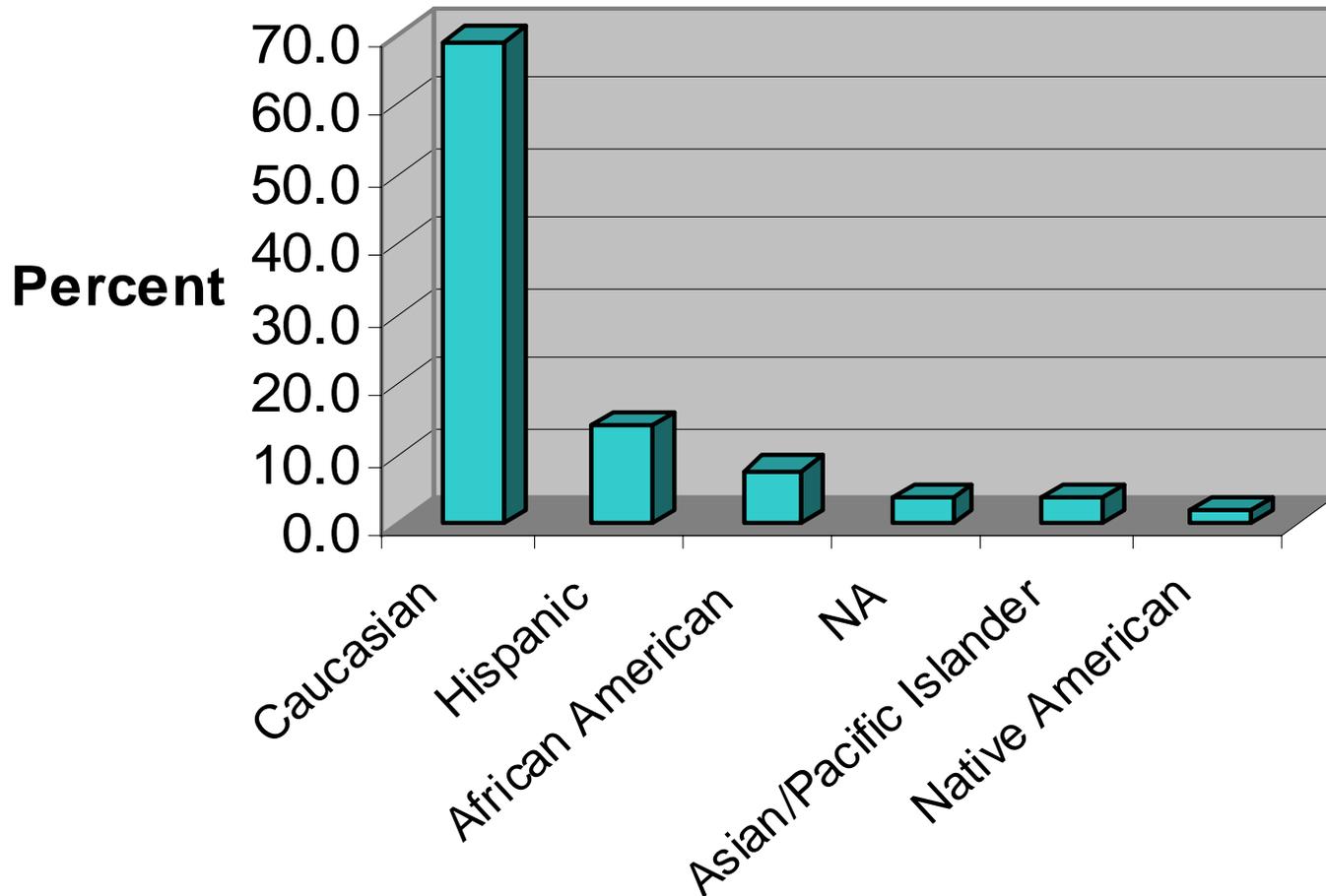
- Unlike other NIEHS grantees, IAFF relies upon host for equipment
- Student notebooks and reference materials (Pocket Guide, DOT ER book) Shipped out of headquarters
- Recommended positioning Guides in active locations, like AZ, rather than constantly shipping from HQ



Student Demographics from database: Gender

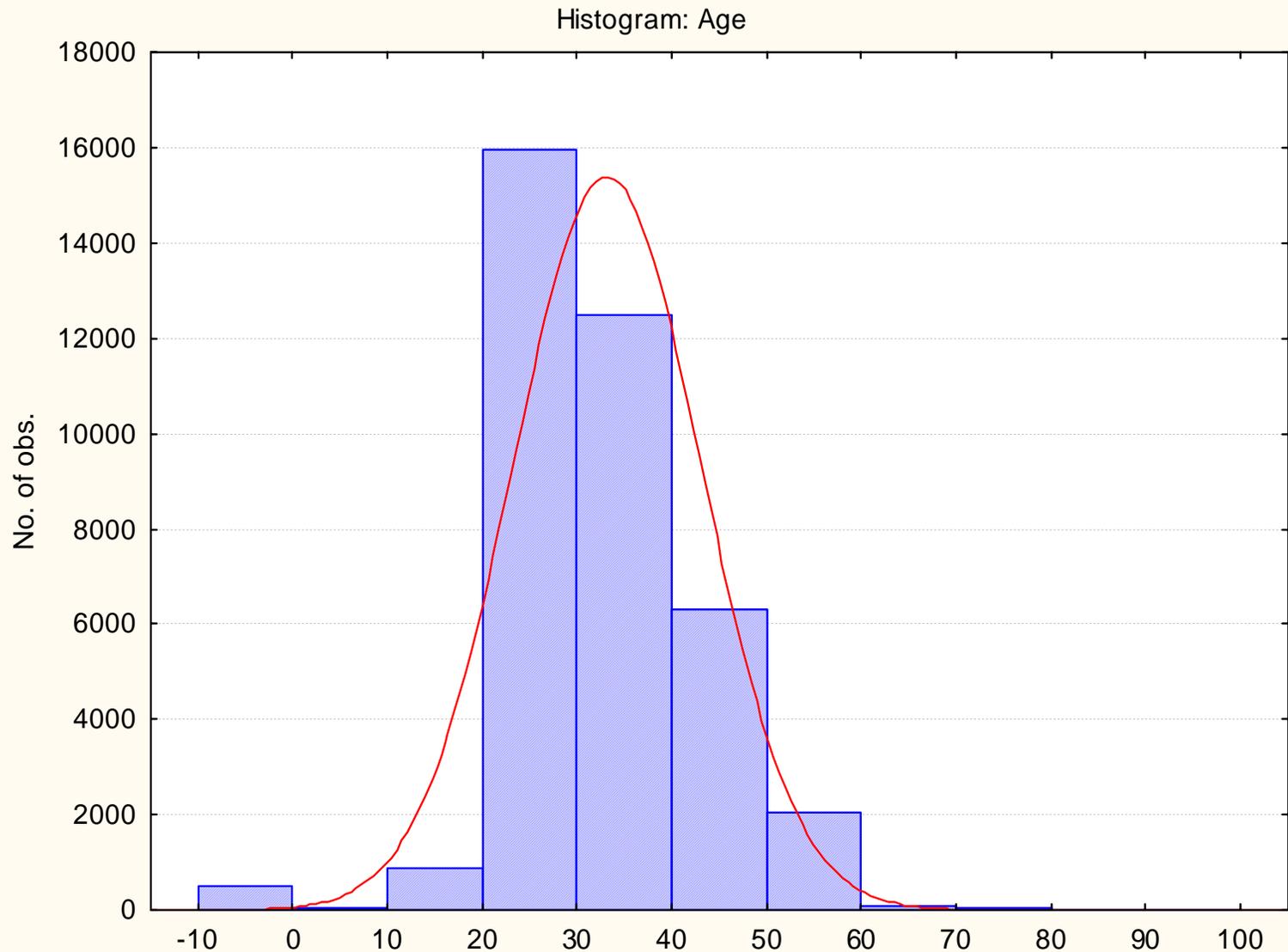


Student Demographics: Ethnicity

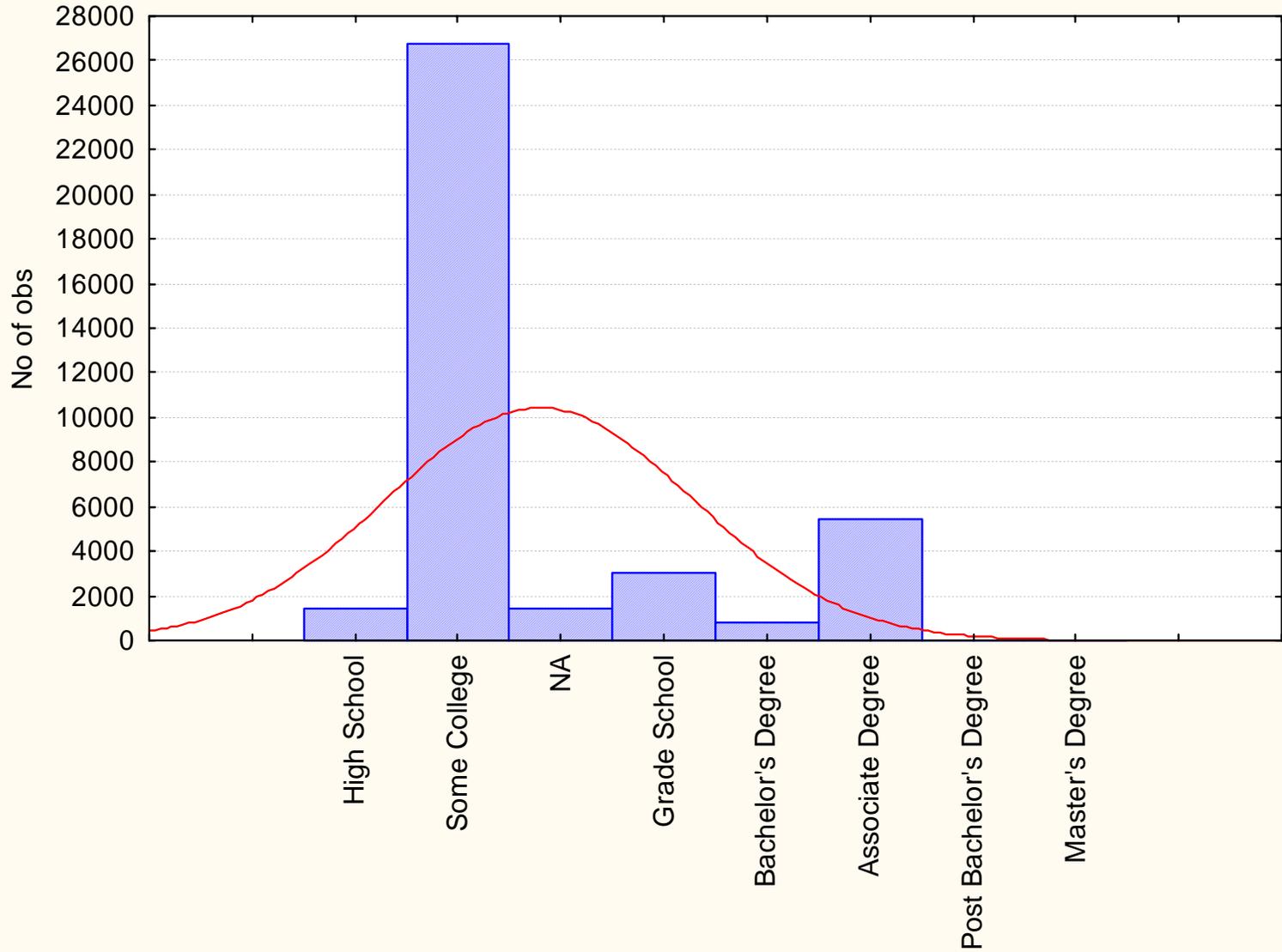


Age of IAFF Students

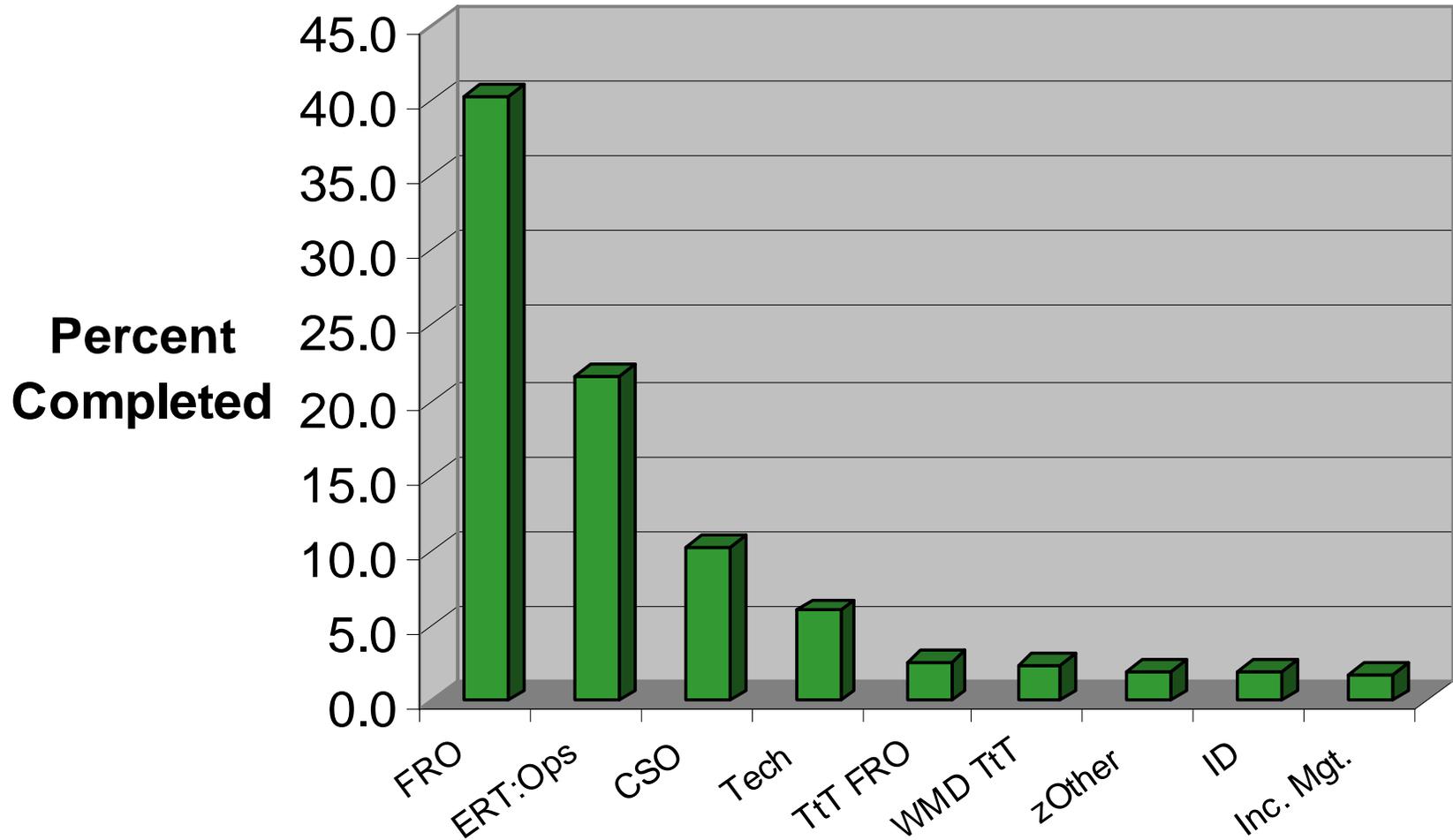
Mean age is 33 years



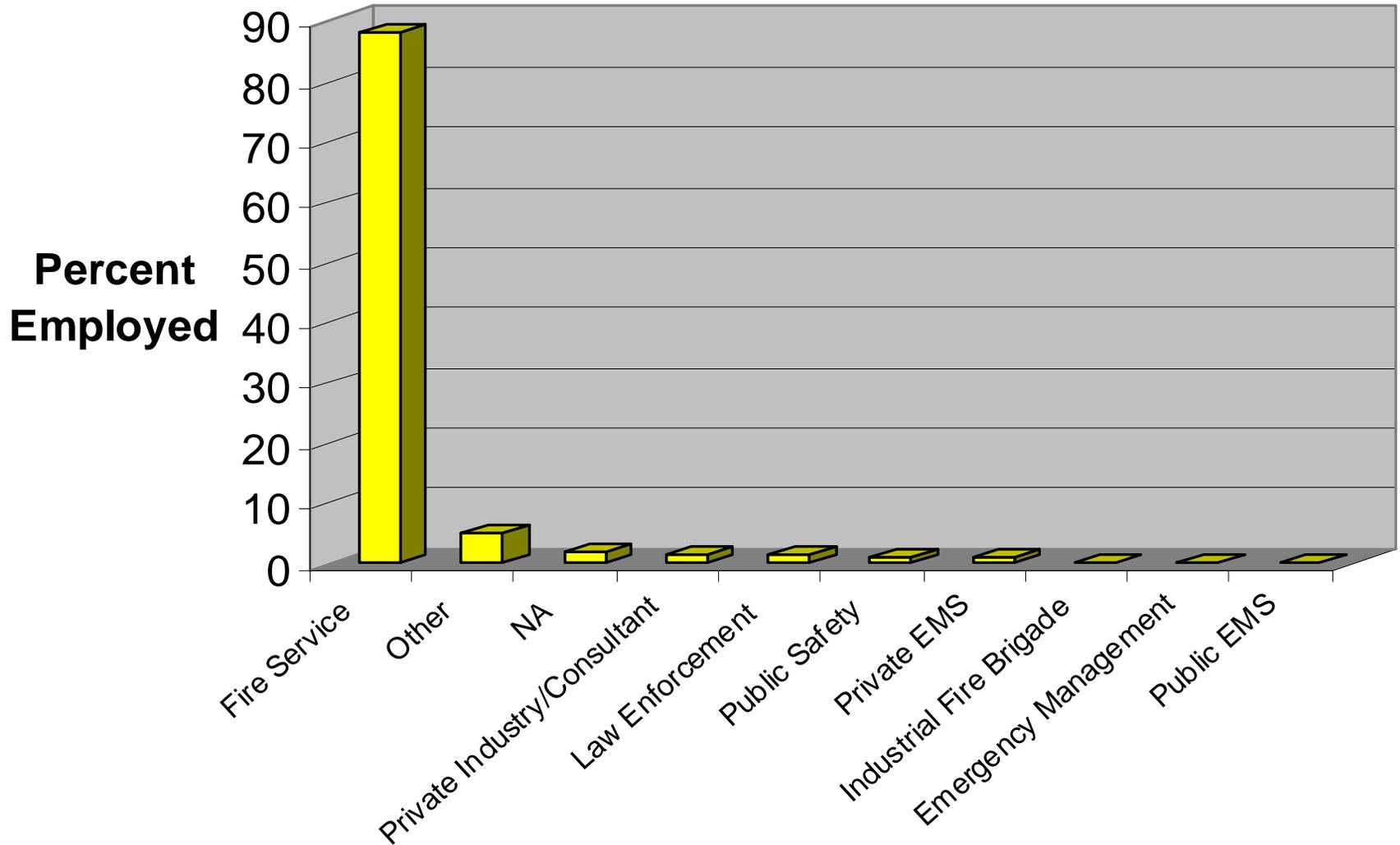
Schooling of IAFF Students



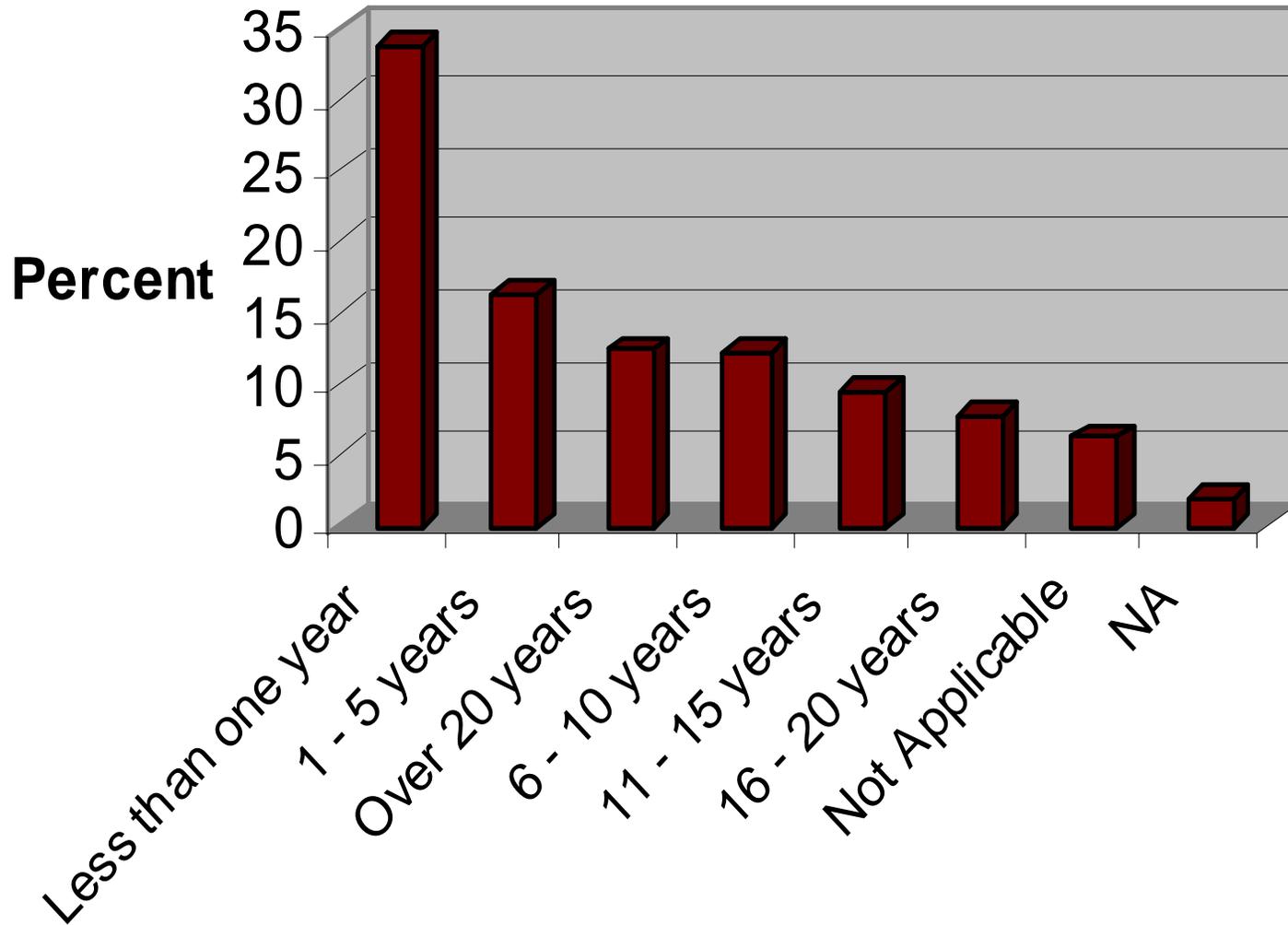
Courses Provided



Employment of students



Years of employment experience of students



What are the program's strengths?

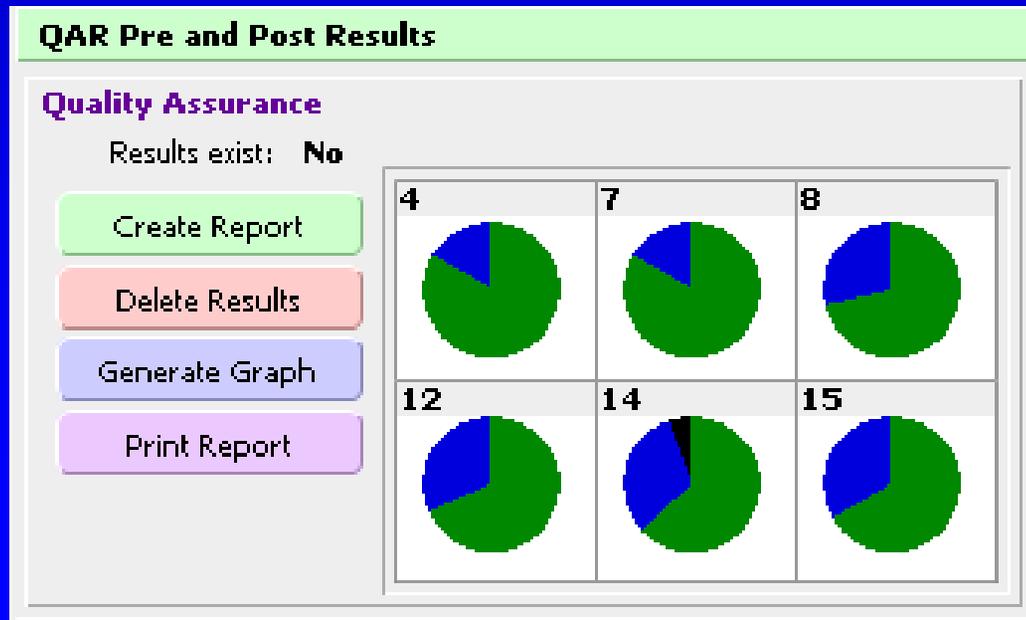
- The instructor cadre. Currently 91 instructors (84 at time of survey)
- Headquarters staff
- Technical quality of the curricula
- Support from General President
- Guidance from Advisory Board
- Coordination with Safety and Health staff



What are the program's weaknesses?

Feedback to instructors

Quality Assessment Reports are generated by headquarters from student evaluations, but provision to instructors needs to be more consistent and timely



What are the program's weaknesses?

Annual evaluation of instructors.

A point for discussion by all Awardees:

“The annual review of instructor competency shall include, at a minimum, observation by the Training Director or his or her designee of instructional delivery, review and discussion of observations with the instructor, and an analysis of the instructor performance based upon evaluations completed by trainees during the previous year.”



Minimum Criteria guidance (9.3.3)



Frontline Safety

Curriculum development meeting

September 21, 2006



Is the evaluation tool current and appropriate for program content?

- Student evaluation form unchanged in 8 years
- Excellent and consistent efforts by Alexander Cohen, Ph.D.
- New efforts underway by Dr. Harold Stolovitch look quite promising



Harold Stolovitch in venturing into Kirkpatrick Level 4 evaluations

A Modest Proposal

That IAFF adopt a philosophy of
“learning and performance
support” rather than one of
“provider of training”



Blended Learning

- IAFF has a talented individual leading the charge: Vilma Perez-Atwood
- IAFF has created impressive web-based courses, such as the Avian Flu unit
- Given the importance of skills training, not as much emphasis on web-based training as other grantees
- Availability of computers and access to web still issues



IAFF Near-Miss Program

HOME : SUBMIT YOUR REPORT : PRINT BLANK REPORT : SEARCH REPORTS : RESOURCES : LINKS : FAQ : CONTACT US

National Fire Fighter Near-Miss Reporting System

The National Fire Fighter Near-Miss Reporting System is a voluntary, confidential, non-punitive and secure reporting system with the goal of improving fire fighter safety.

Submitted reports will be reviewed by fire service professionals. Identifying descriptions are removed to protect your identity. The report is then posted on this web site for other fire fighters to use as a learning tool.

For more information, visit [Frequently Asked Questions](#).

SUBMIT REPORT



www.iaff.org



www.iafc.org



www.vcos.org

IAFF Near-Miss Program

- An important program focused on an area that can have significant impact
 - OSHA insists on a near-miss program in VPP
 - DOE's Lessons Learned culture has made a difference
- Reaching out to the airline industry is bold and can pay real dividends



Do you enjoy being an instructor in the IAFF program?

“EXTREMELY! Any of the problems/challenges outlined here are normal organizational stuff. They are overshadowed by the chance to share with fellow responders in their own environment. You really get the feeling (most of the time) that you’re making a positive difference for these students and that’s what it’s all about .”



Questions?

