

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

Section I - Survey Background and Explanation

- Sampling Strategy
- Survey Data and Analysis
- Presentation of Survey Results
- National Estimates

A. Sampling Strategy

The 1981-1983 National Occupational Exposure Survey (NOES) consisted of on-site observational surveys in a sample of 4,490 establishments which had been selected to represent most sectors of the American workforce covered by the Occupational Safety and Health Act of 1970. Only those establishments performing business, service, or industrial activities included in a specific set of Standard Industrial Classification (SIC) codes ¹ were eligible to be included in the NOES.

Codes for the Major Industrial Groups (MIG) included in the NOES are shown in Table 1, and the 2-digit Standard Industrial Classification (SIC) codes selected within each of the MIG codes are shown in Table 2. Descriptions of the activity in each of these classifications are found in Appendices A and B.

The target population for the NOES was thus defined as those establishments or job sites located in the 50 states, employing eight or more, and with a business or service activity defined as one of the target industrial groups listed in Appendices A and B.

Only those establishments in the target industrial groups with eight or more employees were considered to be in-scope in the NOES to maintain comparability with the earlier National Occupational Hazard Survey ² (NOHS) and because accurately surveying establishments with less than eight employees would have greatly enlarged the survey sample while contributing little to coverage of the worker population.

The target population excluded establishments engaged in agricultural production, any mining activity except oil and gas extraction, railroad transportation, private households, finance institutions, and all Federal, State and municipal government facilities.

TABLE 1. MAJOR INDUSTRIAL GROUPS IN THE NOES

Code	Description	Code	Description
07	Agricultural Services	40-49	Transportation
13	Oil and Gas Extraction	50-59	Wholesale/Retail Trade
15-17	Construction	70-79	Services
20-39	Manufacturing	80	Health Services

The NOES used a two-stage sampling strategy for most of the sample. The first stage involved the selection of a defined group of counties comprising the geographical or Primary Sampling Units (PSUs) for the NOES. The second stage, selection of facilities to be surveyed, was done using a systematic procedure within the chosen PSUs.

TABLE 2. STANDARD INDUSTRIAL CLASSIFICATIONS IN THE NOES

Code	Description	Code	Description
07	Agricultural Services	35	Machinery, Except Electrical
13	Oil and Gas Extraction	36	Electrical & Electronic Machinery
15	General Building Contractors	37	Transportation Equipment
16	Construction Other than Building	38	Measuring, Analyzing & Control Instruments
17	Special Trade Contractors	39	Miscellaneous Manufacturing
20	Food and Kindred Products	41	Local & Suburban Transit
21	Tobacco Manufacturers	42	Freight Transportation & Warehousing
22	Textile Mill Products	43	Water Transportation
23	Apparel and Other Finished Products	45	Transportation by Air
24	Lumber and Wood Products Except Furniture	48	Communication
25	Furniture and Fixtures	49	Electric, Gas, & Sanitary Services
26	Paper and Allied Products	50	Wholesale Trade, Durable Goods
27	Printing and Publishing	51	Wholesale Trade, Non-Durable Goods
28	Chemicals and Allied Products	55	Automotive Dealers and Gas Stations
29	Petroleum Refining	72	Personal Services
30	Rubber and Miscellaneous Plastic Products	73	Business Services
31	Leather and Leather Products	75	Automotive Services
32	Stone, Clay, Glass, & Concrete Products	76	Miscellaneous Repair Services
33	Primary Metal Industries	80	Health Services
34	Fabricated Metal Products, etc. Machinery and Transportation Equipment		

Very large establishments (2,500 or more employees) were sampled separately in order to maintain more nearly equal probabilities of selection for all facilities in this size category.

First stage selection of geographical areas was accomplished by random selection from strata defined by geography, number of employees, and concentration of establishments in the target population. Second stage selection of establishments employed systematic sampling from a list of establishments ordered by number of employees and Standard Industrial Classification (SIC). The second stage sample was enlarged by 25 percent, and establishments in this enlarged sample were screened by telephone to determine eligibility for inclusion in the survey.

A list of the 4-digit Standard Industrial Classifications of the 4,490 establishments for which surveys were completed in the NOES is shown in Appendix C. The sampling plan is described in more detail in National Occupational Exposure Survey Sampling Methodology³ and in Appendix D.

B. Survey Data and Analysis

1. Survey Data

The NOES surveyor's manual, National Occupational Exposure Survey Guidelines⁴, was prepared to provide standardized procedures to the personnel participating in the actual field collection of data and as documentation of the interpretations and guidelines under which the survey was conducted. While some portions of that volume, particularly the text dealing with the question intent and interpretation, are present in abbreviated form in this report, the reader is referred to the field guidelines for a complete explanation of the guidelines for the 1981-1983 field phase of the survey.

A complete copy of the 66-question National Occupational Exposure Survey (NOES) Management Interview questionnaire is presented in Appendix E. The administration of the questionnaire, and the resultant collection and analysis of data constituted Part I of the NOES, which is the subject of this volume. Part II consists of occupational exposure data collection and analysis, which will be the subject of future publications.

2. Data Editing and Verification

Part I questionnaire forms received from the field were logged and subjected to a multi-stage evaluation process prior to data entry into a mainframe computer system. Initial receipt of the forms involved manual comparison of the establishment name, address, number of employees, Standard Industrial Classification, and facility identification number with that expected from the sampling plan.

Following initial verification, the actual names and addresses of the surveyed establishments were suppressed and not retained as part of the facility-specific records used during the analysis of the data. This information was thereafter regarded as confidential data. This was to ensure the anonymity of surveyed industrial establishments. Facility-specific records were instead accessed and manipulated for analysis using the facility identification number assigned during the sample selection phase.

Individual questionnaire responses were coded and keypunched for edit in a mainframe computer. Establishment activity was coded using 1972 Standard Industrial Classification codes and questionnaire responses were coded using the codes included on the NOES questionnaire.

The computerized edit was essentially a verification and resolution process. Subject to the directed non-response guidelines (e.g., that no numerical count be found for nurse employment if a previous response indicated no nurse employment), all data fields were checked for expected data. This data was then screened for expected values (e.g., numerical or alphabetic characters) and discrepancies resolved by comparison with the raw questionnaire data, or with establishment personnel. The final edited file contained 4,490 records, one for each facility, which included responses for each of the 66 questions asked on the NOES Part I questionnaire.

3. Estimation Procedures

National estimates of the numbers of employees and number of establishments conducting business in the SIC codes surveyed in the NOES (see Appendix B) are presented in this report. Two stages of ratio estimation were used in this process. Variances of estimates were calculated using the method of replications.

A probability of selection was associated with each of the steps followed in selecting the sample establishments to be interviewed. Inverses of these probabilities define sample weights which indicate how much each establishment's results contribute to estimated totals. Initial estimates of national totals were obtained by multiplying each establishment's totals by its sample weight and summing across establishments. Two stages of ratio estimation were used to improve the precision of the estimate before the final publication estimate was determined. The first stage ratio estimation factor was based on establishment counts by employee size class within SIC. The second stage ratio estimation factor was based on employee counts (or establishment counts for establishments with more than 1000 employees) by employee size class within SIC.

Each estimate has a sample error associated with it. Calculation of the sampling errors was handled using the method of replications. The method requires that the estimation procedures be independently carried out several times (replicated) using subsamples of the original sample.

Use of ratio estimation and the method of replications to make national projections from the NOES sample data is detailed in the National Occupational Exposure Survey Sampling Methodology³ and in Appendix D.

4. Sampling and Nonsampling Error

Sampling errors in any survey may result from the sample design used. Methods of optimizing the sample design for a survey typically involve establishing a cost function for the study, expressing the sampling variance, and solving the equation which will produce the minimum variance for a fixed costs⁵. This approach was an oversimplification of the needs for the NOES because it assumed there was a single estimate whose variance was to be minimized. In the NOES, estimates were needed for both numbers of employees and establishments, and quite different sample designs could have been chosen depending on which estimate was considered to be of greatest importance.

The sample design ultimately developed for the NOES maximized the reliability of estimates of numbers of employees. The sample selection methods used for the NOES resulted in variance estimates that are slightly biased (usually overestimates). Operational constraints also affected sampling error.

Non-sampling errors in the NOES were minimized by the standardized training and manuals available to each surveyor, and by the extensive manual and computerized edit of the questionnaire data. The effect of non-response (which was less than 0.3%) was minimized since the sample design had made provision for a "shadow sample" from which substitute establishments similar those initially selected could be found.

Responses used for calculations were also obtained from management interviews, and may not accurately have reflected in-plant conditions, although these responses were subject to the field verification and interpretation procedures outlined in the guidelines for field activity.

C. Presentation of Survey Results

The NOES Management Interview questionnaire was administered at each of the 4,490 facilities in the NOES sample. The questions are subdivided into four major subject areas. The first of these subject areas consists of general facility information which characterizes sampled facilities by industrial classification, products, age, workforce size, and union presence. The second and third subject areas contain profile information on the provision of medical and industrial hygiene/safety services to employees as a result of management policy. The final portion of the questionnaire addresses the employee health-related recordkeeping practices of the sampled facility. This publication is organized to present analyses grouped according to these four major subject areas.

Most of the items of the NOES are dichotomies indicating whether a facility possessed a given characteristic or not; (e.g., does the facility have designated personnel for emergency health care)? Estimates of the national number, the standard error of the estimated number, and the percentage of facilities in that SIC that are projected to have the characteristic are given for three facility-size classifications within each Major Industrial Group (MIG). Similar estimates for the number and percentage of employees in such facilities in the nation are also given. Both sets of estimates are produced for each Standard Industrial Classification (SIC) as well.

Figure 1 (Explanation of Standard Table Format) contains a generalized description of the most common tabular format employed in the data presentation sections of this volume. Occasionally, as in the tabular presentation of continuous variable data, the standard tabular format was not suitable. However, these tables should be self-explanatory given an understanding of the standard tabular format, since the tabular titles and headings identify the data presented.

FIGURE 1. EXPLANATION OF STANDARD TABULAR FORMAT

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

NUMBER AND PERCENT OF PLANTS AND EMPLOYEES IN PLANTS WHICH
 HAVE DESIGNATED PERSONNEL FOR EMERGENCY HEALTH CARE

MAJOR GROUP	PLANTS			TOTAL	EMPLOYEES			TOTAL
	SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)		SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)	
07	2253* (1028) 40.9%	2253* (1028) 40.0%	32041* (12878) 30.9%	32041* (12878) 28.9%
13	2991* (992) 34.8%	501* (202) 49.1%	46* (52) 100.0%	3538* (1069) 36.6%	58732 (11587) 28.1%	106244* (43807) 61.1%	31383* (35291) 100.0%	196359* (62727) 47.4%

These column headers identify the areas displaying estimates of number of plants or employees in plants by the employment size ranges shown in parenthesis

No large plants or employees in large plants in Major Group 07 were observed

Major Industrial Group codes- See Table 1 and Appendix A

The estimated number of workers in medium plants within Major Group 13 for the variable tabulated is equal to 106,244. The asterisk indicates that the standard error of 43,807 is more than 25% of the estimate, and that the estimate may be unreliable. The estimate is equal to 61.1% of the estimated total number of workers in medium size plants in Major Group 13. See Table 3.

Standard Industrial Classification codes- See Table 2 and Appendix B

The estimated number of large plants in Standard Industrial Classification 35 for the variable tabulated is 784, with a standard error of 79. The estimate of 784 is equal to 100% of the estimated total number of large plants in Standard Industrial Classification 35. See Table 4.

NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983)

TABLE NO. III-12 (CONTINUED)

SIC CODE	PLANTS			TOTAL	EMPLOYEES			TOTAL
	SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)		SMALL (8-99)	MEDIUM (100-499)	LARGE (>500)	
34	8294 (1059) 44.8%	2707 (164) 86.7%	318* (84) 91.9%	11319 (1050) 51.5%	300455 (27184) 54.1%	529577 (30343) 88.8%	287700* (93825) 82.0%	1117732 (106637) 74.4%
35	8949 (1158) 39.5%	2991 (199) 87.8%	784 (79) 100.0%	12723 (1219) 47.4%	287906 (30684) 47.4%	590518 (20453) 89.3%	1112933 (147534) 100.0%	1991357 (153948) 83.6%

Table 3 (Questionnaire Items Presented in the Analysis of Management Interview Responses) presents a list of the Management Interview questionnaire item responses analyzed in this volume.

Establishments surveyed during the NOES did not represent all possible industrial activities included at the MIG or 2-digit SIC level of classification, and the estimates presented represent only the industrial activities actually surveyed. The industrial activities actually surveyed are listed in Appendix C.

In most cases, tabular data presentations in this volume are accompanied by graphic presentations of the same data. The graphic presentations generally are summaries of the tabular data across facility size ranges, or SICs, or both. Depending on the characteristic being presented, several graphic presentations may accompany a single table.

The decision as to the type and number of graphic presentations accompanying each tabular format was based on anticipation of questions from the professional community. The rationale for the inclusion of the graphic analysis is to aid the reader in interpreting the data displayed in tabular form, and to provide him or her with pointers to specific areas of the tabular data which may be of particular interest.

Space limitations precluded the display of Major Industrial Group (MIG) or Standard Industrial Classification (SIC) titles in the tabular or graphic data presentations in this volume. Accordingly, a Graphics/Tabular Format Guide is included as an insert. This guide contains abbreviated titles for all the MIG groups (detailed in Table 1 of this section and in Appendix A) and SIC codes (detailed in Table 2 of this section and in Appendix B) profiled in this report. This guide was designed to line up with the appropriate MIG or SIC display in graphic or tabular form, and provide an immediate reference to their descriptive titles.

It was our intent to produce an analysis of the NOES Part I data in a convenient reference volume format which would provide answers to most of the anticipated questions from the professional community. However, the Part I data contains more possibilities for analytical presentation than could be contained in this volume. Therefore, the data base assembled from the survey observations, and our analytical procedures, were so designed that specific analyses not presented in this report could be performed upon request.

D. National Estimates of Industries Included in the NOES

Estimates of the total number of employees and facilities in the NOES target SICs are presented in Tables 4 and 5.

The totaled estimates across all categories are not identical in Tables 4 and 5. This is because estimates for certain industrial groups had such a high standard error that they were not considered to be reliable, and thus unsuitable for publication. The estimates were associated with specific industrial groups which were undersampled. Undersampling was determined by use of the coefficient of variation of size ⁵. A cutoff value of .25 for the coefficient was used (see Appendix D).

**TABLE 3. QUESTIONNAIRE ITEMS PRESENTED IN ANALYSIS
OF MANAGEMENT INTERVIEW RESPONSES**

Questionnaire Item Number	Description	Page
8	Years of Current Activity at Current Location	17
9 & 10	Number of Shifts Per Facility and Number of Hours Per Shift	23
11	Employees on Payroll for All Shifts	31
12	Workers in Non-Administrative Areas	39
13	Labor Unions in the Workplace	44
14	Existence of An On-Site Health Unit	60
15	Presence of a Trained Individual to Provide First Aid	75
16	Employment of Physicians to Provide Health Care	90
17	Use of Off-Site Sources of Health Care	105
18	Estimated Number of Physician Hours Devoted to Industrial Worker Health Care	120
19	Use of Employed Nurses to Provide Health Care	126
20	Estimated Number of Nurses Employed to Provide Health Care to Industrial Workers	133
21	Estimated Number of Nurse Hours Devoted to Industrial Worker Health Care	143
22	Examination or Tests Provided By Industrial Facilities	148
23	Required Pre-Placement or Pre-Hiring Examinations	262
24	Recording of Health Information on New Employees	273
25	Required Post-Illness Medical Examinations	284
26	Required Exit Medical Examinations	295
27	Retention of Medical Records	306
28	Employment of Occupational Safety or Occupational Health Personnel	319
29	Occupational Health and Safety Specialists and Their Activities	334

TABLE 3 (Continued)

Questionnaire Item Number	Description	Page
30	Use of Industrial Hygiene Consultation Services	354
31	Use of Occupational Safety Consultation Services	361
32	Existence of a Program to Regularly Monitor Physical Agents	368
33	Retention of Records From a Physical Agent Monitoring Program	385
34	Existence of a Program to Regularly Monitor Fumes and Gases	395
35	Methods of Fume and Gas Monitoring	401
36	Direct Reading Instruments Used in Fume Monitoring	406
37	Retention of Records From Fume Monitoring Programs	416
38	Substitution of Chemical Materials	426
39	Chemical Substitutions Made to Reduce Worker Exposure	435
40	Chemicals Substituted as a Result of Government Inspection	445
41	Process of Equipment Modifications Made in the Past Five Years	454
42	Equipment or Process Modifications Made to Reduce Worker Exposures	463
43	Equipment or Process Modifications Made as a Result of Government Inspection	473
44	Type of Equipment or Process Modification	483
45	Plants Which Recirculate Exhaust Air	494
46	Areas of the Facility Involved in Recirculation of Exhaust Air	500
47	Use of Personal Protective Devices Required or Recommended	501
48	Source of Personal Protective Devices Used by Workers	511
49	Responsibility for Maintenance of Personal Protective Devices	519

TABLE 3 (Continued)

Questionnaire Item Number	Description	Page
50	Worker Use of Personal Protective Devices Enforced by Corrective Measures	527
51	Corrective Measures to Enforce Proper Use of Protective Gear Which Involve Economic Penalties	537
52	Assessment of Economic Penalties in the Past Year as a Result of a Protective Device Use Policy	545
53	Existence of a Program to Regularly Conduct Safety Inspections	556
54	Written Reports Required for Safety Inspections	566
55	Results of Safety Inspections Routinely Made Available to Workers	573
56	Plants Which Have a Regular Preventive Maintenance Program	583
57	Regularly Scheduled Safety Training Programs for Workers	590
58	Existence of a Program to Regularly Assess Worker Awareness of Safety Rules	599
59	Plants Taking Corrective Measures for Safety Rule Violations	606
60	Corrective Measures for Safety Rule Violations Which Involve Economic Penalties	616
61	Assessment of Economic Penalties in the Past Year as a Result of a Safety Rule Enforcement Policy	624
62	Retention of Personnel Records on Terminated Employees	635
63	Recordkeeping on Employee Absenteeism	645
64	Unscheduled Absenteeism Rate	653
65	Turnover Rate Among Non-Administrative Permanent Employees	658
66	Industry Maintenance of the OSHA 200 Form	663

Data from industrial groups which were undersampled was useable when combined with results from other groups at the Major Industrial Group level, but was insufficient to present accurate analysis at the 2-digit SIC level. This was true for four 2-digit classifications:

- SIC 40 Railroad Transportation
- SIC 44 Water Transportation
- SIC 46 Pipelines, Except Natural Gas
- SIC 47 Transportation Services

Data from these SICs were incorporated into tables at the Major Industrial Group level only. This results in the slightly higher overall totals displayed in the Major Group tables throughout this volume when compared to the totals in the 2-digit SIC tables.

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

ESTIMATED NUMBER OF PLANTS AND EMPLOYEES IN PLANTS
IN THE 1981-1983 NATIONAL OCCUPATIONAL EXPOSURE SURVEY

PLANTS MAJOR GROUP	PLANTS				EMPLOYEES			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL
07	5563* (1575)	70* (67)	...	5633* (1557)	103682* (30828)	7009* (6680)	...	110692* (29333)
13	8597 (1933)	1019* (331)	46* (52)	9662 (2132)	208958 (38479)	173943* (58021)	31383* (35291)	414284 (101840)
15-17	94332 (2397)	4145 (543)	242* (135)	98791 (2409)	2098893 (18337)	737099 (106061)	236057* (100060)	3072049 (132323)
20-39	153243 (2452)	31754 (2031)	6270 (151)	191266 (3668)	4615695 (37880)	6380813 (381798)	8265320 (245684)	19261829 (551881)
40-49	53152 (2985)	5844 (1014)	468* (134)	59465 (3540)	1433869 (108715)	1153314 (220127)	573743 (106392)	3160926 (293218)
50-59	58392 (3826)	2659* (726)	...	61051 (3970)	1124374 (83219)	408827* (110771)	...	1533201 (142606)
70-79	73134 (3623)	2346 (334)	354* (149)	75835 (3590)	1393174 (69653)	464512 (63036)	339560* (124720)	2197247 (133603)
80	2839* (830)	2166 (282)	2061 (304)	7067 (851)	101644 (22701)	534485 (79054)	3022676 (359103)	3658805 (351918)
ALL	449252 (7439)	50003 (2507)	9442 (420)	508697 (8254)	11080290 (168266)	9860002 (481018)	12468739 (476914)	33409031 (762445)

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

ESTIMATED NUMBER OF PLANTS AND EMPLOYEES IN PLANTS
IN THE 1981-1983 NATIONAL OCCUPATIONAL EXPOSURE SURVEY

SIC CODE	PLANTS				EMPLOYEES			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL
07	5563* (1575)	70* (67)	...	5633* (1557)	103682* (30828)	7009* (6680)	...	110692* (29333)
13	8597 (1933)	1019* (331)	46* (52)	9662 (2132)	208958 (38479)	173943* (58021)	31383* (35291)	414284 (101840)
15	24916 (1781)	1107 (197)	135* (100)	26158 (1839)	562888 (44936)	198218 (38188)	134799* (71218)	895905 (91612)
16	11284 (1432)	1119 (194)	107* (67)	12511 (1426)	284089 (46249)	207759 (44051)	101258* (53561)	593106 (86065)
17	58132 (1697)	1919 (433)	...	60051 (1740)	1251915 (31289)	331122* (83193)	...	1583038 (85352)
20	11412 (603)	3216 (458)	559 (121)	15187 (771)	388438 (4231)	673780 (106069)	491775 (104930)	1553993 (111185)
21	30* (43)	...	79* (56)	109* (65)	1866* (2685)	...	112133* (67572)	113999* (66861)
22	2932 (393)	1588 (158)	299* (80)	4819 (377)	106032 (5745)	347073 (29444)	261093* (94186)	714198 (90112)
23	12514 (828)	3102 (163)	242* (93)	15858 (843)	423904 (10003)	609922 (29811)	208437* (79559)	1242263 (81210)
24	10711 (682)	1148 (128)	104* (74)	11963 (709)	303646 (24224)	183585 (22297)	92355* (52501)	579586 (75029)
25	4164 (491)	1062 (133)	119* (75)	5345 (492)	139109 (19535)	256443 (35488)	122998* (62394)	518549 (73416)
26	4113 (781)	1569 (245)	214* (73)	5896 (777)	137654 (19252)	281476 (49372)	206864* (65220)	625994 (90546)
27	18118 (1009)	1873 (163)	316* (115)	20307 (977)	478131 (12884)	360902 (46979)	345750 (80151)	1184784 (108716)
28	6173 (428)	1160 (93)	380 (63)	7713 (397)	180739 (4348)	260831 (27986)	476341 (101388)	917910 (104738)
29	1011* (404)	293* (125)	101* (42)	1405* (457)	40980* (17325)	63255* (21394)	117545* (70259)	221781* (81654)
30	6711 (1152)	1537 (382)	224* (73)	8472 (1300)	225004 (27639)	294530* (81731)	233647* (72848)	753181 (109483)
31	931* (343)	569 (131)	25* (24)	1525 (372)	24888* (7207)	135459* (34334)	15664* (16901)	176011 (38675)
32	8798 (1157)	1012 (142)	184* (71)	9994 (1195)	237160 (16058)	208984 (30484)	128993* (49687)	575137 (45115)
33	4134 (468)	1468 (138)	337 (62)	5939 (478)	138468 (10157)	311081 (30513)	621499 (82456)	1071048 (83524)

NATIONAL OCCUPATIONAL EXPOSURE SURVEY (1981-1983)

TABLE NO. 5

(CONTINUED)

SIC CODE	PLANTS				EMPLOYEES			
	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL	SMALL (8-99)	MEDIUM (100-499)	LARGE (≥500)	TOTAL
34	18520 (1002)	3122 (143)	346 (83)	21988 (981)	554885 (8557)	596685 (23850)	351056* (100266)	1502626 (108576)
35	22650 (1097)	3405 (123)	784 (79)	26839 (1116)	606800 (8461)	661120 (16)	1112933 (147534)	2380853 (146969)
36	7104 (611)	2685 (87)	787 (170)	10576 (601)	230488 (11906)	552662 (175)	1182462 (196778)	1965612 (193562)
37	3973 (835)	1190 (102)	416 (92)	5579 (804)	127022 (16795)	239184 (28491)	1514008 (247233)	1880214 (240481)
38	2689 (520)	957 (86)	416* (139)	4062 (561)	104602 (13774)	194393 (19871)	460397* (129998)	759393 (138098)
39	6553 (659)	798* (1475)	338* (216)	7689 (1563)	165877 (13792)	149449* (273871)	209369* (120490)	524696* (259275)
41	4420 (1016)	510* (178)	...	4930 (1084)	117632 (25442)	81542* (35755)	...	199174 (49120)
42	20027 (2214)	1482 (319)	82* (54)	21590 (2297)	487803 (54570)	258822 (57060)	74830* (49333)	821454 (76595)
45	3241* (911)	590* (397)	147* (57)	3978* (1058)	77497* (20033)	109332* (75829)	264255* (77656)	451084 (101625)
48	14702 (2092)	902 (183)	34* (21)	15637 (2154)	425758 (85441)	176322 (39398)	70083* (43687)	672163 (109876)
49	8215 (1754)	1862* (567)	173* (99)	10250 (1964)	269370 (58035)	425470* (151076)	146565* (65566)	841404 (186134)
50	30349 (2465)	1802* (477)	...	32152 (2524)	630304 (70299)	283239* (79024)	...	913543 (119257)
51	9114 (1234)	237* (237)	...	9351 (1281)	185025 (40831)	27013* (27013)	...	212037* (55104)
55	18928 (3032)	620* (491)	...	19548 (3239)	309045 (54796)	98575* (80174)	...	407620* (110347)
72	20629 (2414)	675* (190)	13* (19)	21318 (2465)	380020 (49376)	82220* (24190)	10670* (15114)	472910 (62008)
73	16574 (1739)	1489 (226)	341* (141)	18404 (1686)	421447 (45518)	349713 (50710)	328890* (118571)	1100050 (122699)
75	26180 (3850)	59* (60)	...	26239 (3855)	413275 (61726)	8238* (8380)	...	421513 (62099)
76	9751 (2194)	123* (94)	...	9874 (2214)	178432 (29757)	24341* (19716)	...	202773 (40475)
80	2839* (830)	2166 (282)	2061 (304)	7067 (851)	101644 (22701)	534485 (79054)	3022676 (359103)	3658805 (351918)
ALL	446706 (6865)	49552 (781)	9425 (407)	505683 (7013)	11024481 (78742)	9773781 (114632)	12459734 (490043)	33257996 (492279)

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