

**NATIONAL OCCUPATIONAL EXPOSURE SURVEY
(1981-1983)
Analyses of Management Interview Responses**

Section IV - Industrial Hygiene and Safety Practices

- | | |
|--------------------------------------|---|
| - employed health/safety personnel | - personal protective equipment required |
| - number of health/safety personnel | - provision of personal protective gear |
| - industrial hygiene consultation | - servicing of personal protective gear |
| - occupational safety consultation | - enforcement of personal protective gear use |
| - physical agent monitoring | - economic penalties used |
| - physical agent records | - economic penalties assessed |
| - fume, gas monitoring | - safety inspections |
| - direct reading instruments used | - written safety reports |
| - fume monitoring records | - safety inspections reported to workers |
| - chemical substitution | - preventive maintenance |
| - substitution to reduce exposure | - safety training |
| - substitution due to inspection | - safety rule assessment |
| - equipment or process modifications | - safety rule enforcement |
| - modifications to reduce exposure | - economic penalties used |
| - modifications due to inspection | - economic penalties assessed |
| - nature of modifications | - recirculation of exhaust air |

NOES QUESTIONNAIRE ITEM NO. 28
Employment of Occupational Safety or Occupational Health Personnel

Intent

The intent of this question was to determine if the facility employed individuals whose primary responsibilities were to prevent injuries and illnesses.

This item was displayed on the questionnaire as:

28. Do you employ full-time individuals at this facility whose major responsibilities are in the area of prevention of occupational injuries or illnesses?

- 1 Yes, injury prevention
- 2 Yes, illness prevention
- 3 Yes, both injuries and illnesses
- 4 No (Skip to Question 30).

Notes

Injury prevention is the recognition, evaluation and control of occupational safety hazards. Injury prevention activities include, but are not limited to: inspection for fire hazards; inspection for safety guards on machinery; conduct of safety and first aid training; and evaluation of the environment for compliance with OSHA regulations.

Illness prevention is the recognition, evaluation and control of occupational health hazards. Illness prevention activities include, but are not limited to: the evaluation of occupational stress and the potential for impairment of worker health; prescribing methods for the necessary control or elimination of such stress based on experience and quantitative measurements; the collection of gases, or other forms of potentially toxic agents for analysis; and development of educational programs for employees.

Injury or illness prevention personnel were counted on the survey only if the individual(s) spent more than 50% of their time on such duties.

Injury or illness prevention activities performed by government or visiting corporate headquarters personnel were excluded. Personnel involved in direct delivery of medical care (doctors, nurses, etc.) who spent less than 50% of their time in injury or illness prevention programs were excluded.

Analysis

Three analyses of the responses to question 28 are presented.

- (1) Response 28.1 - Injury prevention personnel employed

The estimates of the plants which employ full-time individuals whose major responsibilities are the prevention of occupational injuries,

and workers in those plants (by number and proportion of the total) are displayed in Figures IV-1 and IV-2, and Tables IV-1 and IV-2.

Figure IV-1	Occupational safety personnel employed on-site (by major industrial group)
Figure IV-2	Occupational safety personnel employed on-site (by 2-digit SIC)
Table IV-1	Number and percent of plants and employees in plants which employ occupational safety personnel (by major industrial group)
Table IV-2	Number and percent of plants and employees in plants which employ occupational safety personnel (by 2-digit SIC)

(2) Response 28.2 - Illness prevention personnel employed

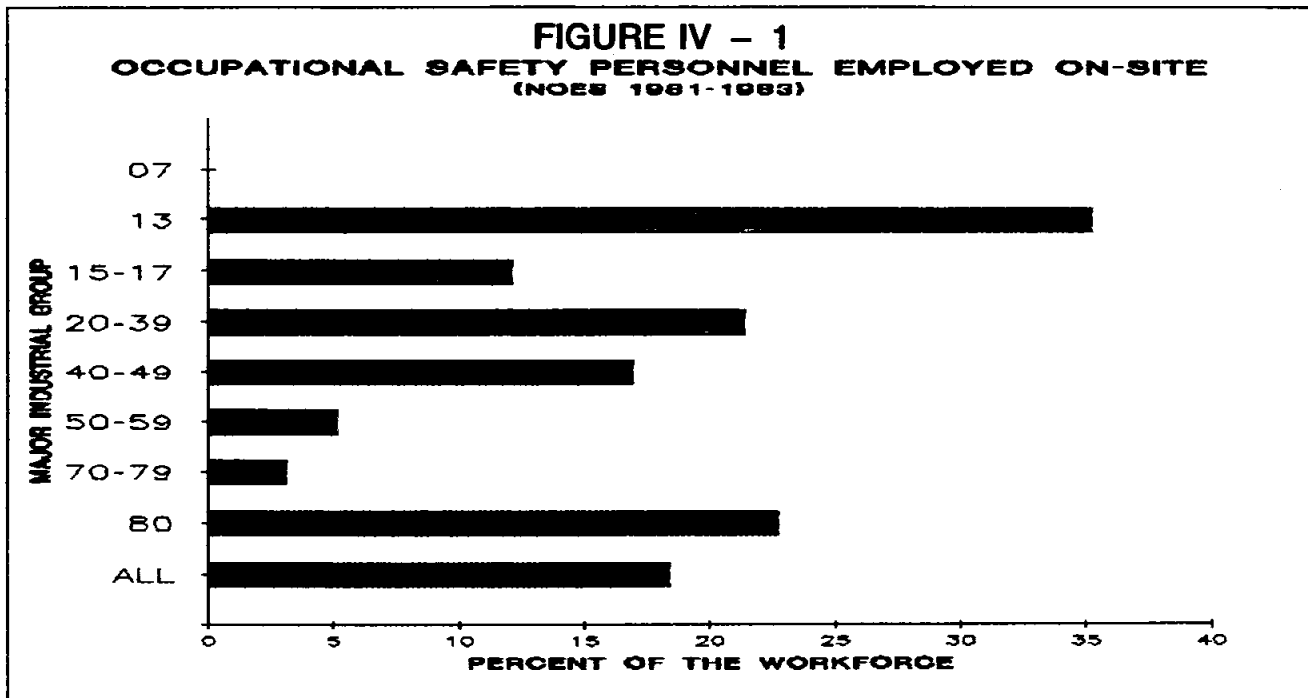
The estimates of the plants which employ full-time individuals whose major responsibilities are the prevention of occupational illness, and workers in those plants (by number and proportion of the total) are displayed in Figures IV-3 and IV-4, and Tables IV-3 and IV-4.

Figure IV-3	Occupational health personnel employed on-site (by major industrial group)
Figure IV-4	Occupational health personnel employed on-site (by 2-digit SIC)
Table IV-3	Number and percent of plants and employees in plants which employ occupational health personnel (by major industrial group)
Table IV-4	Number and percent of plants and employees in plants which employ occupational health personnel (by 2-digit SIC)

(3) Response 28.1, 28.2, or 28.3 - Injury and/or illness prevention personnel employed

The estimates of the plants which employ full-time individuals whose major duties are the prevention of either occupational injury or illness, and workers in those plants (by number and proportion of the total) are displayed in Figures IV-5, IV-6, and IV-7, and Tables IV-5 and IV-6.

Figure IV-5	Occupational health and/or safety personnel on-site (by major industrial group)
Figure IV-6	Occupational health and/or safety personnel on-site (by 2-digit SIC)
Figure IV-7	Plants with health or safety personnel
Table IV-5	Number and percent of plants and employees in plants which employ occupational safety and/or health personnel (by major industrial group)
Table IV-6	Number and percent of plants and employees in plants which employ occupational safety and/or health personnel (by 2-digit SIC)



NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983) TABLE NO. IV-1

NUMBER AND PERCENT OF PLANTS AND EMPLOYEES IN PLANTS WHICH EMPLOY OCCUPATIONAL SAFETY PERSONNEL

MAJOR GROUP	PLANTS				EMPLOYEES			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL
07	...	...	...	...	...	...	...	...
13	301* (180) 3.5%	531* (215) 52.1%	46* (52) 100.0%	878* (227) 9.1%	11591* (6543) 5.5%	103330* (42338) 59.4%	31383* (35291) 100.0%	146304* (55090) 35.3%
15-17	2688 (571) 2.8%	586* (191) 14.1%	179* (109) 74.1%	3454 (677) 3.5%	101517* (26239) 4.8%	109874* (30597) 14.9%	163439* (79915) 69.2%	374829 (86295) 12.2%
20-39	3255 (771) 2.1%	5130 (580) 16.2%	2389 (262) 38.1%	10774 (1065) 5.6%	187186 (41459) 4.1%	1150641 (131549) 18.0%	2802198 (334041) 33.9%	4140025 (370504) 21.5%
40-49	635* (323) 1.2%	1219* (359) 20.9%	150* (48) 32.0%	2003* (537) 3.4%	42652* (24678) 3.0%	280722* (92751) 24.3%	215519* (80670) 37.6%	538893* (139453) 17.0%
50-59	694* (412) 1.2%	298* (195) 11.2%	...	992* (369) 1.6%	21548* (11460) 1.9%	58294* (46664) 14.3%	...	79842* (45253) 5.2%
70-79	403* (174) .6%	84* (35) 3.6%	24* (21) 6.9%	512* (176) .7%	17581* (7895) 1.3%	28462* (10064) 6.1%	24567* (17710) 7.2%	70610* (21692) 3.2%
80	...	239* (114) 11.0%	423* (114) 20.5%	662* (167) 9.4%	...	69338* (27350) 13.0%	765049 (170644) 25.3%	834386 (179500) 22.8%
ALL	7977 (1121) 1.8%	8087 (775) 16.2%	3212 (314) 34.0%	19275 (1459) 3.8%	382075 (57033) 3.4%	1800661 (177942) 18.3%	4002154 (393899) 32.1%	6184890 (449378) 18.5%

*Standard error >25% of the estimate. The estimate may be unreliable.
...No facilities observed.

NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983) TABLE NO. IV-2

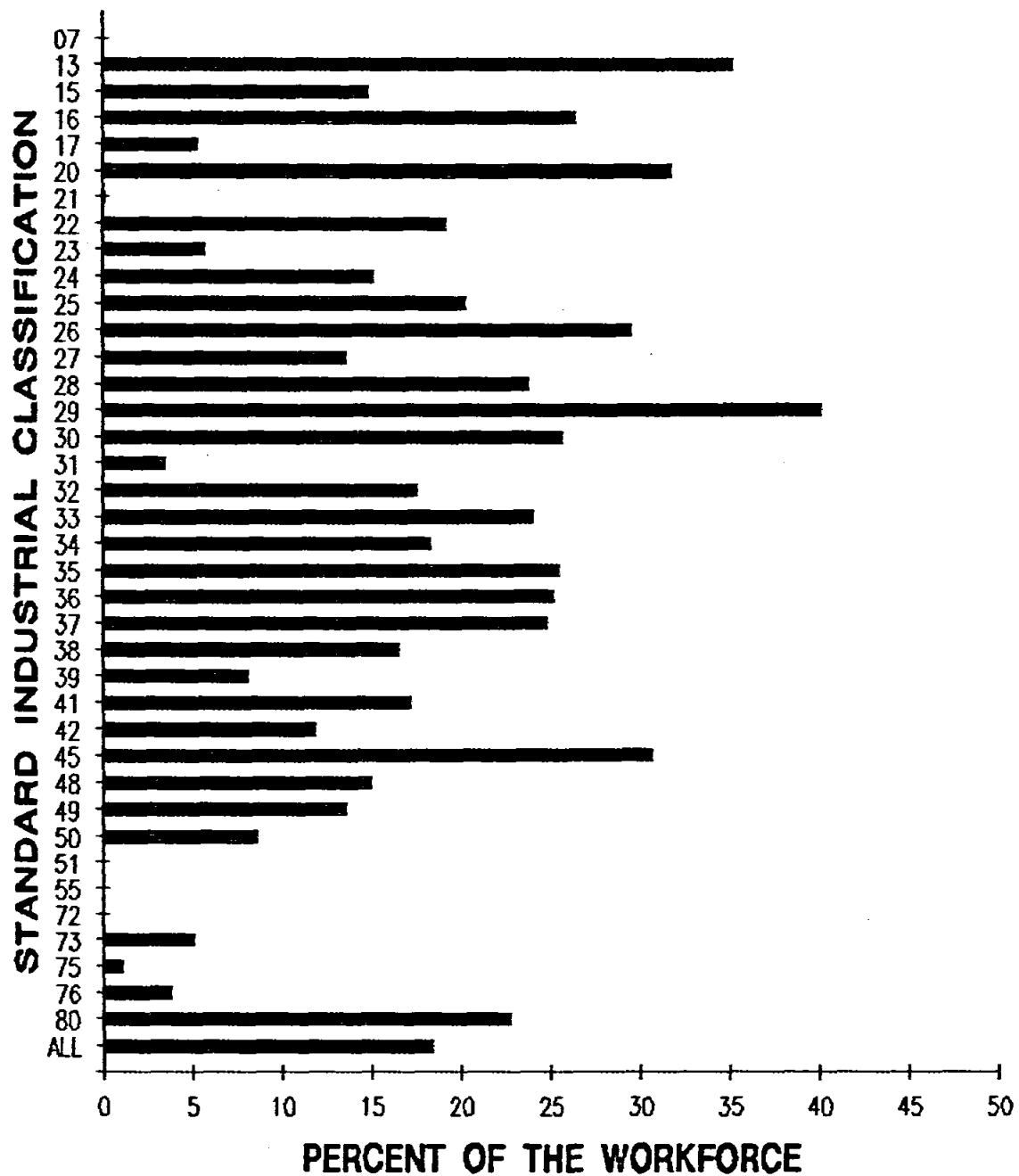
NUMBER AND PERCENT OF PLANTS AND EMPLOYEES IN PLANTS WHICH EMPLOY OCCUPATIONAL SAFETY PERSONNEL

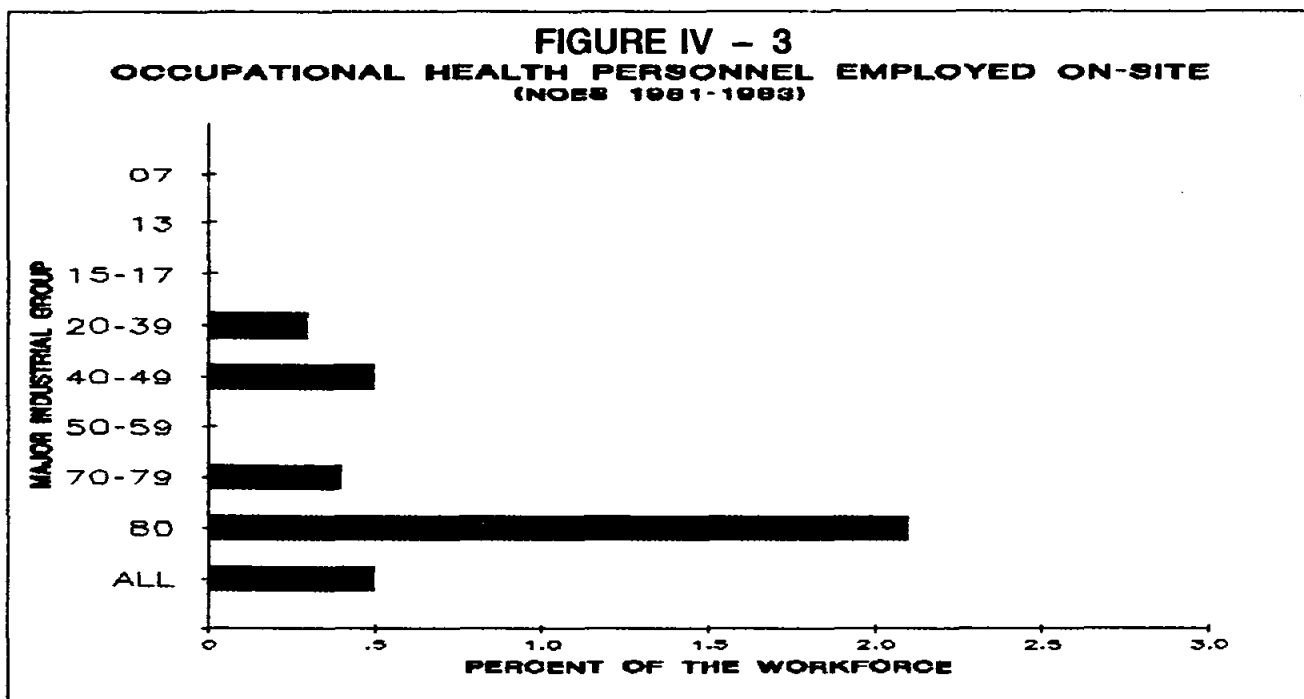
SIC CODE	PLANTS				EMPLOYEES			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL
07	...	...	...	...	...	...	...	...
13	301* (180) 3.5%	531* (215) 52.1%	46* (52) 100.0%	878* (227) 9.1%	11591* (6543) 5.5%	103330* (42338) 59.4%	31383* (35291) 100.0%	146304* (55090) 35.3%
15	961* (478) 3.9%	171* (144) 15.4%	103* (96) 75.9%	1235* (510) 4.7%	24447* (13237) 4.3%	28365* (25347) 14.3%	80307* (65254) 59.6%	133119* (75517) 14.9%
16	707* (329) 6.3%	302* (120) 27.0%	77* (45) 71.9%	1086* (344) 8.7%	27220* (12046) 9.6%	46627* (16946) 22.4%	83132* (42938) 82.1%	156980* (40232) 26.5%
17	1020* (395) 1.8%	114* (63) 5.9%	...	1133* (390) 1.9%	49850* (24760) 4.0%	34881* (19860) 10.5%	...	84730* (26445) 5.4%
20	749* (391) 6.6%	656* (180) 20.4%	286* (103) 51.2%	1691 (398) 11.1%	38549* (19952) 9.9%	166882* (44194) 24.8%	290538* (92931) 59.1%	495970 (83030) 31.9%
21	4* (6) 14.6%	...	...	4* (6) 4.0%	258* (345) 13.8%	...	...	258* (345) .2%
22	...	190* (106) 12.0%	70* (43) 23.4%	260* (133) 5.4%	...	45409* (24024) 13.1%	92776* (60153) 35.5%	138184* (77267) 19.3%
23	49* (59) .4%	22* (26) .7%	63* (48) 25.9%	134* (86) .8%	2433* (2928) .6%	7229* (8322) 1.2%	62757* (47716) 30.1%	72419* (53206) 5.8%
24	...	351* (131) 30.6%	19* (8) 18.1%	370* (132) 3.1%	...	52569* (20171) 28.6%	35767* (18789) 38.7%	88336* (28005) 15.2%
25	...	48* (40) 4.5%	104* (71) 87.6%	152* (84) 2.8%	...	16229* (15748) 6.3%	89366* (57448) 72.7%	105595* (60402) 20.4%
26	231* (115) 5.6%	141* (76) 9.0%	174* (62) 81.5%	546* (170) 9.3%	13060* (7804) 9.5%	42842* (30030) 15.2%	129622* (46707) 62.7%	185523* (60641) 29.6%
27	180* (133) 1.0%	114* (77) 6.1%	68* (28) 21.5%	362* (158) 1.8%	7149* (5507) 1.5%	19645* (13910) 5.4%	135657* (53558) 39.2%	162450* (54157) 13.7%
28	207* (132) 3.3%	393* (105) 33.9%	182* (49) 47.8%	781 (161) 10.1%	10986* (6335) 6.1%	80484* (24122) 30.9%	127845* (34311) 26.8%	219314 (40362) 23.9%
29	73* (87) 7.2%	238* (120) 81.1%	32* (31) 31.7%	343* (182) 24.4%	6668* (7929) 16.3%	55462* (19608) 87.7%	26926* (26106) 22.9%	89057* (37262) 40.2%
30	168* (86) 2.5%	344* (150) 22.4%	95* (43) 42.3%	607* (191) 7.2%	11332* (5598) 5.0%	86173* (40979) 29.3%	96968* (42117) 41.5%	194473* (66207) 25.8%
31	...	36* (55) 6.3%	...	36* (55) 2.3%	...	6307* (9640) 4.7%	...	6307* (9640) 3.6%
32	158* (55) 1.8%	305* (121) 30.2%	59* (39) 32.2%	522* (140) 5.2%	10503* (4301) 4.4%	53210* (22759) 25.5%	38023* (25776) 29.5%	101735* (27593) 17.7%
33	289* (146) 7.0%	251* (87) 17.1%	125* (63) 37.1%	664 (156) 11.2%	17830* (8517) 12.9%	65611* (16649) 21.1%	174850* (70069) 28.1%	258291* (71269) 24.1%

SIC CODE	PLANTS			TOTAL	EMPLOYEES			TOTAL
	SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)		SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)	
34	453* (218) 2.4%	433 (108) 13.9%	159* (51) 45.8%	1045* (263) 4.8%	22632* (9599) 4.1%	94266* (27870) 15.8%	160134* (55112) 45.6%	277031 (63397) 18.4%
35	76* (61) .3%	689* (189) 20.2%	382 (78) 48.7%	1147 (214) 4.3%	4844* (3773) .8%	114790 (25793) 17.4%	490953 (108191) 44.1%	610587 (110591) 25.6%
36	102* (83) 1.4%	541* (164) 20.2%	264* (87) 33.6%	908 (195) 8.6%	6600* (5891) 2.9%	135953* (48490) 24.6%	354045* (98500) 29.9%	496598 (106480) 25.3%
37	465* (239) 11.7%	224* (94) 18.9%	153* (40) 36.9%	843* (258) 15.1%	30625* (16053) 24.1%	64041* (28982) 26.8%	373475 (75096) 24.7%	468141 (83533) 24.9%
38	52* (56) 1.9%	77* (47) 8.1%	128* (91) 30.7%	256* (123) 6.3%	3717* (4067) 3.6%	20928* (16489) 10.8%	101966* (74144) 22.1%	126611* (79746) 16.7%
39	...	77* (104) 9.7%	26* (26) 7.7%	103* (112) 1.3%	...	22613* (30429) 15.1%	20532* (20670) 9.8%	43145* (40425) 8.2%
41	...	180* (66) 35.3%	...	180* (66) 3.7%	...	34456* (26114) 42.3%	...	34456* (26114) 17.3%
42	568* (313) 2.8%	172* (106) 11.6%	21* (16) 25.0%	760* (340) 3.5%	39981* (24641) 8.2%	34267* (26083) 13.2%	24057* (28768) 32.1%	98305* (48659) 12.0%
45	...	118* (118) 20.0%	49* (28) 33.1%	167* (124) 4.2%	...	47505* (47505) 43.5%	91559* (59543) 34.6%	139064* (76246) 30.8%
48	...	265* (155) 29.4%	30* (20) 88.9%	295* (158) 1.9%	...	44502* (24570) 25.2%	56857* (37465) 81.1%	101359* (46034) 15.1%
49	67* (85) .8%	344* (194) 18.5%	18* (22) 10.3%	429* (212) 4.2%	2671* (3398) 1.0%	87697* (49149) 20.6%	25035* (31261) 17.1%	115403* (57031) 13.7%
50	694* (412) 2.3%	298* (195) 16.5%	...	992* (369) 3.1%	21548* (11460) 3.4%	58294* (46664) 20.6%	...	79842* (45253) 8.7%
51	...	...	...	...	...	...	...	...
55	...	...	...	...	...	...	...	...
72	...	...	...	...	...	...	...	...
73	85* (104) .5%	84* (35) 5.6%	24* (21) 7.1%	194* (110) 1.1%	4612* (5643) 1.1%	28462* (10064) 8.1%	24567* (17710) 7.5%	57641* (21463) 5.2%
75	114* (116) .4%	...	...	114* (116) .4%	5008* (5094) 1.2%	...	...	5008* (5094) 1.2%
76	204* (205) 2.1%	...	...	204* (205) 2.1%	7961* (8001) 4.5%	...	...	7961* (8001) 3.9%
80	...	239* (114) 11.0%	423* (114) 20.5%	662* (167) 9.4%	...	69338* (27350) 13.0%	765049 (170644) 25.3%	834386 (179500) 22.8%
All	7977 (1082) 1.8%	7947 (670) 16.0%	3196 (323) 33.9%	19120 (1532) 3.8%	382075 (56591) 3.5%	1768366 (153166) 18.1%	3993149 (354258) 32.0%	6143589 (418419) 18.5%

*Standard error >25% of the estimate. The estimate may be unreliable.
...No facilities observed.

**FIGURE IV - 2
 OCCUPATIONAL SAFETY PERSONNEL EMPLOYED ON-SITE
 (NOES 1981-1983)**





NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983) TABLE NO. IV-3

NUMBER AND PERCENT OF PLANTS AND EMPLOYEES IN PLANTS WHICH EMPLOY OCCUPATIONAL HEALTH PERSONNEL

MAJOR GROUP	PLANTS				EMPLOYEES			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL
07	...	...	...	...	...	...	...	...
13	...	...	...	...	...	...	...	...
15-17	...	...	...	...	...	...	...	...
20-39	108* (78) .1%	98* (77) .3%	13* (21) .2%	219* (83) .1%	7119* (5697) .2%	23387* (14143) .4%	27862* (43418) .3%	58368* (48792) .3%
40-49	...	92* (67) 1.6%	...	92* (67) .2%	...	14543* (10645) 1.3%	...	14543* (10645) .5%
50-59	...	...	...	...	...	...	...	...
70-79	...	24* (24) 1.0%	...	24* (24) .0%	...	9412* (9412) 2.0%	...	9412* (9412) .4%
80	...	23* (33) 1.1%	83* (40) 4.0%	106* (51) 1.5%	...	8693* (12479) 1.6%	67916* (33430) 2.2%	76609* (35528) 2.1%
ALL	108* (78) .0%	237* (110) .5%	96* (45) 1.0%	441* (121) .1%	7119* (5697) .1%	56035* (23614) .6%	95778* (54796) .8%	158932* (62006) .5%

*Standard error >25% of the estimate. The estimate may be unreliable.
...No facilities observed.

NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983) TABLE NO. IV-4

NUMBER AND PERCENT OF PLANTS AND EMPLOYEES IN PLANTS WHICH EMPLOY OCCUPATIONAL HEALTH PERSONNEL

SIC CODE	PLANTS			TOTAL	EMPLOYEES			TOTAL
	SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)		SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)	
07
13
15
16
17
20
21
22
23
24
25
26
27
28	65* (48) 1.0%	71* (78) 6.1%	...	136* (86) 1.8%	3503* (2922) 1.9%	15296* (13932) 5.9%	...	18799* (13904) 2.0%
29
30
31
32
33

NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983)

TABLE NO. IV-4 (CONTINUED)

SIC CODE					EMPLOYEES			TOTAL
	SMALL (8-99)	PLANTS MEDIUM (100-499)	LARGE (≥500)	TOTAL	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	
34
35
36	44* (55) .6%	27* (23) 1.0%	2* (2) .3%	73* (57) .7%	3616* (4555) 1.6%	8091* (6946) 1.5%	6553* (6687) .6%	18261* (10596) .9%
37
38	11* (20) 2.6%	11* (20) .5%	...	...	21308* (41006) 4.6%	21308* (41006) 2.8%
39
41
42
45
48
49	...	92* (67) 4.9%	...	92* (67) .9%	...	14543* (10645) 3.4%	...	14543* (10645) 1.7%
50
51
55
72
73	...	24* (24) 1.6%	...	24* (24) .7%	...	9412* (9412) 2.7%	...	9412* (9412) .9%
75
76
80	...	23* (33) 1.1%	83* (40) 4.0%	106* (51) 1.5%	...	8693* (12479) 1.6%	67916* (33430) 2.2%	76609* (35528) 2.1%
All	108* (78) .0%	237* (95) .5%	96* (45) 1.0%	441* (116) .1%	7119* (5697) .1%	56035* (18889) .6%	95778* (55511) .8%	158932* (59479) .5%

*Standard error >25% of the estimate. The estimate may be unreliable.
 ...No facilities observed.

FIGURE IV - 4
OCCUPATIONAL HEALTH PERSONNEL EMPLOYED ON-SITE
(NOES 1981-1983)

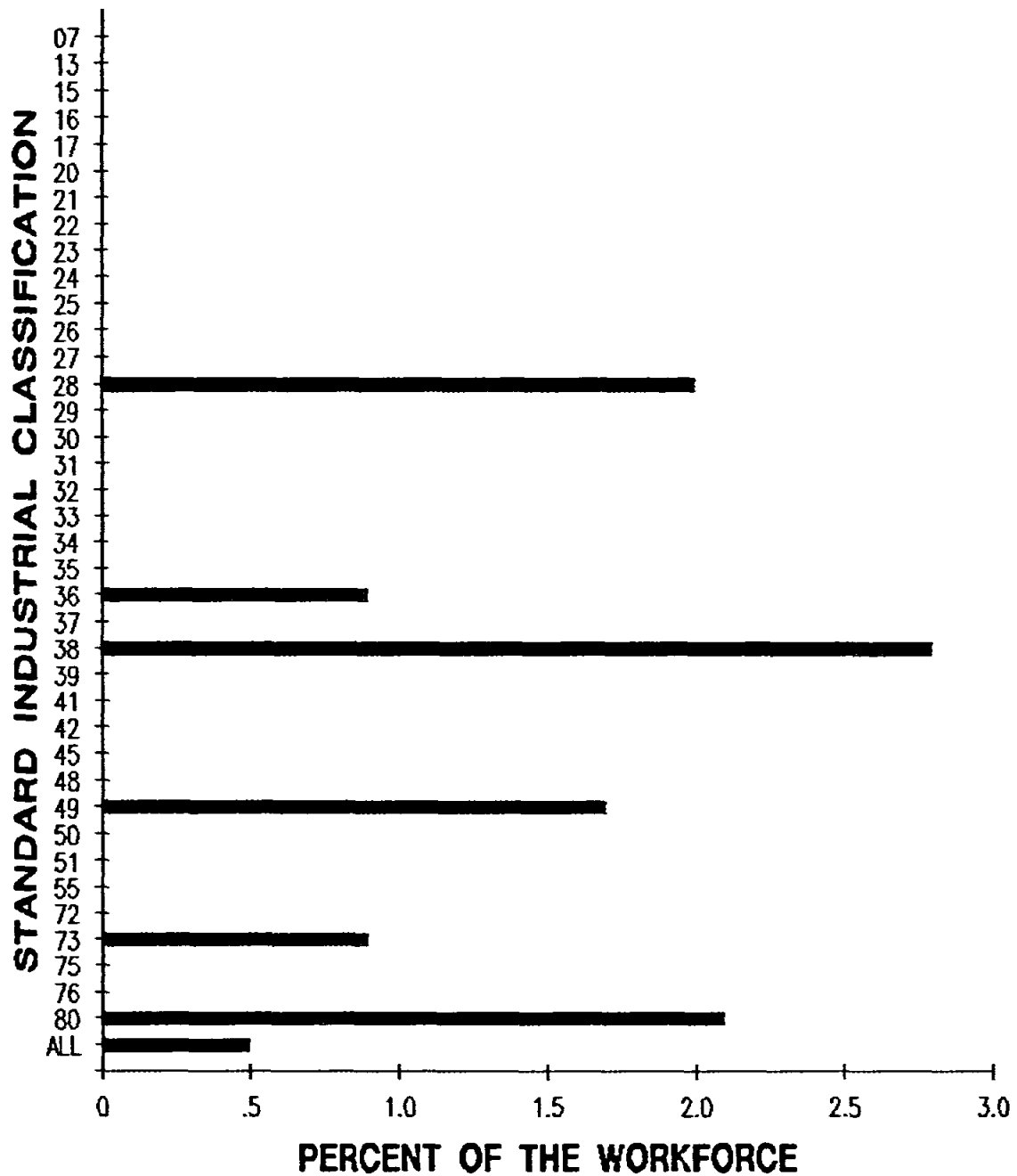
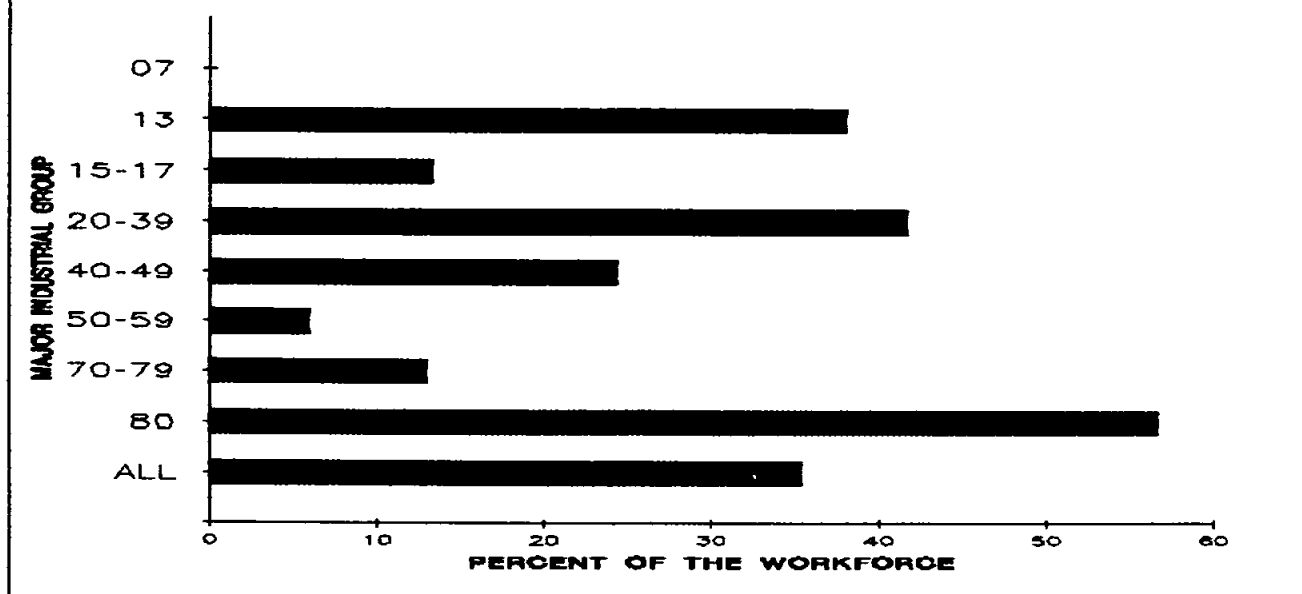


FIGURE IV - 5
OCCUPATIONAL HEALTH AND/OR SAFETY PERSONNEL ON-SITE
(NOES 1981-1983)



NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983) TABLE NO. IV-5

NUMBER AND PERCENT OF PLANTS AND EMPLOYEES IN PLANTS WHICH
 EMPLOY OCCUPATIONAL HEALTH AND/OR SAFETY PERSONNEL

MAJOR GROUP	PLANTS				EMPLOYEES			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL
07	...	...	...	...	...	...	...	...
13	301* (180) 3.5%	571* (243) 56.0%	46* (52) 100.0%	918* (246) 9.5%	11591* (6543) 5.5%	115258* (50752) 66.3%	31383* (35291) 100.0%	158232* (61655) 38.2%
15-17	2696 (571) 2.9%	593* (189) 14.3%	215* (126) 88.7%	3504 (665) 3.5%	102075* (26435) 4.9%	112213* (29828) 15.2%	201722* (91277) 85.5%	416010 (93389) 13.5%
20-39	3476 (727) 2.3%	6012 (686) 18.9%	3879 (227) 61.9%	13367 (1185) 7.0%	201219 (37902) 4.4%	1398485 (148255) 21.9%	6464070 (263469) 78.2%	8063774 (343992) 41.9%
40-49	1308* (615) 2.5%	1435* (422) 24.6%	203* (53) 43.4%	2947* (876) 5.0%	87917* (41287) 6.1%	329958* (104764) 28.6%	357973* (89511) 62.4%	775849 (165804) 24.5%
50-59	694* (412) 1.2%	341* (179) 12.8%	...	1035* (357) 1.7%	21548* (11460) 1.9%	71349* (41995) 17.5%	...	92896* (39516) 6.1%
70-79	403* (174) .6%	255* (87) 10.9%	159* (110) 45.0%	818* (213) 1.1%	17581* (7895) 1.3%	83176* (26384) 17.9%	186692* (92115) 55.0%	287449* (87395) 13.1%
80	48* (50) 1.7%	429* (144) 19.8%	1110 (188) 53.9%	1587 (265) 22.5%	4656* (4899) 4.6%	128434* (38580) 24.0%	1944343 (296273) 64.3%	2077434 (309988) 56.8%
ALL	8926 (1212) 2.0%	9638 (897) 19.3%	5612 (347) 59.4%	24176 (1708) 4.8%	446588 (64035) 4.0%	2238873 (200920) 22.7%	9186183 (428098) 73.7%	11871644 (513455) 35.5%

*Standard error >25% of the estimate. The estimate may be unreliable.
 ...No facilities observed.

FIGURE IV - 6
OCCUPATIONAL HEALTH AND/OR SAFETY PERSONNEL ON-SITE
(NOES 1981-1983)

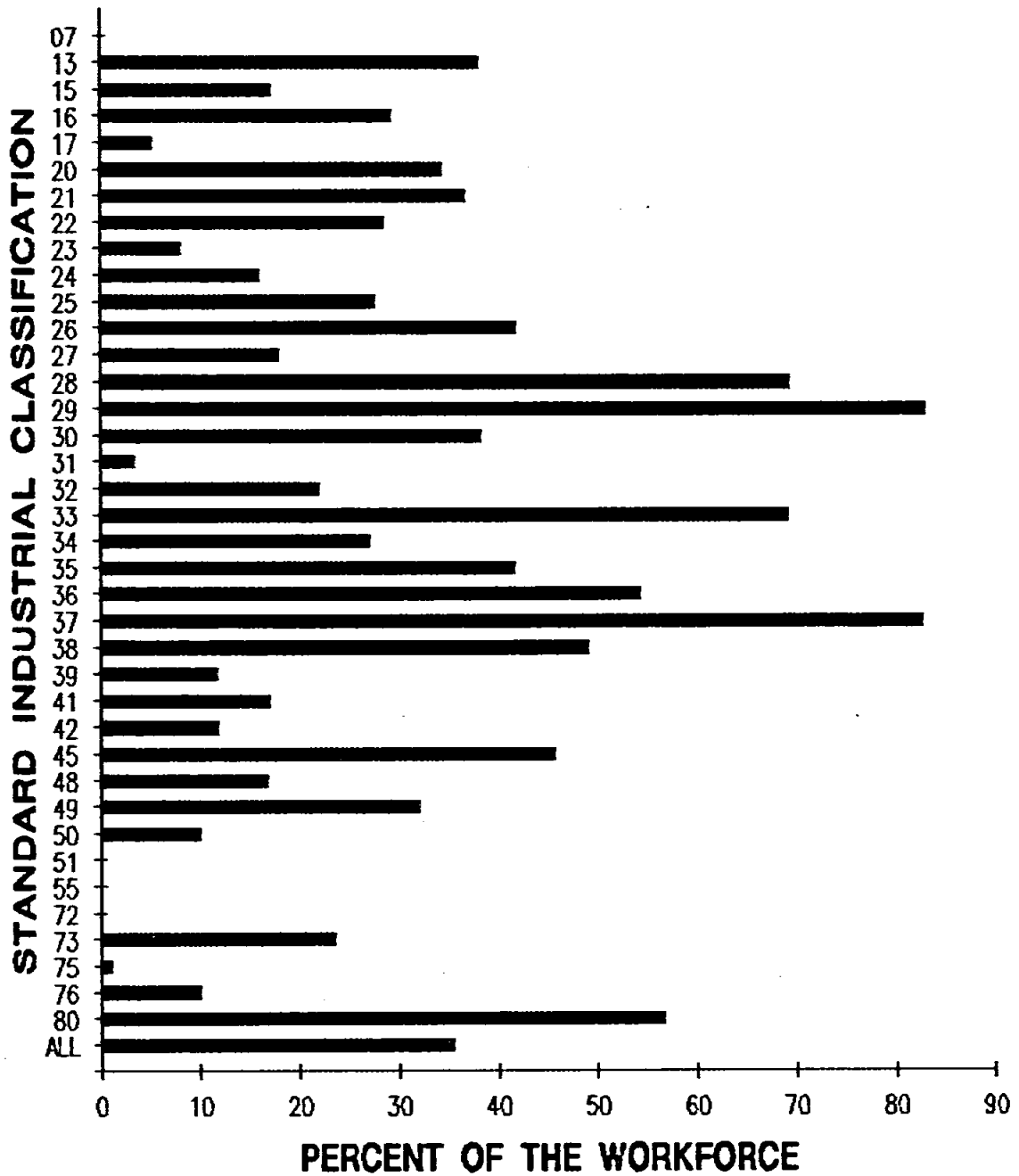
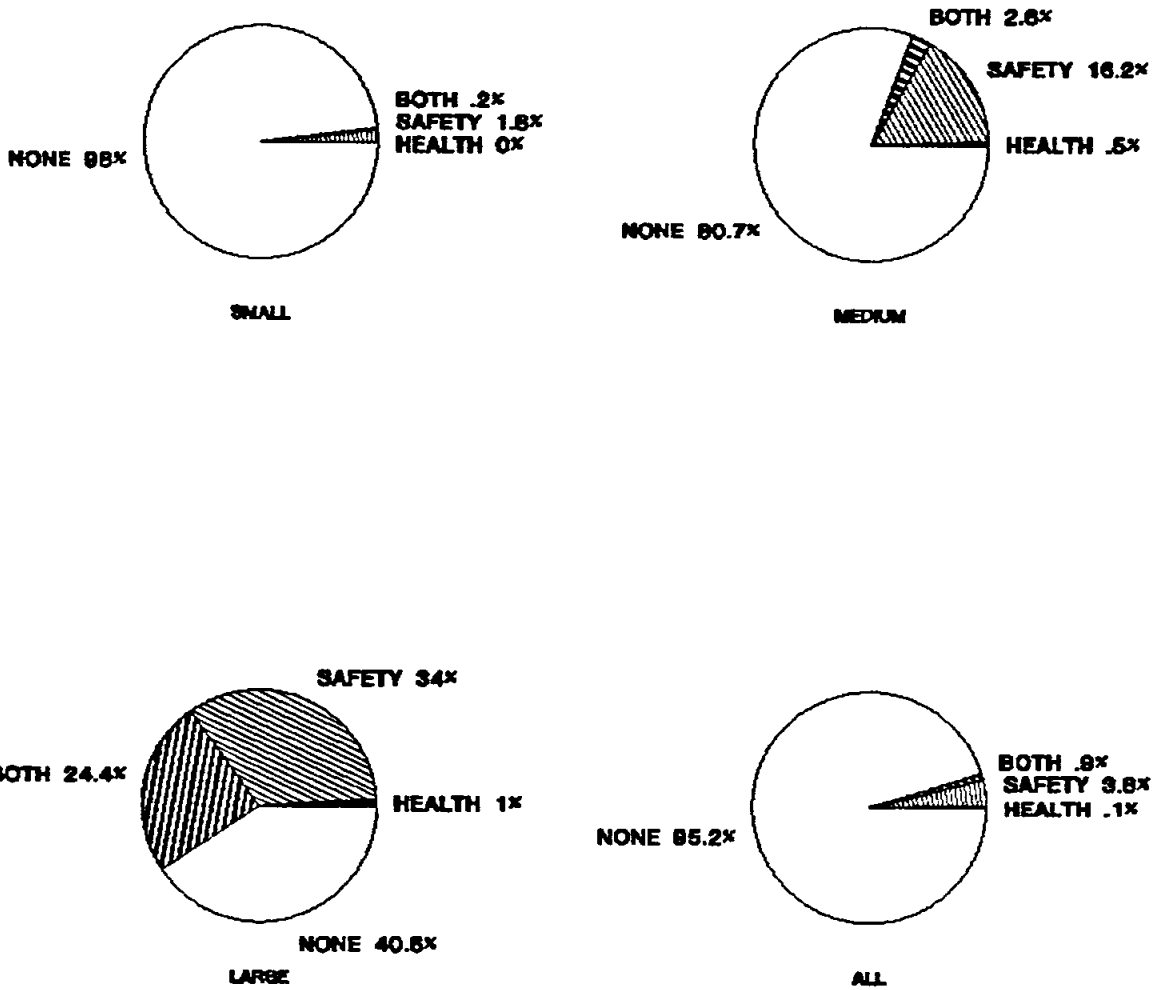


FIGURE IV - 7
PLANTS WITH HEALTH OR SAFETY PERSONNEL
(NOES 1981-1983)



NUMBER AND PERCENT OF PLANTS AND EMPLOYEES IN PLANTS WHICH EMPLOY OCCUPATIONAL HEALTH AND/OR SAFETY PERSONNEL

SIC CODE	PLANTS				EMPLOYEES			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL
07	...	...	...	...	...	...	...	...
13	301* (180) 3.5%	571* (243) 56.0%	46* (52) 100.0%	918* (246) 9.5%	11591* (6543) 5.5%	115258* (50752) 66.3%	31383* (35291) 100.0%	158232* (61655) 38.2%
15	961* (478) 3.9%	178* (139) 16.1%	108* (95) 79.6%	1247* (506) 4.8%	24447* (13237) 4.3%	30705* (23475) 15.5%	100464* (64597) 74.5%	155616* (67943) 17.4%
16	707* (329) 6.3%	302* (120) 27.0%	107* (67) 100.0%	1116* (346) 8.9%	27220* (12046) 9.6%	46627* (16946) 22.4%	101258* (53561) 100.0%	175106* (48200) 29.5%
17	1028* (397) 1.8%	114* (63) 5.9%	...	1141* (392) 1.9%	50407* (25029) 4.0%	34881* (19860) 10.5%	...	85288* (26870) 5.4%
20	749* (391) 6.6%	672* (179) 20.9%	311* (107) 55.6%	1732 (403) 11.4%	38549* (19952) 9.9%	174177* (45192) 25.9%	324568* (94959) 66.0%	537294 (89650) 34.6%
21	4* (6) 14.6%	...	11* (11) 13.5%	15* (8) 13.8%	258* (345) 13.8%	...	41763* (36135) 37.2%	42021* (35930) 36.9%
22	...	266* (116) 16.7%	129* (62) 43.0%	394* (147) 8.2%	...	73331* (28622) 21.1%	131652* (65101) 50.4%	204984* (81408) 28.7%
23	49* (59) .4%	22* (26) .7%	74* (48) 30.6%	145* (87) .9%	2433* (2928) .6%	7229* (8322) 1.2%	92322* (51954) 44.3%	101984* (56477) 8.2%
24	45* (61) .4%	360* (131) 31.4%	19* (8) 18.1%	424* (129) 3.5%	3452* (4723) 1.1%	54709* (20075) 29.8%	35767* (18789) 38.7%	93928* (27037) 16.2%
25	...	63* (41) 5.9%	119* (75) 99.6%	181* (84) 3.4%	...	21181* (15913) 8.3%	122998* (62394) 100.0%	144179* (62394) 27.8%
26	231* (115) 5.6%	141* (76) 9.0%	214* (73) 100.0%	586* (177) 9.9%	13060* (7804) 9.5%	42842* (30030) 15.2%	206864* (65220) 100.0%	262766* (75091) 42.0%
27	180* (133) 1.0%	114* (77) 6.1%	126* (41) 39.9%	420* (151) 2.1%	7149* (5507) 1.5%	19645* (13910) 5.4%	188118* (53110) 54.4%	214911* (54487) 18.1%
28	310* (123) 5.0%	651 (144) 56.1%	364 (63) 95.7%	1326 (259) 17.2%	16374* (6209) 9.1%	155715 (34601) 59.7%	465866 (102724) 97.8%	637955 (111900) 69.5%
29	73* (87) 7.2%	264* (124) 90.1%	101* (42) 100.0%	439* (191) 31.2%	6668* (7929) 16.3%	60212* (21521) 95.2%	117545* (70259) 100.0%	184426* (78981) 83.2%
30	168* (86) 2.5%	344* (150) 22.4%	186* (74) 83.0%	698* (202) 8.2%	11332* (5598) 5.0%	86173* (40979) 29.3%	192174* (72616) 82.2%	289679* (87707) 38.5%
31	...	36* (55) 6.3%	...	36* (55) 2.3%	...	6307* (9640) 4.7%	...	6307* (9640) 3.6%
32	158* (55) 1.8%	346* (114) 34.2%	67* (42) 36.6%	571 (125) 5.7%	10503* (4301) 4.4%	70546* (21564) 33.8%	46424* (34551) 36.0%	127472* (34343) 22.2%
33	289* (146) 7.0%	445* (149) 30.3%	321 (60) 95.2%	1054 (222) 17.8%	17830* (8517) 12.9%	113972* (31089) 36.6%	610958 (79856) 98.3%	742760 (89592) 69.3%

SIC CODE	PLANTS				EMPLOYEES			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)	TOTAL	SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)	TOTAL
34	482* (224) 2.6%	484 (109) 15.5%	247* (82) 71.3%	1212 (292) 5.5%	24209* (9869) 4.4%	105257* (26433) 17.6%	280519* (107635) 79.9%	409985* (117880) 27.3%
35	76* (61) .3%	798* (217) 23.5%	488 (70) 62.3%	1363 (248) 5.1%	4844* (3773) .8%	143378* (37096) 21.7%	848519 (142374) 76.2%	996740 (143981) 41.9%
36	145* (87) 2.0%	584* (162) 21.7%	458 (110) 58.2%	1187 (189) 11.2%	10217* (6472) 4.4%	148356* (48033) 26.8%	912382 (175099) 77.2%	1070955 (170464) 54.5%
37	465* (239) 11.7%	224* (94) 18.9%	343 (61) 82.5%	1033* (260) 18.5%	30625* (16053) 24.1%	64041* (28982) 26.6%	1463549 (246358) 96.7%	1558215 (256097) 82.9%
38	52* (56) 1.9%	120* (65) 12.5%	266* (105) 63.8%	437* (132) 10.8%	3717* (4067) 3.6%	28801* (18184) 14.8%	342086* (119956) 74.3%	374604* (122056) 49.3%
39	...	77* (104) 9.7%	36* (26) 10.7%	113* (111) 1.5%	...	22613* (30429) 15.1%	39998* (24337) 19.1%	62611* (41294) 11.9%
41	...	180* (66) 35.3%	...	180* (66) 3.7%	...	34456* (26114) 42.3%	...	34456* (26114) 17.3%
42	568* (313) 2.8%	172* (106) 11.6%	21* (16) 25.0%	760* (340) 3.5%	39981* (24641) 8.2%	34267* (26083) 13.2%	24057* (28768) 32.1%	98305* (48659) 12.0%
45	...	118* (118) 20.0%	58* (28) 39.3%	176* (122) 4.4%	...	47505* (47505) 43.5%	159442* (74841) 60.3%	206947* (80636) 45.9%
48	...	265* (155) 29.4%	34* (21) 99.0%	299* (158) 1.9%	...	44502* (24570) 25.2%	70083* (43687) 100.0%	114585* (51978) 17.0%
49	740* (526) 9.0%	561* (249) 30.1%	59* (34) 33.9%	1359* (630) 13.3%	47936* (34388) 17.8%	136933* (61094) 32.2%	86381* (45728) 58.9%	271250* (95740) 32.2%
50	694* (412) 2.3%	341* (179) 18.9%	...	1035* (357) 3.2%	21548* (11460) 3.4%	71349* (41995) 25.2%	...	92896* (39516) 10.2%
51	...	...	...	...	...	...	...	...
55	...	...	...	...	...	...	...	...
72	...	...	...	...	...	...	...	...
73	85* (104) .5%	219* (83) 14.7%	159* (110) 46.8%	464* (157) 2.5%	4612* (5643) 1.1%	70503* (23981) 20.2%	186692* (92115) 56.8%	261807* (90069) 23.8%
75	114* (116) .4%	...	...	114* (116) .4%	5008* (5094) 1.2%	...	...	5008* (5094) 1.2%
76	204* (205) 2.1%	36* (45) 29.4%	...	240* (207) 2.4%	7961* (8001) 4.5%	12672* (15755) 52.1%	...	20633* (17170) 10.2%
80	48* (50) 1.7%	429* (144) 19.8%	1110 (188) 53.9%	1587 (265) 22.5%	4656* (4899) 4.6%	128434* (38580) 24.0%	1944343 (296273) 64.3%	2077434 (309988) 56.8%
All	8926 (1062) 2.0%	9498 (740) 19.2%	5596 (361) 59.4%	24020 (1584) 4.8%	446588 (58428) 4.1%	2206578 (169630) 22.6%	9177178 (397735) 73.7%	11830343 (404244) 35.6%

*Standard error >25% of the estimate. The estimate may be unreliable.
 ...No facilities observed.

NOES QUESTIONNAIRE ITEM NO. 29
Occupational Health and Safety Specialists and Their Activities

Intent

The intent of this question was to determine the number of occupational health and safety specialists employed by industry and to describe their major duties.

This item was displayed on the questionnaire as:

29. How many full-time occupational health and safety specialists are employed at this facility?

- Safety (injuries)
- Health (illnesses)

For each of those individuals, please write in the appropriate activity number from the activity clusters listed below:

CLUSTER NO.

- | | |
|------------------|--|
| Individual #1 _ | 1: Administers (directs, manages) Plans and develops programs, Advises top level management. |
| Individual #2 _ | 2: Inspects work place to identify hazards. Investigates to determine the cause of injuries/illnesses. |
| Individual #3 _ | 3: Analyzes plans or specs. to identify hazards, develops operating procedures to control hazards. |
| Individual #4 _ | 4: Provides education and training |
| Individual #5 _ | 5: Performs and analyzes tests to monitor for the presence of dusts, gases, etc. |
| Individual #6 _ | 6: Performs engineering design to control hazards |
| Individual #7 _ | |
| Individual #8 _ | |
| Individual #9 _ | |
| Individual #10 _ | |
| Individual #11 _ | |
| Individual #12 _ | |

Notes

Occupational health and safety personnel were described in the text for questionnaire item number 28.

Persons included or excluded by these descriptions are also defined in the questionnaire item number 28 text.

The assignment of one of the activity cluster numbers to one or more of the individuals employed within a facility was based on agreement of that person's duties to the description given, and performance of task(s) outlined by the activity description for more than 50% of his or her working time.

Analysis

Three analyses of the responses to question 29 are presented.

(1) Response 29 - Estimated number of occupational health and safety specialists

Estimates of the number of occupational health and safety specialists employed in the NOES sampling frame are displayed in Figures IV-8, IV-9, and IV-10, and Tables IV-7 and IV-8.

Figure IV-8	Estimated number of occupational health and safety professionals employed in industry (by major industrial group)
Figure IV-9	Estimated number of occupational health and safety professionals employed in industry (by 2-digit SIC)
Figure IV-10	Estimated proportions of occupational health or safety personnel employed by plant size
Table IV-7	Estimated number of occupational health and safety specialists employed in industry (by major industrial group)
Table IV-8	Estimated number of occupational health and safety specialists employed in industry (by 2-digit SIC)

(2) Response 29 - Estimated number of occupational health or safety specialists employed per 10,000 workers

Estimates of the number of occupational health and safety specialists employed by industry for each 10,000 workers are displayed in Figures IV-11 and IV-12, and Tables IV-9 and IV-10.

Figure IV-11	Estimated number of occupational health or safety personnel employed per 10,000 workers (by major industrial group)
Figure IV-12	Estimated number of occupational health or safety personnel employed per 10,000 workers (by 2-digit SIC)
Table IV-9	Estimated number of occupational health and safety professionals employed per 10,000 workers (by major industrial group)
Table IV-10	Estimated number of occupational health and safety professionals employed per 10,000 workers (by 2-digit SIC)

(3) Response 29 (activities) - Major activities of occupational health and safety personnel

As displayed in the analysis of the responses to questionnaire item number 28, an estimated 4.8% of all industrial facilities (accounting for approximately 35% of the estimated workforce) in the NOES sample frame employ occupational health or safety personnel on-site.

Within this subset of the survey sample frame, Figure IV-13 displays the estimated proportions of plants and workers in plants by specific occupational health or safety activity. These activities are displayed proportionately, since more than one activity may occur in any facility.

Figure IV-13 Occupational safety and health activities in plants employing specialists by plants and workers

The estimated number of plants (in the subset discussed above) by health and safety activity are displayed in Tables IV-11 and IV-12. No attempt should be made to total across columns to arrive at an overall total since more than one activity may have occurred in one plant.

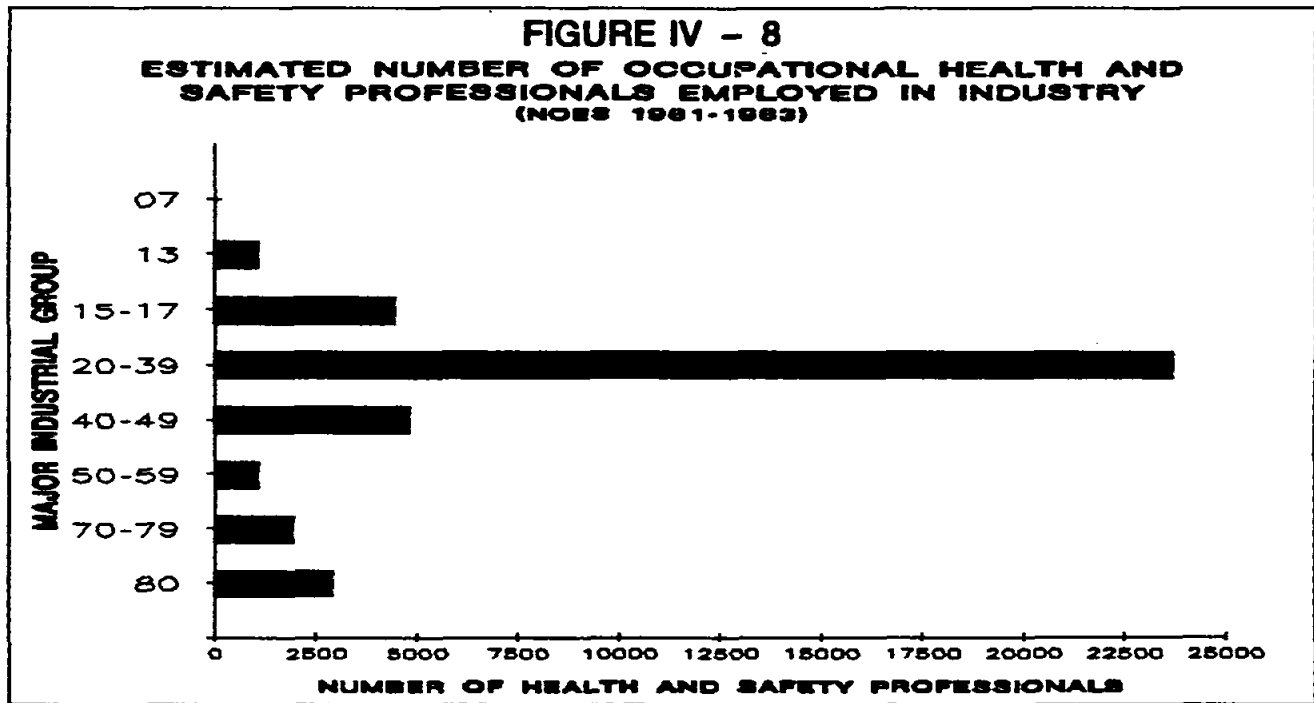
Table IV-11 Number and percent of plants by occupational health and safety activity (by major industrial group)

Table IV-12 Number and percent of plants by occupational health and safety activity (by 2-digit SIC)

The estimated number of workers in plants (again within the 35% of the workforce discussed above) by health and safety activity are displayed in Tables IV-13 and IV-14. The precaution against row totalling is also valid here.

Table IV-13 Number and percent of workers in plants by occupational health and safety activity (by major industrial group)

Table IV-14 Number and percent of workers in plants by occupational health and safety activity (by 2-digit SIC)



NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983) TABLE NO. IV-7

ESTIMATED NUMBER OF OCCUPATIONAL HEALTH AND SAFETY SPECIALISTS EMPLOYED IN INDUSTRY

MAJOR GROUP	HEALTH SPECIALISTS PLANT SIZE			TOTAL	SAFETY SPECIALISTS PLANT SIZE			TOTAL
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)		SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	
07	...	...	...	...	...	...	...	...
13	...	40* (3) 1.8%	...	40* (31) 0.5%	301* (180) 3.1%	730* (361) 6.3%	46* (52) 0.4%	1077* (342) 3.3%
15-17	16* (21) 1.4%	14* (16) 0.6%	35* (47) 0.7%	65* (65) 0.8%	3031 (572) 30.7%	1102* (355) 9.5%	293* (132) 2.7%	4426 (709) 13.7%
20-39	384* (214) 34.3%	1273* (349) 58.9%	3311 (356) 69.5%	4967 (588) 60.5%	3729 (819) 37.8%	6951 (850) 59.6%	8070 (726) 75.3%	18750 (1515) 58.2%
40-49	673* (511) 60.1%	294* (157) 13.6%	97* (48) 2.0%	1064* (479) 13.2%	1655* (759) 16.8%	1671* (462) 14.3%	468* (154) 4.4%	3795* (1054) 11.8%
50-59	...	63* (43) 2.9%	...	63* (43) 0.8%	694* (412) 7.0%	384* (167) 3.3%	...	1078* (346) 3.3%
70-79	...	253* (117) 11.7%	361* (262) 7.6%	614* (257) 7.6%	403* (174) 4.1%	363* (138) 3.1%	602* (323) 5.6%	1369* (396) 4.2%
80	48* (50) 4.3%	227* (119) 10.5%	959 (135) 20.1%	1233 (195) 15.3%	48* (50) 0.5%	454* (181) 3.9%	1237 (197) 11.5%	1738 (295) 5.4%
ALL	1120* (557) 100.0%	2163 (422) 100.0%	4763 (467) 100.0%	8047 (828) 100.0%	9862 (1345) 100.0%	11655 (1128) 100.0%	10716 (845) 100.0%	32233 (2095) 100.0%

*Standard error >25% of the estimate. The estimate may be unreliable.
...No facilities observed.

FIGURE IV-9
ESTIMATED NUMBER OF OCCUPATIONAL HEALTH AND
SAFETY PROFESSIONALS EMPLOYED IN INDUSTRY
 (NOES 1981-1983)

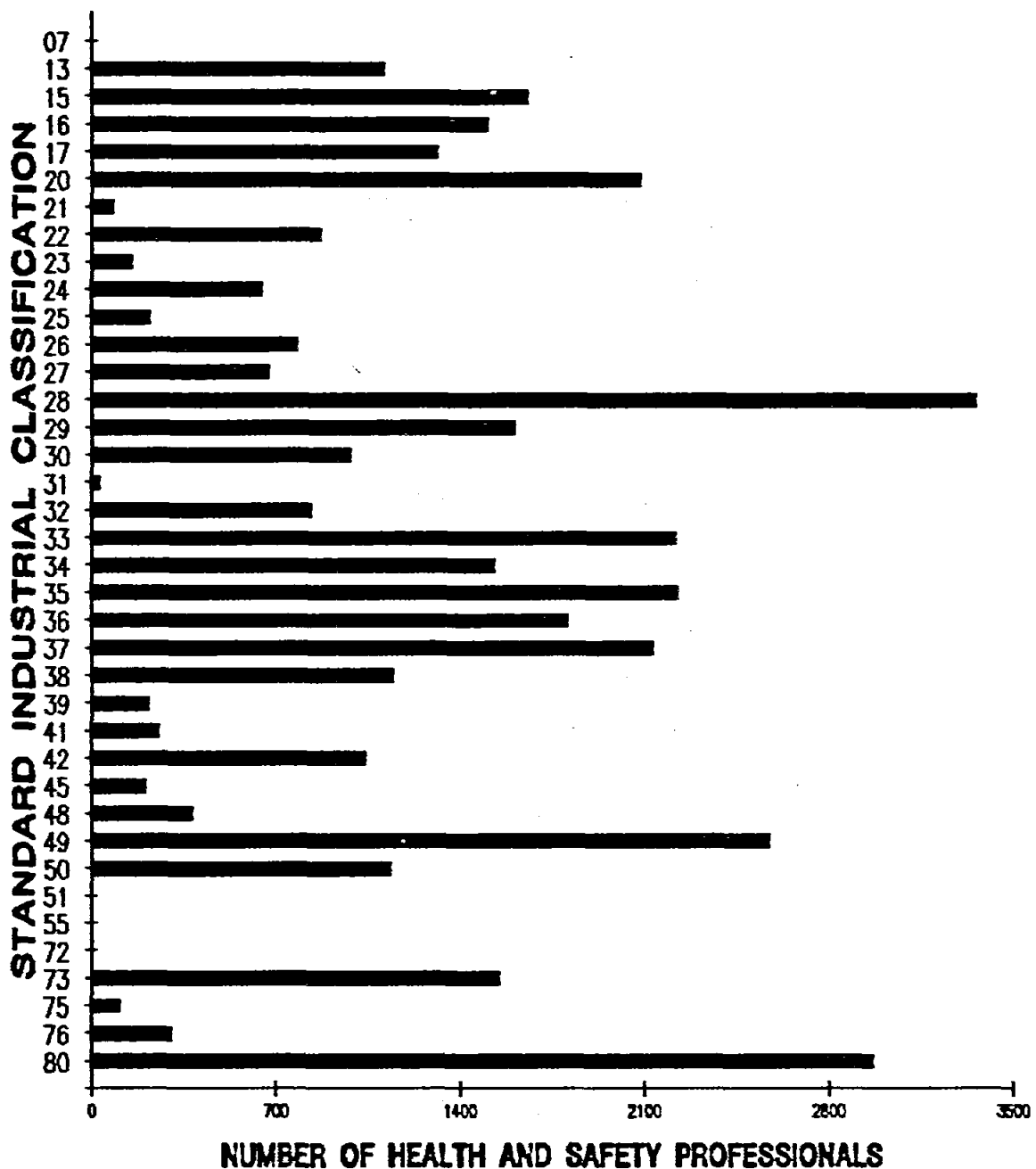
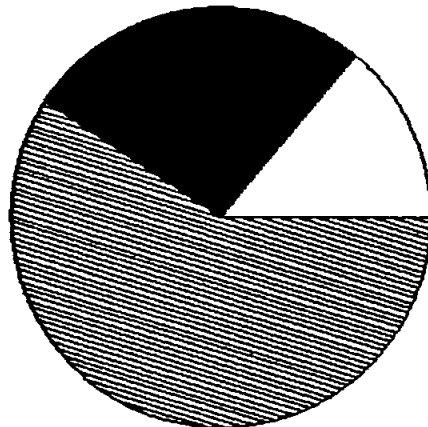


FIGURE IV-10
ESTIMATED PROPORTIONS OF OCCUPATIONAL HEALTH
OR SAFETY PERSONNEL EMPLOYED BY PLANT SIZE
(NOES 1981-1983)

MEDIUM PLANTS 26.9%

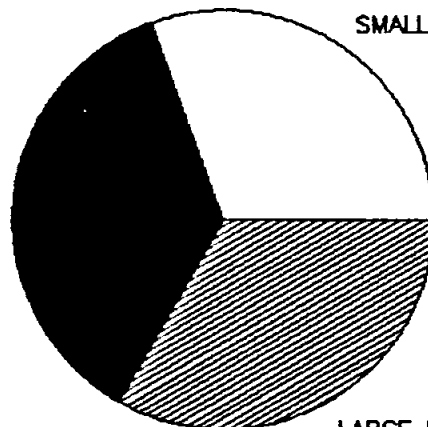


SMALL PLANTS 13.9%

LARGE PLANTS 59.2%

OCCUPATIONAL HEALTH

SMALL PLANTS 30.6%



MEDIUM PLANTS 36.2%

LARGE PLANTS 33.2%

OCCUPATIONAL SAFETY

NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983) TABLE NO. IV-8

ESTIMATED NUMBER OF OCCUPATIONAL HEALTH AND SAFETY SPECIALISTS EMPLOYED IN INDUSTRY

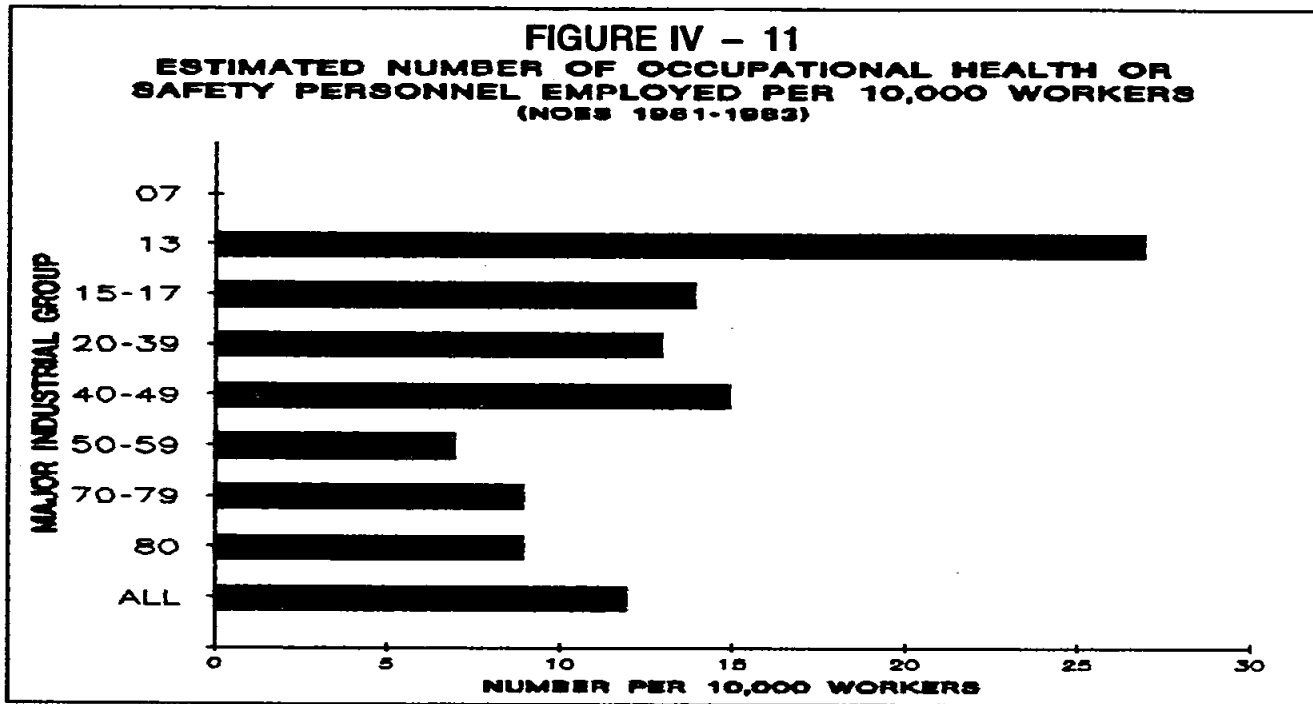
SIC CODE	HEALTH SPECIALISTS PLANT SIZE			TOTAL	SAFETY SPECIALISTS PLANT SIZE			TOTAL
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)		SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	
07
13	...	40* (31) 1.8%	...	40* (31) 0.5%	301* (180) 3.1%	730* (361) 6.5%	46* (52) 0.4%	1077* (342) 3.4%
15	...	14* (16) 0.6%	5* (5) 0.1%	19* (21) 0.2%	1136* (558) 11.5%	356* (277) 3.1%	154* (96) 1.4%	1645* (602) 5.2%
16	30* (46) 0.6%	30* (46) 0.4%	707* (329) 7.2%	633* (257) 5.6%	139* (70) 1.3%	1479* (374) 4.6%
17	16* (21) 1.4%	...	...	16* (21) 0.2%	1189* (431) 12.1%	114* (63) 1.0%	...	1302* (414) 4.1%
20	...	16* (21) 0.7%	72* (60) 1.5%	87* (64) 1.1%	749* (391) 7.6%	859* (291) 7.6%	391* (136) 3.7%	1999 (446) 6.3%
21	50* (54) 1.0%	50* (54) 0.6%	4* (6) .0%	...	36* (43) 0.3%	41* (39) 0.1%
22	...	175* (114) 8.1%	168* (181) 3.5%	343* (285) 4.3%	...	315* (125) 2.8%	219* (121) 2.0%	534* (210) 1.7%
23	11* (8) 0.2%	11* (8) 0.1%	49* (59) 0.5%	22* (26) 0.2%	74* (48) 0.7%	145* (87) 0.5%
24	90* (123) 8.0%	18* (17) 0.8%	...	108* (120) 1.3%	90* (123) 0.9%	412* (156) 3.6%	45* (19) 0.4%	546* (170) 1.7%
25	...	15* (29) 0.7%	18* (22) 0.4%	32* (37) 0.4%	...	63* (41) 0.6%	131* (74) 1.2%	194* (82) 0.6%
26	105* (102) 2.2%	105* (102) 1.3%	231* (115) 2.3%	141* (76) 1.2%	312* (114) 2.9%	684* (208) 2.1%
27	99* (80) 2.1%	99* (80) 1.2%	180* (133) 1.8%	270* (224) 2.4%	131* (41) 1.2%	580* (244) 1.8%
28	222* (159) 19.8%	484* (266) 22.4%	485* (201) 10.2%	1191* (304) 14.8%	246* (129) 2.5%	760* (211) 6.7%	1165* (414) 10.9%	2170* (565) 6.8%
29	...	26* (35) 1.2%	172* (177) 3.6%	198* (187) 2.5%	147* (174) 1.5%	445* (166) 3.9%	824* (582) 7.7%	1416* (651) 4.4%
30	109* (83) 2.3%	109* (83) 1.4%	213* (108) 2.2%	353* (147) 3.1%	317* (178) 3.0%	882* (275) 2.8%
31	36* (55) 0.3%	...	36* (55) 0.1%
32	...	70* (57) 3.2%	32* (106) 0.7%	102* (139) 1.3%	207* (83) 2.1%	363* (112) 3.2%	166* (110) 1.6%	737* (188) 2.3%
33	...	222* (183) 10.3%	390* (112) 8.2%	613* (210) 7.6%	289* (146) 2.9%	587* (186) 5.2%	735 (133) 6.9%	1610 (297) 5.1%

NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983)

TABLE NO. IV-8 (CONTINUED)

SIC CODE	HEALTH SPECIALISTS PLANT SIZE				SAFETY SPECIALISTS PLANT SIZE			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL
34	29* (40) 2.6%	51* (32) 2.4%	97* (65) 2.0%	177* (77) 2.2%	547* (268) 5.5%	508 (100) 4.5%	304* (97) 2.8%	1358 (328) 4.3%
35	...	110* (88) 5.1%	279* (76) 5.9%	389* (106) 4.8%	76* (61) 0.8%	819* (219) 7.2%	948 (146) 8.9%	1843 (281) 5.8%
36	44* (55) 3.9%	42* (27) 1.9%	302* (100) 6.3%	388* (124) 4.8%	102* (83) 1.0%	576* (167) 5.1%	747 (153) 7.0%	1424 (231) 4.5%
37	...	...	370 (90) 7.8%	370 (90) 4.8%	549* (276) 5.6%	224* (94) 2.0%	993 (114) 9.3%	1767 (321) 5.5%
38	...	43* (37) 2.0%	480* (378) 10.1%	523* (379) 6.5%	52* (56) 0.5%	120* (65) 1.1%	456* (169) 4.3%	628* (181) 2.0%
39	...	...	70* (68) 1.5%	70* (68) 0.9%	...	77* (104) 0.7%	76* (50) 0.7%	153* (116) 0.5%
41	...	...	...	...	...	264* (1821) 2.3%	...	264* (182) 0.8%
42	...	...	...	...	849* (499) 8.6%	180* (112) 1.6%	21* (16) 0.2%	1049* (534) 3.3%
45	...	...	15* (5) 0.3%	15* (5) 0.2%	...	118* (118) 1.0%	77* (31) 0.7%	195* (121) 0.6%
48	...	...	41* (44) 0.9%	41* (44) 0.5%	...	265* (155) 2.3%	80* (57) 0.7%	345* (170) 1.1%
49	673* (511) 60.1%	294* (157) 13.6%	41* (25) 0.9%	1008* (470) 12.5%	806* (553) 8.2%	508* (224) 4.5%	257* (142) 2.4%	1571* (619) 4.9%
50	...	63* (43) 2.9%	...	63* (43) 0.8%	694* (412) 7.0%	384* (167) 3.4%	...	1078* (346) 3.4%
51	...	...	...	...	...	...	...	...
55	...	...	...	...	...	...	...	...
72	...	...	...	...	...	...	...	...
73	...	180* (99) 8.3%	361* (262) 7.6%	542* (265) 6.7%	85* (104) .9%	327* (131) 2.9%	602* (323) 5.6%	1015* (370) 3.2%
75	...	...	...	...	114* (116) 1.2%	...	...	114* (116) 0.4%
76	...	72* (90) 3.3%	...	72* (90) 0.9%	204* (205) 2.1%	36* (45) 0.3%	...	240* (207) 0.8%
80	48* (50) 4.3%	227* (119) 10.5%	959 (135) 20.1%	1233 (195) 15.3%	48* (50) 0.5%	454* (181) 4.0%	1237 (197) 11.6%	1738 (295) 5.5%
ALL	1120* (564) 100.0%	2163 (478) 100.0%	4763 (452) 100.0%	8047 (803) 100.0%	9862 (1144) 100.0%	11317 (1068) 100.0%	10700 (899) 100.0%	31879 (1992) 100.0%

*Standard error >25% of the estimate. The estimate may be unreliable.
 ...No facilities observed.



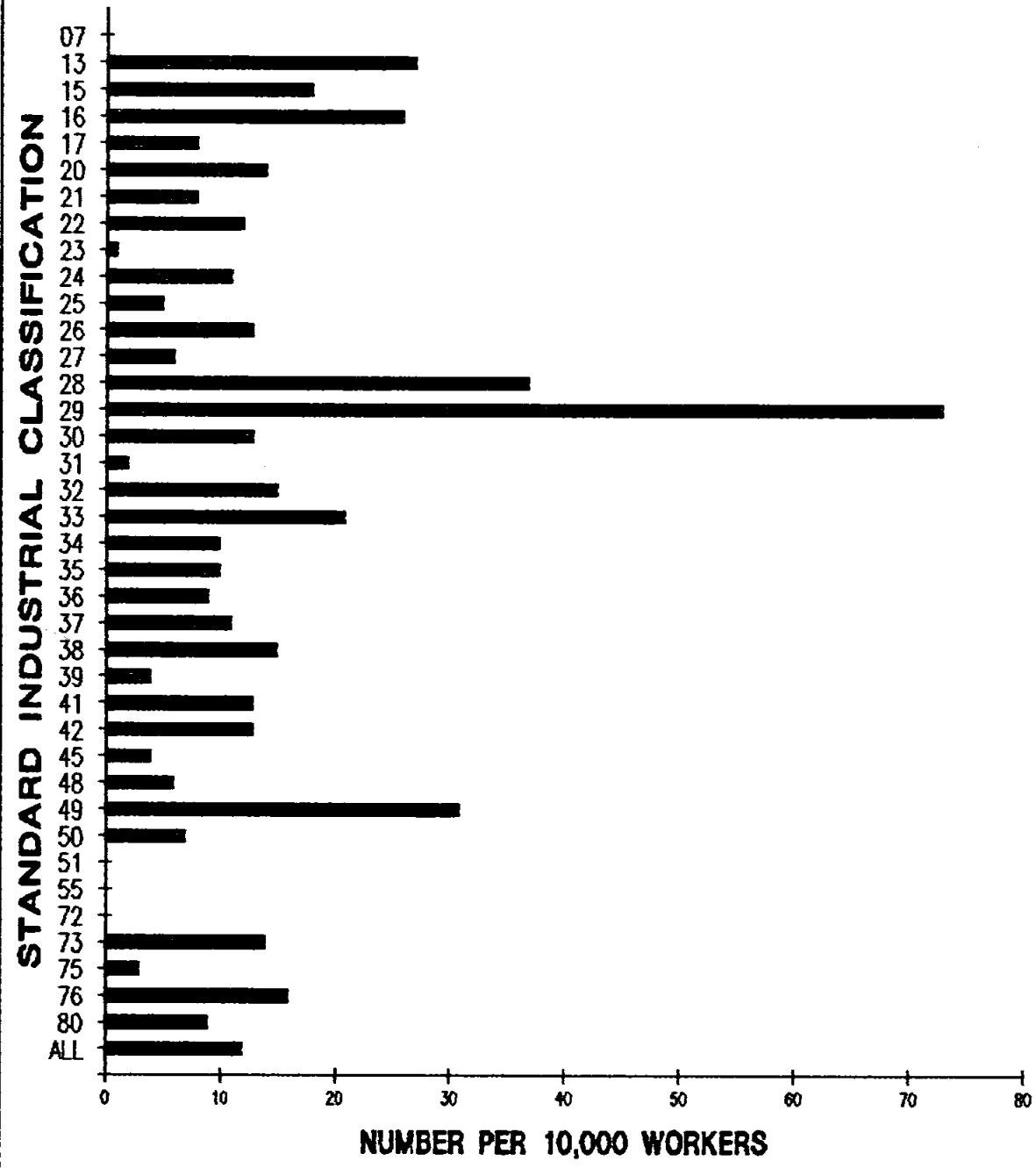
NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983) TABLE NO. IV-9

ESTIMATED NUMBER OF OCCUPATIONAL HEALTH AND SAFETY PROFESSIONALS EMPLOYED PER 10,000 WORKERS

MAJOR GROUP	OCCUPATIONAL HEALTH PROFESSIONALS				OCCUPATIONAL SAFETY PROFESSIONALS			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	ALL	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	ALL
07	...	...	...	...	...	...	...	...
13	...	2* (2)	...	1* (1)	14* (10)	42* (15)	15* (10)	26* (7)
15-17	<1	<1	1* (2)	<1	14 (3)	15* (6)	12 (2)	14 (2)
20-39	1* (≥.25)	2* (1)	4 (<.5)	3 (<.5)	8 (2)	11 (1)	10 (1)	10 (1)
40-49	5* (4)	3* (2)	2* (1)	3* (2)	12* (5)	15* (4)	8* (3)	12* (3)
50-59	...	2* (1)	...	<1	6* (4)	9* (5)	...	7* (2)
70-79	...	5* (2)	11* (5)	3* (1)	3* (1)	8* (3)	18* (7)	6* (2)
80	5* (6)	7* (3)	3 (<.5)	4 (1)	5* (6)	9* (3)	4 (<.5)	5 (1)
ALL	1* (1)	2 (1)	4 (<.5)	2 (<.5)	9 (1)	12 (1)	9 (1)	10 (1)

*Standard error >25% of the estimate. The estimate may be unreliable.
 ...No facilities observed.

FIGURE IV - 12
ESTIMATED NUMBER OF OCCUPATIONAL HEALTH OR
SAFETY PERSONNEL EMPLOYED PER 10,000 WORKERS
(NOES 1981-1983)



NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983) TABLE NO. IV-10

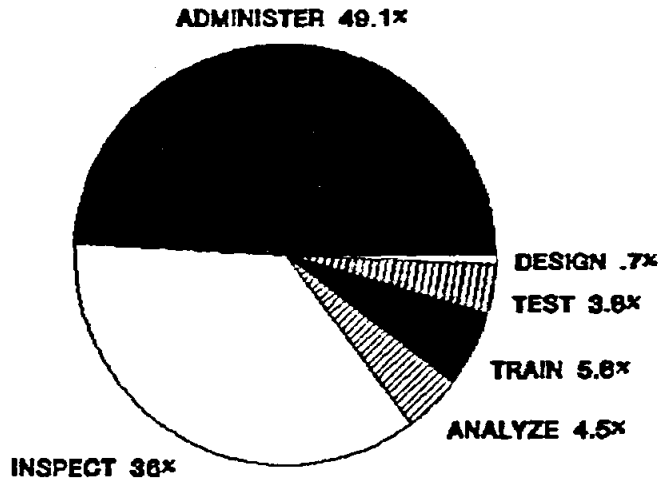
ESTIMATED NUMBER OF OCCUPATIONAL HEALTH AND SAFETY PROFESSIONALS EMPLOYED PER 10,000 WORKERS

SIC CODE	OCCUPATIONAL HEALTH PROFESSIONALS				OCCUPATIONAL SAFETY PROFESSIONALS			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	ALL	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	ALL
07
13	...	2* (2)	...	1* (1)	14* (10)	42* (15)	15* (10)	26* (7)
15	...	1* (1)	<1	<1	20* (10)	18* (16)	11 (3)	18* (6)
16	3* (4)	1* (1)	25* (9)	30* (12)	14 (2)	25* (7)
17	<1	...	...	<1	9* (3)	3* (2)	...	8* (3)
20	...	<1	1* (1)	1* (≥.25)	19* (10)	13* (4)	8* (2)	13 (3)
21	4* (8)	4* (7)	23* (70)	...	3* (7)	4* (7)
22	...	5* (3)	6* (7)	5* (4)	...	9* (4)	8* (4)	7* (3)
23	1* (1)	<1	1* (1)	<1	4* (2)	1* (1)
24	3* (4)	1* (1)	...	2* (2)	3* (4)	22* (8)	5* (10)	9* (3)
25	...	1* (1)	1* (2)	1* (1)	...	2* (2)	11 (2)	4* (1)
26	5* (4)	2* (1)	17* (8)	5* (2)	15 (3)	11* (3)
27	3* (2)	1* (1)	4* (3)	7* (6)	4 (1)	5* (2)
28	12* (9)	19* (10)	10* (3)	13* (3)	14* (7)	29* (7)	24 (5)	24 (5)
29	...	4* (6)	15* (7)	9* (5)	36* (45)	70 (7)	70* (25)	64 (16)
30	5* (3)	1* (1)	9* (5)	12* (4)	14* (5)	12* (3)
31	3* (5)	...	2* (4)
32	...	3* (3)	2* (9)	2* (2)	9* (4)	17* (5)	13* (12)	13* (3)
33	...	7* (6)	6 (1)	6* (2)	21* (11)	19* (6)	12 (1)	15 (2)

SIC CODE	OCCUPATIONAL HEALTH PROFESSIONALS				OCCUPATIONAL SAFETY PROFESSIONALS			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	ALL	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	ALL
34	1* (1)	1* (1)	3* (1)	1* (≥.25)	10* (5)	9 (2)	9 (1)	9 (2)
35	...	2* (1)	3* (1)	2* ($<.5$)	1* (1)	12* (3)	9 (1)	8 (1)
36	2* (2)	1* (≥.25)	3* (1)	2* (1)	4* (4)	10* (3)	6 (1)	7 (1)
37	...	...	2 (1)	2 ($<.5$)	43* (22)	9* (4)	7 (1)	9 (2)
38	...	2* (2)	10* (8)	7* (5)	5* (5)	6* (3)	10* (3)	8 (2)
39	...	...	3* (12)	1* (1)	...	5* (3)	4* (11)	3* (2)
41	...	...	...	...	...	32* (15)	...	13* (8)
42	...	...	...	...	17* (10)	7* (4)	3* (2)	13* (6)
45	...	...	1* (≥.25)	<1	...	11* (11)	3* (1)	4* (2)
48	...	...	6* (8)	1* (1)	...	15* (11)	11* (8)	5* (3)
49	25* (18)	7* (7)	3* (2)	12* (6)	30* (20)	12* (8)	18* (9)	19* (8)
50	...	2* (1)	...	<1	6* (4)	9* (5)	...	7* (2)
51	...	...	...	...	...	...	...	...
55	...	...	...	...	...	...	...	...
72	...	...	...	...	...	...	...	...
73	...	5* (3)	11* (5)	5* (2)	2* (2)	9* (4)	18* (7)	9* (3)
75	...	...	...	...	3* (3)	...	...	3* (3)
76	...	30* (25)	...	4* (4)	11* (11)	15* (12)	...	12* (10)
80	5* (6)	7* (3)	3 ($<.5$)	4 (1)	5* (6)	9* (3)	4 ($<.5$)	5 (1)
ALL	1* (1)	2 (1)	4 ($<.5$)	2 ($<.5$)	9 (1)	12 (1)	9 (1)	10 (1)

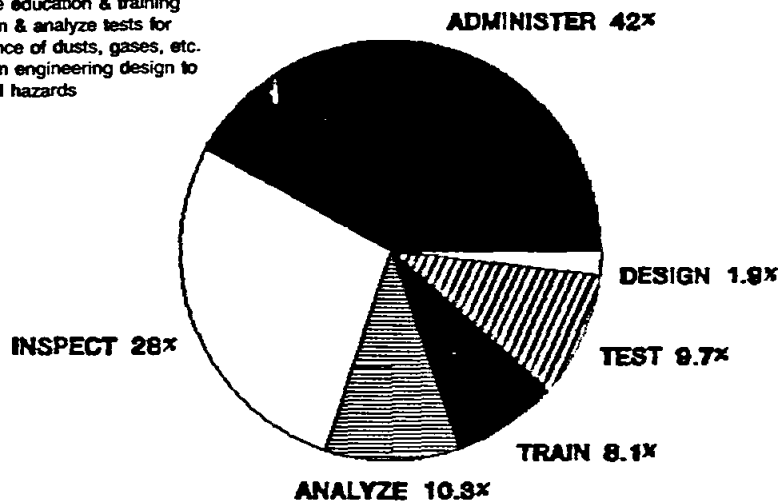
*Standard error >25% of the estimate. The estimate may be unreliable.
 ...No facilities observed.

FIGURE IV - 13
OCCUPATIONAL SAFETY AND HEALTH ACTIVITIES IN PLANTS
EMPLOYING SPECIALISTS BY PLANTS AND WORKERS
(NOES 1981-1983)



PLANTS

- LEGEND**
- ADMINISTER** • administer, plan & develop programs, advise management
 - INSPECT** • inspect workplace for hazards, investigate injury/illness causes
 - ANALYZE** • analyze plans to identify hazards, develop procedures for control
 - TRAIN** • provide education & training
 - TEST** • perform & analyze tests for presence of dusts, gases, etc.
 - DESIGN** • perform engineering design to control hazards



WORKERS

NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983) TABLE NO. IV-11

NUMBER AND PERCENT OF PLANTS BY OCCUPATIONAL HEALTH AND SAFETY ACTIVITY

MAJOR GROUP	ADMINISTER	INSPECT	ANALYZE	TRAIN	TEST	DESIGN
07	...	...	...	...	...	...
13	765* (247) 7.9%	192* (91) 2.0%	40* (31) .4%	...	...	...
15-17	1623 (344) 1.6%	2089* (567) 2.1%	78* (44) .1%	99* (69) .1%	44* (40) .0%	39* (39) .0%
20-39	9184 (836) 4.8%	5547 (597) 2.9%	983 (199) .5%	1022 (209) .5%	1024 (205) .5%	145* (47) .1%
40-49	2149* (763) 3.6%	1498* (631) 2.5%	86* (73) .1%	307* (107) .5%	10* (4) .0%	...
50-59	331* (202) .5%	724* (329) 1.2%	...	...	...	...
70-79	415* (121) .5%	462* (194) .6%	67* (49) .1%	240* (207) .3%	89* (59) .1%	7* (7) .0%
80	1070 (206) 15.1%	886 (190) 12.5%	178* (53) 2.5%	166* (48) 2.3%	51* (33) .7%	38* (20) .5%
ALL	15536 (1249) 3.1%	11398 (1125) 2.2%	1431 (230) .3%	1834 (324) .4%	1218 (220) .2%	230* (64) .0%

*Standard error >25% of the estimate. The estimate may be unreliable.
 ...No facilities observed.

NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983) TABLE NO. IV-12

NUMBER AND PERCENT OF PLANTS BY OCCUPATIONAL HEALTH AND SAFETY ACTIVITY

SIC CODE	ADMINISTER	INSPECT	ANALYZE	TRAIN	TEST	DESIGN
07	...	...	...	...	...	...
13	765* (247) 7.9%	192* (91) 2.0%	40* (31) .4%	...	...	...
15	494* (252) 1.9%	845* (416) 3.2%	12* (13) .0%	12* (13) .0%	5* (5) .0%	...
16	775* (199) 6.2%	449* (258) 3.6%	58* (43) .5%	87* (67) .7%	39* (39) .3%	39* (39) .3%
17	354* (189) .6%	795* (303) 1.3%	8* (10) .0%	...	...	...
20	1318* (404) 8.7%	401* (166) 2.6%	50* (31) .3%	192* (128) 1.3%	43* (62) .3%	...
21	12* (8) 10.8%	7* (11) 6.8%	...	3* (4) 3.0%	11* (11) 9.8%	...
22	318* (108) 6.6%	205* (127) 4.2%	...	26* (20) .5%	104* (97) 2.2%	...
23	98* (81) .6%	...	...	11* (8) .1%	47* (41) .3%	...
24	283* (134) 2.4%	150* (83) 1.3%	52* (48) .4%	...	...	...
25	148* (85) 2.8%	51* (35) 1.0%	...	11* (23) .2%	3* (4) .1%	...
26	316* (118) 5.4%	281* (120) 4.8%	7* (6) .1%	22* (25) .4%	33* (26) .6%	...
27	304* (133) 1.5%	117* (60) .6%	...	54* (40) .3%	4* (4) .0%	...
28	1023* (283) 13.3%	577 (85) 7.5%	144* (48) 1.9%	238* (108) 3.1%	120* (64) 1.6%	12* (6) .2%
29	414* (190) 29.5%	324* (118) 23.0%	31* (22) 2.2%	26* (35) 1.9%	7* (8) .5%	...
30	641* (183) 7.6%	180* (93) 2.1%	67* (59) .8%	80* (68) .9%	18* (34) .2%	3* (5) .0%
31	...	36* (55) 2.3%	...	...	...	...
32	307* (99) 3.1%	276* (144) 2.8%	49* (49) .5%	26* (39) .3%	128* (66) 1.3%	...
33	839 (178) 14.1%	402* (115) 6.8%	151* (66) 2.5%	16* (7) .3%	184* (111) 3.1%	49* (31) .8%

SIC CODE	ADMINISTER	INSPECT	ANALYZE	TRAIN	TEST	DESIGN
34	639 (133) 2.9%	637* (207) 2.9%	6* (8) .0%	...	...	31* (30) .1%
35	723 (153) 2.7%	693* (181) 2.6%	107* (92) .4%	49* (38) .2%	38* (14) .1%	11* (6) .0%
36	662 (159) 6.3%	524* (136) 5.0%	80* (38) .8%	119* (57) 1.1%	91* (30) .9%	25* (20) .2%
37	762* (268) 13.7%	409* (115) 7.3%	138* (84) 2.5%	59* (34) 1.1%	98* (33) 1.8%	14* (11) .3%
38	278* (93) 6.8%	252* (117) 6.2%	102* (76) 2.5%	80* (80) 2.0%	95* (79) 2.3%	...
39	99* (102) 1.3%	24* (39) .3%	...	10* (10) .1%	...	...
41	83* (125) 1.7%	...	...	180* (66) 3.7%	...	...
42	373* (169) 1.7%	395* (295) 1.8%	...	...	...	...
45	155* (115) 3.9%	30* (19) .8%	...	3* (4) .1%	6 (1) .2%	...
48	299* (158) 1.9%	3* (4) .0%	...	19* (16) .1%	3* (4) .0%	...
49	1181* (601) 11.5%	1015* (520) 9.9%	...	104* (77) 1.0%	...	...
50	331* (202) 1.0%	724* (329) 2.3%	...	...	...	...
51	...	...	...	...	...	...
55	...	...	...	...	...	...
72	...	...	...	...	...	...
73	378* (129) 2.1%	312* (154) 1.7%	67* (49) .4%	...	89* (59) .5%	7* (7) .0%
75	...	114* (116) .4%	...	...	...	...
76	36* (45) .4%	36* (45) .4%	...	240* (207) 2.4%	...	...
80	1070 (206) 15.1%	886 (190) 12.5%	178* (53) 2.5%	166* (48) 2.3%	51* (33) .7%	38* (20) .5%
All	15494 (1185) 3.1%	11344 (1087) 2.2%	1345 (251) .3%	1834 (257) .4%	1218 (239) .2%	230 (75) .0%

*Standard error >25% of the estimate. The estimate may be unreliable.
 ...No facilities observed.

NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983) TABLE NO. IV-13

NUMBER AND PERCENT OF WORKERS IN PLANTS BY
OCCUPATIONAL HEALTH AND SAFETY ACTIVITY

MAJOR GROUP	ADMINISTER	INSPECT	ANALYZE	TRAIN	TEST	DESIGN
07	...	...	...	...	...	...
13	143949* (60122) 34.7%	29473* (17190) 7.1%	15189* (11898) 3.7%	...	...	...
15-17	307609* (90998) 10.0%	194091* (49415) 6.3%	38239* (28830) 1.2%	34044* (25441) 1.1%	25650* (22479) .8%	5493* (5493) .2%
20-39	6744527 (263322) 35.0%	4524837 (231185) 23.5%	1937006 (252029) 10.1%	1417154 (110336) 7.4%	1924078 (205100) 10.0%	315496 (76253) 1.6%
40-49	668274 (144036) 21.1%	329914* (86387) 10.4%	12886* (11008) .4%	128440* (51922) 4.1%	66880* (26964) 2.1%	...
50-59	52413* (41826) 3.4%	46860 (11205) 3.1%	...	...	...	...
70-79	269868* (87722) 12.3%	224128* (97805) 10.2%	57158* (39064) 2.6%	20633* (17170) .9%	74069* (61667) 3.4%	28160* (30155) 1.3%
80	1558959 (297525) 42.6%	1160493 (265104) 31.7%	324791* (103706) 8.9%	289691* (84769) 7.9%	152390* (65600) 4.2%	97650* (47473) 2.7%
ALL	9745599 (447153) 29.2%	6509796 (378970) 19.5%	2385269 (277296) 7.1%	1889962 (151650) 5.7%	2243067 (226726) 6.7%	446800 (94909) 1.3%

*Standard error >25% of the estimate. The estimate may be unreliable.
...No facilities observed.

NUMBER AND PERCENT OF WORKERS IN PLANTS BY
OCCUPATIONAL HEALTH AND SAFETY ACTIVITY

SIC CODE	ADMINISTER	INSPECT	ANALYZE	TRAIN	TEST	DESIGN
07	...	...	...	...	...	...
13	143949* (60122) 34.7%	29473* (17190) 7.1%	15189* (11898) 3.7%	...	...	...
15	126308* (65553) 14.1%	76779* (20432) 8.6%	22497* (23969) 2.5%	22497* (23969) 2.5%	20157* (21701) 2.2%	...
16	130804* (42943) 22.1%	81964* (33021) 13.8%	15184* (16175) 2.6%	11547* (8829) 1.9%	5493* (5493) .9%	5493* (5493) .9%
17	50497* (20469) 3.2%	35348* (15665) 2.2%	557* (729) .0%	...	...	...
20	418845 (78906) 27.0%	121263* (42364) 7.8%	84025* (55927) 5.4%	57487* (38942) 3.7%	16299* (23480) 1.0%	...
21	16277* (23396) 14.3%	16019* (23625) 14.1%	...	25744* (28069) 22.6%	41763* (36135) 36.6%	...
22	183117* (75612) 25.6%	131428* (71166) 18.4%	...	51838* (46218) 7.3%	55658* (54892) 7.8%	...
23	54922* (41071) 4.4%	...	...	29565* (21706) 2.4%	47062* (40984) 3.8%	...
24	42721* (19539) 7.4%	53348* (25881) 9.2%	6303* (5828) 1.1%	...	...	...
25	125510* (59995) 24.2%	44538* (30525) 8.6%	...	12715* (26486) 2.5%	20917* (22806) 4.0%	...
26	209665* (66663) 33.5%	93340* (49645) 14.9%	7945* (7094) 1.3%	29057* (34062) 4.6%	69297* (50676) 11.1%	...
27	187084* (54350) 15.8%	27827* (17840) 2.3%	...	31835* (22817) 2.7%	20626* (18958) 1.7%	...
28	538479 (134008) 58.7%	379975 (81271) 41.4%	216742* (79880) 23.6%	166196* (83062) 18.1%	225562* (116294) 24.6%	50146* (19444) 5.5%
29	164461* (80738) 74.2%	147885* (72192) 66.7%	30989* (21236) 14.0%	4750* (6386) 2.1%	25411* (31007) 11.5%	...
30	263899* (85798) 35.0%	106363* (64510) 14.1%	79175* (63124) 10.5%	75768* (67114) 10.1%	8859* (20524) 1.2%	2952* (5934) .4%
31	...	6307* (9640) 3.6%	...	...	...	...
32	97223* (43173) 16.9%	54490* (26025) 9.5%	2214* (2214) .4%	16610* (32581) 2.9%	47828* (26047) 8.3%	...
33	698093 (80430) 65.2%	503115 (73329) 47.0%	197651 (68752) 18.5%	69080* (28155) 6.4%	118764* (29946) 11.1%	79942* (45324) 7.5%

SIC CODE	ADMINISTER	INSPECT	ANALYZE	TRAIN	TEST	DESIGN
34	279693* (95256) 18.6%	248961* (110642) 16.6%	13819* (18588) .9%	...	...	4582* (4544) .3%
35	746622 (138650) 31.4%	601187 (125790) 25.3%	142692* (47928) 6.0%	114128* (75427) 4.8%	176449* (61063) 7.4%	35106* (9668) 1.5%
36	893808 (159889) 45.5%	557661 (136973) 28.4%	322170* (126157) 16.4%	274560* (77699) 14.0%	299703* (102885) 15.2%	44306* (27707) 2.3%
37	1464840 (247214) 77.9%	1204026 (172157) 64.0%	642028 (149098) 34.1%	322720* (173560) 17.2%	564821 (122827) 30.0%	98462* (44623) 5.2%
38	298671* (110395) 39.3%	205623* (111974) 27.1%	191254* (118169) 25.2%	115634* (115634) 15.2%	185058* (120050) 24.4%	...
39	60597* (40830) 11.5%	21479* (19540) 4.1%	...	19466* (18968) 3.7%	...	...
41	22938* (34259) 11.5%	...	...	34456* (26114) 17.3%	...	...
42	72749* (45942) 8.9%	28570* (22954) 3.5%	...	...	...	...
45	189673* (79288) 42.0%	85156* (54685) 18.9%	...	13752* (14653) 3.0%	53654* (37992) 11.9%	...
48	114585* (51978) 17.0%	13226* (14092) 2.0%	...	37029* (29526) 5.5%	13226* (14092) 2.0%	...
49	238540* (88745) 28.4%	183553* (57433) 21.8%	...	43203* (32582) 5.1%	...	...
50	52413* (41826) 5.7%	46860 (11205) 5.1%	...	...	...	...
51	...	...	...	...	...	...
55	...	...	...	...	...	...
72	...	...	...	...	...	...
73	257195* (90859) 23.4%	206447* (100042) 18.8%	57158* (39064) 5.2%	...	74069* (61667) 6.7%	28160* (30155) 2.6%
75	...	5008* (5094) 1.2%	...	...	...	...
76	12672* (15755) 6.2%	12672* (15755) 6.2%	...	20633* (17170) 10.2%	...	...
80	1558959 (297525) 42.6%	1160493 (265104) 31.7%	324791* (103706) 8.9%	289691* (84769) 7.9%	152390* (65600) 4.2%	97650* (47473) 2.7%
All	9724815 (411276) 29.2%	6490387 (326025) 19.5%	2372383 (291391) 7.1%	1889962 (177851) 5.7%	2243067 (226115) 6.7%	446800 (84208) 1.3%

*Standard error >25% of the estimate. The estimate may be unreliable.
...No facilities observed.

NOES QUESTIONNAIRE ITEM NO. 30
Use of Industrial Hygiene Consultation Services

Intent

The intent of this question was to determine whether a facility received industrial hygiene consulting services from an outside source during the previous year.

This item was displayed on the questionnaire as:

30. Has your facility received industrial hygiene services on a consulting basis during the past 12 months?

- 1 Yes, from government sources
- 2 Yes, from non-government sources
- 3 No

Notes

Industrial hygiene consulting service from an outside source is defined as the provision of advice, consultation, or service obtained from persons not employed by the facility which were provided for reasons other than enforcement of regulatory health standards.

Consultations or visits by federal, state or local officials, by corporate headquarters personnel, or by insurance company specialists were acceptable if the intent was to provide industrial hygiene services and not to enforce legal regulatory standards.

All consultations not conducted on behalf of the facility or corporate management, such as regulatory visits or union-initiated studies, were excluded.

Analysis

Two analyses of the responses to question 30 are presented.

- (1) Responses 30.1 and 30.2 - Industrial hygiene consultations received from government and non-government sources

The estimates of the plants which have received industrial hygiene consultations during the preceding year from government or non-government sources, and workers in those plants (by number and proportion of the total) are displayed in Figures IV-14 and IV-15, and Tables IV-15 and IV-16.

Figure IV-14	Industrial hygiene consultation in last year (by major industrial group)
Figure IV-15	Industrial hygiene consultation in last year (by 2-digit SIC)
Table IV-15	Number and percent of plants and employees in plants which received industrial hygiene consultation during the past year (by major industrial group)

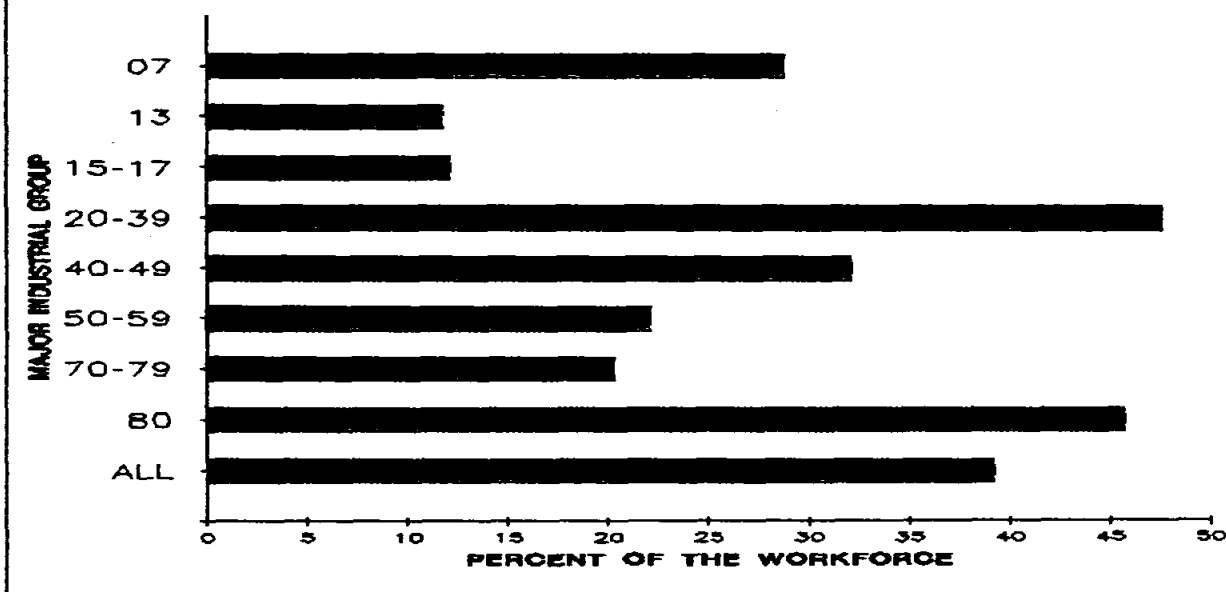
Table IV-16 **Number and percent of plants and employees in plants which received industrial hygiene consultation during the past year (by 2-digit SIC)**

- (2) Responses 30.1, 30.2 or 30.3 - Plants receiving industrial hygiene consultation in the past year from government or non-government sources, or not receiving industrial hygiene consultation.

The estimates of the proportion of plants (by size category) which received industrial hygiene consultations in the past year from government sources (GOV'T), non-government sources (NON-GOV'T), or which did not receive such consultation (NONE) are displayed in Figure IV-16.

Figure IV-16 **Plants receiving industrial hygiene consultation by source**

FIGURE IV - 14
INDUSTRIAL HYGIENE CONSULTATION IN LAST YEAR
(NOES 1981-1983)



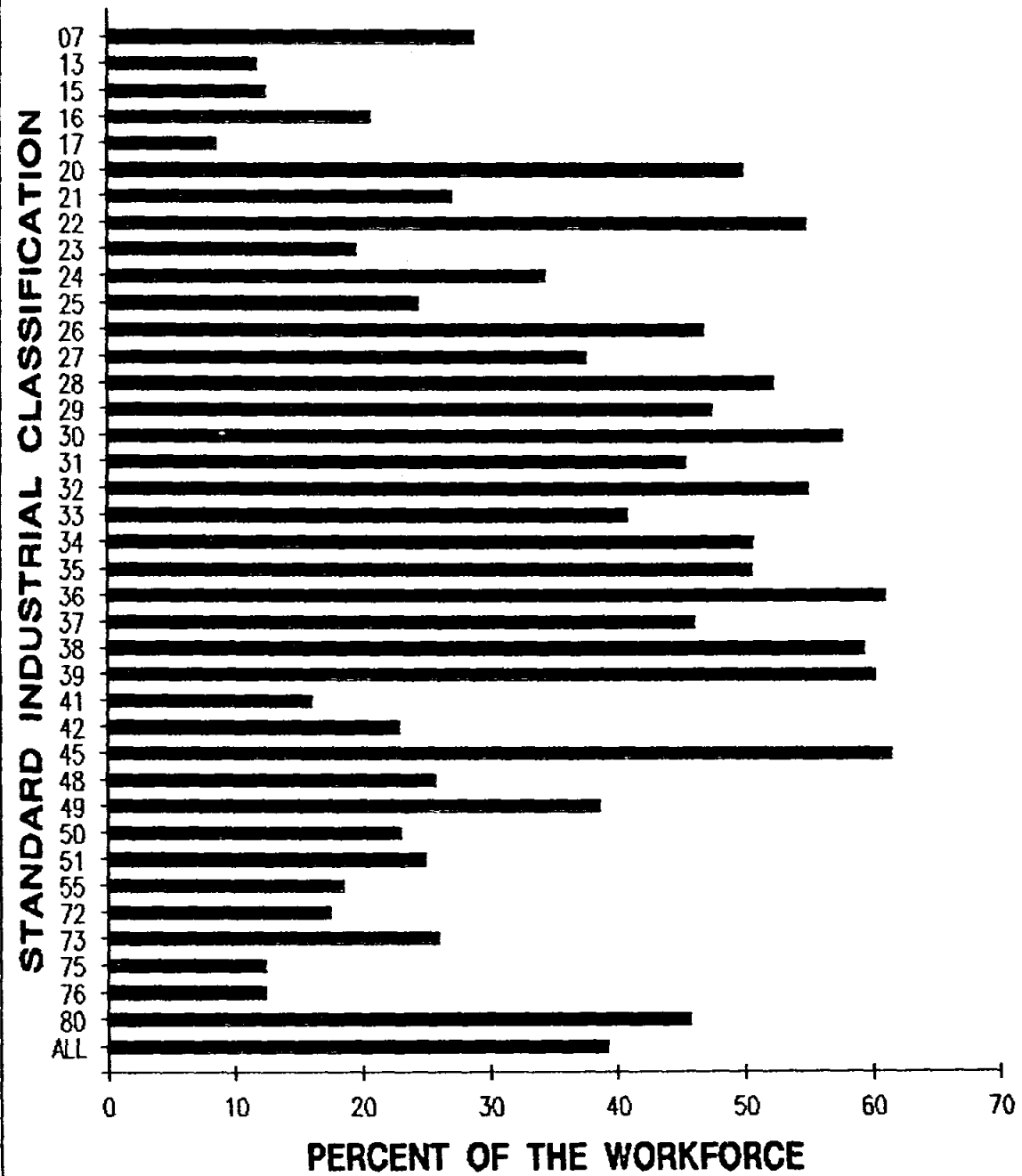
NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983) TABLE NO. IV-15

NUMBER AND PERCENT OF PLANTS AND EMPLOYEES IN PLANTS WHICH
 RECEIVED INDUSTRIAL HYGIENE CONSULTATION DURING THE PAST YEAR

MAJOR GROUP	PLANTS			TOTAL	EMPLOYEES			TOTAL
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)		SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	
07	1179* (563) 21.2%	70* (67) 100.0%	...	1249* (553) 22.2%	24945* (14547) 24.1%	7009* (6680) 100.0%	...	31954* (15011) 28.9%
13	991* (558) 11.5%	214* (171) 21.0%	...	1204* (562) 12.5%	14324* (7654) 6.9%	35006* (21376) 20.1%	...	49330* (21576) 11.9%
15-17	6281 (1281) 6.7%	742* (195) 17.9%	37* (30) 15.3%	7059 (1278) 7.2%	173611 (35232) 8.3%	154663* (44206) 21.0%	46664* (24085) 19.8%	374939 (56345) 12.2%
20-39	29787 (1917) 19.4%	15847 (1335) 49.9%	3885 (330) 62.0%	49519 (2272) 25.9%	1192697 (60376) 25.8%	3298352 (286684) 51.7%	4687730 (346159) 56.7%	9178779 (441335) 47.7%
40-49	7543 (1752) 14.2%	1961* (544) 33.6%	268* (99) 57.2%	9772 (1525) 16.4%	245617 (54098) 17.1%	383527 (91116) 33.3%	389043 (93838) 67.8%	1018188 (126748) 32.2%
50-59	7897 (1529) 13.5%	878* (339) 33.0%	...	8776 (1437) 14.4%	194056 (41478) 17.3%	146499* (57044) 35.8%	...	340556 (62785) 22.2%
70-79	6349* (1958) 8.7%	653 (153) 27.9%	105* (56) 29.7%	7108* (1965) 9.4%	171537* (51937) 12.3%	148517 (36912) 32.0%	128798* (58406) 37.9%	448852 (85238) 20.4%
80	869* (447) 30.6%	1031 (198) 47.6%	1023 (181) 49.6%	2922 (491) 41.4%	38448* (17992) 37.8%	251948 (49374) 47.1%	1383656 (201449) 45.8%	1674052 (192353) 45.8%
ALL	60895 (3923) 13.6%	21397 (1526) 42.8%	5318 (394) 56.3%	87610 (3989) 17.2%	2055236 (113248) 18.5%	4425522 (316227) 44.9%	6635891 (416179) 53.2%	13116649 (512752) 39.3%

*Standard error >25% of the estimate. The estimate may be unreliable.
 ...No facilities observed.

FIGURE IV - 15
INDUSTRIAL HYGIENE CONSULTATION IN LAST YEAR
(NOES 1981-1983)



NUMBER AND PERCENT OF PLANTS AND EMPLOYEES IN PLANTS WHICH RECEIVED INDUSTRIAL HYGIENE CONSULTATION DURING THE PAST YEAR

SIC CODE	PLANTS			TOTAL	EMPLOYEES			TOTAL
	SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)		SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)	
07	1179* (563) 21.2%	70* (67) 100.0%	...	1249* (553) 22.2%	24945* (14547) 24.1%	7009* (6680) 100.0%	...	31954* (15011) 28.9%
13	991* (558) 11.5%	214* (171) 21.0%	...	1204* (562) 12.5%	14324* (7654) 6.9%	35006* (21376) 20.1%	...	49330* (21576) 11.9%
15	1429* (553) 5.7%	167* (84) 15.1%	20* (18) 14.7%	1616* (539) 6.2%	49434* (17794) 8.8%	37900* (23840) 19.1%	25647* (18373) 19.0%	112981* (31712) 12.6%
16	1424* (435) 12.6%	339* (189) 30.3%	17* (28) 15.9%	1780* (542) 14.2%	43652* (14416) 15.4%	58573* (38147) 28.2%	21017* (21480) 20.8%	123241* (49050) 20.8%
17	3428* (981) 5.9%	236* (144) 12.3%	...	3664* (1020) 6.1%	80525* (21288) 6.4%	58191* (33125) 17.6%	...	138716* (44002) 8.8%
20	3283 (648) 28.8%	1849 (303) 57.5%	272* (99) 48.6%	5404 (781) 35.6%	122972 (19568) 31.7%	429923 (74103) 63.8%	224301* (66896) 45.6%	777197 (78024) 50.0%
21	30* (43) 100.0%	...	10* (19) 12.2%	40* (45) 36.6%	1866* (2685) 100.0%	...	29132* (29367) 26.0%	30998* (28820) 27.2%
22	186* (100) 6.4%	877 (169) 55.2%	203* (69) 68.0%	1267 (169) 26.3%	8092* (5323) 7.6%	198415 (41864) 57.2%	186252* (78950) 71.3%	392759 (73153) 55.0%
23	1501* (557) 12.0%	830 (190) 26.7%	73* (47) 30.3%	2404 (558) 15.2%	53894* (14487) 12.7%	146667* (44058) 24.0%	44124* (30217) 21.2%	244685 (44375) 19.7%
24	1743 (427) 16.3%	641* (207) 55.9%	7* (8) 6.6%	2391 (433) 20.0%	92706 (22911) 30.5%	98845* (30001) 53.8%	8146* (9007) 8.8%	199697 (42801) 34.5%
25	750* (379) 18.0%	280* (195) 26.3%	29* (25) 24.0%	1058* (453) 19.8%	28824* (13259) 20.7%	70777* (50190) 27.6%	28020* (27305) 22.8%	127622* (59002) 24.6%
26	997* (354) 24.2%	768* (216) 48.9%	107* (60) 49.9%	1872 (346) 31.7%	56004* (17375) 40.7%	154660* (42428) 54.9%	83804* (44248) 40.5%	294468 (66790) 47.0%
27	2756 (578) 15.2%	582* (187) 31.1%	185* (88) 58.4%	3523 (662) 17.3%	108428 (19102) 22.7%	145567* (48992) 40.3%	192719* (64317) 55.7%	446715 (97647) 37.7%
28	1963 (393) 31.8%	684 (149) 58.9%	239* (96) 62.8%	2885 (404) 37.4%	67526 (11457) 37.4%	135169* (39629) 51.8%	278183* (135524) 58.4%	480878* (132688) 52.4%
29	...	230* (122) 78.3%	38* (23) 37.4%	267* (129) 19.0%	...	49143* (19726) 77.7%	56400* (35813) 48.0%	105543* (46416) 47.6%
30	2448 (587) 36.5%	795 (173) 51.7%	180* (75) 80.6%	3424 (652) 40.4%	88350 (16079) 39.3%	169731* (42735) 57.6%	177483* (72539) 76.0%	435564 (81591) 57.8%
31	320* (207) 34.4%	298* (118) 52.4%	3* (10) 14.0%	622* (274) 40.8%	9466* (5547) 38.0%	66556* (27345) 49.1%	4015* (11440) 25.6%	80036* (31675) 45.5%
32	2142* (594) 24.3%	599 (123) 59.2%	136* (66) 74.1%	2878 (604) 28.8%	88628 (20101) 37.4%	139261 (34195) 66.6%	89560* (41865) 69.4%	317449 (48912) 55.2%
33	1174 (289) 28.4%	755* (205) 51.4%	148* (44) 43.9%	2077 (369) 35.0%	51350 (12153) 37.1%	167263 (35233) 53.8%	220042* (73742) 35.4%	438656 (83176) 41.0%

SIC CODE	PLANTS				EMPLOYEES			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)	TOTAL	SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)	TOTAL
34	3668 (507) 19.8%	1698 (192) 54.4%	268* (80) 77.4%	5634 (547) 25.6%	154906 (18845) 27.9%	351244 (41104) 58.9%	257238* (89349) 73.3%	763389 (102783) 50.8%
35	2800 (540) 12.4%	1839 (226) 54.0%	525 (68) 67.0%	5165 (582) 19.2%	118736 (19581) 19.6%	357136 (45432) 54.0%	730906 (119656) 65.7%	1206778 (126591) 50.7%
36	1750* (496) 24.6%	1452 (233) 54.1%	577* (152) 73.3%	3779 (638) 35.7%	70192 (14340) 30.5%	292194 (58439) 52.9%	838144 (166852) 70.9%	1200530 (195731) 61.1%
37	611* (343) 15.4%	755 (179) 63.4%	221 (54) 53.2%	1587* (398) 28.4%	14482* (7118) 11.4%	151964 (35098) 63.5%	701364 (108444) 46.3%	867809 (98848) 46.2%
38	303* (203) 11.3%	498* (158) 52.0%	337* (129) 80.9%	1138* (300) 28.0%	11513* (6321) 11.0%	92310* (32898) 47.5%	347992* (116370) 75.6%	451815* (121184) 59.5%
39	1361* (359) 20.8%	418* (768) 52.3%	328* (217) 97.0%	2106* (835) 27.4%	44760* (11705) 27.0%	81528* (141727) 54.6%	189904* (119941) 90.7%	316191* (137676) 60.3%
41	264* (235) 6.0%	83* (125) 16.4%	...	347* (282) 7.0%	9094* (7421) 7.7%	22938* (34259) 28.1%	...	32032* (35913) 16.1%
42	3043* (976) 15.2%	420* (174) 28.3%	30* (27) 36.1%	3493* (956) 16.2%	96343* (24455) 19.8%	69091* (24064) 26.7%	23769* (21599) 31.8%	189204 (36906) 23.0%
45	646* (336) 19.9%	341* (305) 57.7%	131* (58) 89.2%	1118* (445) 28.1%	17816* (12088) 23.0%	45987* (41201) 42.1%	214189* (78978) 81.1%	277992* (86300) 61.6%
48	1843* (1064) 12.5%	341* (198) 37.8%	18* (13) 52.4%	2202* (1059) 14.1%	70014* (47356) 16.4%	58101* (32155) 33.0%	46280* (33466) 66.0%	174395* (62830) 25.9%
49	1109* (624) 13.5%	749* (292) 40.2%	89* (74) 51.5%	1947* (665) 19.0%	40838* (22603) 15.2%	179780* (71844) 42.3%	104805* (55062) 71.5%	325423* (98112) 38.7%
50	3317* (1152) 10.9%	642* (251) 35.6%	...	3959* (1173) 12.3%	91831* (32782) 14.6%	119487* (52238) 42.2%	...	211317* (62816) 23.1%
51	1380* (642) 15.1%	237* (237) 100.0%	...	1617* (740) 17.3%	26202* (11523) 14.2%	27013* (27013) 100.0%	...	53214* (32915) 25.1%
55	3200* (1191) 16.9%	...	...	3200* (1191) 16.4%	76024* (31625) 24.6%	...	...	76024* (31625) 18.1%
72	1552* (674) 7.5%	167* (90) 24.8%	13* (19) 100.0%	1733* (655) 8.1%	48429* (21089) 12.7%	24271* (15228) 29.5%	10670* (15114) 100.0%	83370* (27737) 17.6%
73	1320* (737) 8.0%	450* (123) 30.2%	92* (43) 26.9%	1862* (787) 10.1%	57491* (30853) 13.6%	111574* (29787) 31.9%	118127* (51883) 35.9%	287192 (68605) 26.1%
75	2613* (1214) 10.0%	...	...	2613* (1214) 10.0%	52842* (23998) 12.8%	...	...	52842* (23998) 12.5%
76	864* (747) 8.9%	36* (45) 29.4%	...	900* (751) 9.1%	12775* (10479) 7.2%	12672* (15755) 52.1%	...	25448* (19413) 12.5%
80	869* (447) 30.6%	1031 (198) 47.6%	1023 (181) 49.6%	2922 (491) 41.4%	38448* (17992) 37.8%	251948 (49374) 47.1%	1383656 (201449) 45.8%	1674052 (192353) 45.8%
A11	60258 (4615) 13.5%	21369 (1026) 43.1%	5318 (315) 56.4%	86945 (4970) 17.2%	2043724 (139903) 18.5%	4417891 (202660) 45.2%	6635891 (399517) 53.3%	13097506 (496514) 39.4%

*Standard error >25% of the estimate. The estimate may be unreliable.
 ...No facilities observed.

FIGURE IV - 16
PLANTS RECEIVING INDUSTRIAL HYGIENE
CONSULTATION BY SOURCE
(NOES 1981-1983)

