Scientists, Engineers, and Technicians in the United States: 1999

Detailed Statistical Tables

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Division of Science Resources Statistics
Directorate for Social, Behavioral, and Economic Sciences

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CONTENTS

General Notes

In this report, estimates of the total number of positions filled by scientists, engineers, and technicians employed in the U.S. economy in 1999 are presented by industry and by occupational category. For the first time in this annual series, estimates are also presented for mean wages (hourly and annual) of scientists, engineers, and technicians by industry and by occupational category. Summary employment estimates by broad and detailed industry of employment are in tables 1–4. Employment estimates by detailed occupational classification and by industry are in tables 5–10. Wage estimates are in tables 11–20.

The estimates were developed from the Occupational Employment Statistics (OES) survey, a federal/state program under which national and state estimates of employment, by industry, are generated for nonfarm wage and salary workers. The Bureau of Labor Statistics (BLS) of the U.S. Department of Labor has primary responsibility for developing OES survey procedures and for providing states with technical guidance and assistance with survey problems. State employment security agencies implement the survey at the state level and prepare current and projected employment statistics for these labor markets. Some states also prepare substate estimates. See the Technical Notes for more information about the OES survey.

The Division of Science Resources Statistics of the National Science Foundation (NSF) has enhanced the BLS effort since 1977 by financing the collection of detailed estimates on the kinds of scientific and technical jobs filled, by industry. Analysis of this information yields insights into the dynamics of the labor market. Industries identified in the tables of this report are from the "Numerical List of Short Titles" in the *Standard Industrial Classification* (SIC) *Manual, 1987*. The occupational categories are based on the revised Standard Occupational Classification (SOC) System. The 1999 OES survey was the first one to incorporate the revised SOC classification, but the revised SOC was not yet fully integrated at the time of the survey.

Because both the SIC and SOC classification systems have been revised over time, comparisons of 1999 estimates with those published by NSF from previous years of the OES survey should be made with caution. Where possible, former categories were crosswalked to new ones, but often that was not possible. In addition, the scope of the OES survey changed in 1996 from sampling from only about one-third of the economy in each cycle (covering each SIC industry once every 3 years), to sampling from every SIC industry each year.

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Technical Notes

The Occupational Employment Statistics (OES) survey is an annual mail survey of occupational employment and wage rates for wage and salary workers in nonfarm establishments, by industry. Approximately 400,000 establishments are sampled for the survey each year; over 3 years, approximately 1.2 million establishments are contacted. The reference period for each year's survey is the fourth quarter of that year. Although estimates can be made from a single year of data, the OES survey has been designed to produce estimates using a full 3 years of data. The sample allows the production of estimates at detailed levels of geography, industry, and occupation. (See Estimation, below.)

Extensive portions of the material in these technical notes have been excerpted or reproduced verbatim from "Appendix B. Survey Methods and Reliability of the 2000 Occupational Employment Statistics Estimates" of Bulletin 2545, *Occupational Employment and Wages, 2000* (April 2002; available online at http://bls.gov/oes/2000/j_append2.pdf), of the U.S. Department of Labor, Bureau of Labor Statistics (BLS). Readers are encouraged to consult that appendix for more complete explanations.

Occupational Classification

The 1999 OES survey is the first to incorporate the Standard Occupational Classification System (SOC), a revised occupational classification system of the Office of Management and Budget (OMB). The SOC is the occupational classification system required by OMB for use by all federal agencies. The OES survey uses 22 major occupational groups from the SOC to categorize workers in one of almost 770 detailed occupations. Data from 1997 and 1998 were crosswalked to the new classification system when possible and used in producing wage estimates for these occupations. Wage estimates for 374 of the matched occupations are based on data from the 1997, 1998, and 1999 surveys. The remaining occupations either are new under the SOC or are different from similar occupations in the old OES structure. Wage estimates for these occupations are based on data collected in the 1999 survey. Occupational employment estimates are based only on data collected in the 1999 survey.

The major groups of the SOC are as follows:

- Management occupations
- Business and financial operations occupations
- Computer and mathematical occupations
- Architecture and engineering occupations
- Life, physical, and social science occupations
- Community and social services occupations
- Legal occupations
- Education, training, and library occupations
- Arts, design, entertainment, sports, and media occupations
- Healthcare practitioners and technical occupations
- Healthcare support occupations
- Protective service occupations
- Food preparation and serving related occupations
- Building and grounds cleaning and maintenance occupations
- Personal care and service occupations
- Sales and related occupations
- Office and administrative support occupations
- Farming, fishing, and forestry occupations
- Construction and extraction occupations
- Installation, maintenance, and repair occupations
- Production occupations
- Transportation and material moving occupations
- Military-specific occupations (not surveyed as part of OES).

Definitions

Employment. Employment is defined as the number of workers who can be classified as full-time or part-time employees, including workers on paid vacations or other types of leave; workers on unpaid short-term absences; salaried officers, executives, and staff members of incorporated firms; employees temporarily assigned to other units; and employees for whom the reporting unit is their permanent duty station, regardless of whether that unit prepares their paycheck. The survey excludes the self-employed, owners and partners of unincorporated firms, unpaid family workers, workers on unpaid leave, and contractors and temporary help employees not on an establishment's payroll. Employees are reported in the occupation in which they are working, rather than the occupation for which they were trained.

In this report, employment represents the estimate of total wage and salary employment in an occupation. To reduce paperwork and respondent burden, no OES survey form contains every SOC occupation. Instead, the survey form sent to an establishment contains 50 to 225 SOC occupations selected on the basis of the industry classification and size class of the sampled establishment. Thus, data for specific occupations are collected prima-

rily from establishments within industries that are the predominant employers of labor in those occupations. Occupations not listed can be added to the survey form.

Establishment. An establishment is an economic unit that produces goods or services. It generally is found at a single physical location and is engaged predominantly in one type of economic activity. Where a single physical location encompasses two or more distinct activities, these are treated as separate establishments if separate payroll records are available and certain other criteria are met.

Standard Industrial Classification (SIC). The industrial classification system used in this survey is described in the *Standard Industrial Classification Manual: 1987* (Office of Management and Budget: Washington, DC), which classifies reporting establishments into industries on the basis of major product or activity. The OES program produces estimates by both two-digit and three-digit SIC codes, estimates across all industries, and estimates of total national employment.

Wages. Wages for the OES survey are straight-time, gross pay, exclusive of premium pay. Base rate, cost-of-living allowances, guaranteed pay, hazardous-duty pay, incentive pay including commissions and production bonuses, tips, location differential, length-of-service allowances, and on-call pay are included. Excluded are attendance bonuses, back pay, jury duty pay, overtime pay, severance pay, shift differentials, nonproduction bonuses, tuition reimbursements, meal and lodging allowances, merchandise discounts, profit-sharing distributions, relocation allowances, and stock bonuses.

The OES survey collects wage data in 12 intervals. Employers report the number of employees in an occupation by wage interval. The wage intervals used for the 1999 survey are as follows:

	Wages (dollars)	
Interval	Hourly	Annual
A	under 6.75	under 14,040
B	6.75–8.49	14,040–17,679
C	8.50–10.74	17,680–22,359
D	10.75–13.49	22,360–28,079
E	13.50–16.99	28,080–35,359
F	17.00–21.49	35,360–44,719
G	21.50–27.24	44,720–56,679
H	27.25–34.49	56,680–71,759
I	34.50–43.74	71,760–90,999
J	43.75–55.49	91,000–115,439
K	55.50–69.99	115,440–145,599
L	70.00 and over	145,600 and over

Mean wage. The mean wage is the estimated total wages for an occupation divided by its weighted survey employment. A mean hourly wage value is calculated for each wage interval, A through K, based on occupational wage data collected by the BLS Office of Compensation and Working Conditions. The mean wage value for the upper open-ended wage interval L ($70.00 and over) is its lower bound (Winsorized mean). These interval mean wage values are then attributed to all workers reported in the interval. For each occupation, total weighted wages in each interval are summed across all intervals and divided by the occupation's weighted survey employment.

Median wage. The median wage is the estimated 50th percentile of the distribution of wages: 50 percent of workers in an occupation earn wages below, and 50 percent earn wages above, the median wage. The wage interval containing the median wage is located using a cumulative frequency count of employment across wage intervals. The median wage rate is then estimated using a linear interpolation procedure.

Annual wage. Annual wage estimates are calculated by multiplying the mean hourly wage by 2,080 hours (52 weeks per year multiplied by 40 hours per week). Employees paid at an hourly rate by their employers may work less than or more than 40 hours per week. Thus, the annual wage estimates may not represent the actual annual pay received by employees. For a small number of occupations in this report only an annual wage figure is provided. The workers in these occupations are generally paid on an annual basis, and their annual wage has been directly calculated from the reported survey data.

Producing estimates using 3 years of sample data provides additional occupational detail and reduces sampling error (particularly for small geographic areas and occupations). However, this procedure also has quality limitations because it requires the adjustment of data from earlier years to the current reference period—a procedure referred to as "wage updating." The OES program uses the over-the-year fourth-quarter wage changes from the BLS Employment Cost Index (ECI) to adjust prior-year survey data before combining them with the current-year data. The wage updating procedure assumes that each occupation's wage, as measured in the earlier years, moves according to the average movement of its occupational division and that there are no major geographic or detailed occupational differences—and this may not be the case. BLS has conducted research over the past several years on the accuracy of the ECI wage-updating

method compared with other modeling approaches. Current research results support the continued use of the ECI wage-updating methodology.

Scope of Survey

The survey covers establishments in SIC codes 07, 10 through 42, 44 through 87, 89, and state and local governments. In addition, data for the U.S. Postal Service and for the federal government are universe (total) counts obtained from the U.S. Office of Personnel Management (OPM). Occupational employment and wage estimates at the national level were produced by BLS using employment and wage data from the 50 U.S. states and the District of Columbia. Guam, Puerto Rico, and the U.S. Virgin Islands were surveyed; however, data from these territories are not included in the production of national estimates.

For the OES survey, employers are requested to provide occupational data for a particular reference date. The reference date for any particular establishment in the survey is dependent on its SIC code. The reference date for the 1999 survey was the pay period that included October 12, November 12, or December 12 of 1999, depending on SIC code. The pay period including the 12th day of the reference month is standard for federal agencies collecting employment data.

Method of Collection

Survey questionnaires (schedules) were initially mailed out to almost all sampled establishments; personal visits were made to some of the larger establishments.

Two additional mailings were sent to nonresponding establishments at approximately 3-week intervals. Telephone or personal-visit follow-ups were made for those nonresponding establishments considered critical to the survey because of their size.

Sampling Procedures

The OES survey is based on a probability sample and is designed to represent the universe of establishments it covers. The survey is conducted over a 3-year cycle. Each year, one-third of the sample units are included in the survey. To the extent possible, units selected in 1 year are not included in the sample the following 2 years.

Establishments in eligible two- and three-digit SIC codes that reported to a state employment security agency for unemployment insurance purposes constitute the sampling frame for this survey. Virtually all businesses are required to file such a report with the state in which they are located. Each quarter, BLS combines the lists from all states into a single file called the Longitudinal Database (LDB), a compilation of state unemployment insurance reports. For the 1997 survey, the sampling frame was the LDB file from the third quarter of 1996; for the 1998 survey, it was the LDB file from the second quarter of 1997; and for the 1999 survey, it was the LDB file from the second quarter of 1998. The sampling frame was supplemented with a list supplying establishment information on railroads (SIC 401). OPM provided data representing federal government employment and wages, obtained from an annual census of federal government establishments, at the end of the survey process.

Within each state, establishments in the universe were stratified by Metropolitan Statistical Area (MSA), three-digit SIC code, and size of firm. An establishment's size class is determined by its employment as reported on the sampling frame. Establishments in smaller size classes were selected based on a probability sample. Establishments in larger size classes are sampled with virtual certainty during the 3-year cycle of the survey. The targeted sample size of 1.2 million establishments per 3-year cycle was allocated in a manner that equalized the expected relative standard error of the typical occupational employment within the cell for each MSA and three-digit SIC. Within each of these cells, the sample was allocated across size classes in a manner that minimized the variance of the average typical occupational employment estimate.

Response

Of the 383,861 eligible units from the 1997 sample, usable responses were obtained from 301,671, producing a response rate of 78.6 percent based on units. Of the 363,267 eligible units from the 1998 sample, usable responses were obtained from 284,159, producing a response rate of 78.2 percent based on units. Of the 369,694 eligible units from the 1999 sample, usable responses were obtained from 286,903, producing a response rate of 77.6 percent based on units.

Estimation

Combining data across years was challenging because of the 1999 transition to a new SOC-based OES occupational coding system. The 1997 and 1998 data were crosswalked to the new SOC-based classification system. Although most of the former OES occupations can be crosswalked to a counterpart in the new system, many of the relations between the two coding systems are not one-to-one. Many former OES occupations are crosswalked to residual occupations, meaning that occupation is no longer surveyed as a detailed occupation. Similarly, there are occupations in the new system that were not surveyed in the old system; thus, there is only one year of data for those occupations. For more information about the SOC, please see the discussion of the SOC at the BLS Web site (http://www.bls.gov/soc).

Sample Weights

Each sampled establishment was assigned an original sampling weight, the reciprocal of the establishment's probability of selection (i.e., its design weight) within its sampled year.

Weights were modified for each in-scope establishment in a cell by dividing the establishment's design weight by a factor indicating the number of years for which sample units were selected from that sampling cell. This weight was used in the calculation of the 1999 estimates based on combining data from the 1997, 1998, and 1999 surveys.

Nonresponse

Nonresponding establishments are accounted for in the OES survey by a two-step imputation process. First, the staffing pattern is imputed using a "hot-deck," "nearest-neighbor" imputation method. Hot-deck procedures use data from the current period to impute for missing data (from the current period). The nearest-neighbor method searches the responding establishments within a defined cell and finds the one that most closely matches the nonresponding establishment for key classification values (such as area, SIC, size class). The staffing pattern (employment distribution), of the responding establishment is used as the staffing pattern of the nonresponding establishment.

Combining and Benchmarking Multiyear Data

Whenever possible, data from the 1997, 1998, and 1999 surveys were combined. Survey data from 1997, 1998, and 1999 were used to produce the wage estimates for 374 occupations. The remaining occupational wage estimates and all of the employment estimates were produced using only 1999 data. Each year's sample was weighted to represent the sample as it appeared at the time the sample was selected. In order to combine the data, each unit's weight was modified to have the aggregate sample represent the universe. This was done by dividing each unit's weight by the number of years for which sample units were selected for that stratum.

Estimated Employment

A ratio estimator was used to develop estimates of occupational employment. The auxiliary variable was the population value of total employment obtained from the refined unemployment insurance files for the 1999 reference month. Within each MSA, the estimated employment for an occupation at the reported three-digit SIC level was calculated by multiplying the weighted employment by its ratio factor. The estimated employment for an occupation at the all-industry level was obtained by summing the occupational employment estimates across all industries within an MSA reporting that occupation. The employment and wage data for federal government workers in each occupation were added to the survey-derived data.

Variance of Estimates

Estimates of sampling error are calculated to allow the users to determine if occupational employment estimates are reliable enough for their needs. Only a probability-based sample can be used to calculate estimates of sampling error from the sample itself.

The formula used to estimate occupational employment variances (a common measure of sampling error) is based on the survey's sample design and method of estimation. The OES survey used a subsample replication technique called the jackknife random group to estimate variances of occupational employment. In this technique,

each sampled establishment is assigned to one of G random groups. Using the data in these groups, G subsamples are formed from the parent sample. Next, G estimates of total employment for an occupation P are calculated, one employment estimate per subsample. The variability of these G employment estimates is then calculated. This variability is the BLS variance estimate of the employment estimate for occupation P.

Discrepancies between Employment Estimates and Wage Estimates

Users consulting both occupational employment estimate tables and wage estimate tables may notice apparent discrepancies between two tables in the treatment of identical variables. For instance, wage estimates may be displayed for certain occupations for which no employment estimates are reported, or employment or wage data may be displayed at the two-digit SIC level but not for the component three-digit SIC industries that together constitute the displayed two-digit industry. The two principal reasons for apparent discrepancies are (1) that BLS-applied suppression rules differ for employment estimates and for wage estimates, and (2) data at the three-digit SIC level may have to be suppressed to assure that individual establishments cannot be identified.

Reliability of the Estimates

Estimates developed from a sample may differ from the results of a census. Two types of error, sampling and nonsampling, can occur in estimates calculated from a sample. Sampling error occurs because observations are based on a sample, not on the entire population. Nonsampling error occurs because of response and operational errors in the survey. Unlike sampling error, this form of error can also occur in a census.

Sampling Error

The particular sample used in this survey is one of many possible samples of the same size that could have been selected using the same sample design. Estimates derived from different samples tend to differ from one another. The variance of a survey estimate is a measure of the variation among the estimates from all possible samples. The standard error of a survey estimate is the square root of its variance; the relative standard error is the ratio of the standard error to the estimate itself.

By using the sample estimate and its standard error, the user can construct an interval estimate with a prescribed level of confidence that the interval will include the mean value of the estimate from all possible samples.

For example, suppose that an estimated occupational employment total is 5,000 and has an associated relative standard error of 2.0 percent. Based on these data, the standard error of the estimate is 100 (2 percent of 5,000). A 68 percent confidence interval for the employment estimate is 5,000 ± 100, or from 4,900 to 5,100. Approximately 68 percent of the intervals constructed in this manner will include the mean of all possible employment estimates as computed from all possible samples. A 95 percent confidence interval for the employment estimate is 5,000 ± 196, or from 4,804 to 5,196. Approximately 95 percent of the intervals constructed in this manner will include the mean of all possible employment estimates as computed from all possible samples. Estimates of sampling errors for occupational employment estimates are available for most estimates.

Nonsampling Error

Nonsampling error is attributable to such causes as an inability to obtain information for all establishments in the sample; differences in respondents' interpretation of the survey question; respondents' inability or unwillingness to provide correct information; errors made in recording, coding, or processing the data; and errors made in imputing values for missing data. Explicit measures of the effects of nonsampling error are not available. The relative standard error indicates the magnitude of the sampling error; it does not measure nonsampling error, which includes biases in the data. Particular care should be exercised in the interpretation of small estimates or of small differences between estimates when the sampling error is relatively large or the magnitude of the bias is unknown.

Several edit and quality-control procedures were used to reduce nonsampling error. For example, completed survey questionnaires were checked for data consistency, follow-up mailings were sent to nonresponding establishments to improve the survey response rate, and response analysis studies were conducted to assess respondents' comprehension of the questionnaire. Additional quality control procedures used in the OES survey are described below in "Quality Control Measures."

Relative Standard Error Not Displayed

Mean hourly wages are calculated from the mean values of the lower 11 of 12 wage intervals using data from the BLS National Compensation Survey (see Definitions, above). Because of space restrictions, relative standard errors are not displayed for estimates of mean hourly wages and mean annual wages for scientists, engineers, and technicians in tables 13–20. Relative standard errors for mean hourly wages were calculated and are available on request. Relative standard errors were not calculated for mean annual wages because the estimates for mean annual wages were calculated directly by multiplying mean hourly wages by 2,080 hours, which for this survey represents full-time employment.

Beginning with this publication, all employment estimates for employees not allocated to a specific SIC (tables 1–4 and table 10) are residually determined by subtracting the subtotal of estimates allocated by industry from the estimate of total filled positions. Because these values are calculated rather than estimated, no relative standard error of the estimate is shown for them in table 10. Relative standard errors of the employment estimates are displayed for occupational subclassifications in tables 5–10 but not for the occupational totals. Relative standard errors of these estimates are not available because the occupational totals are simple arithmetic sums of the occupational subclassification estimates.

Quality Control Measures

The OES survey is a cooperative program and has limited personnel resources. Nonetheless, the program must accommodate state-specific publication needs; standardize survey procedures across all 50 U.S. states, the District of Columbia, and the U.S. territories; and produce quality estimates. Controlling sources of nonsampling error in this decentralized environment can be difficult. In addition, edit and validation checks are distributed across eight regional offices, which can lead to procedural differences between the regions. Two important quality control measures used by the OES survey are the Survey Processing and Management (SPAM) System and the Estimates Delivery System (EDS). Both systems were developed to provide a consistent and automated framework for survey processing and to reduce the workload at the state, regional, and national levels.

By standardizing data processing activities, such as refining mailing addresses, addressing envelopes and mailers, editing and updating questionnaires, producing management reports, and calculating employment estimates, the SPAM system and the EDS have consequently standardized survey methodology. This has reduced the number of errors on the data files as well as the time needed to review them.

Other quality control measures implemented in the OES survey include

- Follow-up of solicitations of nonrespondents (especially critical nonrespondents),
- Review of schedules to verify the accuracy and reasonableness of the reported data,
- Adjustments of atypical reporting units on the data file,
- Validation of the benchmark employment figures and of the benchmark factors,
- Validation of the analytical tables of estimates (at the two- and three-digit SIC levels), and
- Use of bar codes to reduce keypunch errors.

DETAILED STATISTICAL TABLES

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SUMMARY EMPLOYMENT TABLES

TABLES BY STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE

WAGE TABLES

Table *Page*

Table 1. Employed scientists, engineers, technicians (SETs), and SET managers,
by detailed industry of employment: 1999
[Filled positions]

Detailed industry	SIC	Total SET personnel		Managers of SET personnel		Scientists		Engineers		Technicians	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total		5,302,900	100.0	566,000	100.0	1,842,400	100.0	1,231,600	100.0	1,662,900	100.0
Agriculture, forestry, and fishing		3,400	0.1	<	<	700	<	300	<	2,500	0.1
Agricultural services	07	3,400	0.1	<	<	700	<	300	<	2,500	0.1
Crop services	072	400	<	<	<	<	<	100	<	400	<
Animal services, except veterinary	075	1,500	<	<	<	100	<	<	<	1,400	0.1
Landscape and horticultural services	078	900	<	<	<	<	<	200	<	700	<
Not allocated by detailed industry		600	<	<	<	500	<	100	<	100	<
Mining		35,500	0.7	3,300	0.6	6,800	0.4	13,200	1.1	12,200	0.7
Metal mining	10	3,000	0.1	400	0.1	700	<	1,200	0.1	700	<
Gold and silver ores	104	1,400	<	200	<	300	<	500	<	500	<
Metal mining services	108	200	<	<	<	200	<	<	<	<	<
Misc. metal ores, n.e.c.	109	100	<	<	<	<	<	100	<	<	<
Not allocated by detailed industry		1,200	<	200	<	200	<	600	0.1	200	<
Coal mining	12	1,400	<	300	<	100	<	700	0.1	400	<
Bituminous coal and lignite mining	122	1,400	<	300	<	100	<	700	0.1	400	<
Not allocated by detailed industry		<	<	<	<	<	<	<	<	<	<
Oil and gas extraction	13	29,600	0.6	2,300	0.4	5,900	0.3	10,700	0.9	10,700	0.6
Crude petroleum and natural gas	131	17,600	0.3	1,600	0.3	3,900	0.2	7,100	0.6	5,100	0.3
Oil and gas field services	138	6,300	0.1	800	0.1	1,600	0.1	1,800	0.1	2,100	0.1
Not allocated by detailed industry		5,800	0.1	<	<	400	<	1,800	0.1	3,500	0.2
Nonmetallic minerals, except fuels	14	1,500	<	300	<	200	<	500	<	500	<
Crushed and broken stone	142	800	<	100	<	100	<	300	<	200	<
Sand and gravel	144	100	<	<	<	<	<	<	<	100	<
Chemical and fertilizer minerals	147	100	<	<	<	<	<	<	<	<	<
Misc. nonmetallic minerals	149	<	<	<	<	<	<	<	<	<	<
Not allocated by detailed industry		500	<	100	<	100	<	100	<	200	<
Construction		86,900	1.6	8,400	1.5	3,400	0.2	42,400	3.4	32,700	2.0
General building contractors	15	24,200	0.5	2,200	0.4	700	<	12,500	1.0	8,900	0.5
Residential building construction	152	5,000	0.1	300	0.1	200	<	1,000	0.1	3,500	0.2
Operative builders	153	200	<	<	<	<	<	<	<	200	<
Nonresidential building excluding building	154	17,500	0.3	1,900	0.3	400	<	10,500	0.9	4,800	0.3
Not allocated by detailed industry		1,500	<	<	<	100	<	900	0.1	500	<
Heavy construction, excluding building	16	18,000	0.3	3,200	0.6	400	<	11,600	0.9	2,900	0.2
Highway and street construction	161	3,200	0.1	600	0.1	100	<	1,400	0.1	1,100	0.1
Heavy construction, except highway	162	14,700	0.3	2,600	0.5	200	<	10,100	0.8	1,800	0.1
Not allocated by detailed industry		100	<	<	<	<	<	100	<	<	<

See explanatory information and SOURCE at end of table.

Table 1. Employed scientists, engineers, technicians (SETs), and SET managers,
by detailed industry of employment: 1999
[Filled positions]

Detailed industry	SIC	Total SET personnel		Managers of SET personnel		Scientists		Engineers		Technicians	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Special trade contractors	17	44,700	0.8	3,000	0.5	2,400	0.1	18,300	1.5	21,000	1.3
Plumbing, heating, air conditioning	171	11,200	0.2	1,100	0.2	300	<	5,900	0.5	4,000	0.2
Painting and paper hanging	172	<	<	<	<	<	<	<	<	<	<
Electrical work	173	21,200	0.4	1,100	0.2	1,500	0.1	7,200	0.6	11,500	0.7
Masonry, stonework, and plastering	174	700	<	100	<	<	<	500	<	100	<
Carpentry and floor work	175	1,000	<	100	<	<	<	300	<	600	<
Roofing, siding, and sheet-metal work	176	700	<	100	<	<	<	300	<	200	<
Concrete work	177	900	<	100	<	<	<	600	<	200	<
Misc. special trade contractors	179	5,500	0.1	300	<	100	<	2,500	0.2	2,600	0.2
Not allocated by detailed industry		3,500	0.1	200	<	500	<	1,100	0.1	1,700	0.1
Total manufacturing		1,345,900	25.4	154,800	27.3	253,900	13.8	524,200	42.6	413,200	24.8
Food and kindred products	20	32,600	0.6	5,800	1.0	8,300	0.5	7,300	0.6	11,200	0.7
Meat products	201	3,500	0.1	600	0.1	500	<	800	0.1	1,600	0.1
Dairy products	202	3,000	0.1	500	0.1	400	<	300	<	1,800	0.1
Preserved fruits & vegetables	203	2,700	0.1	500	0.1	500	<	600	0.1	1,100	0.1
Grain mill products	204	3,500	0.1	500	0.1	900	<	700	0.1	1,400	0.1
Bakery products	205	1,800	<	600	0.1	100	<	800	0.1	300	<
Sugar and confectionery products	206	2,800	0.1	300	0.1	600	<	300	<	1,600	0.1
Fats and oils	207	900	<	200	<	200	<	200	<	300	<
Beverages	208	10,100	0.2	2,100	0.4	3,900	0.2	2,700	0.2	1,300	0.1
Misc. food and kindred products	209	2,000	<	500	0.1	400	<	300	<	700	<
Not allocated by detailed industry		2,400	<	<	<	800	<	500	<	1,200	0.1
Tobacco products	21	100	<	<	<	100	<	<	<	<	<
Not allocated by detailed industry		100	<	<	<	100	<	<	<	<	<
Textile mill products	22	9,500	0.2	1,800	0.3	1,400	0.1	2,700	0.2	3,600	0.2
Broadwoven fabric mills, cotton	221	800	<	200	<	<	<	200	<	400	<
Broadwoven fabric mills, manmade	222	1,000	<	200	<	100	<	400	<	300	<
Broadwoven fabric mills, wool	223	100	<	<	<	<	<	<	<	100	<
Narrow fabric mills	224	<	<	<	<	<	<	<	<	<	<
Knitting mills	225	2,300	<	700	0.1	700	<	400	<	500	<
Textile finishing, except wool	226	900	<	200	<	200	<	200	<	400	<
Carpets and rugs	227	1,100	<	100	<	100	<	300	<	700	<
Yarn and thread mills	228	700	<	100	<	100	<	200	<	200	<
Miscellaneous textile goods	229	1,500	<	200	<	200	<	500	<	600	<
Not allocated by detailed industry		1,300	<	200	<	200	<	500	<	500	<
Apparel and other textile products	23	4,300	0.1	1,200	0.2	500	<	1,100	0.1	1,400	0.1
Men's & boys' suits and coats	231	100	<	100	<	<	<	<	<	<	<
Men's & boys' furnishings	232	900	<	300	0.1	<	<	200	<	300	<
Women's and misses' outerwear	233	1,100	<	300	<	200	<	300	<	300	<
Women's and children's undergarments	234	200	<	100	<	<	<	100	<	100	<
Miscellaneous apparel and accessories	238	100	<	100	<	<	<	<	<	<	<
Misc. fabricated textile products	239	1,400	<	400	0.1	100	<	400	<	500	<
Not allocated by detailed industry		500	<	<	<	200	<	100	<	200	<

See explanatory information and SOURCE at end of table.

Table 1. Employed scientists, engineers, technicians (SETs), and SET managers,
by detailed industry of employment: 1999
[Filled positions]

Detailed industry	SIC	Total SET personnel		Managers of SET personnel		Scientists		Engineers		Technicians	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Lumber and wood products	24	10,700	0.2	1,700	0.3	3,000	0.2	1,800	0.1	4,300	0.3
Logging	241	800	<	<	<	700	<	<	<	200	<
Sawmills and planing mills	242	1,800	<	200	<	1,100	0.1	200	<	400	<
Millwork, plywood & structural members	243	5,100	0.1	1,000	0.2	500	<	1,300	0.1	2,200	0.1
Wood containers	244	<	<	<	<	<	<	<	<	<	<
Wood buildings and mobile homes	245	1,300	<	200	<	<	<	200	<	900	0.1
Miscellaneous wood products	249	600	<	100	<	100	<	100	<	200	<
Not allocated by detailed industry		1,100	<	100	<	500	<	<	<	500	<
Furniture and fixtures	25	10,200	0.2	1,800	0.3	500	<	3,500	0.3	4,300	0.3
Household furniture	251	2,500	<	800	0.1	200	<	800	0.1	900	0.1
Office furniture	252	1,900	<	500	0.1	100	<	1,200	0.1	300	<
Public building & related furniture	253	1,000	<	200	<	100	<	500	<	300	<
Partitions and fixtures	254	2,000	<	300	<	100	<	500	<	1,200	0.1
Miscellaneous furniture and fixtures	259	600	<	200	<	<	<	400	<	100	<
Not allocated by detailed industry		2,000	<	<	<	<	<	300	<	1,700	0.1
Paper and allied products	26	17,500	0.3	2,600	0.5	3,400	0.2	8,600	0.7	3,000	0.2
Pulp mills	261	200	<	<	<	100	<	100	<	<	<
Paper mills	262	4,400	0.1	500	0.1	500	<	2,300	0.2	1,100	0.1
Paperboard mills	263	1,600	<	100	<	200	<	1,000	0.1	300	<
Paperboard containers and boxes	265	1,800	<	400	0.1	200	<	700	0.1	500	<
Misc. converted paper products	267	4,800	0.1	1,300	0.2	1,600	0.1	900	0.1	900	0.1
Not allocated by detailed industry		4,800	0.1	300	<	800	<	3,600	0.3	200	<
Printing and publishing	27	31,500	0.6	5,900	1.0	14,100	0.8	1,000	0.1	10,400	0.6
Newspapers	271	7,300	0.1	1,900	0.3	3,200	0.2	<	<	2,200	0.1
Periodicals	272	5,300	0.1	800	0.1	2,400	0.1	<	<	2,000	0.1
Books	273	4,200	0.1	700	0.1	2,800	0.1	<	<	800	<
Miscellaneous publishing	274	5,200	0.1	800	0.1	2,400	0.1	<	<	2,100	0.1
Commercial printing	275	5,100	0.1	1,300	0.2	1,500	0.1	400	<	2,000	0.1
Manifold business forms	276	700	<	100	<	200	<	<	<	400	<
Greeting cards	277	100	<	<	<	<	<	<	<	<	<
Blankbooks and bookbinding	278	600	<	100	<	300	<	<	<	300	<
Printing trade services	279	700	<	200	<	200	<	<	<	300	<
Not allocated by detailed industry		2,300	<	100	<	1,100	0.1	500	<	500	<
Chemicals and allied products	28	153,900	2.9	10,400	1.8	53,600	2.9	34,500	2.8	55,400	3.3
Industrial inorganic chemicals	281	10,900	0.2	1,000	0.2	3,100	0.2	3,200	0.3	3,700	0.2
Plastics materials and synthetics	282	21,100	0.4	1,400	0.2	4,500	0.2	6,700	0.5	8,500	0.5
Drugs	283	53,000	1.0	3,600	0.6	22,100	1.2	7,100	0.6	20,200	1.2
Soap, cleaners, and toilet goods	284	10,400	0.2	600	0.1	5,400	0.3	1,400	0.1	3,000	0.2
Paints and allied products	285	5,800	0.1	300	0.1	2,100	0.1	1,300	0.1	2,100	0.1
Industrial organic chemicals	286	22,200	0.4	2,100	0.4	5,200	0.3	6,000	0.5	8,800	0.5
Agricultural chemicals	287	4,400	0.1	300	0.1	600	<	2,200	0.2	1,300	0.1
Miscellaneous chemical products	289	11,900	0.2	800	0.1	3,700	0.2	2,800	0.2	4,600	0.3
Not allocated by detailed industry		14,100	0.3	300	<	6,800	0.4	3,800	0.3	3,200	0.2

See explanatory information and SOURCE at end of table.

Table 1. Employed scientists, engineers, technicians (SETs), and SET managers,
by detailed industry of employment: 1999
[Filled positions]

Detailed industry	SIC	Total SET personnel		Managers of SET personnel		Scientists		Engineers		Technicians	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Petroleum and coal products	29	12,700	0.2	1,000	0.2	3,000	0.2	3,500	0.3	5,200	0.3
Petroleum refining	291	10,700	0.2	800	0.1	2,500	0.1	3,100	0.2	4,400	0.3
Asphalt paving and roofing materials	295	500	<	100	<	100	<	100	<	200	<
Misc. petroleum and coal products	299	1,100	<	100	<	400	<	200	<	400	<
Not allocated by detailed industry		400	<	<	<	<	<	200	<	200	<
Rubber and misc. plastics products	30	36,700	0.7	4,900	0.9	3,500	0.2	17,700	1.4	10,600	0.6
Tires and inner tubes	301	2,000	<	200	<	300	<	1,000	0.1	600	<
Hose & belting & gaskets & packing	305	2,900	0.1	300	0.1	200	<	1,600	0.1	900	0.1
Fabricated rubber products, n.e.c.	306	3,900	0.1	600	0.1	400	<	1,500	0.1	1,400	0.1
Miscellaneous plastics products, n.e.c.	308	27,200	0.5	3,600	0.6	2,500	0.1	13,600	1.1	7,500	0.5
Not allocated by detailed industry		700	<	100	<	100	<	200	<	300	<
Leather and leather products	31	500	<	100	<	100	<	100	<	200	<
Footwear, except rubber	314	200	<	100	<	<	<	100	<	100	<
Luggage	316	100	<	<	<	<	<	<	<	100	<
Handbags and personal leather goods	317	<	<	<	<	<	<	<	<	<	<
Not allocated by detailed industry		200	<	<	<	100	<	<	<	100	<
Stone, clay and glass products	32	13,600	0.3	2,200	0.4	1,600	0.1	5,300	0.4	4,400	0.3
Flat glass	321	100	<	<	<	<	<	100	<	<	<
Glass and glassware, pressed or blown	322	1,200	<	200	<	100	<	700	0.1	200	<
Products of purchased glass	323	1,400	<	300	0.1	200	<	700	0.1	200	<
Cement, hydraulic	324	1,000	<	100	<	200	<	400	<	300	<
Structural clay products	325	300	<	<	<	<	<	200	<	100	<
Pottery and related products	326	800	<	200	<	<	<	500	<	100	<
Concrete, gypsum, and plaster products	327	3,400	0.1	700	0.1	300	<	1,200	0.1	1,200	0.1
Cut stone and stone products	328	<	<	<	<	<	<	<	<	<	<
Misc. nonmetallic mineral products	329	3,100	0.1	500	0.1	400	<	1,300	0.1	900	0.1
Not allocated by detailed industry		2,300	<	100	<	400	<	500	<	1,400	0.1
Primary metal industries	33	30,800	0.6	4,400	0.8	4,300	0.2	13,100	1.1	9,100	0.5
Blast furnace and basic steel products	331	7,100	0.1	900	0.2	1,500	0.1	3,100	0.3	1,600	0.1
Iron and steel foundries	332	4,000	0.1	700	0.1	200	<	2,300	0.2	800	<
Primary nonferrous metals	333	2,600	<	200	<	200	<	1,000	0.1	1,200	0.1
Secondary nonferrous metals	334	500	<	<	<	200	<	100	<	100	<
Nonferrous rolling and drawing	335	11,000	0.2	1,700	0.3	1,600	0.1	4,300	0.3	3,500	0.2
Nonferrous foundries (castings)	336	2,800	0.1	500	0.1	100	<	1,500	0.1	700	<
Miscellaneous primary metal products	339	800	<	200	<	<	<	500	<	100	<
Not allocated by detailed industry		2,000	<	100	<	400	<	300	<	1,200	0.1

See explanatory information and SOURCE at end of table.

Table 1. Employed scientists, engineers, technicians (SETs), and SET managers,
by detailed industry of employment: 1999
[Filled positions]

Detailed industry	SIC	Total SET personnel		Managers of SET personnel		Scientists		Engineers		Technicians	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Fabricated metal products	34	65,400	1.2	9,500	1.7	4,700	0.3	26,700	2.2	24,600	1.5
Metal cans and shipping containers	341	600	<	200	<	<	<	200	<	100	<
Cutlery, hand tools, and hardware	342	4,600	0.1	800	0.1	400	<	2,200	0.2	1,300	0.1
Plumbing and heating, except electric	343	1,800	<	300	<	<	<	800	0.1	800	<
Fabricated structural metal products	344	22,700	0.4	3,300	0.6	1,500	0.1	8,100	0.7	9,900	0.6
Screw machine products, bolts, etc.	345	3,200	0.1	700	0.1	200	<	1,300	0.1	900	0.1
Metal forgings and stampings	346	10,000	0.2	1,400	0.2	600	<	5,200	0.4	2,900	0.2
Metal services, n.e.c.	347	2,700	0.1	400	0.1	400	<	1,200	0.1	700	<
Ordnance and accessories, n.e.c.	348	2,300	<	300	0.1	200	<	1,100	0.1	700	<
Misc. fabricated metal products	349	13,200	0.2	2,200	0.4	1,000	0.1	5,200	0.4	4,900	0.3
Not allocated by detailed industry		4,400	0.1	<	<	500	<	1,400	0.1	2,500	0.1
Industrial machinery and equipment	35	293,500	5.5	30,100	5.3	63,700	3.5	114,000	9.3	85,800	5.2
Engines and turbines	351	5,600	0.1	1,000	0.2	100	<	3,900	0.3	700	<
Farm and garden machinery	352	5,700	0.1	1,100	0.2	300	<	2,400	0.2	1,800	0.1
Construction and related machinery	353	30,100	0.6	3,700	0.6	1,600	0.1	15,800	1.3	9,100	0.5
Metalworking machinery	354	31,400	0.6	3,800	0.7	1,400	0.1	14,300	1.2	11,900	0.7
Special industry machinery	355	25,600	0.5	2,800	0.5	1,400	0.1	13,500	1.1	8,000	0.5
General industrial machinery	356	29,100	0.5	3,400	0.6	1,700	0.1	15,700	1.3	8,200	0.5
Computer and office equipment	357	124,300	2.3	9,900	1.8	54,100	2.9	32,000	2.6	28,300	1.7
Refrigeration and service machinery	358	16,100	0.3	1,800	0.3	1,000	0.1	7,800	0.6	5,500	0.3
Industrial machinery, n.e.c.	359	20,000	0.4	2,600	0.5	600	<	7,700	0.6	9,200	0.6
Not allocated by detailed industry		5,700	0.1	<	<	1,600	0.1	900	0.1	3,200	0.2
Electronic & other electric equipment	36	268,100	5.1	27,000	4.8	43,500	2.4	104,000	8.4	93,600	5.6
Electric distribution equipment	361	7,600	0.1	800	0.1	300	<	3,900	0.3	2,600	0.2
Electrical industrial apparatus	362	19,700	0.4	1,700	0.3	1,300	0.1	9,900	0.8	6,800	0.4
Household appliances	363	5,100	0.1	800	0.1	900	<	2,400	0.2	1,100	0.1
Electric lighting and wiring equipment	364	11,200	0.2	1,400	0.2	1,400	0.1	5,100	0.4	3,400	0.2
Household audio and video equipment	365	6,500	0.1	800	0.1	600	<	2,200	0.2	2,900	0.2
Communication equipment	366	71,900	1.4	7,800	1.4	17,700	1.0	24,900	2.0	21,500	1.3
Electronic components and accessories	367	131,200	2.5	12,200	2.2	19,000	1.0	48,900	4.0	51,000	3.1
Misc. electrical equipment & supplies	369	10,600	0.2	1,400	0.2	1,000	0.1	5,400	0.4	2,900	0.2
Not allocated by detailed industry		4,200	0.1	100	<	1,300	0.1	1,400	0.1	1,400	0.1
Transportation equipment	37	175,300	3.3	25,100	4.4	14,100	0.8	97,400	7.9	38,700	2.3
Motor vehicles and equipment	371	52,400	1.0	7,600	1.3	3,900	0.2	29,200	2.4	11,700	0.7
Aircraft and parts	372	87,200	1.6	13,500	2.4	8,000	0.4	50,000	4.1	15,700	0.9
Ship and boat building and repairing	373	2,400	<	1,200	0.2	200	<	700	0.1	200	<
Railroad equipment	374	300	<	<	<	<	<	300	<	<	<
Motorcycles, bicycles, and parts	375	600	<	100	<	<	<	300	<	200	<
Guided missiles, space vehicles, parts	376	17,400	0.3	1,600	0.3	1,200	0.1	13,000	1.1	1,700	0.1
Miscellaneous transportation equipment	379	900	<	200	<	<	<	300	<	300	<
Not allocated by detailed industry		14,300	0.3	1,000	0.2	900	<	3,600	0.3	8,800	0.5

See explanatory information and SOURCE at end of table.

Table 1. Employed scientists, engineers, technicians (SETs), and SET managers,
by detailed industry of employment: 1999
[Filled positions]

Detailed industry	SIC	Total SET personnel		Managers of SET personnel		Scientists		Engineers		Technicians	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Instruments and related products	38	169,800	3.2	17,800	3.1	28,700	1.6	79,100	6.4	44,200	2.7
Search and navigation equipment	381	54,200	1.0	6,500	1.1	6,500	0.4	33,100	2.7	8,100	0.5
Measuring and controlling devices	382	71,900	1.4	7,000	1.2	13,700	0.7	29,700	2.4	21,500	1.3
Medical instruments and supplies	384	28,700	0.5	3,500	0.6	5,500	0.3	11,200	0.9	8,500	0.5
Ophthalmic goods	385	700	<	300	0.1	<	<	300	<	<	<
Photographic equipment and supplies	386	2,500	<	400	0.1	900	0.1	900	0.1	200	<
Watches, clocks, watchcases & parts	387	<	<	<	<	<	<	<	<	<	<
Not allocated by detailed industry		11,900	0.2	100	<	2,000	0.1	3,900	0.3	5,900	0.4
Miscellaneous manufacturing industries	39	9,400	0.2	1,600	0.3	1,900	0.1	2,800	0.2	3,200	0.2
Jewelry, silverware, and plated ware	391	300	<	100	<	100	<	100	<	100	<
Musical instruments	393	600	<	100	<	<	<	400	<	200	<
Toys and sporting goods	394	2,900	0.1	600	0.1	900	<	900	0.1	600	<
Pens, pencils, office, & art supplies	395	300	<	100	<	100	<	<	<	<	<
Costume jewelry and notions	396	200	<	<	<	<	<	100	<	100	<
Miscellaneous manufactures	399	3,700	0.1	600	0.1	700	<	1,000	0.1	1,500	0.1
Not allocated by detailed industry		1,400	<	<	<	100	<	500	<	800	<
Transportation, communications, and utilities		272,100	5.1	39,800	7.0	69,000	3.7	65,500	5.3	97,800	5.9
Railroad transportation	40	12,000	0.2	100	<	300	<	11,200	0.9	300	<
Railroad transportation	401	12,000	0.2	100	<	300	<	11,200	0.9	300	<
Local and interurban transit	41	300	<	100	<	100	<	<	<	200	<
Local and suburban transportation	411	300	<	100	<	<	<	<	<	100	<
Not allocated by detailed industry		100	<	<	<	<	<	<	<	<	<
Trucking and warehousing	42	5,900	0.1	1,600	0.3	1,200	0.1	500	<	2,600	0.2
Trucking and courier services, excl. air	421	4,400	0.1	1,200	0.2	700	<	400	<	2,100	0.1
Public warehousing and storage	422	1,200	<	400	0.1	300	<	<	<	400	<
Not allocated by detailed industry		300	<	<	<	200	<	<	<	100	<
Water transportation	44	2,600	<	600	0.1	100	<	1,200	0.1	700	<
Deep sea foreign transportation of freight	441	200	<	100	<	<	<	100	<	<	<
Deep sea domestic transportation of freight	442	200	<	100	<	<	<	<	<	100	<
Water transportation of freight, n.e.c.	444	<	<	<	<	<	<	<	<	<	<
Water transportation of passengers	448	100	<	100	<	<	<	<	<	<	<
Water transportation services	449	1,000	<	100	<	<	<	500	<	400	<
Not allocated by detailed industry		1,200	<	200	<	<	<	700	0.1	200	<
Transportation by air	45	10,500	0.2	1,200	0.2	3,200	0.2	700	0.1	5,400	0.3
Air transportation, scheduled	451	6,300	0.1	1,000	0.2	2,000	0.1	300	<	3,000	0.2
Air transportation, nonscheduled	452	100	<	<	<	<	<	<	<	100	<
Airports, flying fields, and services	458	2,800	0.1	200	<	300	<	200	<	2,300	0.1
Not allocated by detailed industry		1,300	<	<	<	900	<	300	<	100	<
Pipelines, except natural gas	46	700	<	100	<	<	<	500	<	100	<
Pipelines, except natural gas	461	700	<	100	<	<	<	500	<	100	<

See explanatory information and SOURCE at end of table.

Table 1. Employed scientists, engineers, technicians (SETs), and SET managers,
by detailed industry of employment: 1999
[Filled positions]

Detailed industry	SIC	Total SET personnel		Managers of SET personnel		Scientists		Engineers		Technicians	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Transportation services	47	7,600	0.1	1,100	0.2	2,400	0.1	300	<	3,800	0.2
Passenger transportation arrangements	472	4,200	0.1	600	0.1	2,100	0.1	<	<	1,400	0.1
Freight transportation arrangements	473	1,700	<	500	0.1	200	<	100	<	1,000	0.1
Misc. transportation services	478	900	<	<	<	<	<	<	<	900	0.1
Not allocated by detailed industry		900	<	<	<	100	<	200	<	500	<
Communications	48	152,700	2.9	25,800	4.6	45,600	2.5	25,000	2.0	56,300	3.4
Telephone communications	481	99,100	1.9	20,100	3.5	36,900	2.0	22,400	1.8	19,700	1.2
Telegraph and other communications	482	1,500	<	700	0.1	500	<	<	<	300	<
Radio and television broadcasting	483	32,600	0.6	2,900	0.5	2,000	0.1	1,400	0.1	26,300	1.6
Cable and other pay TV services	484	11,700	0.2	1,600	0.3	3,800	0.2	700	0.1	5,600	0.3
Communications services, n.e.c.	489	2,300	<	600	0.1	900	0.1	100	<	700	<
Not allocated by detailed industry		5,600	0.1	<	<	1,400	0.1	500	<	3,700	0.2
Utilities and sanitary services	49	79,800	1.5	9,200	1.6	16,100	0.9	26,100	2.1	28,400	1.7
Electric services	491	42,400	0.8	3,700	0.6	7,200	0.4	15,300	1.2	16,300	1.0
Gas production and distribution	492	5,400	0.1	1,300	0.2	1,200	0.1	1,200	0.1	1,800	0.1
Combination utility services	493	16,700	0.3	2,200	0.4	3,600	0.2	4,800	0.4	6,100	0.4
Water supply	494	800	<	200	<	100	<	200	<	300	<
Sanitary services	495	7,900	0.1	1,200	0.2	2,900	0.2	1,400	0.1	2,400	0.1
Not allocated by detailed industry		6,600	0.1	700	0.1	1,100	0.1	3,300	0.3	1,500	0.1
Wholesale trade		250,800	4.7	26,600	4.7	58,300	3.2	64,100	5.2	101,900	6.1
Wholesale trade, durable goods	50	219,800	4.1	20,700	3.6	47,200	2.6	61,500	5.0	90,400	5.4
Motor vehicles, parts, and supplies	501	3,400	0.1	900	0.2	300	<	1,100	0.1	1,100	0.1
Furniture and homefurnishings	502	800	<	300	0.1	200	<	100	<	200	<
Lumber and construction materials	503	1,600	<	400	0.1	400	<	100	<	700	<
Professional and commercial equipment	504	122,300	2.3	9,900	1.8	36,400	2.0	26,000	2.1	50,000	3.0
Metals and minerals, except petroleum	505	1,300	<	300	0.1	100	<	300	<	500	<
Electrical goods	506	51,200	1.0	5,300	0.9	4,800	0.3	21,300	1.7	19,900	1.2
Hardware, plumbing, and heating equipment	507	5,100	0.1	600	0.1	400	<	2,100	0.2	2,000	0.1
Machinery, equipment, and supplies	508	26,700	0.5	2,500	0.4	2,700	0.1	9,400	0.8	12,100	0.7
Miscellaneous durable goods	509	2,300	<	500	0.1	300	<	100	<	1,400	0.1
Not allocated by detailed industry		5,200	0.1	<	<	1,600	0.1	1,000	0.1	2,600	0.2
Wholesale trade, nondurable goods	51	31,000	0.6	5,900	1.0	11,100	0.6	2,500	0.2	11,500	0.7
Paper and paper products	511	3,200	0.1	600	0.1	900	<	100	<	1,600	0.1
Drugs, proprietaries, and sundries	512	5,700	0.1	900	0.2	2,300	0.1	100	<	2,300	0.1
Apparel, piece goods, and notions	513	2,300	<	500	0.1	900	0.1	100	<	800	<
Groceries and related products	514	5,300	0.1	1,800	0.3	1,600	0.1	200	<	1,800	0.1
Farm-product raw materials	515	300	<	100	<	200	<	<	<	100	<
Chemicals and allied products	516	4,100	0.1	300	0.1	1,200	0.1	1,000	0.1	1,600	0.1
Petroleum and petroleum products	517	1,100	<	300	0.1	300	<	300	<	300	<
Beer, wine, and distilled beverages	518	700	<	300	0.1	200	<	<	<	100	<
Misc. nondurable goods	519	4,500	0.1	1,000	0.2	1,600	0.1	300	<	1,700	0.1
Not allocated by detailed industry		3,700	0.1	100	<	2,000	0.1	500	<	1,200	0.1

See explanatory information and SOURCE at end of table.

Table 1. Employed scientists, engineers, technicians (SETs), and SET managers,
by detailed industry of employment: 1999
[Filled positions]

Detailed industry	SIC	Total SET personnel		Managers of SET personnel		Scientists		Engineers		Technicians	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Retail trade		54,000	1.0	10,700	1.9	24,700	1.3	5,500	0.4	13,100	0.8
Building materials and garden supplies	52	4,800	0.1	900	0.2	2,500	0.1	<	<	1,400	0.1
Lumber and other building materials	521	4,500	0.1	900	0.2	2,400	0.1	<	<	1,200	0.1
Paint, glass, and wallpaper stores	523	<	<	<	<	<	<	<	<	<	<
Hardware stores	525	<	<	<	<	<	<	<	<	<	<
Retail nurseries and garden stores	526	100	<	<	<	<	<	<	<	100	<
Not allocated by detailed industry		200	<	<	<	<	<	<	<	100	<
General merchandise stores	53	6,700	0.1	1,900	0.3	3,900	0.2	<	<	800	<
Department stores	531	6,600	0.1	1,900	0.3	3,900	0.2	<	<	800	<
Not allocated by detailed industry		100	<	<	<	100	<	<	<	<	<
Food stores	54	4,200	0.1	1,400	0.2	1,400	0.1	<	<	1,300	0.1
Grocery stores	541	4,000	0.1	1,300	0.2	1,400	0.1	<	<	1,200	0.1
Miscellaneous food stores	549	100	<	<	<	<	<	<	<	100	<
Not allocated by detailed industry		100	<	100	<	<	<	<	<	<	<
Automotive dealers and service stations	55	3,800	0.1	1,000	0.2	400	<	1,700	0.1	700	<
New and used car dealers	551	2,900	0.1	600	0.1	300	<	1,700	0.1	300	<
Auto and home supply stores	553	200	<	100	<	<	<	<	<	100	<
Gasoline service stations	554	200	<	200	<	<	<	<	<	<	<
Boat dealers	555	<	<	<	<	<	<	<	<	<	<
Not allocated by detailed industry		500	<	100	<	100	<	<	<	300	<
Apparel and accessory stores	56	2,000	<	600	0.1	400	<	<	<	1,000	0.1
Women's clothing stores	562	500	<	100	<	100	<	<	<	300	<
Family clothing stores	565	600	<	200	<	100	<	<	<	300	<
Shoe stores	566	300	<	300	<	<	<	<	<	<	<
Not allocated by detailed industry		700	<	100	<	200	<	<	<	500	<
Furniture and homefurnishings stores	57	18,700	0.4	2,000	0.4	8,900	0.5	3,100	0.2	4,700	0.3
Furniture and homefurnishings stores	571	1,200	<	500	0.1	200	<	<	<	600	<
Radio, television, and computer stores	573	15,600	0.3	1,500	0.3	8,700	0.5	1,300	0.1	4,100	0.2
Not allocated by detailed industry		1,900	<	<	<	100	<	1,800	0.1	<	<
Eating and drinking places	58	2,600	<	500	0.1	2,100	0.1	<	<	<	<
Eating and drinking places	581	2,600	<	500	0.1	2,100	0.1	<	<	<	<
Misc. retail stores	59	11,200	0.2	2,400	0.4	5,100	0.3	700	0.1	3,100	0.2
Drug stores and proprietary stores	591	300	<	100	<	<	<	<	<	100	<
Miscellaneous shopping goods stores	594	2,000	<	700	0.1	500	<	<	<	800	<
Nonstore retailers	596	5,700	0.1	1,100	0.2	2,600	0.1	100	<	1,900	0.1
Fuel dealers	598	100	<	<	<	<	<	<	<	<	<
Retail stores, n.e.c.	599	800	<	300	0.1	300	<	<	<	200	<
Not allocated by detailed industry		2,300	<	100	<	1,700	0.1	500	<	<	<

See explanatory information and SOURCE at end of table.

Table 1. Employed scientists, engineers, technicians (SETs), and SET managers,
by detailed industry of employment: 1999
[Filled positions]

Detailed industry	SIC	Total SET personnel		Managers of SET personnel		Scientists		Engineers		Technicians	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Finance, insurance, and real estate		296,300	5.6	48,200	8.5	176,400	9.6	6,900	0.6	64,700	3.9
Depository institutions	60	86,500	1.6	15,900	2.8	54,500	3.0	400	<	15,700	0.9
Central reserve depositories	601	1,100	<	100	<	1,000	0.1	<	<	<	<
Commercial banks	602	71,200	1.3	11,700	2.1	45,300	2.5	400	<	13,800	0.8
Savings institutions	603	6,700	0.1	1,600	0.3	4,200	0.2	<	<	1,000	0.1
Credit unions	606	4,000	0.1	1,600	0.3	2,000	0.1	<	<	400	<
Foreign banks and branches and agencies	608	400	<	400	0.1	<	<	<	<	<	<
Functions closely related to banking	609	2,300	<	500	0.1	1,400	0.1	<	<	400	<
Not allocated by detailed industry		800	<	<	<	600	<	<	<	200	<
Nondepository institutions	61	20,100	0.4	3,600	0.6	12,800	0.7	<	<	3,800	0.2
Federal and federally sponsored credit	611	500	<	100	<	400	<	<	<	<	<
Personal credit institutions	614	5,700	0.1	900	0.2	3,000	0.2	<	<	1,800	0.1
Business credit institutions	615	5,800	0.1	900	0.2	4,200	0.2	<	<	600	<
Mortgage bankers and brokers	616	7,100	0.1	1,600	0.3	4,200	0.2	<	<	1,300	0.1
Not allocated by detailed industry		1,000	<	<	<	900	<	<	<	100	<
Security and commodity brokers	62	34,100	0.6	4,700	0.8	20,500	1.1	<	<	8,900	0.5
Security brokers and dealers	621	23,300	0.4	3,400	0.6	13,400	0.7	<	<	6,500	0.4
Commodity contracts, brokers, and dealers	622	200	<	100	<	<	<	<	<	100	<
Security and commodity services	628	8,200	0.2	1,200	0.2	5,600	0.3	<	<	1,400	0.1
Not allocated by detailed industry		2,300	<	<	<	1,500	0.1	<	<	800	<
Insurance carriers	63	111,700	2.1	13,700	2.4	67,700	3.7	3,300	0.3	27,000	1.6
Life insurance	631	37,700	0.7	6,000	1.1	21,900	1.2	<	<	9,800	0.6
Medical service and health insurance	632	31,700	0.6	3,300	0.6	21,000	1.1	<	<	7,400	0.4
Fire, marine, and casualty insurance	633	35,000	0.7	3,100	0.6	21,200	1.2	2,000	0.2	8,700	0.5
Surety insurance	635	900	<	200	<	500	<	<	<	300	<
Title insurance	636	1,800	<	600	0.1	1,000	0.1	<	<	200	<
Pension, health, and welfare funds	637	2,000	<	400	0.1	1,000	0.1	<	<	600	<
Not allocated by detailed industry		2,500	<	100	<	1,100	0.1	1,300	0.1	<	<
Insurance agents, brokers, and service	64	21,000	0.4	5,400	1.0	10,500	0.6	800	0.1	4,300	0.3
Insurance agents, brokers, and service	641	21,000	0.4	5,400	1.0	10,500	0.6	800	0.1	4,300	0.3
Real estate	65	10,300	0.2	1,800	0.3	3,000	0.2	1,800	0.1	3,700	0.2
Real estate operators and lessors	651	1,800	<	600	0.1	500	<	300	<	400	<
Real estate agents and managers	653	6,300	0.1	1,000	0.2	2,200	0.1	700	0.1	2,400	0.1
Title abstract offices	654	300	<	100	<	100	<	<	<	100	<
Subdividers and developers	655	900	<	100	<	100	<	300	<	500	<
Not allocated by detailed industry		1,000	<	<	<	100	<	500	<	400	<
Holding and other investment offices	67	12,600	0.2	3,100	0.5	7,500	0.4	600	<	1,500	0.1
Holding offices	671	6,500	0.1	1,800	0.3	3,500	0.2	300	<	900	0.1
Investment offices	672	200	<	100	<	<	<	<	<	100	<
Trusts	673	900	<	400	0.1	500	<	<	<	100	<
Misc. investing	679	3,000	0.1	800	0.1	1,900	0.1	<	<	400	<
Not allocated by detailed industry		2,000	<	<	<	1,600	0.1	300	<	100	<

See explanatory information and SOURCE at end of table.

Table 1. Employed scientists, engineers, technicians (SETs), and SET managers,
by detailed industry of employment: 1999
[Filled positions]

Detailed industry	SIC	Total SET personnel		Managers of SET personnel		Scientists		Engineers		Technicians	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Services		2,207,500	41.6	211,500	37.4	946,500	51.4	341,400	27.7	708,100	42.6
Hotels and other lodging places	70	3,000	0.1	500	0.1	1,100	0.1	200	<	1,200	0.1
Hotels and motels	701	3,000	0.1	500	0.1	1,000	0.1	200	<	1,200	0.1
Not allocated by detailed industry		<	<	<	<	<	<	<	<	<	<
Personal services	72	1,900	<	200	<	200	<	300	<	1,100	0.1
Laundry, cleaning, and garment services	721	600	<	100	<	<	<	300	<	100	<
Photographic studios, portrait	722	100	<	<	<	<	<	<	<	100	<
Funeral service and crematories	726	100	<	<	<	<	<	<	<	100	<
Misc. personal services	729	700	<	<	<	<	<	<	<	700	<
Not allocated by detailed industry		300	<	100	<	200	<	<	<	<	<
Business services	73	986,000	18.6	88,500	15.6	513,400	27.9	74,600	6.1	309,500	18.6
Advertising	731	8,900	0.2	1,000	0.2	5,500	0.3	<	<	2,400	0.1
Credit reporting and collection	732	2,000	<	500	0.1	800	<	<	<	700	<
Mailing, reproduction, and stenographic	733	6,200	0.1	1,000	0.2	2,400	0.1	200	<	2,600	0.2
Services to buildings	734	300	<	100	<	<	<	200	<	<	<
Misc. equipment rental and leasing	735	3,700	0.1	200	<	200	<	400	<	3,000	0.2
Personnel supply services	736	73,200	1.4	2,600	0.5	12,100	0.7	14,000	1.1	44,500	2.7
Computer and data processing services	737	827,000	15.6	77,400	13.7	471,700	25.6	42,900	3.5	235,000	14.1
Misc. business services	738	34,300	0.6	5,200	0.9	11,800	0.6	2,700	0.2	14,700	0.9
Not allocated by detailed industry		30,500	0.6	500	0.1	9,000	0.5	14,300	1.2	6,700	0.4
Auto repair, services, and parking	75	2,000	<	200	<	300	<	<	<	1,500	0.1
Automobile rentals, no drivers	751	800	<	200	<	200	<	<	<	400	<
Automobile repair shops	753	100	<	<	<	100	<	<	<	<	<
Automobile services, except repair	754	800	<	<	<	<	<	<	<	800	<
Not allocated by detailed industry		300	<	<	<	<	<	<	<	300	<
Misc. repair services	76	6,200	0.1	200	<	400	<	1,600	0.1	4,000	0.2
Electrical repair shops	762	3,300	0.1	<	<	100	<	900	0.1	2,300	0.1
Misc. repair shops	769	2,200	<	200	<	300	<	100	<	1,600	0.1
Not allocated by detailed industry		700	<	<	<	<	<	600	<	100	<
Motion pictures	78	16,100	0.3	800	0.1	700	<	<	<	14,700	0.9
Motion picture production and services	781	15,200	0.3	600	0.1	500	<	<	<	14,100	0.8
Motion picture distribution and services	782	200	<	100	<	<	<	<	<	100	<
Motion picture theaters	783	100	<	100	<	<	<	<	<	<	<
Not allocated by detailed industry		700	<	<	<	200	<	<	<	500	<
Amusement and recreation services	79	7,500	0.1	400	0.1	400	<	200	<	6,400	0.4
Producers, orchestras, and entertainers	792	3,100	0.1	100	<	<	<	<	<	3,100	0.2
Commercial sports	794	1,200	<	<	<	<	<	<	<	1,200	0.1
Misc. amusement, recreation services	799	2,500	<	200	<	200	<	100	<	2,000	0.1
Not allocated by detailed industry		700	<	100	<	200	<	100	<	300	<

See explanatory information and SOURCE at end of table.

Table 1. Employed scientists, engineers, technicians (SETs), and SET managers,
by detailed industry of employment: 1999
[Filled positions]

Detailed industry	SIC	Total SET personnel		Managers of SET personnel		Scientists		Engineers		Technicians	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Health services	80	104,000	2.0	13,600	2.4	72,300	3.9	2,600	0.2	15,500	0.9
Offices and clinics of medical doctors	801	12,300	0.2	2,200	0.4	9,000	0.5	<	<	1,100	0.1
Offices of other health practitioners	804	8,900	0.2	100	<	8,600	0.5	<	<	200	<
Nursing and personal care facilities	805	1,600	<	500	0.1	900	<	<	<	100	<
Hospitals	806	62,700	1.2	8,200	1.5	41,300	2.2	2,000	0.2	11,200	0.7
Medical and dental laboratories	807	4,900	0.1	800	0.1	1,900	0.1	100	<	2,100	0.1
Home health care services	808	1,300	<	600	0.1	500	<	<	<	300	<
Health and allied services, n.e.c.	809	7,800	0.1	700	0.1	6,700	0.4	<	<	400	<
Not allocated by detailed industry		4,600	0.1	500	0.1	3,400	0.2	500	<	100	<
Legal services	81	11,600	0.2	3,500	0.6	6,200	0.3	<	<	1,900	0.1
Legal services	811	11,600	0.2	3,500	0.6	6,200	0.3	<	<	1,900	0.1
Educational services	82	111,300	2.1	11,400	2.0	76,200	4.1	600	<	23,100	1.4
Elementary and secondary schools	821	54,200	1.0	900	0.2	48,500	2.6	<	<	4,900	0.3
Colleges, universities, and professional	822	52,800	1.0	10,000	1.8	25,600	1.4	<	<	17,200	1.0
Libraries	823	300	<	100	<	200	<	<	<	<	<
Vocational schools	824	1,700	<	200	<	1,100	0.1	400	<	<	<
Schools and educational services, n.e.c.	829	1,400	<	300	0.1	500	<	<	<	500	<
Not allocated by detailed industry		900	<	<	<	300	<	200	<	500	<
Social services	83	21,100	0.4	2,400	0.4	16,900	0.9	<	<	1,800	0.1
Individual and family services	832	10,900	0.2	700	0.1	9,500	0.5	<	<	600	<
Job training and related services	833	1,500	<	300	0.1	900	<	<	<	300	<
Child day care services	835	800	<	200	<	500	<	<	<	200	<
Residential care	836	5,100	0.1	500	0.1	4,200	0.2	<	<	300	<
Social services, n.e.c.	839	2,600	<	600	0.1	1,600	0.1	<	<	400	<
Not allocated by detailed industry		300	<	<	<	300	<	<	<	<	<
Museums, botanical, zoological gardens	84	1,500	<	300	0.1	900	<	<	<	400	<
Museums and art galleries	841	600	<	200	<	100	<	<	<	300	<
Botanical and zoological gardens	842	800	<	100	<	700	<	<	<	100	<
Not allocated by detailed industry		100	<	<	<	100	<	<	<	<	<
Membership organizations	86	11,400	0.2	2,500	0.4	6,400	0.3	<	<	2,500	0.1
Business associations	861	4,400	0.1	900	0.2	2,600	0.1	<	<	900	0.1
Professional organizations	862	2,600	<	700	0.1	1,300	0.1	<	<	700	<
Labor organizations	863	500	<	200	<	200	<	<	<	200	<
Civic and social associations	864	1,000	<	400	0.1	500	<	<	<	100	<
Political organizations	865	<	<	<	<	<	<	<	<	<	<
Religious organizations	866	400	<	100	<	100	<	<	<	200	<
Membership organizations, n.e.c.	869	800	<	200	<	400	<	<	<	200	<
Not allocated by detailed industry		1,700	<	200	<	1,300	0.1	<	<	200	<

See explanatory information and SOURCE at end of table.

Table 1. Employed scientists, engineers, technicians (SETs), and SET managers,
by detailed industry of employment: 1999
[Filled positions]

Detailed industry	SIC	Total SET personnel		Managers of SET personnel		Scientists		Engineers		Technicians	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Engineering and management services	87	914,100	17.2	86,400	15.3	244,400	13.3	260,300	21.1	323,100	19.4
Engineering and architectural services	871	528,300	10.0	48,100	8.5	58,400	3.2	203,900	16.6	217,900	13.1
Accounting, auditing, and bookkeeping	872	22,000	0.4	4,200	0.7	15,700	0.9	300	<	1,700	0.1
Research and testing services	873	206,900	3.9	16,900	3.0	92,700	5.0	31,300	2.5	66,100	4.0
Management and public relations	874	144,300	2.7	17,300	3.0	74,400	4.0	23,800	1.9	28,800	1.7
Not allocated by detailed industry		12,700	0.2	<	<	3,100	0.2	900	0.1	8,600	0.5
Services, n.e.c.	89	9,800	0.2	600	0.1	6,800	0.4	900	0.1	1,500	0.1
Services, n.e.c.	899	9,800	0.2	600	0.1	6,800	0.4	900	0.1	1,500	0.1
Public administration		619,500	11.7	60,900	10.8	255,300	13.9	137,100	11.1	166,200	10.0
Federal, state, and local government	90	619,500	11.7	60,900	10.8	255,300	13.9	137,100	11.1	166,200	10.0
Federal government	901	255,000	4.8	35,700	6.3	113,100	6.1	64,200	5.2	42,100	2.5
State government	902	193,500	3.6	11,400	2.0	72,300	3.9	42,500	3.5	67,300	4.0
Local government	903	161,700	3.1	13,700	2.4	62,900	3.4	29,900	2.4	55,300	3.3
Not allocated by detailed industry		9,300	0.2	<	<	7,100	0.4	600	<	1,600	0.1
Not allocated by industry		131,000	2.5	1,900	0.3	47,400	2.6	31,100	2.5	50,500	3.0

KEY: < = The estimated actual value is less than 50 for numbers and less than 0.05 for percentages.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTES: Because of rounding, components may not add to totals. Two-digit SIC information incorporates information on all 3-digit industries, including those 3-digit industries not displayed separately.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/ Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 2. Employed scientists, by broad industry group of employment
and detailed occupation: 1999
[Filled positions]

Broad industry group of employment	SIC	Total scientists	Physical scientists	Math scientists	Life scientists	Social scientists	Computer scientists
Total		1,842,400	181,600	74,400	94,100	238,200	1,254,100
Agriculture, forestry, and fishing		700	<	<	700	<	<
Agricultural services	07	700	<	<	700	<	<
Mining		6,800	6,100	<	<	100	700
Metal mining	10	700	700	<	<	<	<
Coal mining	12	100	100	<	<	<	<
Oil and gas extraction	13	5,900	5,200	<	<	100	600
Nonmetallic minerals, except fuels	14	200	100	<	<	<	100
Construction		3,400	100	<	<	100	3,300
General building contractors	15	700	<	<	<	100	600
Heavy construction, excluding building	16	400	<	<	<	<	400
Special trade contractors	17	2,400	100	<	<	<	2,400
Total manufacturing		253,900	50,000	3,200	13,200	11,700	175,900
Food and kindred products	20	8,300	2,400	<	1,100	200	4,700
Tobacco products	21	100	100	<	<	<	<
Textile mill products	22	1,400	400	<	<	<	1,000
Apparel and other textile products	23	500	<	<	<	<	500
Lumber and wood products	24	3,000	<	<	2,000	<	1,000
Furniture and fixtures	25	500	<	<	<	<	500
Paper and allied products	26	3,400	1,200	<	200	<	2,000
Printing and publishing	27	14,100	<	200	<	1,800	12,200
Chemicals and allied products	28	53,600	35,900	400	9,300	1,200	7,000
Petroleum and coal products	29	3,000	1,300	<	<	<	1,700
Rubber and misc. plastics products	30	3,500	1,500	<	<	100	1,900
Leather and leather products	31	100	<	<	<	<	100
Stone, clay and glass products	32	1,600	700	<	<	100	800
Primary metal industries	33	4,300	1,100	200	<	<	3,000
Fabricated metal products	34	4,700	700	<	<	300	3,700
Industrial machinery and equipment	35	63,700	400	600	<	3,200	59,400
Electronic & other electric equipment	36	43,500	1,100	300	<	2,400	39,800
Transportation equipment	37	14,100	500	1,000	<	800	11,900
Instruments and related products	38	28,700	2,600	600	700	1,600	23,200
Miscellaneous manufacturing industries	39	1,900	200	<	<	100	1,600
Transportation, communications, and utilities		69,000	5,300	2,900	100	5,100	55,600
Railroad transportation	40	300	<	<	<	<	300
Local and interurban transit	41	100	<	<	<	<	100
Trucking and warehousing	42	1,200	<	100	<	100	900
Water transportation	44	100	<	<	<	<	100
Transportation by air	45	3,200	200	700	<	600	1,700
Transportation services	47	2,400	<	100	<	<	2,300
Communications	48	45,600	800	800	<	3,100	41,000
Utilities and sanitary services	49	16,100	4,300	1,200	100	1,300	9,200

See explanatory information and SOURCE at end of table.

Table 2. Employed scientists, by broad industry group of employment
and detailed occupation: 1999
[Filled positions]

Broad industry group of employment	SIC	Total scientists	Physical scientists	Math scientists	Life scientists	Social scientists	Computer scientists
Wholesale trade		58,300	2,400	200	1,200	5,700	48,800
Wholesale trade, durable goods	50	47,200	200	<	<	4,500	42,500
Wholesale trade, nondurable goods	51	11,100	2,200	200	1,200	1,200	6,300
Retail trade		24,700	<	100	<	1,400	23,200
Building materials and garden supplies	52	2,500	<	<	<	<	2,500
General merchandise stores	53	3,900	<	100	<	400	3,400
Food stores	54	1,400	<	<	<	100	1,300
Automotive dealers and service stations	55	400	<	<	<	<	400
Apparel and accessory stores	56	400	<	<	<	<	400
Furniture and homefurnishings stores	57	8,900	<	<	<	<	8,900
Eating and drinking places	58	2,100	<	<	<	<	2,100
Misc. retail stores	59	5,100	<	<	<	900	4,100
Finance, insurance, and real estate		176,400	100	20,000	<	17,000	139,300
Depository institutions	60	54,500	<	5,100	<	3,500	45,900
Nondepository institutions	61	12,800	<	400	<	1,400	11,000
Security and commodity brokers	62	20,500	<	1,400	<	4,800	14,300
Insurance carriers	63	67,700	<	11,200	<	4,200	52,300
Insurance agents, brokers, and service	64	10,500	<	1,500	<	1,800	7,200
Real estate	65	3,000	<	<	<	800	2,200
Holding and other investment offices	67	7,500	100	400	<	600	6,300
Services		946,500	61,800	27,600	37,400	141,900	677,800
Hotels and other lodging places	70	1,100	<	<	<	100	1,000
Personal services	72	200	<	<	<	<	200
Business services	73	513,400	2,100	11,400	700	12,000	487,200
Auto repair, services, and parking	75	300	<	<	<	<	300
Misc. repair services	76	400	<	<	<	<	400
Motion pictures	78	700	<	<	<	<	700
Amusement and recreation services	79	400	<	<	<	100	300
Health services	80	72,300	1,200	1,900	12,900	31,300	25,000
Legal services	81	6,200	<	<	<	<	6,200
Educational services	82	76,200	<	1,500	<	40,700	34,000
Social services	83	16,900	100	200	<	14,000	2,600
Museums, botanical, zoological gardens	84	900	<	<	700	100	100
Membership organizations	86	6,400	300	600	500	2,800	2,300
Engineering and management services	87	244,400	55,300	9,000	22,400	40,600	117,100
Services, n.e.c.	89	6,800	2,800	3,100	300	200	400

See explanatory information and SOURCE at end of table.

Table 2. Employed scientists, by broad industry group of employment
and detailed occupation: 1999
[Filled positions]

Broad industry group of employment	SIC	Total scientists	Physical scientists	Math scientists	Life scientists	Social scientists	Computer scientists
Public administration		255,300	52,400	15,000	37,800	47,500	102,800
Federal, state, and local government	90	255,300	52,400	15,000	37,800	47,500	102,800
Not allocated by industry		47,400	3,700	5,400	3,800	7,800	26,800

KEY: < = The estimated actual value is less than 50.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTES: Because of rounding, components may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/ Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 3. Employed engineers, by broad industry group of employment
and detailed occupation: 1999
[Filled positions]

Broad industry group of employment	SIC	Engineers								
		Total	Aeronautical	Civil	Computer	Electrical/ electronics	Industrial	Mechanical	Sales	Other
Total		1,231,600	71,800	209,100	60,400	256,000	155,900	202,900	93,600	181,800
Agriculture, forestry, and fishing		300	<	200	<	<	<	<	<	100
Agricultural services	07	300	<	200	<	<	<	<	<	100
Mining		13,200	<	1,400	<	300	1,100	200	300	9,900
Metal mining	10	1,200	<	100	<	<	<	100	<	1,000
Coal mining	12	700	<	<	<	<	<	<	<	700
Oil and gas extraction	13	10,700	<	1,300	<	300	1,100	100	300	7,700
Nonmetallic minerals, except fuels	14	500	<	<	<	<	<	<	<	500
Construction		42,400	<	23,000	<	6,400	1,400	4,000	4,000	3,600
General building contractors	15	12,500	<	9,200	<	500	400	900	400	1,100
Heavy construction, excluding building	16	11,600	<	10,000	<	<	300	200	100	1,100
Special trade contractors	17	18,300	<	3,900	<	5,900	700	3,000	3,500	1,300
Total manufacturing		524,200	54,300	4,000	23,900	114,500	117,500	123,300	29,200	57,500
Food and kindred products	20	7,300	<	<	<	100	4,400	1,600	100	1,200
Textile mill products	22	2,700	<	<	<	<	1,500	500	200	400
Apparel and other textile products	23	1,100	<	<	<	<	800	300	<	<
Lumber and wood products	24	1,800	<	<	<	<	1,300	500	<	100
Furniture and fixtures	25	3,500	<	<	<	<	2,300	1,000	<	200
Paper and allied products	26	8,600	<	200	<	800	3,300	1,800	300	2,200
Printing and publishing	27	1,000	<	<	<	200	400	200	<	200
Chemicals and allied products	28	34,500	<	600	<	2,000	5,200	3,600	1,700	21,500
Petroleum and coal products	29	3,500	<	100	<	200	1,300	300	200	1,500
Rubber and misc. plastics products	30	17,700	<	100	<	700	7,300	4,500	2,100	2,900
Leather and leather products	31	100	<	<	<	<	100	<	<	<
Stone, clay and glass products	32	5,300	<	400	<	600	1,200	900	700	1,500
Primary metal industries	33	13,100	<	100	100	1,200	3,800	3,400	700	3,900
Fabricated metal products	34	26,700	<	1,200	<	2,200	7,800	10,300	1,800	3,300
Industrial machinery and equipment	35	114,000	100	<	10,100	24,900	19,300	44,400	10,600	4,600
Electronic & other electric equipment	36	104,000	500	700	9,600	45,400	20,100	16,500	6,000	5,300
Transportation equipment	37	97,400	43,600	100	700	3,100	25,300	18,900	1,400	4,400
Instruments and related products	38	79,100	10,200	500	3,500	32,400	11,100	13,800	3,300	4,200
Miscellaneous manufacturing industries	39	2,800	<	<	<	700	900	900	100	300

See explanatory information and SOURCE at end of table.

Table 3. Employed engineers, by broad industry group of employment
and detailed occupation: 1999
[Filled positions]

Broad industry group of employment	SIC	Engineers								
		Total	Aeronautical	Civil	Computer	Electrical/ electronics	Industrial	Mechanical	Sales	Other
Transportation, communications, and utilities		65,500	100	3,500	6,400	24,400	4,400	2,500	3,700	20,500
Railroad transportation	40	11,200	<	300	<	<	<	<	<	10,900
Trucking and warehousing	42	500	<	<	<	<	200	<	<	300
Water transportation	44	1,200	<	<	<	<	<	<	<	1,200
Transportation by air	45	700	100	100	200	<	100	100	<	100
Pipelines, except natural gas	46	500	<	200	<	100	100	100	<	100
Transportation services	47	300	<	<	<	<	100	<	<	100
Communications	48	25,000	<	200	6,200	13,300	1,900	100	3,200	100
Utilities and sanitary services	49	26,100	<	2,700	<	11,000	2,000	2,300	400	7,700
Wholesale trade		64,100	<	200	1,600	20,600	2,100	7,500	31,200	800
Wholesale trade, durable goods	50	61,500	<	200	1,600	20,600	1,600	7,200	30,300	100
Wholesale trade, nondurable goods	51	2,500	<	<	<	<	500	300	1,000	700
Retail trade		5,500	<	<	800	<	300	100	4,300	<
General merchandise stores	53	<	<	<	<	<	<	<	<	<
Food stores	54	<	<	<	<	<	<	<	<	<
Automotive dealers and service stations	55	1,700	<	<	<	<	<	<	1,700	<
Furniture and homefurnishings stores	57	3,100	<	<	800	<	<	<	2,300	<
Misc. retail stores	59	700	<	<	<	<	300	100	300	<
Finance, insurance, and real estate		6,900	<	800	300	400	900	1,100	400	3,100
Depository institutions	60	400	<	<	<	400	<	<	<	<
Insurance carriers	63	3,300	<	100	300	<	900	<	<	2,100
Insurance agents, brokers, and service	64	800	<	<	<	<	<	<	<	800
Real estate	65	1,800	<	500	<	<	<	1,100	200	<
Holding and other investment offices	67	600	<	200	<	<	<	<	200	200
Services		341,400	4,900	112,000	23,500	60,000	23,700	51,800	17,900	47,600
Hotels and other lodging places	70	200	<	<	<	100	<	100	<	<
Personal services	72	300	<	<	<	<	300	<	<	<
Business services	73	74,600	<	900	18,500	12,200	15,400	14,800	11,900	900
Misc. repair services	76	1,600	<	<	<	1,400	100	<	100	<
Amusement and recreation services	79	200	<	<	<	100	<	<	<	200
Health services	80	2,600	<	100	<	100	100	<	<	2,400
Educational services	82	600	<	<	<	<	<	<	600	<
Museums, botanical, zoological gardens	84	<	<	<	<	<	<	<	<	<
Engineering and management services	87	260,300	4,900	110,500	5,000	46,200	7,800	36,700	5,200	43,900
Services, n.e.c.	89	900	<	500	<	<	<	100	<	300

See explanatory information and SOURCE at end of table.

Table 3. Employed engineers, by broad industry group of employment
and detailed occupation: 1999
[Filled positions]

Broad industry group of employment	SIC	Engineers								
		Total	Aeronautical	Civil	Computer	Electrical/ electronics	Industrial	Mechanical	Sales	Other
Public administration		137,100	6,700	62,300	2,300	27,500	3,000	10,400	<	25,000
Federal, state, and local government	90	137,100	6,700	62,300	2,300	27,500	3,000	10,400	<	25,000
Not allocated by industry		31,100	5,800	1,800	1,700	2,000	1,500	2,100	2,700	13,700

KEY: < = The estimated actual value is less than 50.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTES: Because of rounding, components may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/ Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 4. Employed technicians, by broad industry group of employment
and detailed occupation: 1999
[Filled positions]

Broad industry group of employment	SIC	Total	Computer programmers	Drafters	Science[1]	Engineering technicians				
						Total	Electrical/ electronic	Mechanical	Civil	Other
Total		1,662,900	552,800	198,600	197,100	714,400	282,500	57,600	91,000	283,300
Agriculture, forestry, and fishing		2,500	<	700	1,800	<	<	<	<	<
Agricultural services	07	2,500	<	700	1,800	<	<	<	<	<
Mining		12,200	1,300	400	7,100	3,400	900	300	200	2,000
Metal mining	10	700	<	<	300	400	100	<	<	300
Coal mining	12	400	<	<	100	300	<	<	<	300
Oil and gas extraction	13	10,700	1,200	400	6,500	2,500	800	300	200	1,300
Nonmetallic minerals, except fuels	14	500	100	<	300	100	<	<	<	100
Construction		32,700	1,700	15,600	<	15,400	8,000	900	2,300	4,200
General building contractors	15	8,900	600	5,300	<	2,900	100	<	1,800	1,000
Heavy construction, excluding building	16	2,900	100	600	<	2,200	100	<	200	1,900
Special trade contractors	17	21,000	1,100	9,600	<	10,200	7,800	900	300	1,200
Total manufacturing		413,200	78,300	66,400	71,600	196,800	112,300	32,600	600	51,300
Food and kindred products	20	11,200	1,600	<	8,200	1,400	100	900	<	400
Textile mill products	22	3,600	1,500	<	1,100	900	100	100	<	700
Apparel and other textile products	23	1,400	900	100	<	400	<	100	<	400
Lumber and wood products	24	4,300	800	1,700	800	1,100	<	200	<	800
Furniture and fixtures	25	4,300	1,100	1,300	100	1,800	<	100	<	1,700
Paper and allied products	26	3,000	900	300	900	900	200	200	<	600
Printing and publishing	27	10,400	8,200	<	<	2,300	400	<	<	1,900
Chemicals and allied products	28	55,400	3,100	800	44,400	7,100	1,600	1,900	<	3,500
Petroleum and coal products	29	5,200	400	<	4,500	300	<	<	<	300
Rubber and misc. plastics products	30	10,600	1,900	1,000	2,000	5,700	1,500	1,800	<	2,400
Leather and leather products	31	200	100	<	100	<	<	<	<	<
Stone, clay and glass products	32	4,400	400	700	1,200	2,200	900	200	400	700
Primary metal industries	33	9,100	1,500	1,300	2,400	3,900	1,500	800	<	1,500
Fabricated metal products	34	24,600	5,000	11,000	800	7,800	2,200	2,900	<	2,600
Industrial machinery and equipment	35	85,800	29,500	22,500	1,300	32,500	17,800	9,000	<	5,700
Electronic & other electric equipment	36	93,600	9,100	10,200	900	73,500	58,800	5,400	<	9,200
Transportation equipment	37	38,700	7,200	8,400	1,900	21,100	5,300	4,400	200	11,200
Instruments and related products	38	44,200	4,400	6,200	1,000	32,700	21,200	4,200	<	7,400
Miscellaneous manufacturing industries	39	3,200	800	1,000	100	1,300	600	400	<	300

See explanatory information and SOURCE at end of table.

Table 4. Employed technicians, by broad industry group of employment
and detailed occupation: 1999
[Filled positions]

Broad industry group of employment	SIC	Total	Computer programmers	Drafters	Science[1]	Engineering technicians				
						Total	Electrical/ electronic	Mechanical	Civil	Other
Transportation, communications, and utilities		97,800	13,600	4,700	4,700	74,900	28,500	1,200	3,900	41,400
Railroad transportation	40	300	200	<	<	100	100	<	<	<
Local and interurban transit	41	200	<	<	<	100	<	<	<	100
Trucking and warehousing	42	2,600	1,700	<	<	1,000	<	<	<	1,000
Water transportation	44	700	200	<	<	500	<	<	<	500
Transportation by air	45	5,400	900	<	<	4,500	300	<	<	4,200
Pipelines, except natural gas	46	100	<	<	<	100	<	<	<	100
Transportation services	47	3,800	2,500	<	<	1,400	<	<	<	1,400
Communications	48	56,300	4,300	1,100	<	50,800	19,800	300	2,400	28,300
Utilities and sanitary services	49	28,400	3,700	3,600	4,700	16,400	8,100	900	1,500	5,900
Wholesale trade		101,900	48,000	3,500	2,500	47,900	45,700	1,800	<	400
Wholesale trade, durable goods	50	90,400	40,500	3,500	200	46,300	44,200	1,700	<	400
Wholesale trade, nondurable goods	51	11,500	7,500	<	2,400	1,600	1,500	100	<	<
Retail trade		13,100	11,000	1,500	<	600	500	<	<	200
Building materials and garden supplies	52	1,400	400	1,000	<	<	<	<	<	<
General merchandise stores	53	800	700	<	<	100	100	<	<	<
Food stores	54	1,300	1,200	200	<	<	<	<	<	<
Automotive dealers and service stations	55	700	300	<	<	400	200	<	<	200
Apparel and accessory stores	56	1,000	1,000	<	<	<	<	<	<	<
Furniture and homefurnishings stores	57	4,700	4,300	300	<	100	100	<	<	<
Misc. retail stores	59	3,100	2,900	100	<	100	100	<	<	<
Finance, insurance, and real estate		64,700	62,900	500	300	1,100	700	<	<	400
Depository institutions	60	15,700	15,600	<	<	100	<	<	<	100
Nondepository institutions	61	3,800	3,800	<	<	<	<	<	<	<
Security and commodity brokers	62	8,900	8,900	<	<	<	<	<	<	<
Insurance carriers	63	27,000	26,600	<	300	100	<	<	<	100
Insurance agents, brokers, and service	64	4,300	4,300	<	<	<	<	<	<	<
Real estate	65	3,700	2,300	500	<	900	700	<	<	300
Holding and other investment offices	67	1,500	1,400	<	100	<	<	<	<	<

See explanatory information and SOURCE at end of table.

Table 4. Employed technicians, by broad industry group of employment
and detailed occupation: 1999
[Filled positions]

Broad industry group of employment	SIC	Total	Computer programmers	Drafters	Science[1]	Engineering technicians				
						Total	Electrical/ electronic	Mechanical	Civil	Other
Services		708,100	311,200	96,400	56,400	244,100	60,800	19,100	40,700	123,500
Hotels and other lodging places	70	1,200	300	<	<	1,000	200	<	<	800
Personal services	72	1,100	1,100	<	<	<	<	<	<	<
Business services	73	309,500	250,000	10,900	1,900	46,600	28,600	4,100	<	14,000
Auto repair, services, and parking	75	1,500	500	<	<	1,000	<	<	<	1,000
Misc. repair services	76	4,000	200	500	<	3,300	3,300	<	<	<
Motion pictures	78	14,700	1,000	<	<	13,600	400	<	<	13,300
Amusement and recreation services	79	6,400	700	<	<	5,700	300	<	<	5,500
Health services	80	15,500	9,300	100	5,100	1,000	400	200	<	400
Legal services	81	1,900	1,900	<	<	<	<	<	<	<
Educational services	82	23,100	17,200	<	<	5,800	<	<	<	5,800
Social services	83	1,800	1,800	<	<	<	<	<	<	<
Museums, botanical, zoological gardens	84	400	200	<	<	200	<	<	<	200
Membership organizations	86	2,500	2,100	<	300	100	<	<	<	100
Engineering and management services	87	323,100	24,400	84,900	48,500	165,300	27,600	14,800	40,500	82,400
Services, n.e.c.	89	1,500	400	100	600	500	100	<	100	200
Public administration		166,200	21,600	6,100	42,400	96,100	22,100	300	37,600	36,100
Federal, state, and local government	90	166,200	21,600	6,100	42,400	96,100	22,100	300	37,600	36,100
Not allocated by industry		50,500	3,300	2,700	10,200	34,300	3,100	1,500	5,900	23,900

[1]The classification "science technicians" includes biological, agricultural, and food technicians and technologists, except health; chemical technicians and technologists, except health; nuclear technicians and technologists; petroleum technicians and technologists; all other physical and life science technicians and technologists; and mathematical technicians.

KEY: < = The estimated actual value is less than 50.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTES: Because of rounding, components may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/ Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 5. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 07 and 10-17 (agricultural services, mining, and construction), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Crop services (SIC 0720)			
Scientific and technical personnel	410	0.3	(nc)
Engineers	60	0.1	(nc)
Other engineers	60	0.1	(nc)
Agricultural	60	0.1	35
Technicians	350	0.3	(nc)
Physical and life science technicians	350	0.3	(nc)
Agricultural and food science technicians	350	0.3	43
Animal services, except veterinary (SIC 0750)			
Scientific and technical personnel	1,470	2.6	(nc)
Scientists	110	0.2	(nc)
Life scientists	110	0.2	(nc)
Agricultural scientists	110	0.2	38
Technicians	1,360	2.4	(nc)
Physical and life science technicians	1,360	2.4	(nc)
Agricultural and food science technicians	1,360	2.4	24
Landscape and horticultural services (SIC 0780)			
Scientific and technical personnel	890	0.2	(nc)
Engineers	190	<	(nc)
Civil	190	<	35
Technicians	700	0.1	(nc)
Drafters	700	0.1	(nc)
Architectural and civil drafters	700	0.1	32
Gold and silver ores (SIC 1040)			
Scientific and technical personnel	1,420	9.4	(nc)
Managers of scientific and technical personnel	180	1.2	(nc)
Computer and information systems managers	30	0.2	19
Engineering managers	120	0.8	34
Natural sciences managers	30	0.2	42
Scientists	300	2.0	(nc)
Physical scientists	300	2.0	(nc)
Chemists	50	0.3	24
Environmental scientists and specialists, including health	30	0.2	34
Geoscientists, except hydrologists and geographers	220	1.5	14

See explanatory information and SOURCE at end of table.

Table 5. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 07 and 10-17 (agricultural services, mining, and construction), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Gold and silver ores (SIC 1040) -- continued:			
Engineers	460	3.1	(nc)
Other engineers	460	3.1	(nc)
Environmental	80	0.5	15
Mining and geological	380	2.5	12
Technicians	480	3.2	(nc)
Engineering technicians	130	0.9	(nc)
Electronical/electronics engineering technicians	90	0.6	40
Environmental engineering technicians	40	0.3	33
Physical and life science technicians	250	1.7	(nc)
Chemical technicians, except health	250	1.7	38
Surveying, cartographic, photogrammetric, and mapping technicians	100	0.7	(nc)
Surveying and mapping technicians	50	0.3	32
Surveyors	50	0.3	20
Metal mining services (SIC 1080)			
Scientific and technical personnel	170	6.9	(nc)
Scientists	170	6.9	(nc)
Physical scientists	170	6.9	(nc)
Geoscientists, except hydrologists and geographers	170	6.9	27
Misc. metal ores, n.e.c. (SIC 1090)			
Scientific and technical personnel	140	13.2	(nc)
Managers of scientific and technical personnel	40	3.8	(nc)
Engineering managers	40	3.8	37
Engineers	100	9.4	(nc)
Other engineers	100	9.4	(nc)
Mining and geological	100	9.4	29
Bituminous coal and lignite mining (SIC 1220)			
Scientific and technical personnel	1,430	1.9	(nc)
Managers of scientific and technical personnel	250	0.3	(nc)
Computer and information systems managers	60	0.1	47
Engineering managers	190	0.3	13
Scientists	60	0.1	(nc)
Physical scientists	60	0.1	(nc)
Chemists	30	<	37
Environmental scientists and specialists, including health	30	<	37

See explanatory information and SOURCE at end of table.

Table 5. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 07 and 10-17 (agricultural services, mining, and construction), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Bituminous coal and lignite mining (SIC 1220) -- continued:			
Engineers	720	0.9	(nc)
Electrical/electronics	40	0.1	(nc)
Electrical	40	0.1	24
Other engineers	680	0.9	(nc)
Mining and geological	680	0.9	16
Technicians	400	0.5	(nc)
Engineering technicians	30	<	(nc)
Civil engineering technicians	30	<	40
Physical and life science technicians	70	0.1	(nc)
Chemical technicians, except health	70	0.1	32
Surveying, cartographic, photogrammetric, and mapping technicians	300	0.4	(nc)
Surveying and mapping technicians	90	0.1	24
Surveyors	210	0.3	21
Crude petroleum and natural gas (SIC 1310)			
Scientific and technical personnel	17,560	14.0	(nc)
Managers of scientific and technical personnel	1,550	1.2	(nc)
Computer and information systems managers	160	0.1	18
Engineering managers	1,130	0.9	13
Natural sciences managers	260	0.2	22
Scientists	3,880	3.1	(nc)
Computer scientists	350	0.3	(nc)
Computer systems analysts	350	0.3	34
Physical scientists	3,530	2.8	(nc)
Environmental scientists and specialists, including health	350	0.3	24
Geoscientists, except hydrologists and geographers	3,180	2.5	14
Engineers	7,070	5.7	(nc)
Civil	170	0.1	38
Industrial	890	0.7	26
Mechanical	120	0.1	48
Other engineers	5,890	4.7	(nc)
Environmental	140	0.1	29
Mining and geological	1,610	1.3	26
Petroleum	4,060	3.3	12
Safety	80	0.1	25

See explanatory information and SOURCE at end of table.

Table 5. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 07 and 10-17 (agricultural services, mining, and construction), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Crude petroleum and natural gas (SIC 1310) -- continued:			
Technicians	5,060	4.0	(nc)
Computer, numerical tool, and process control programmers	450	0.4	(nc)
Computer programmers	450	0.4	16
Engineering technicians	360	0.3	(nc)
Civil engineering technicians	50	<	36
Environmental engineering technicians	40	<	50
Industrial engineering technicians	140	0.1	32
Mechanical engineering technicians	130	0.1	50
Physical and life science technicians	4,050	3.2	(nc)
Geological and petroleum technicians	4,050	3.2	14
Surveying, cartographic, photogrammetric, and mapping technicians	200	0.2	(nc)
Surveying and mapping technicians	200	0.2	32
Oil and gas field services (SIC 1380)			
Scientific and technical personnel	6,260	3.7	(nc)
Managers of scientific and technical personnel	770	0.5	(nc)
Computer and information systems managers	80	0.1	42
Engineering managers	550	0.3	14
Natural sciences managers	140	0.1	25
Scientists	1,580	0.9	(nc)
Physical scientists	1,580	0.9	(nc)
Environmental scientists and specialists, including health	30	<	43
Geoscientists, except hydrologists and geographers	1,550	0.9	19
Engineers	1,820	1.1	(nc)
Electrical/electronics	170	0.1	(nc)
Electrical	170	0.1	42
Sales	250	0.2	23
Other engineers	1,400	0.8	(nc)
Environmental	120	0.1	27
Mining and geological	60	<	27
Petroleum	1,180	0.7	22
Safety	40	<	42
Technicians	2,090	1.3	(nc)
Computer, numerical tool, and process control programmers	750	0.5	(nc)
Computer programmers	750	0.5	21
Drafters	340	0.2	(nc)
Mechanical drafters	340	0.2	45
Engineering technicians	210	0.1	(nc)
Electro-mechanical technicians	80	0.1	42
Mechanical engineering technicians	130	0.1	40
Surveying, cartographic, photogrammetric, and mapping technicians	790	0.5	(nc)
Surveying and mapping technicians	300	0.2	35
Surveyors	490	0.3	40

See explanatory information and SOURCE at end of table.

Table 5. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 07 and 10-17 (agricultural services, mining, and construction), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Crushed and broken stone (SIC 1420)			
Scientific and technical personnel	760	1.7	(nc)
Managers of scientific and technical personnel	120	0.3	(nc)
Computer and information systems managers	50	0.1	29
Engineering managers	70	0.2	22
Scientists	120	0.3	(nc)
Computer scientists	50	0.1	(nc)
Computer systems analysts	50	0.1	11
Physical scientists	70	0.2	(nc)
Chemists	30	0.1	30
Geoscientists, except hydrologists and geographers	40	0.1	26
Engineers	340	0.8	(nc)
Industrial	30	0.1	27
Other engineers	310	0.7	(nc)
Mining and geological	310	0.7	16
Technicians	180	0.4	(nc)
Computer, numerical tool, and process control programmers	80	0.2	(nc)
Computer programmers	80	0.2	25
Physical and life science technicians	100	0.2	(nc)
Chemical technicians, except health	100	0.2	36
Sand and gravel (SIC 1440)			
Scientific and technical personnel	120	0.3	(nc)
Engineers	40	0.1	(nc)
Other engineers	40	0.1	(nc)
Mining and geological	40	0.1	21
Technicians	80	0.2	(nc)
Physical and life science technicians	50	0.1	(nc)
Chemical technicians, except health	50	0.1	27
Surveying, cartographic, photogrammetric, and mapping technicians	30	0.1	(nc)
Surveyors	30	0.1	20
Chemical and fertilizer minerals (SIC 1470)			
Scientific and technical personnel	70	0.7	(nc)
Managers of scientific and technical personnel	30	0.3	(nc)
Engineering managers	30	0.3	39
Engineers	40	0.4	(nc)
Other engineers	40	0.4	(nc)
Mining and geological	40	0.4	31

See explanatory information and SOURCE at end of table.

Table 5. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 07 and 10-17 (agricultural services, mining, and construction), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Misc. nonmetallic minerals (SIC 1490)			
Scientific and technical personnel	40	0.9	(nc)
Technicians	40	0.9	(nc)
Physical and life science technicians	40	0.9	(nc)
Chemical technicians, except health	40	0.9	17
Residential building construction (SIC 1520)			
Scientific and technical personnel	5,000	0.6	(nc)
Managers of scientific and technical personnel	310	<	(nc)
Engineering managers	310	<	26
Scientists	200	<	(nc)
Computer scientists	150	<	(nc)
Computer systems analysts	30	<	43
Network and computer systems administrators	120	<	34
Social scientists	50	<	(nc)
Market research analysts	50	<	50
Engineers	1,040	0.1	(nc)
Civil	960	0.1	24
Other engineers	80	<	(nc)
Safety	80	<	25
Technicians	3,450	0.4	(nc)
Computer, numerical tool, and process control programmers	110	<	(nc)
Computer programmers	110	<	36
Drafters	3,170	0.4	(nc)
Architectural and civil drafters	3,170	0.4	19
Surveying, cartographic, photogrammetric, and mapping technicians	170	<	(nc)
Surveying and mapping technicians	60	<	39
Surveyors	110	<	24
Operative builders (SIC 1530)			
Scientific and technical personnel	240	0.8	(nc)
Managers of scientific and technical personnel	30	0.1	(nc)
Engineering managers	30	0.1	26
Scientists	30	0.1	(nc)
Computer scientists	30	0.1	(nc)
Network and computer systems administrators	30	0.1	37
Technicians	180	0.6	(nc)
Drafters	180	0.6	(nc)
Architectural and civil drafters	180	0.6	48

See explanatory information and SOURCE at end of table.

Table 5. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 07 and 10-17 (agricultural services, mining, and construction), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Nonresidential building excluding building (SIC 1540)			
Scientific and technical personnel	17,500	2.6	(nc)
Managers of scientific and technical personnel	1,850	0.3	(nc)
Computer and information systems managers	60	<	42
Engineering managers	1,790	0.3	16
Scientists	350	0.1	(nc)
Computer scientists	350	0.1	(nc)
Network and computer systems administrators	350	0.1	11
Engineers	10,530	1.6	(nc)
Civil	7,710	1.2	13
Electrical/electronics	320	0.1	(nc)
Electrical	320	0.1	20
Industrial	300	<	21
Mechanical	890	0.1	17
Sales	250	<	23
Other engineers	1,060	0.2	(nc)
Environmental	270	<	35
Safety	790	0.1	13
Technicians	4,770	0.7	(nc)
Computer, numerical tool, and process control programmers	410	0.1	(nc)
Computer programmers	410	0.1	20
Drafters	1,830	0.3	(nc)
Architectural and civil drafters	1,830	0.3	22
Engineering technicians	1,860	0.3	(nc)
Civil engineering technicians	1,640	0.3	29
Electronical/electronics engineering technicians	70	<	39
Environmental engineering technicians	80	<	37
Industrial engineering technicians	70	<	33
Surveying, cartographic, photogrammetric, and mapping technicians	670	0.1	(nc)
Surveying and mapping technicians	190	<	40
Surveyors	480	0.1	17
Highway and street construction (SIC 1610)			
Scientific and technical personnel	3,240	1.1	(nc)
Managers of scientific and technical personnel	580	0.2	(nc)
Engineering managers	580	0.2	18
Scientists	90	<	(nc)
Computer scientists	90	<	(nc)
Network and computer systems administrators	90	<	19

See explanatory information and SOURCE at end of table.

Table 5. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 07 and 10-17 (agricultural services, mining, and construction), and the relative standard error: 1999

[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Highway and street construction (SIC 1610) -- continued:			
Engineers	1,440	0.5	(nc)
Civil	1,040	0.4	12
Industrial	110	<	39
Other engineers	290	0.1	(nc)
Safety	290	0.1	15
Technicians	1,130	0.4	(nc)
Computer, numerical tool, and process control programmers	50	<	(nc)
Computer programmers	50	<	22
Drafters	70	<	(nc)
Architectural and civil drafters	70	<	42
Engineering technicians	190	0.1	(nc)
Civil engineering technicians	190	0.1	26
Surveying, cartographic, photogrammetric, and mapping technicians	820	0.3	(nc)
Surveying and mapping technicians	150	0.1	24
Surveyors	670	0.2	10
Heavy construction, except highway (SIC 1620)			
Scientific and technical personnel	14,710	2.4	(nc)
Managers of scientific and technical personnel	2,570	0.4	(nc)
Engineering managers	2,570	0.4	17
Scientists	240	<	(nc)
Computer scientists	240	<	(nc)
Computer systems analysts	70	<	25
Network and computer systems administrators	170	<	16
Engineers	10,130	1.6	(nc)
Civil	8,980	1.4	14
Industrial	180	<	35
Mechanical	140	<	15
Sales	50	<	28
Other engineers	780	0.1	(nc)
Environmental	40	<	34
Safety	740	0.1	9
Technicians	1,770	0.3	(nc)
Drafters	570	0.1	(nc)
Architectural and civil drafters	570	0.1	23
Engineering technicians	170	<	(nc)
Electronical/electronics engineering technicians	120	<	49
Industrial engineering technicians	50	<	33
Surveying, cartographic, photogrammetric, and mapping technicians	1,030	0.2	(nc)
Surveying and mapping technicians	310	0.1	30
Surveyors	720	0.1	10

See explanatory information and SOURCE at end of table.

Table 5. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 07 and 10-17 (agricultural services, mining, and construction), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Plumbing, heating, air conditioning (SIC 1710)			
Scientific and technical personnel	11,170	1.2	(nc)
Managers of scientific and technical personnel	1,050	0.1	(nc)
Engineering managers	1,050	0.1	17
Scientists	310	<	(nc)
Computer scientists	310	<	(nc)
Network and computer systems administrators	310	<	18
Engineers	5,860	0.6	(nc)
Civil	1,120	0.1	21
Electrical/electronics	660	0.1	(nc)
Electrical	660	0.1	35
Industrial	160	<	40
Mechanical	2,190	0.2	21
Sales	1,420	0.2	10
Other engineers	310	<	(nc)
Safety	310	<	18
Technicians	3,950	0.5	(nc)
Computer, numerical tool, and process control programmers	220	<	(nc)
Computer programmers	220	<	25
Drafters	2,290	0.3	(nc)
Architectural and civil drafters	1,600	0.2	16
Electrical and electronics drafters	550	0.1	22
Mechanical drafters	140	<	30
Engineering technicians	1,440	0.2	(nc)
Civil engineering technicians	110	<	30
Electronical/electronics engineering technicians	230	<	33
Industrial engineering technicians	320	<	47
Mechanical engineering technicians	780	0.1	23
Electrical work (SIC 1730)			
Scientific and technical personnel	21,220	2.6	(nc)
Managers of scientific and technical personnel	1,080	0.1	(nc)
Computer and information systems managers	220	<	22
Engineering managers	860	0.1	18
Scientists	1,490	0.2	(nc)
Computer scientists	1,490	0.2	(nc)
Computer systems analysts	30	<	42
Network and computer systems administrators	1,020	0.1	19
Network systems/data communications analysts	440	0.1	31

See explanatory information and SOURCE at end of table.

Table 5. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 07 and 10-17 (agricultural services, mining, and construction), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Electrical work (SIC 1730) -- continued:			
Engineers	7,180	0.9	(nc)
Civil	720	0.1	41
Electrical/electronics	5,080	0.6	(nc)
Electrical	5,080	0.6	24
Mechanical	140	<	33
Sales	1,050	0.1	27
Other engineers	190	<	(nc)
Safety	190	<	17
Technicians	11,470	1.4	(nc)
Computer, numerical tool, and process control programmers	700	0.1	(nc)
Computer programmers	700	0.1	21
Drafters	3,930	0.5	(nc)
Architectural and civil drafters	240	<	45
Electrical and electronics drafters	3,690	0.5	24
Engineering technicians	6,840	0.8	(nc)
Electronical/electronics engineering technicians	6,840	0.8	35
Masonry, stonework, and plastering (SIC 1740)			
Scientific and technical personnel	720	0.1	(nc)
Managers of scientific and technical personnel	130	<	(nc)
Engineering managers	130	<	27
Engineers	450	0.1	(nc)
Civil	150	<	25
Sales	250	0.1	27
Other engineers	50	<	(nc)
Safety	50	<	23
Technicians	140	<	(nc)
Drafters	140	<	(nc)
Architectural and civil drafters	140	<	26
Carpentry and floor work (SIC 1750)			
Scientific and technical personnel	1,030	0.3	(nc)
Managers of scientific and technical personnel	100	<	(nc)
Engineering managers	100	<	41
Engineers	290	0.1	(nc)
Civil	190	0.1	33
Sales	100	<	35
Technicians	640	0.2	(nc)
Drafters	640	0.2	(nc)
Architectural and civil drafters	640	0.2	25

See explanatory information and SOURCE at end of table.

Table 5. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 07 and 10-17 (agricultural services, mining, and construction),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Roofing, siding, and sheet-metal work (SIC 1760)			
Scientific and technical personnel	660	0.3	(nc)
Managers of scientific and technical personnel	80	<	(nc)
Engineering managers	80	<	37
Scientists	40	<	(nc)
Computer scientists	40	<	(nc)
Network and computer systems administrators	40	<	35
Engineers	330	0.1	(nc)
Civil	90	<	35
Sales	180	0.1	25
Other engineers	60	<	(nc)
Safety	60	<	17
Technicians	210	0.1	(nc)
Drafters	210	0.1	(nc)
Architectural and civil drafters	210	0.1	27
Concrete work (SIC 1770)			
Scientific and technical personnel	910	0.3	(nc)
Managers of scientific and technical personnel	110	<	(nc)
Engineering managers	110	<	24
Engineers	560	0.2	(nc)
Civil	480	0.1	29
Sales	50	<	50
Other engineers	30	<	(nc)
Safety	30	<	28
Technicians	240	0.1	(nc)
Drafters	40	<	(nc)
Architectural and civil drafters	40	<	29
Engineering technicians	70	<	(nc)
Civil engineering technicians	70	<	28
Surveying, cartographic, photogrammetric, and mapping technicians	130	<	(nc)
Surveyors	130	<	35
Misc. special trade contractors (SIC 1790)			
Scientific and technical personnel	5,460	0.8	(nc)
Managers of scientific and technical personnel	250	<	(nc)
Engineering managers	250	<	13

See explanatory information and SOURCE at end of table.

Table 5. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 07 and 10-17 (agricultural services, mining, and construction), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Misc. special trade contractors (SIC 1790) -- continued:			
Scientists	60	<	(nc)
Computer scientists	60	<	(nc)
Network and computer systems administrators	60	<	19
Engineers	2,540	0.4	(nc)
Civil	1,060	0.2	21
Electrical/electronics	130	<	(nc)
Electrical	130	<	34
Industrial	70	<	32
Mechanical	450	0.1	25
Sales	380	0.1	22
Other engineers	450	0.1	(nc)
Environmental	120	<	29
Safety	330	0.1	22
Technicians	2,610	0.4	(nc)
Computer, numerical tool, and process control programmers	110	<	(nc)
Computer programmers	110	<	24
Drafters	1,660	0.2	(nc)
Architectural and civil drafters	1,520	0.2	16
Mechanical drafters	140	<	42
Engineering technicians	270	<	(nc)
Civil engineering technicians	60	<	23
Environmental engineering technicians	100	<	38
Mechanical engineering technicians	110	<	42
Surveying, cartographic, photogrammetric, and mapping technicians	570	0.1	(nc)
Surveying and mapping technicians	160	<	47
Surveyors	410	0.1	31

[1]SET intensity = the ratio of SET employment (including SET managers) in a given SIC to total employment in that SIC, expressed in percentage terms.

[2]Relative standard error of the estimate of filled positions, expressed as a percentage.

KEY:
- nc = Not computed
- < = The estimated actual value is less than 0.05 for percentages when used to characterize SET intensity.
- n.e.c. = Not elsewhere classified.
- SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Because of rounding, components may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Meat products (SIC 2010)			
Scientific and technical personnel	3,520	0.7	(nc)
Managers of scientific and technical personnel	630	0.1	(nc)
Computer and information systems managers	260	0.1	9
Engineering managers	310	0.1	13
Natural sciences managers	60	<	18
Scientists	480	0.1	(nc)
Computer scientists	240	0.1	(nc)
Computer systems analysts	110	<	23
Network and computer systems administrators	130	<	14
Life scientists	110	<	(nc)
Agricultural scientists	110	<	24
Physical scientists	130	<	(nc)
Chemists	130	<	16
Engineers	770	0.2	(nc)
Industrial	370	0.1	11
Mechanical	260	0.1	13
Other engineers	140	<	(nc)
Safety	140	<	15
Technicians	1,640	0.3	(nc)
Computer, numerical tool, and process control programmers	320	0.1	(nc)
Computer programmers	320	0.1	16
Engineering technicians	90	<	(nc)
Industrial engineering technicians	50	<	24
Mechanical engineering technicians	40	<	28
Physical and life science technicians	1,230	0.2	(nc)
Agricultural and food science technicians	870	0.2	17
Biological technicians	200	<	35
Chemical technicians, except health	160	<	28
Dairy products (SIC 2020)			
Scientific and technical personnel	2,950	2.1	(nc)
Managers of scientific and technical personnel	480	0.3	(nc)
Computer and information systems managers	140	0.1	29
Engineering managers	240	0.2	18
Natural sciences managers	100	0.1	44

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Dairy products (SIC 2020) -- continued:			
Scientists	410	0.3	(nc)
Computer scientists	130	0.1	(nc)
Computer systems analysts	90	0.1	27
Network and computer systems administrators	40	<	23
Physical scientists	280	0.2	(nc)
Chemists	280	0.2	21
Engineers	310	0.2	(nc)
Industrial	130	0.1	18
Mechanical	130	0.1	41
Other engineers	50	<	(nc)
Safety	50	<	20
Technicians	1,750	1.2	(nc)
Computer, numerical tool, and process control programmers	90	0.1	(nc)
Computer programmers	90	0.1	26
Engineering technicians	60	<	(nc)
Industrial engineering technicians	60	<	20
Physical and life science technicians	1,600	1.1	(nc)
Agricultural and food science technicians	1,090	0.8	13
Biological technicians	270	0.2	28
Chemical technicians, except health	240	0.2	29
Preserved fruits & vegetables (SIC 2030)			
Scientific and technical personnel	2,730	1.3	(nc)
Managers of scientific and technical personnel	530	0.3	(nc)
Computer and information systems managers	190	0.1	17
Engineering managers	230	0.1	12
Natural sciences managers	110	0.1	32
Scientists	520	0.3	(nc)
Computer scientists	280	0.1	(nc)
Computer systems analysts	130	0.1	28
Network and computer systems administrators	150	0.1	19
Life scientists	120	0.1	(nc)
Agricultural scientists	120	0.1	28
Physical scientists	120	0.1	(nc)
Chemists	120	0.1	33
Engineers	630	0.3	(nc)
Industrial	290	0.1	14
Mechanical	170	0.1	23
Other engineers	170	0.1	(nc)
Agricultural	70	<	40
Safety	100	0.1	38

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Preserved fruits & vegetables (SIC 2030) -- continued:			
Technicians	1,050	0.5	(nc)
Computer, numerical tool, and process control programmers	250	0.1	(nc)
Computer programmers	250	0.1	29
Physical and life science technicians	800	0.4	(nc)
Agricultural and food science technicians	560	0.3	17
Biological technicians	120	0.1	19
Chemical technicians, except health	120	0.1	31
Grain mill products (SIC 2040)			
Scientific and technical personnel	3,460	2.7	(nc)
Managers of scientific and technical personnel	480	0.4	(nc)
Computer and information systems managers	160	0.1	24
Engineering managers	230	0.2	17
Natural sciences managers	90	0.1	41
Scientists	870	0.7	(nc)
Computer scientists	230	0.2	(nc)
Computer systems analysts	140	0.1	37
Network and computer systems administrators	90	0.1	18
Life scientists	170	0.1	(nc)
Agricultural scientists	140	0.1	45
Biochemists and biophysicists	30	<	29
Physical scientists	470	0.4	(nc)
Chemists	470	0.4	28
Engineers	730	0.6	(nc)
Industrial	360	0.3	26
Mechanical	200	0.2	42
Other engineers	170	0.1	(nc)
Agricultural	90	0.1	31
Safety	80	0.1	22
Technicians	1,380	1.1	(nc)
Computer, numerical tool, and process control programmers	210	0.2	(nc)
Computer programmers	210	0.2	29
Physical and life science technicians	1,170	0.9	(nc)
Agricultural and food science technicians	890	0.7	23
Biological technicians	70	0.1	30
Chemical technicians, except health	210	0.2	25

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Bakery products (SIC 2050)			
Scientific and technical personnel	1,790	0.9	(nc)
Managers of scientific and technical personnel	550	0.3	(nc)
Computer and information systems managers	200	0.1	17
Engineering managers	350	0.2	19
Scientists	130	0.1	(nc)
Computer scientists	100	<	(nc)
Computer systems analysts	50	<	45
Network and computer systems administrators	50	<	25
Life scientists	30	<	(nc)
Agricultural scientists	30	<	39
Engineers	790	0.4	(nc)
Industrial	440	0.2	27
Mechanical	280	0.1	31
Other engineers	70	<	(nc)
Safety	70	<	35
Technicians	320	0.2	(nc)
Computer, numerical tool, and process control programmers	140	0.1	(nc)
Computer programmers	140	0.1	29
Engineering technicians	40	<	(nc)
Electronical/electronics engineering technicians	40	<	23
Physical and life science technicians	140	0.1	(nc)
Agricultural and food science technicians	100	0.1	36
Chemical technicians, except health	40	<	40
Sugar and confectionery products (SIC 2060)			
Scientific and technical personnel	2,780	2.9	(nc)
Managers of scientific and technical personnel	330	0.4	(nc)
Computer and information systems managers	130	0.1	20
Engineering managers	140	0.2	15
Natural sciences managers	60	0.1	25
Scientists	610	0.6	(nc)
Computer scientists	200	0.2	(nc)
Computer systems analysts	100	0.1	49
Network and computer systems administrators	100	0.1	24
Life scientists	170	0.2	(nc)
Agricultural scientists	170	0.2	16
Physical scientists	240	0.3	(nc)
Chemists	240	0.3	23

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Sugar and confectionery products (SIC 2060) -- continued:			
Engineers	290	0.3	(nc)
Industrial	120	0.1	18
Mechanical	110	0.1	30
Other engineers	60	0.1	(nc)
Agricultural	60	0.1	36
Technicians	1,550	1.6	(nc)
Computer, numerical tool, and process control programmers	150	0.2	(nc)
Computer programmers	150	0.2	26
Engineering technicians	30	<	(nc)
Industrial engineering technicians	30	<	19
Physical and life science technicians	1,370	1.4	(nc)
Agricultural and food science technicians	840	0.9	46
Chemical technicians, except health	530	0.6	27
Fats and oils (SIC 2070)			
Scientific and technical personnel	910	3.3	(nc)
Managers of scientific and technical personnel	200	0.7	(nc)
Computer and information systems managers	40	0.2	24
Engineering managers	40	0.2	21
Natural sciences managers	120	0.4	4
Scientists	180	0.7	(nc)
Physical scientists	180	0.7	(nc)
Chemists	180	0.7	15
Engineers	230	0.8	(nc)
Industrial	90	0.3	18
Mechanical	60	0.2	21
Other engineers	80	0.3	(nc)
Chemical	80	0.3	43
Technicians	300	1.1	(nc)
Computer, numerical tool, and process control programmers	30	0.1	(nc)
Computer programmers	30	0.1	27
Physical and life science technicians	270	1.0	(nc)
Agricultural and food science technicians	130	0.5	22
Biological technicians	30	0.1	26
Chemical technicians, except health	110	0.4	26

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Beverages (SIC 2080)			
Scientific and technical personnel	10,050	5.4	(nc)
Managers of scientific and technical personnel	2,060	1.1	(nc)
Computer and information systems managers	1,080	0.6	30
Engineering managers	730	0.4	32
Natural sciences managers	250	0.1	34
Scientists	3,920	2.1	(nc)
Computer scientists	2,960	1.6	(nc)
Computer systems analysts	2,830	1.5	38
Network and computer systems administrators	130	0.1	25
Life scientists	100	0.1	(nc)
Agricultural scientists	100	0.1	28
Physical scientists	820	0.4	(nc)
Chemists	820	0.4	15
Social scientists	40	<	(nc)
Market research analysts	40	<	31
Engineers	2,730	1.5	(nc)
Industrial	2,450	1.3	32
Mechanical	230	0.1	33
Other engineers	50	<	(nc)
Safety	50	<	39
Technicians	1,340	0.7	(nc)
Computer, numerical tool, and process control programmers	280	0.2	(nc)
Computer programmers	280	0.2	18
Physical and life science technicians	1,060	0.6	(nc)
Agricultural and food science technicians	430	0.2	24
Biological technicians	50	<	33
Chemical technicians, except health	580	0.3	23
Misc. food and kindred products (SIC 2090)			
Scientific and technical personnel	1,950	1.1	(nc)
Managers of scientific and technical personnel	500	0.3	(nc)
Computer and information systems managers	160	0.1	12
Engineering managers	210	0.1	14
Natural sciences managers	130	0.1	25

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Misc. food and kindred products (SIC 2090) -- continued:			
Scientists	400	0.2	(nc)
Computer scientists	140	0.1	(nc)
Computer systems analysts	60	<	19
Network and computer systems administrators	80	0.1	18
Life scientists	130	0.1	(nc)
Agricultural scientists	130	0.1	48
Physical scientists	130	0.1	(nc)
Chemists	130	0.1	26
Engineers	330	0.2	(nc)
Electrical/electronics	30	<	(nc)
Electrical	30	<	37
Industrial	130	0.1	18
Mechanical	110	0.1	27
Other engineers	60	<	(nc)
Safety	60	<	28
Technicians	720	0.4	(nc)
Computer, numerical tool, and process control programmers	120	0.1	(nc)
Computer programmers	120	0.1	17
Engineering technicians	40	<	(nc)
Industrial engineering technicians	40	<	19
Physical and life science technicians	560	0.3	(nc)
Agricultural and food science technicians	380	0.2	23
Biological technicians	80	0.1	27
Chemical technicians, except health	100	0.1	16
Broadwoven fabric mills, cotton (SIC 2210)			
Scientific and technical personnel	750	1.2	(nc)
Managers of scientific and technical personnel	160	0.3	(nc)
Computer and information systems managers	90	0.1	21
Engineering managers	70	0.1	20
Scientists	30	0.1	(nc)
Computer scientists	30	0.1	(nc)
Network and computer systems administrators	30	0.1	36
Engineers	190	0.3	(nc)
Industrial	190	0.3	13

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Broadwoven fabric mills, cotton (SIC 2210) -- continued:			
Technicians	370	0.6	(nc)
Computer, numerical tool, and process control programmers	70	0.1	(nc)
Computer programmers	70	0.1	26
Engineering technicians	150	0.2	(nc)
Industrial engineering technicians	150	0.2	21
Physical and life science technicians	150	0.2	(nc)
Chemical technicians, except health	150	0.2	20
Broadwoven fabric mills, manmade (SIC 2220)			
Scientific and technical personnel	950	1.8	(nc)
Managers of scientific and technical personnel	230	0.4	(nc)
Computer and information systems managers	70	0.1	39
Engineering managers	160	0.3	13
Scientists	60	0.1	(nc)
Computer scientists	30	0.1	(nc)
Network and computer systems administrators	30	0.1	20
Physical scientists	30	0.1	(nc)
Chemists	30	0.1	46
Engineers	370	0.7	(nc)
Industrial	140	0.3	15
Mechanical	50	0.1	12
Sales	110	0.2	19
Other engineers	70	0.1	(nc)
Metallurgical/metallurgists	70	0.1	41
Technicians	290	0.5	(nc)
Computer, numerical tool, and process control programmers	80	0.2	(nc)
Computer programmers	80	0.2	45
Engineering technicians	100	0.2	(nc)
Industrial engineering technicians	100	0.2	22
Physical and life science technicians	110	0.2	(nc)
Chemical technicians, except health	110	0.2	20
Broadwoven fabric mills, wool (SIC 2230)			
Scientific and technical personnel	70	0.8	(nc)
Technicians	70	0.8	(nc)
Computer, numerical tool, and process control programmers	30	0.4	(nc)
Computer programmers	30	0.4	36
Physical and life science technicians	40	0.5	(nc)
Chemical technicians, except health	40	0.5	40

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Knitting mills (SIC 2250)			
Scientific and technical personnel	2,280	1.7	(nc)
Managers of scientific and technical personnel	660	0.5	(nc)
Computer and information systems managers	480	0.4	25
Engineering managers	180	0.1	20
Scientists	660	0.5	(nc)
Computer scientists	610	0.5	(nc)
Computer systems analysts	390	0.3	42
Network and computer systems administrators	220	0.2	33
Physical scientists	50	<	(nc)
Chemists	50	<	36
Engineers	430	0.3	(nc)
Industrial	390	0.3	26
Other engineers	40	<	(nc)
Safety	40	<	30
Technicians	530	0.4	(nc)
Computer, numerical tool, and process control programmers	440	0.3	(nc)
Computer programmers	440	0.3	27
Physical and life science technicians	90	0.1	(nc)
Chemical technicians, except health	90	0.1	31
Textile finishing, except wool (SIC 2260)			
Scientific and technical personnel	920	1.5	(nc)
Managers of scientific and technical personnel	160	0.3	(nc)
Computer and information systems managers	90	0.2	26
Engineering managers	70	0.1	17
Scientists	200	0.3	(nc)
Computer scientists	50	0.1	(nc)
Network and computer systems administrators	50	0.1	21
Physical scientists	150	0.3	(nc)
Chemists	150	0.3	21
Engineers	210	0.4	(nc)
Industrial	80	0.1	21
Mechanical	70	0.1	25
Other engineers	60	0.1	(nc)
Chemical	60	0.1	37

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Textile finishing, except wool (SIC 2260) -- continued:			
Technicians	350	0.6	(nc)
Computer, numerical tool, and process control programmers	170	0.3	(nc)
Computer programmers	170	0.3	21
Engineering technicians	30	0.1	(nc)
Mechanical engineering technicians	30	0.1	35
Physical and life science technicians	150	0.3	(nc)
Chemical technicians, except health	150	0.3	26
Carpets and rugs (SIC 2270)			
Scientific and technical personnel	1,070	1.7	(nc)
Managers of scientific and technical personnel	70	0.1	(nc)
Engineering managers	70	0.1	19
Scientists	50	0.1	(nc)
Computer scientists	50	0.1	(nc)
Computer systems analysts	50	0.1	37
Engineers	250	0.4	(nc)
Industrial	160	0.3	12
Mechanical	90	0.1	42
Technicians	700	1.1	(nc)
Computer, numerical tool, and process control programmers	570	0.9	(nc)
Computer programmers	570	0.9	29
Engineering technicians	30	0.1	(nc)
Industrial engineering technicians	30	0.1	33
Physical and life science technicians	100	0.2	(nc)
Chemical technicians, except health	100	0.2	39
Yarn and thread mills (SIC 2280)			
Scientific and technical personnel	690	0.8	(nc)
Managers of scientific and technical personnel	140	0.2	(nc)
Computer and information systems managers	50	0.1	11
Engineering managers	90	0.1	12
Scientists	80	0.1	(nc)
Computer scientists	50	0.1	(nc)
Computer systems analysts	50	0.1	37
Physical scientists	30	<	(nc)
Chemists	30	<	33

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Yarn and thread mills (SIC 2280) -- continued:			
Engineers	240	0.3	(nc)
Industrial	240	0.3	18
Technicians	230	0.3	(nc)
Computer, numerical tool, and process control programmers	60	0.1	(nc)
Computer programmers	60	0.1	28
Engineering technicians	60	0.1	(nc)
Industrial engineering technicians	60	0.1	16
Physical and life science technicians	110	0.1	(nc)
Chemical technicians, except health	110	0.1	27
Miscellaneous textile goods (SIC 2290)			
Scientific and technical personnel	1,460	2.5	(nc)
Managers of scientific and technical personnel	220	0.4	(nc)
Computer and information systems managers	110	0.2	31
Engineering managers	110	0.2	17
Scientists	150	0.3	(nc)
Computer scientists	40	0.1	(nc)
Network and computer systems administrators	40	0.1	16
Physical scientists	110	0.2	(nc)
Chemists	110	0.2	18
Engineers	540	0.9	(nc)
Industrial	310	0.5	21
Mechanical	140	0.2	12
Other engineers	90	0.2	(nc)
Chemical	60	0.1	22
Safety	30	0.1	16
Technicians	550	0.9	(nc)
Computer, numerical tool, and process control programmers	70	0.1	(nc)
Computer programmers	70	0.1	21
Engineering technicians	100	0.2	(nc)
Industrial engineering technicians	100	0.2	39
Physical and life science technicians	380	0.7	(nc)
Chemical technicians, except health	380	0.7	34
Men's & boys' suits and coats (SIC 2310)			
Scientific and technical personnel	110	0.6	(nc)
Managers of scientific and technical personnel	70	0.4	(nc)
Computer and information systems managers	40	0.2	38
Engineering managers	30	0.2	30

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Men's & boys' suits and coats (SIC 2310) -- continued:			
Technicians	40	0.2	(nc)
Computer, numerical tool, and process control programmers	40	0.2	(nc)
Computer programmers	40	0.2	34
Men's & boys' furnishings (SIC 2320)			
Scientific and technical personnel	860	0.6	(nc)
Managers of scientific and technical personnel	320	0.2	(nc)
Computer and information systems managers	240	0.2	26
Engineering managers	80	0.1	20
Engineers	230	0.2	(nc)
Industrial	230	0.2	26
Technicians	310	0.2	(nc)
Computer, numerical tool, and process control programmers	230	0.2	(nc)
Computer programmers	230	0.2	43
Engineering technicians	80	0.1	(nc)
Industrial engineering technicians	80	0.1	31
Women's and misses' outerwear (SIC 2330)			
Scientific and technical personnel	1,060	0.5	(nc)
Managers of scientific and technical personnel	250	0.1	(nc)
Computer and information systems managers	200	0.1	29
Engineering managers	50	<	48
Scientists	220	0.1	(nc)
Computer scientists	220	0.1	(nc)
Network and computer systems administrators	220	0.1	23
Engineers	270	0.1	(nc)
Industrial	270	0.1	37
Technicians	320	0.2	(nc)
Computer, numerical tool, and process control programmers	320	0.2	(nc)
Computer programmers	320	0.2	29
Women's and children's undergarments (SIC 2340)			
Scientific and technical personnel	210	1.0	(nc)
Managers of scientific and technical personnel	90	0.4	(nc)
Computer and information systems managers	40	0.2	24
Engineering managers	50	0.2	26

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Women's and children's undergarments (SIC 2340) -- continued:			
Engineers	60	0.3	(nc)
Industrial	60	0.3	23
Technicians	60	0.3	(nc)
Computer, numerical tool, and process control programmers	60	0.3	(nc)
Computer programmers	60	0.3	29
Miscellaneous apparel and accessories (SIC 2380)			
Scientific and technical personnel	130	0.5	(nc)
Managers of scientific and technical personnel	60	0.2	(nc)
Computer and information systems managers	60	0.2	35
Scientists	30	0.1	(nc)
Computer scientists	30	0.1	(nc)
Network and computer systems administrators	30	0.1	35
Engineers	40	0.1	(nc)
Industrial	40	0.1	45
Misc. fabricated textile products (SIC 2390)			
Scientific and technical personnel	1,420	0.7	(nc)
Managers of scientific and technical personnel	410	0.2	(nc)
Computer and information systems managers	220	0.1	15
Engineering managers	190	0.1	15
Scientists	110	0.1	(nc)
Computer scientists	110	0.1	(nc)
Network and computer systems administrators	110	0.1	27
Engineers	440	0.2	(nc)
Industrial	130	0.1	12
Mechanical	280	0.1	8
Other engineers	30	<	(nc)
Safety	30	<	25
Technicians	460	0.2	(nc)
Computer, numerical tool, and process control programmers	180	0.1	(nc)
Computer programmers	180	0.1	28
Drafters	70	<	(nc)
Mechanical drafters	70	<	45
Engineering technicians	210	0.1	(nc)
Industrial engineering technicians	150	0.1	20
Mechanical engineering technicians	60	<	28

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Logging (SIC 2410)			
Scientific and technical personnel	820	1.1	(nc)
Scientists	650	0.8	(nc)
Life scientists	650	0.8	(nc)
Foresters	650	0.8	28
Technicians	170	0.2	(nc)
Physical and life science technicians	170	0.2	(nc)
Forest and conservation technicians	170	0.2	27
Sawmills and planing mills (SIC 2420)			
Scientific and technical personnel	1,840	1.0	(nc)
Managers of scientific and technical personnel	220	0.1	(nc)
Computer and information systems managers	120	0.1	15
Engineering managers	100	0.1	20
Scientists	1,060	0.6	(nc)
Life scientists	1,060	0.6	(nc)
Foresters	1,060	0.6	9
Engineers	180	0.1	(nc)
Industrial	80	<	20
Mechanical	100	0.1	25
Technicians	380	0.2	(nc)
Computer, numerical tool, and process control programmers	80	<	(nc)
Computer programmers	80	<	11
Drafters	60	<	(nc)
Architectural and civil drafters	60	<	48
Engineering technicians	30	<	(nc)
Electronical/electronics engineering technicians	30	<	30
Physical and life science technicians	210	0.1	(nc)
Environmental science and protection technicians, including health	30	<	31
Forest and conservation technicians	180	0.1	24
Millwork, plywood & structural members (SIC 2430)			
Scientific and technical personnel	5,090	1.5	(nc)
Managers of scientific and technical personnel	1,040	0.3	(nc)
Computer and information systems managers	460	0.1	12
Engineering managers	580	0.2	10

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Millwork, plywood & structural members (SIC 2430) -- continued:			
Scientists	540	0.2	(nc)
Computer scientists	410	0.1	(nc)
Computer software, applications	70	<	9
Network and computer systems administrators	310	0.1	31
Network systems/data communications analysts	30	<	42
Life scientists	130	<	(nc)
Foresters	130	<	34
Engineers	1,270	0.4	(nc)
Industrial	970	0.3	15
Mechanical	250	0.1	17
Other engineers	50	<	(nc)
Metallurgical/metallurgists	50	<	41
Technicians	2,240	0.7	(nc)
Computer, numerical tool, and process control programmers	470	0.1	(nc)
Computer programmers	380	0.1	29
Numerical tool and process control programmers	90	<	41
Drafters	980	0.3	(nc)
Architectural and civil drafters	200	0.1	32
Electrical and electronics drafters	180	0.1	27
Mechanical drafters	600	0.2	23
Engineering technicians	690	0.2	(nc)
Industrial engineering technicians	570	0.2	18
Mechanical engineering technicians	120	<	34
Physical and life science technicians	100	<	(nc)
Environmental science and protection technicians, including health	100	<	34
Wood containers (SIC 2440)			
Scientific and technical personnel	40	0.1	(nc)
Scientists	40	0.1	(nc)
Life scientists	40	0.1	(nc)
Foresters	40	0.1	29
Wood buildings and mobile homes (SIC 2450)			
Scientific and technical personnel	1,280	1.3	(nc)
Managers of scientific and technical personnel	220	0.2	(nc)
Engineering managers	220	0.2	17
Scientists	30	<	(nc)
Computer scientists	30	<	(nc)
Network and computer systems administrators	30	<	40

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Wood buildings and mobile homes (SIC 2450) -- continued:			
Engineers	150	0.2	(nc)
Industrial	150	0.2	32
Technicians	880	0.9	(nc)
Computer, numerical tool, and process control programmers	40	<	(nc)
Computer programmers	40	<	39
Drafters	600	0.6	(nc)
Architectural and civil drafters	150	0.2	26
Electrical and electronics drafters	280	0.3	29
Mechanical drafters	170	0.2	36
Engineering technicians	240	0.3	(nc)
Industrial engineering technicians	240	0.3	25
Miscellaneous wood products (SIC 2490)			
Scientific and technical personnel	600	0.7	(nc)
Managers of scientific and technical personnel	120	0.1	(nc)
Computer and information systems managers	50	0.1	25
Engineering managers	70	0.1	23
Scientists	130	0.2	(nc)
Computer scientists	40	0.1	(nc)
Network and computer systems administrators	40	0.1	34
Life scientists	90	0.1	(nc)
Foresters	90	0.1	39
Engineers	130	0.2	(nc)
Industrial	50	0.1	30
Mechanical	80	0.1	30
Technicians	220	0.3	(nc)
Physical and life science technicians	220	0.3	(nc)
Environmental science and protection technicians, including health	220	0.3	40
Household furniture (SIC 2510)			
Scientific and technical personnel	2,530	0.8	(nc)
Managers of scientific and technical personnel	770	0.3	(nc)
Computer and information systems managers	450	0.2	15
Engineering managers	320	0.1	9
Scientists	150	0.1	(nc)
Computer scientists	150	0.1	(nc)
Network and computer systems administrators	150	0.1	15

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Household furniture (SIC 2510) -- continued:			
Engineers	760	0.3	(nc)
Industrial	510	0.2	10
Mechanical	190	0.1	23
Other engineers	60	<	(nc)
Metallurgical/metallurgists	60	<	40
Technicians	850	0.3	(nc)
Computer, numerical tool, and process control programmers	320	0.1	(nc)
Computer programmers	320	0.1	29
Drafters	200	0.1	(nc)
Electrical and electronics drafters	40	<	43
Mechanical drafters	160	0.1	25
Engineering technicians	300	0.1	(nc)
Industrial engineering technicians	260	0.1	18
Mechanical engineering technicians	40	<	29
Physical and life science technicians	30	<	(nc)
Environmental science and protection technicians, including health	30	<	28
Office furniture (SIC 2520)			
Scientific and technical personnel	1,940	2.7	(nc)
Managers of scientific and technical personnel	450	0.6	(nc)
Computer and information systems managers	280	0.4	44
Engineering managers	170	0.2	20
Scientists	80	0.1	(nc)
Computer scientists	80	0.1	(nc)
Network and computer systems administrators	80	0.1	41
Engineers	1,150	1.6	(nc)
Industrial	1,120	1.6	38
Sales	30	<	42
Technicians	260	0.4	(nc)
Computer, numerical tool, and process control programmers	200	0.3	(nc)
Computer programmers	200	0.3	36
Drafters	60	0.1	(nc)
Mechanical drafters	60	0.1	28
Public building & related furniture (SIC 2530)			
Scientific and technical personnel	1,030	2.1	(nc)
Managers of scientific and technical personnel	190	0.4	(nc)
Computer and information systems managers	60	0.1	17
Engineering managers	130	0.3	16

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Public building & related furniture (SIC 2530) -- continued:			
Scientists	90	0.2	(nc)
Computer scientists	90	0.2	(nc)
Network and computer systems administrators	90	0.2	16
Engineers	450	0.9	(nc)
Industrial	210	0.4	21
Mechanical	240	0.5	22
Technicians	300	0.6	(nc)
Drafters	100	0.2	(nc)
Mechanical drafters	100	0.2	38
Engineering technicians	200	0.4	(nc)
Industrial engineering technicians	200	0.4	40
Partitions and fixtures (SIC 2540)			
Scientific and technical personnel	2,010	2.2	(nc)
Managers of scientific and technical personnel	260	0.3	(nc)
Computer and information systems managers	100	0.1	17
Engineering managers	160	0.2	14
Scientists	80	0.1	(nc)
Computer scientists	80	0.1	(nc)
Network and computer systems administrators	80	0.1	9
Engineers	480	0.5	(nc)
Industrial	290	0.3	23
Mechanical	190	0.2	28
Technicians	1,190	1.3	(nc)
Computer, numerical tool, and process control programmers	210	0.2	(nc)
Computer programmers	90	0.1	21
Numerical tool and process control programmers	120	0.1	44
Drafters	700	0.8	(nc)
Architectural and civil drafters	210	0.2	40
Mechanical drafters	490	0.6	17
Engineering technicians	280	0.3	(nc)
Industrial engineering technicians	280	0.3	27
Miscellaneous furniture and fixtures (SIC 2590)			
Scientific and technical personnel	620	1.5	(nc)
Managers of scientific and technical personnel	160	0.4	(nc)
Computer and information systems managers	70	0.2	21
Engineering managers	90	0.2	22

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Miscellaneous furniture and fixtures (SIC 2590) -- continued:			
Scientists	40	0.1	(nc)
Computer scientists	40	0.1	(nc)
Network and computer systems administrators	40	0.1	37
Engineers	360	0.9	(nc)
Industrial	200	0.5	43
Mechanical	160	0.4	33
Technicians	60	0.2	(nc)
Engineering technicians	60	0.2	(nc)
Industrial engineering technicians	60	0.2	35
Pulp mills (SIC 2610)			
Scientific and technical personnel	200	2.6	(nc)
Managers of scientific and technical personnel	30	0.4	(nc)
Computer and information systems managers	30	0.4	37
Scientists	80	1.0	(nc)
Computer scientists	80	1.0	(nc)
Computer systems analysts	80	1.0	24
Engineers	90	1.2	(nc)
Mechanical	40	0.5	34
Other engineers	50	0.6	(nc)
Chemical	50	0.6	37
Paper mills (SIC 2620)			
Scientific and technical personnel	4,410	3.3	(nc)
Managers of scientific and technical personnel	460	0.4	(nc)
Computer and information systems managers	180	0.1	18
Engineering managers	280	0.2	18
Scientists	500	0.4	(nc)
Computer scientists	390	0.3	(nc)
Computer systems analysts	280	0.2	26
Network and computer systems administrators	110	0.1	16
Physical scientists	110	0.1	(nc)
Chemists	110	0.1	19

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Paper mills (SIC 2620) -- continued:			
Engineers	2,330	1.8	(nc)
Civil	170	0.1	38
Electrical/electronics	440	0.3	(nc)
Electrical	380	0.3	23
Electronics	60	0.1	43
Industrial	640	0.5	28
Other engineers	1,080	0.8	(nc)
Chemical	760	0.6	15
Environmental	160	0.1	19
Metallurgical/metallurgists	70	0.1	33
Safety	90	0.1	26
Technicians	1,120	0.8	(nc)
Computer, numerical tool, and process control programmers	270	0.2	(nc)
Computer programmers	270	0.2	24
Drafters	70	0.1	(nc)
Mechanical drafters	70	0.1	19
Engineering technicians	530	0.4	(nc)
Electronical/electronics engineering technicians	110	0.1	44
Environmental engineering technicians	30	<	17
Industrial engineering technicians	340	0.3	26
Mechanical engineering technicians	50	<	37
Physical and life science technicians	250	0.2	(nc)
Chemical technicians, except health	250	0.2	23
Paperboard mills (SIC 2630)			
Scientific and technical personnel	1,580	3.5	(nc)
Managers of scientific and technical personnel	110	0.2	(nc)
Engineering managers	110	0.2	19
Scientists	150	0.3	(nc)
Computer scientists	70	0.2	(nc)
Network and computer systems administrators	70	0.2	42
Physical scientists	80	0.2	(nc)
Chemists	80	0.2	41
Engineers	980	2.2	(nc)
Electrical/electronics	70	0.2	(nc)
Electrical	70	0.2	18
Industrial	340	0.8	39
Mechanical	290	0.6	37
Other engineers	280	0.6	(nc)
Chemical	100	0.2	40
Environmental	150	0.3	15
Safety	30	0.1	21

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Paperboard mills (SIC 2630) -- continued:			
Technicians	340	0.8	(nc)
Computer, numerical tool, and process control programmers	90	0.2	(nc)
Computer programmers	90	0.2	49
Engineering technicians	140	0.3	(nc)
Industrial engineering technicians	140	0.3	45
Physical and life science technicians	110	0.2	(nc)
Chemical technicians, except health	110	0.2	32
Paperboard containers and boxes (SIC 2650)			
Scientific and technical personnel	1,750	0.8	(nc)
Managers of scientific and technical personnel	370	0.2	(nc)
Computer and information systems managers	200	0.1	17
Engineering managers	170	0.1	13
Scientists	180	0.1	(nc)
Computer scientists	180	0.1	(nc)
Computer systems analysts	60	<	29
Network and computer systems administrators	120	0.1	20
Engineers	710	0.3	(nc)
Industrial	190	0.1	14
Mechanical	90	<	31
Sales	200	0.1	27
Other engineers	230	0.1	(nc)
Metallurgical/metallurgists	130	0.1	36
Safety	100	<	14
Technicians	490	0.2	(nc)
Computer, numerical tool, and process control programmers	220	0.1	(nc)
Computer programmers	220	0.1	33
Drafters	190	0.1	(nc)
Mechanical drafters	190	0.1	16
Engineering technicians	80	<	(nc)
Industrial engineering technicians	40	<	26
Mechanical engineering technicians	40	<	43
Misc. converted paper products (SIC 2670)			
Scientific and technical personnel	4,780	1.9	(nc)
Managers of scientific and technical personnel	1,340	0.5	(nc)
Computer and information systems managers	700	0.3	32
Engineering managers	640	0.3	19

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Misc. converted paper products (SIC 2670) -- continued:			
Scientists	1,640	0.7	(nc)
Computer scientists	680	0.3	(nc)
Computer systems analysts	300	0.1	28
Network and computer systems administrators	380	0.2	15
Physical scientists	960	0.4	(nc)
Chemists	960	0.4	41
Engineers	870	0.4	(nc)
Electrical/electronics	190	0.1	(nc)
Electrical	190	0.1	21
Mechanical	300	0.1	18
Other engineers	380	0.2	(nc)
Chemical	160	0.1	23
Environmental	80	<	24
Safety	140	0.1	22
Technicians	930	0.4	(nc)
Computer, numerical tool, and process control programmers	280	0.1	(nc)
Computer programmers	280	0.1	16
Drafters	30	<	(nc)
Mechanical drafters	30	<	30
Engineering technicians	140	0.1	(nc)
Electronical/electronics engineering technicians	80	<	26
Mechanical engineering technicians	60	<	28
Physical and life science technicians	480	0.2	(nc)
Chemical technicians, except health	480	0.2	44
Newspapers (SIC 2710)			
Scientific and technical personnel	7,280	1.6	(nc)
Managers of scientific and technical personnel	1,900	0.4	(nc)
Computer and information systems managers	1,850	0.4	10
Engineering managers	50	<	28
Scientists	3,230	0.7	(nc)
Computer scientists	2,850	0.6	(nc)
Computer software, systems	220	0.1	45
Computer systems analysts	1,060	0.2	12
Network and computer systems administrators	1,420	0.3	11
Network systems/data communications analysts	150	<	18
Social scientists	380	0.1	(nc)
Market research analysts	380	0.1	48

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Newspapers (SIC 2710) -- continued:			
Technicians	2,150	0.5	(nc)
Computer, numerical tool, and process control programmers	1,820	0.4	(nc)
Computer programmers	1,820	0.4	14
Engineering technicians	330	0.1	(nc)
Electronical/electronics engineering technicians	200	<	28
All other engineering technicians	130	<	(nc)
Audio and video equipment technicians	130	<	33
Periodicals (SIC 2720)			
Scientific and technical personnel	5,250	3.7	(nc)
Managers of scientific and technical personnel	790	0.6	(nc)
Computer and information systems managers	790	0.6	9
Scientists	2,440	1.7	(nc)
Computer scientists	2,020	1.4	(nc)
Computer systems analysts	790	0.6	14
Network and computer systems administrators	980	0.7	10
Network systems/data communications analysts	250	0.2	27
Social scientists	420	0.3	(nc)
Market research analysts	420	0.3	24
Technicians	2,020	1.4	(nc)
Computer, numerical tool, and process control programmers	2,020	1.4	(nc)
Computer programmers	2,020	1.4	18
Books (SIC 2730)			
Scientific and technical personnel	4,190	3.4	(nc)
Managers of scientific and technical personnel	650	0.5	(nc)
Computer and information systems managers	650	0.5	13
Scientists	2,750	2.2	(nc)
Computer scientists	2,380	1.9	(nc)
Computer software, applications	860	0.7	17
Computer software, systems	370	0.3	20
Computer systems analysts	350	0.3	23
Network and computer systems administrators	510	0.4	13
Network systems/data communications analysts	290	0.2	13
Social scientists	370	0.3	(nc)
Market research analysts	370	0.3	30
Engineers	40	<	(nc)
Industrial	40	<	28

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Books (SIC 2730) -- continued:			
Technicians	750	0.6	(nc)
Computer, numerical tool, and process control programmers	750	0.6	(nc)
Computer programmers	750	0.6	16
Miscellaneous publishing (SIC 2740)			
Scientific and technical personnel	5,240	5.6	(nc)
Managers of scientific and technical personnel	800	0.9	(nc)
Computer and information systems managers	650	0.7	27
Engineering managers	150	0.2	33
Scientists	2,360	2.5	(nc)
Computer scientists	2,100	2.2	(nc)
Computer software, applications	990	1.1	44
Computer software, systems	560	0.6	42
Computer systems analysts	160	0.2	27
Network and computer systems administrators	390	0.4	20
Social scientists	260	0.3	(nc)
Market research analysts	260	0.3	25
Technicians	2,080	2.2	(nc)
Computer, numerical tool, and process control programmers	1,000	1.1	(nc)
Computer programmers	1,000	1.1	16
Surveying, cartographic, photogrammetric, and mapping technicians	1,080	1.1	(nc)
Cartographers and photogrammetrists	490	0.5	42
Surveying and mapping technicians	590	0.6	46
Commercial printing (SIC 2750)			
Scientific and technical personnel	5,120	0.9	(nc)
Managers of scientific and technical personnel	1,290	0.2	(nc)
Computer and information systems managers	1,080	0.2	6
Engineering managers	210	<	13
Scientists	1,500	0.3	(nc)
Computer scientists	1,450	0.3	(nc)
Computer systems analysts	790	0.1	16
Network and computer systems administrators	660	0.1	8
Social scientists	50	<	(nc)
Market research analysts	50	<	36
Engineers	360	0.1	(nc)
Industrial	190	<	15
Mechanical	100	<	28
Other engineers	70	<	(nc)
Metallurgical/metallurgists	70	<	29

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Commercial printing (SIC 2750) -- continued:			
Technicians	1,970	0.3	(nc)
Computer, numerical tool, and process control programmers	1,660	0.3	(nc)
Computer programmers	1,660	0.3	11
Engineering technicians	310	0.1	(nc)
Electronical/electronics engineering technicians	110	<	24
Industrial engineering technicians	200	<	21
Manifold business forms (SIC 2760)			
Scientific and technical personnel	740	1.8	(nc)
Managers of scientific and technical personnel	130	0.3	(nc)
Computer and information systems managers	130	0.3	25
Scientists	230	0.5	(nc)
Computer scientists	230	0.5	(nc)
Computer systems analysts	140	0.3	31
Network and computer systems administrators	90	0.2	26
Technicians	380	0.9	(nc)
Computer, numerical tool, and process control programmers	380	0.9	(nc)
Computer programmers	380	0.9	28
Greeting cards (SIC 2770)			
Scientific and technical personnel	60	0.4	(nc)
Managers of scientific and technical personnel	30	0.2	(nc)
Computer and information systems managers	30	0.2	15
Scientists	30	0.2	(nc)
Computer scientists	30	0.2	(nc)
Computer systems analysts	30	0.2	18
Blankbooks and bookbinding (SIC 2780)			
Scientific and technical personnel	630	1.0	(nc)
Managers of scientific and technical personnel	70	0.1	(nc)
Computer and information systems managers	70	0.1	31
Scientists	290	0.5	(nc)
Computer scientists	290	0.5	(nc)
Computer systems analysts	220	0.4	27
Network and computer systems administrators	70	0.1	18

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Blankbooks and bookbinding (SIC 2780) -- continued:			
Technicians	270	0.4	(nc)
Computer, numerical tool, and process control programmers	190	0.3	(nc)
Computer programmers	190	0.3	32
Engineering technicians	80	0.1	(nc)
Industrial engineering technicians	80	0.1	47
Printing trade services (SIC 2790)			
Scientific and technical personnel	670	1.4	(nc)
Managers of scientific and technical personnel	150	0.3	(nc)
Computer and information systems managers	150	0.3	24
Scientists	160	0.3	(nc)
Computer scientists	160	0.3	(nc)
Computer systems analysts	60	0.1	22
Network and computer systems administrators	100	0.2	27
Engineers	30	0.1	(nc)
Mechanical	30	0.1	37
Technicians	330	0.7	(nc)
Computer, numerical tool, and process control programmers	330	0.7	(nc)
Computer programmers	330	0.7	31
Industrial inorganic chemicals (SIC 2810)			
Scientific and technical personnel	10,930	11.4	(nc)
Managers of scientific and technical personnel	970	1.0	(nc)
Computer and information systems managers	260	0.3	14
Engineering managers	510	0.5	15
Natural sciences managers	200	0.2	24
Scientists	3,070	3.2	(nc)
Computer scientists	430	0.5	(nc)
Computer systems analysts	240	0.3	16
Network and computer systems administrators	190	0.2	20
Physical scientists	2,640	2.7	(nc)
Chemists	2,570	2.7	11
Environmental scientists and specialists, including health	70	0.1	31

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Industrial inorganic chemicals (SIC 2810) -- continued:			
Engineers	3,150	3.3	(nc)
Electrical/electronics	80	0.1	(nc)
Electrical	80	0.1	21
Industrial	320	0.3	20
Mechanical	360	0.4	17
Sales	260	0.3	25
Other engineers	2,130	2.2	(nc)
Chemical	1,460	1.5	10
Environmental	240	0.3	18
Metallurgical/metallurgists	60	0.1	35
Safety	370	0.4	37
Technicians	3,740	3.9	(nc)
Computer, numerical tool, and process control programmers	150	0.2	(nc)
Computer programmers	150	0.2	19
Drafters	40	<	(nc)
Mechanical drafters	40	<	30
Engineering technicians	160	0.2	(nc)
Electronical/electronics engineering technicians	130	0.1	32
Mechanical engineering technicians	30	<	45
Physical and life science technicians	3,390	3.5	(nc)
Chemical technicians, except health	3,210	3.3	13
Environmental science and protection technicians, including health	180	0.2	21
Plastics materials and synthetics (SIC 2820)			
Scientific and technical personnel	21,110	13.8	(nc)
Managers of scientific and technical personnel	1,390	0.9	(nc)
Computer and information systems managers	340	0.2	17
Engineering managers	840	0.6	16
Natural sciences managers	210	0.1	42
Scientists	4,500	2.9	(nc)
Computer scientists	960	0.6	(nc)
Computer systems analysts	750	0.5	32
Network and computer systems administrators	210	0.1	16
Physical scientists	3,440	2.2	(nc)
Chemists	3,360	2.2	22
Environmental scientists and specialists, including health	80	0.1	20
Social scientists	100	0.1	(nc)
Market research analysts	100	0.1	44

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Plastics materials and synthetics (SIC 2820) -- continued:			
Engineers	6,730	4.4	(nc)
Civil	150	0.1	31
Electrical/electronics	280	0.2	(nc)
Electrical	230	0.2	23
Electronics	50	<	40
Industrial	1,010	0.7	17
Mechanical	890	0.6	18
Sales	230	0.2	43
Other engineers	4,170	2.7	(nc)
Chemical	3,190	2.1	16
Environmental	300	0.2	13
Metallurgical/metallurgists	210	0.1	34
Safety	470	0.3	15
Technicians	8,490	5.5	(nc)
Computer, numerical tool, and process control programmers	150	0.1	(nc)
Computer programmers	150	0.1	20
Drafters	100	0.1	(nc)
Mechanical drafters	100	0.1	24
Engineering technicians	820	0.5	(nc)
Electronical/electronics engineering technicians	240	0.2	31
Environmental engineering technicians	50	<	46
Industrial engineering technicians	530	0.4	34
Physical and life science technicians	7,420	4.8	(nc)
Chemical technicians, except health	7,250	4.7	13
Environmental science and protection technicians, including health	170	0.1	32
Drugs (SIC 2830)			
Scientific and technical personnel	53,030	17.6	(nc)
Managers of scientific and technical personnel	3,610	1.2	(nc)
Computer and information systems managers	830	0.3	16
Engineering managers	980	0.3	13
Natural sciences managers	1,800	0.6	19
Scientists	22,110	7.3	(nc)
Computer scientists	1,930	0.6	(nc)
Computer systems analysts	1,050	0.4	25
Network and computer systems administrators	850	0.3	16
Network systems/data communications analysts	30	<	32
Life scientists	7,410	2.5	(nc)
Biochemists and biophysicists	3,110	1.0	22
Medical scientists, except epidemiologists	1,900	0.6	39
Microbiologists	2,400	0.8	46

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Drugs (SIC 2830) -- continued:			
Mathematical scientists	70	<	(nc)
Mathematicians	70	<	39
Physical scientists	12,700	4.2	(nc)
Chemists	12,550	4.2	14
Materials scientists	150	0.1	45
Engineers	7,120	2.4	(nc)
Industrial	1,470	0.5	14
Mechanical	510	0.2	20
Other engineers	5,140	1.7	(nc)
Biomedical	490	0.2	37
Chemical	3,460	1.2	47
Environmental	290	0.1	32
Metallurgical/metallurgists	50	<	43
Safety	850	0.3	19
Technicians	20,190	6.7	(nc)
Computer, numerical tool, and process control programmers	850	0.3	(nc)
Computer programmers	850	0.3	30
Drafters	420	0.1	(nc)
Electrical and electronics drafters	50	<	23
Mechanical drafters	370	0.1	24
Engineering technicians	2,080	0.7	(nc)
Electronical/electronics engineering technicians	820	0.3	15
Industrial engineering technicians	700	0.2	22
Mechanical engineering technicians	560	0.2	29
Physical and life science technicians	16,840	5.6	(nc)
Biological technicians	5,790	1.9	16
Chemical technicians, except health	10,750	3.6	22
Environmental science and protection technicians, including health	300	0.1	43
Soap, cleaners, and toilet goods (SIC 2840)			
Scientific and technical personnel	10,400	6.4	(nc)
Managers of scientific and technical personnel	590	0.4	(nc)
Computer and information systems managers	200	0.1	11
Engineering managers	390	0.2	29
Scientists	5,410	3.4	(nc)
Computer scientists	380	0.2	(nc)
Network and computer systems administrators	380	0.2	22
Life scientists	390	0.2	(nc)
Biochemists and biophysicists	140	0.1	35
Microbiologists	250	0.2	21
Physical scientists	4,520	2.8	(nc)
Chemists	4,520	2.8	31
Social scientists	120	0.1	(nc)
Market research analysts	120	0.1	42

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Soap, cleaners, and toilet goods (SIC 2840) -- continued:			
Engineers	1,380	0.9	(nc)
Civil	60	<	47
Industrial	340	0.2	32
Mechanical	310	0.2	24
Other engineers	670	0.4	(nc)
Chemical	620	0.4	46
Environmental	50	<	29
Technicians	3,020	1.9	(nc)
Computer, numerical tool, and process control programmers	420	0.3	(nc)
Computer programmers	420	0.3	21
Engineering technicians	200	0.1	(nc)
Electronical/electronics engineering technicians	130	0.1	28
Industrial engineering technicians	70	<	36
Physical and life science technicians	2,400	1.5	(nc)
Biological technicians	90	0.1	26
Chemical technicians, except health	2,310	1.4	37
Paints and allied products (SIC 2850)			
Scientific and technical personnel	5,810	11.0	(nc)
Managers of scientific and technical personnel	310	0.6	(nc)
Computer and information systems managers	70	0.1	19
Engineering managers	160	0.3	15
Natural sciences managers	80	0.2	40
Scientists	2,130	4.0	(nc)
Computer scientists	70	0.1	(nc)
Network and computer systems administrators	70	0.1	19
Physical scientists	2,060	3.9	(nc)
Chemists	1,900	3.6	9
Environmental scientists and specialists, including health	160	0.3	24
Engineers	1,310	2.5	(nc)
Industrial	230	0.4	41
Sales	200	0.4	23
Other engineers	880	1.7	(nc)
Chemical	460	0.9	24
Environmental	370	0.7	28
Safety	50	0.1	21

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Paints and allied products (SIC 2850) -- continued:			
Technicians	2,060	3.9	(nc)
Computer, numerical tool, and process control programmers	110	0.2	(nc)
Computer programmers	110	0.2	24
Engineering technicians	60	0.1	(nc)
Industrial engineering technicians	60	0.1	40
Physical and life science technicians	1,890	3.6	(nc)
Chemical technicians, except health	1,890	3.6	11
Industrial organic chemicals (SIC 2860)			
Scientific and technical personnel	22,210	18.2	(nc)
Managers of scientific and technical personnel	2,130	1.8	(nc)
Computer and information systems managers	960	0.8	14
Engineering managers	720	0.6	14
Natural sciences managers	450	0.4	26
Scientists	5,240	4.3	(nc)
Computer scientists	1,170	1.0	(nc)
Computer software, applications	40	<	31
Computer software, systems	60	0.1	40
Computer systems analysts	650	0.5	22
Network and computer systems administrators	220	0.2	19
Network systems/data communications analysts	200	0.2	30
Mathematical scientists	110	0.1	(nc)
Operations and systems researchers and analysts	110	0.1	32
Physical scientists	3,890	3.2	(nc)
Chemists	3,790	3.1	22
Environmental scientists and specialists, including health	100	0.1	19
Social scientists	70	0.1	(nc)
Market research analysts	70	0.1	44
Engineers	6,030	4.9	(nc)
Civil	180	0.2	38
Electrical/electronics	170	0.1	(nc)
Electrical	170	0.1	20
Industrial	1,310	1.1	14
Mechanical	540	0.4	22
Sales	100	0.1	22
Other engineers	3,730	3.1	(nc)
Chemical	3,070	2.5	10
Environmental	310	0.3	15
Safety	350	0.3	13

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Industrial organic chemicals (SIC 2860) -- continued:			
Technicians	8,810	7.2	(nc)
Computer, numerical tool, and process control programmers	1,170	1.0	(nc)
Computer programmers	1,170	1.0	23
Drafters	140	0.1	(nc)
Mechanical drafters	140	0.1	44
Engineering technicians	1,390	1.1	(nc)
Industrial engineering technicians	500	0.4	36
Mechanical engineering technicians	890	0.7	29
Physical and life science technicians	6,110	5.0	(nc)
Chemical technicians, except health	6,010	4.9	14
Environmental science and protection technicians, including health	100	0.1	25
Agricultural chemicals (SIC 2870)			
Scientific and technical personnel	4,410	8.5	(nc)
Managers of scientific and technical personnel	310	0.6	(nc)
Computer and information systems managers	70	0.1	34
Engineering managers	120	0.2	21
Natural sciences managers	120	0.2	32
Scientists	620	1.2	(nc)
Computer scientists	120	0.2	(nc)
Computer systems analysts	30	0.1	43
Network and computer systems administrators	90	0.2	34
Physical scientists	500	1.0	(nc)
Chemists	440	0.9	16
Environmental scientists and specialists, including health	60	0.1	44
Engineers	2,200	4.3	(nc)
Electrical/electronics	80	0.2	(nc)
Electrical	80	0.2	31
Industrial	60	0.1	21
Mechanical	760	1.5	24
Other engineers	1,300	2.5	(nc)
Chemical	780	1.5	19
Environmental	70	0.1	20
Safety	450	0.9	24
Technicians	1,280	2.5	(nc)
Computer, numerical tool, and process control programmers	120	0.2	(nc)
Computer programmers	120	0.2	45
Drafters	50	0.1	(nc)
Mechanical drafters	50	0.1	32

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Agricultural chemicals (SIC 2870) -- continued:			
Engineering technicians	70	0.1	(nc)
Industrial engineering technicians	70	0.1	23
Physical and life science technicians	1,040	2.0	(nc)
Chemical technicians, except health	800	1.6	12
Environmental science and protection technicians, including health	240	0.5	38
Miscellaneous chemical products (SIC 2890)			
Scientific and technical personnel	11,880	12.6	(nc)
Managers of scientific and technical personnel	820	0.9	(nc)
Computer and information systems managers	170	0.2	18
Engineering managers	470	0.5	20
Natural sciences managers	180	0.2	29
Scientists	3,680	3.9	(nc)
Computer scientists	370	0.4	(nc)
Computer systems analysts	140	0.2	40
Network and computer systems administrators	200	0.2	12
Network systems/data communications analysts	30	<	31
Physical scientists	3,310	3.5	(nc)
Chemists	3,170	3.4	15
Environmental scientists and specialists, including health	50	0.1	32
Materials scientists	90	0.1	21
Engineers	2,780	3.0	(nc)
Electrical/electronics	40	<	(nc)
Electrical	40	<	44
Industrial	460	0.5	22
Mechanical	190	0.2	20
Sales	540	0.6	23
Other engineers	1,550	1.7	(nc)
Chemical	980	1.0	20
Environmental	90	0.1	27
Metallurgical/metallurgists	280	0.3	44
Safety	200	0.2	24
Technicians	4,600	4.9	(nc)
Computer, numerical tool, and process control programmers	120	0.1	(nc)
Computer programmers	120	0.1	21
Drafters	60	0.1	(nc)
Mechanical drafters	60	0.1	36
Engineering technicians	360	0.4	(nc)
Electronical/electronics engineering technicians	160	0.2	42
Mechanical engineering technicians	200	0.2	44
Physical and life science technicians	4,060	4.3	(nc)
Chemical technicians, except health	3,930	4.2	11
Environmental science and protection technicians, including health	130	0.1	48

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Petroleum refining (SIC 2910)			
Scientific and technical personnel	10,720	12.9	(nc)
Managers of scientific and technical personnel	750	0.9	(nc)
Computer and information systems managers	120	0.1	24
Engineering managers	630	0.8	21
Scientists	2,510	3.0	(nc)
Computer scientists	1,630	2.0	(nc)
Computer systems analysts	1,480	1.8	32
Network and computer systems administrators	40	0.1	23
Network systems/data communications analysts	110	0.1	24
Physical scientists	880	1.1	(nc)
Chemists	530	0.6	11
Environmental scientists and specialists, including health	350	0.4	26
Engineers	3,050	3.7	(nc)
Civil	130	0.2	26
Electrical/electronics	90	0.1	(nc)
Electrical	90	0.1	23
Industrial	1,210	1.5	21
Mechanical	280	0.3	22
Other engineers	1,340	1.6	(nc)
Chemical	280	0.3	33
Environmental	180	0.2	26
Metallurgical/metallurgists	90	0.1	24
Petroleum	570	0.7	12
Safety	220	0.3	18
Technicians	4,410	5.3	(nc)
Computer, numerical tool, and process control programmers	370	0.4	(nc)
Computer programmers	370	0.4	39
Engineering technicians	150	0.2	(nc)
Environmental engineering technicians	40	0.1	31
Industrial engineering technicians	110	0.1	38
Physical and life science technicians	3,890	4.7	(nc)
Biological technicians	80	0.1	31
Chemical technicians, except health	2,960	3.6	46
Environmental science and protection technicians, including health	300	0.4	34
Geological and petroleum technicians	550	0.7	26
Asphalt paving and roofing materials (SIC 2950)			
Scientific and technical personnel	490	1.6	(nc)
Managers of scientific and technical personnel	130	0.4	(nc)
Computer and information systems managers	30	0.1	28
Engineering managers	100	0.3	17

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Asphalt paving and roofing materials (SIC 2950) -- continued:			
Scientists	50	0.2	(nc)
Physical scientists	50	0.2	(nc)
Chemists	50	0.2	35
Engineers	110	0.4	(nc)
Industrial	70	0.2	27
Other engineers	40	0.1	(nc)
Chemical	40	0.1	49
Technicians	200	0.6	(nc)
Physical and life science technicians	200	0.6	(nc)
Chemical technicians, except health	200	0.6	22
Misc. petroleum and coal products (SIC 2990)			
Scientific and technical personnel	1,070	8.2	(nc)
Managers of scientific and technical personnel	70	0.5	(nc)
Engineering managers	70	0.5	12
Scientists	390	3.0	(nc)
Physical scientists	390	3.0	(nc)
Chemists	390	3.0	9
Engineers	210	1.6	(nc)
Sales	180	1.4	36
Other engineers	30	0.2	(nc)
Safety	30	0.2	29
Technicians	400	3.1	(nc)
Physical and life science technicians	400	3.1	(nc)
Chemical technicians, except health	370	2.8	20
Geological and petroleum technicians	30	0.2	21
Tires and inner tubes (SIC 3010)			
Scientific and technical personnel	2,040	3.2	(nc)
Managers of scientific and technical personnel	220	0.3	(nc)
Computer and information systems managers	50	0.1	37
Engineering managers	170	0.3	12
Scientists	260	0.4	(nc)
Computer scientists	120	0.2	(nc)
Computer software, applications	30	0.1	21
Computer systems analysts	90	0.1	21
Physical scientists	140	0.2	(nc)
Chemists	140	0.2	17

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Tires and inner tubes (SIC 3010) -- continued:			
Engineers	960	1.5	(nc)
Electrical/electronics	170	0.3	(nc)
Electrical	90	0.1	15
Electronics	80	0.1	13
Industrial	280	0.4	8
Mechanical	390	0.6	43
Other engineers	120	0.2	(nc)
Chemical	50	0.1	12
Environmental	30	0.1	17
Safety	40	0.1	25
Technicians	600	0.9	(nc)
Computer, numerical tool, and process control programmers	50	0.1	(nc)
Computer programmers	50	0.1	18
Engineering technicians	290	0.5	(nc)
Environmental engineering technicians	50	0.1	14
Industrial engineering technicians	50	0.1	13
Mechanical engineering technicians	190	0.3	35
Physical and life science technicians	260	0.4	(nc)
Chemical technicians, except health	260	0.4	9
Hose & belting & gaskets & packing (SIC 3050)			
Scientific and technical personnel	2,900	4.1	(nc)
Managers of scientific and technical personnel	300	0.4	(nc)
Computer and information systems managers	70	0.1	24
Engineering managers	230	0.3	15
Scientists	190	0.3	(nc)
Computer scientists	110	0.2	(nc)
Computer systems analysts	60	0.1	22
Network and computer systems administrators	50	0.1	18
Physical scientists	80	0.1	(nc)
Chemists	80	0.1	31
Engineers	1,560	2.2	(nc)
Industrial	640	0.9	12
Mechanical	260	0.4	20
Sales	310	0.4	26
Other engineers	350	0.5	(nc)
Chemical	70	0.1	23
Metallurgical/metallurgists	220	0.3	21
Safety	60	0.1	28

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Hose & belting & gaskets & packing (SIC 3050) -- continued:			
Technicians	850	1.2	(nc)
Computer, numerical tool, and process control programmers	40	0.1	(nc)
Computer programmers	40	0.1	37
Drafters	90	0.1	(nc)
Mechanical drafters	90	0.1	14
Engineering technicians	480	0.7	(nc)
Electronical/electronics engineering technicians	60	0.1	28
Industrial engineering technicians	320	0.5	35
Mechanical engineering technicians	100	0.1	39
Physical and life science technicians	240	0.3	(nc)
Chemical technicians, except health	240	0.3	40
Fabricated rubber products, n.e.c. (SIC 3060)			
Scientific and technical personnel	3,900	3.5	(nc)
Managers of scientific and technical personnel	640	0.6	(nc)
Computer and information systems managers	180	0.2	17
Engineering managers	460	0.4	14
Scientists	420	0.4	(nc)
Computer scientists	90	0.1	(nc)
Network and computer systems administrators	90	0.1	17
Physical scientists	330	0.3	(nc)
Chemists	330	0.3	13
Engineers	1,460	1.3	(nc)
Industrial	420	0.4	11
Mechanical	580	0.5	9
Sales	90	0.1	31
Other engineers	370	0.3	(nc)
Chemical	270	0.2	20
Safety	100	0.1	19
Technicians	1,380	1.2	(nc)
Computer, numerical tool, and process control programmers	160	0.1	(nc)
Computer programmers	160	0.1	17
Engineering technicians	690	0.6	(nc)
Industrial engineering technicians	310	0.3	17
Mechanical engineering technicians	380	0.3	15
Physical and life science technicians	530	0.5	(nc)
Chemical technicians, except health	530	0.5	13

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Miscellaneous plastics products, n.e.c. (SIC 3080)			
Scientific and technical personnel	27,190	3.5	(nc)
Managers of scientific and technical personnel	3,630	0.5	(nc)
Computer and information systems managers	1,160	0.2	6
Engineering managers	2,430	0.3	6
Natural sciences managers	40	<	27
Scientists	2,480	0.3	(nc)
Computer scientists	1,590	0.2	(nc)
Computer software, applications	290	<	43
Computer systems analysts	480	0.1	15
Network and computer systems administrators	660	0.1	10
Network systems/data communications analysts	160	<	23
Physical scientists	890	0.1	(nc)
Chemists	550	0.1	15
Materials scientists	340	<	36
Engineers	13,560	1.8	(nc)
Civil	90	<	22
Electrical/electronics	520	0.1	(nc)
Electrical	460	0.1	14
Electronics	60	<	30
Industrial	5,940	0.8	13
Mechanical	3,280	0.4	7
Sales	1,710	0.2	21
Other engineers	2,020	0.3	(nc)
Chemical	640	0.1	13
Environmental	130	<	21
Metallurgical/metallurgists	750	0.1	12
Safety	500	0.1	11
Technicians	7,520	1.0	(nc)
Computer, numerical tool, and process control programmers	1,490	0.2	(nc)
Computer programmers	440	0.1	11
Numerical tool and process control programmers	1,050	0.1	26
Drafters	930	0.1	(nc)
Architectural and civil drafters	50	<	46
Electrical and electronics drafters	120	<	32
Mechanical drafters	760	0.1	9
Engineering technicians	4,100	0.5	(nc)
Electronical/electronics engineering technicians	670	0.1	21
Electro-mechanical technicians	620	0.1	29
Environmental engineering technicians	80	<	23
Industrial engineering technicians	1,600	0.2	12
Mechanical engineering technicians	1,130	0.2	14
Physical and life science technicians	1,000	0.1	(nc)
Chemical technicians, except health	900	0.1	18
Environmental science and protection technicians, including health	100	<	22

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Footwear, except rubber (SIC 3140)			
Scientific and technical personnel	190	0.6	(nc)
Managers of scientific and technical personnel	50	0.2	(nc)
Computer and information systems managers	50	0.2	32
Engineers	50	0.2	(nc)
Industrial	50	0.2	17
Technicians	90	0.3	(nc)
Computer, numerical tool, and process control programmers	90	0.3	(nc)
Computer programmers	90	0.3	13
Luggage (SIC 3160)			
Scientific and technical personnel	90	0.9	(nc)
Engineers	40	0.4	(nc)
Industrial	40	0.4	17
Technicians	50	0.5	(nc)
Computer, numerical tool, and process control programmers	50	0.5	(nc)
Computer programmers	50	0.5	32
Handbags and personal leather goods (SIC 3170)			
Scientific and technical personnel	30	0.4	(nc)
Scientists	30	0.4	(nc)
Computer scientists	30	0.4	(nc)
Network and computer systems administrators	30	0.4	42
Flat glass (SIC 3210)			
Scientific and technical personnel	130	1.1	(nc)
Managers of scientific and technical personnel	40	0.3	(nc)
Engineering managers	40	0.3	37
Engineers	90	0.8	(nc)
Electrical/electronics	40	0.3	(nc)
Electrical	40	0.3	23
Mechanical	50	0.4	19
Glass and glassware, pressed or blown (SIC 3220)			
Scientific and technical personnel	1,170	2.3	(nc)
Managers of scientific and technical personnel	210	0.4	(nc)
Computer and information systems managers	40	0.1	29
Engineering managers	170	0.3	25

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Glass and glassware, pressed or blown (SIC 3220) -- continued:			
Scientists	140	0.3	(nc)
Computer scientists	110	0.2	(nc)
Computer software, applications	60	0.1	36
Network and computer systems administrators	50	0.1	18
Physical scientists	30	0.1	(nc)
Materials scientists	30	0.1	15
Engineers	660	1.3	(nc)
Electrical/electronics	150	0.3	(nc)
Electrical	50	0.1	24
Electronics	100	0.2	48
Industrial	190	0.4	22
Mechanical	130	0.3	10
Other engineers	190	0.4	(nc)
Chemical	80	0.2	16
Environmental	50	0.1	28
Metallurgical/metallurgists	60	0.1	38
Technicians	160	0.3	(nc)
Computer, numerical tool, and process control programmers	50	0.1	(nc)
Computer programmers	50	0.1	49
Engineering technicians	70	0.1	(nc)
Electronical/electronics engineering technicians	40	0.1	38
Industrial engineering technicians	30	0.1	32
Physical and life science technicians	40	0.1	(nc)
Chemical technicians, except health	40	0.1	19
Products of purchased glass (SIC 3230)			
Scientific and technical personnel	1,400	2.1	(nc)
Managers of scientific and technical personnel	320	0.5	(nc)
Computer and information systems managers	80	0.1	25
Engineering managers	240	0.4	26
Scientists	180	0.3	(nc)
Computer scientists	110	0.2	(nc)
Computer systems analysts	60	0.1	29
Network and computer systems administrators	50	0.1	29
Physical scientists	70	0.1	(nc)
Materials scientists	70	0.1	36

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Products of purchased glass (SIC 3230) -- continued:			
Engineers	700	1.1	(nc)
Electrical/electronics	110	0.2	(nc)
Electrical	110	0.2	40
Industrial	210	0.3	26
Mechanical	220	0.3	20
Sales	60	0.1	41
Other engineers	100	0.2	(nc)
Metallurgical/metallurgists	100	0.2	30
Technicians	200	0.3	(nc)
Computer, numerical tool, and process control programmers	70	0.1	(nc)
Computer programmers	70	0.1	47
Drafters	60	0.1	(nc)
Mechanical drafters	60	0.1	40
Engineering technicians	70	0.1	(nc)
Industrial engineering technicians	70	0.1	20
Cement, hydraulic (SIC 3240)			
Scientific and technical personnel	970	5.9	(nc)
Managers of scientific and technical personnel	80	0.5	(nc)
Computer and information systems managers	40	0.2	25
Engineering managers	40	0.2	33
Scientists	200	1.2	(nc)
Physical scientists	200	1.2	(nc)
Chemists	200	1.2	25
Engineers	350	2.1	(nc)
Electrical/electronics	100	0.6	(nc)
Electrical	100	0.6	17
Industrial	110	0.7	21
Mechanical	70	0.4	23
Other engineers	70	0.4	(nc)
Chemical	30	0.2	33
Environmental	40	0.2	28
Technicians	340	2.1	(nc)
Engineering technicians	60	0.4	(nc)
Electronical/electronics engineering technicians	60	0.4	38
Physical and life science technicians	280	1.7	(nc)
Chemical technicians, except health	280	1.7	28

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Structural clay products (SIC 3250)			
Scientific and technical personnel	250	0.8	(nc)
Managers of scientific and technical personnel	30	0.1	(nc)
Computer and information systems managers	30	0.1	44
Engineers	150	0.5	(nc)
Industrial	120	0.4	35
Other engineers	30	0.1	(nc)
Metallurgical/metallurgists	30	0.1	44
Technicians	70	0.2	(nc)
Computer, numerical tool, and process control programmers	30	0.1	(nc)
Computer programmers	30	0.1	25
Physical and life science technicians	40	0.1	(nc)
Chemical technicians, except health	40	0.1	39
Pottery and related products (SIC 3260)			
Scientific and technical personnel	770	2.0	(nc)
Managers of scientific and technical personnel	180	0.5	(nc)
Computer and information systems managers	40	0.1	20
Engineering managers	140	0.4	14
Engineers	460	1.2	(nc)
Industrial	140	0.4	16
Mechanical	60	0.2	21
Sales	40	0.1	37
Other engineers	220	0.6	(nc)
Chemical	70	0.2	27
Metallurgical/metallurgists	150	0.4	16
Technicians	130	0.3	(nc)
Engineering technicians	40	0.1	(nc)
Electronical/electronics engineering technicians	40	0.1	29
Physical and life science technicians	90	0.2	(nc)
Chemical technicians, except health	90	0.2	31
Concrete, gypsum, and plaster products (SIC 3270)			
Scientific and technical personnel	3,430	1.3	(nc)
Managers of scientific and technical personnel	740	0.3	(nc)
Computer and information systems managers	200	0.1	22
Engineering managers	540	0.2	9

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Concrete, gypsum, and plaster products (SIC 3270) -- continued:			
Scientists	320	0.1	(nc)
Computer scientists	260	0.1	(nc)
Computer software, applications	60	<	23
Computer systems analysts	90	<	21
Network and computer systems administrators	110	<	19
Social scientists	60	<	(nc)
Market research analysts	60	<	25
Engineers	1,160	0.5	(nc)
Civil	350	0.1	16
Electrical/electronics	40	<	(nc)
Electrical	40	<	38
Industrial	210	0.1	17
Mechanical	170	0.1	20
Sales	250	0.1	19
Other engineers	140	0.1	(nc)
Chemical	50	<	38
Environmental	60	<	23
Mining and geological	30	<	35
Technicians	1,210	0.5	(nc)
Computer, numerical tool, and process control programmers	90	<	(nc)
Computer programmers	90	<	27
Drafters	340	0.1	(nc)
Architectural and civil drafters	140	0.1	34
Mechanical drafters	200	0.1	31
Engineering technicians	540	0.2	(nc)
Civil engineering technicians	300	0.1	20
Industrial engineering technicians	240	0.1	20
Physical and life science technicians	240	0.1	(nc)
Chemical technicians, except health	240	0.1	25
Cut stone and stone products (SIC 3280)			
Scientific and technical personnel	30	0.2	(nc)
Managers of scientific and technical personnel	30	0.2	(nc)
Engineering managers	30	0.2	48
Misc. nonmetallic mineral products (SIC 3290)			
Scientific and technical personnel	3,090	4.0	(nc)
Managers of scientific and technical personnel	530	0.7	(nc)
Computer and information systems managers	70	0.1	21
Engineering managers	370	0.5	11
Natural sciences managers	90	0.1	30

See explanatory information and SOURCE at end of table.

Table 6. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 20-32 (selected manufacturing industries), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Misc. nonmetallic mineral products (SIC 3290) -- continued:			
Scientists	400	0.5	(nc)
Computer scientists	160	0.2	(nc)
Computer systems analysts	90	0.1	17
Network and computer systems administrators	70	0.1	25
Physical scientists	240	0.3	(nc)
Chemists	150	0.2	14
Materials scientists	90	0.1	32
Engineers	1,260	1.6	(nc)
Electrical/electronics	40	0.1	(nc)
Electrical	40	0.1	32
Industrial	250	0.3	13
Mechanical	170	0.2	16
Sales	350	0.5	42
Other engineers	450	0.6	(nc)
Chemical	200	0.3	20
Environmental	40	0.1	40
Metallurgical/metallurgists	210	0.3	26
Technicians	900	1.2	(nc)
Computer, numerical tool, and process control programmers	90	0.1	(nc)
Computer programmers	90	0.1	29
Drafters	90	0.1	(nc)
Mechanical drafters	90	0.1	30
Engineering technicians	300	0.4	(nc)
Electronical/electronics engineering technicians	40	0.1	32
Industrial engineering technicians	260	0.3	25
Physical and life science technicians	420	0.5	(nc)
Chemical technicians, except health	420	0.5	17

[1]SET intensity = the ratio of SET employment (including SET managers) in a given SIC to total employment in that SIC, expressed in percentage terms.

[2]Relative standard error of the estimate of filled positions, expressed as a percentage.

KEY: nc = Not computed
< = The estimated actual value is less than 0.05 for percentages when used to characterize SET intensity.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Because of rounding, components may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Blast furnace and basic steel products (SIC 3310)			
Scientific and technical personnel	7,090	3.1	(nc)
Managers of scientific and technical personnel	930	0.4	(nc)
Computer and information systems managers	460	0.2	22
Engineering managers	470	0.2	21
Scientists	1,530	0.7	(nc)
Computer scientists	1,280	0.6	(nc)
Computer software, applications	330	0.1	44
Computer systems analysts	710	0.3	40
Network and computer systems administrators	240	0.1	33
Mathematical scientists	220	0.1	(nc)
Operations and systems researchers and analysts	220	0.1	34
Physical scientists	30	<	(nc)
Materials scientists	30	<	32
Engineers	3,080	1.3	(nc)
Electrical/electronics	310	0.1	(nc)
Electrical	260	0.1	20
Electronics	50	<	46
Industrial	780	0.3	13
Mechanical	790	0.3	17
Sales	50	<	40
Other engineers	1,150	0.5	(nc)
Environmental	150	0.1	26
Metallurgical/metallurgists	870	0.4	18
Safety	130	0.1	28
Technicians	1,550	0.7	(nc)
Computer, numerical tool, and process control programmers	390	0.2	(nc)
Computer programmers	350	0.2	26
Numerical tool and process control programmers	40	<	34
Engineering technicians	660	0.3	(nc)
Electronical/electronics engineering technicians	260	0.1	18
Mechanical engineering technicians	400	0.2	36
Physical and life science technicians	500	0.2	(nc)
Chemical technicians, except health	500	0.2	30
Iron and steel foundries (SIC 3320)			
Scientific and technical personnel	4,030	3.2	(nc)
Managers of scientific and technical personnel	740	0.6	(nc)
Computer and information systems managers	230	0.2	14
Engineering managers	510	0.4	12

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Iron and steel foundries (SIC 3320) -- continued:			
Scientists	200	0.2	(nc)
Computer scientists	120	0.1	(nc)
Computer software, applications	30	<	31
Computer systems analysts	60	0.1	14
Network and computer systems administrators	30	<	46
Physical scientists	80	0.1	(nc)
Chemists	50	<	34
Materials scientists	30	<	30
Engineers	2,300	1.8	(nc)
Electrical/electronics	50	<	(nc)
Electrical	50	<	32
Industrial	970	0.8	12
Mechanical	500	0.4	17
Sales	220	0.2	16
Other engineers	560	0.4	(nc)
Chemical	30	<	31
Environmental	110	0.1	14
Metallurgical/metallurgists	240	0.2	14
Safety	180	0.1	12
Technicians	790	0.6	(nc)
Computer, numerical tool, and process control programmers	160	0.1	(nc)
Computer programmers	80	0.1	31
Numerical tool and process control programmers	80	0.1	39
Drafters	210	0.2	(nc)
Mechanical drafters	210	0.2	19
Engineering technicians	320	0.3	(nc)
Electronical/electronics engineering technicians	100	0.1	25
Industrial engineering technicians	190	0.2	26
Mechanical engineering technicians	30	<	24
Physical and life science technicians	100	0.1	(nc)
Chemical technicians, except health	70	0.1	31
Environmental science and protection technicians, including health	30	<	37
Primary nonferrous metals (SIC 3330)			
Scientific and technical personnel	2,550	8.7	(nc)
Managers of scientific and technical personnel	150	0.5	(nc)
Computer and information systems managers	40	0.1	38
Engineering managers	110	0.4	22
Scientists	240	0.8	(nc)
Computer scientists	40	0.1	(nc)
Computer systems analysts	40	0.1	18
Physical scientists	200	0.7	(nc)
Chemists	200	0.7	26

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Primary nonferrous metals (SIC 3330) -- continued:			
Engineers	1,000	3.4	(nc)
Electrical/electronics	140	0.5	(nc)
Electrical	140	0.5	22
Industrial	220	0.8	24
Mechanical	130	0.4	25
Other engineers	510	1.7	(nc)
Chemical	90	0.3	32
Environmental	90	0.3	28
Metallurgical/metallurgists	270	0.9	16
Safety	60	0.2	32
Technicians	1,160	3.9	(nc)
Computer, numerical tool, and process control programmers	50	0.2	(nc)
Computer programmers	50	0.2	17
Drafters	40	0.1	(nc)
Mechanical drafters	40	0.1	17
Engineering technicians	190	0.7	(nc)
Environmental engineering technicians	40	0.1	27
Industrial engineering technicians	150	0.5	28
Physical and life science technicians	880	3.0	(nc)
Chemical technicians, except health	650	2.2	25
Environmental science and protection technicians, including health	230	0.8	10
Secondary nonferrous metals (SIC 3340)			
Scientific and technical personnel	460	3.1	(nc)
Managers of scientific and technical personnel	30	0.2	(nc)
Computer and information systems managers	30	0.2	13
Scientists	210	1.4	(nc)
Physical scientists	210	1.4	(nc)
Chemists	210	1.4	14
Engineers	120	0.8	(nc)
Industrial	40	0.3	19
Other engineers	80	0.5	(nc)
Metallurgical/metallurgists	80	0.5	14
Technicians	100	0.7	(nc)
Physical and life science technicians	100	0.7	(nc)
Chemical technicians, except health	100	0.7	19

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Nonferrous rolling and drawing (SIC 3350)			
Scientific and technical personnel	11,000	6.3	(nc)
Managers of scientific and technical personnel	1,710	1.0	(nc)
Computer and information systems managers	640	0.4	18
Engineering managers	930	0.5	9
Natural sciences managers	140	0.1	42
Scientists	1,570	0.9	(nc)
Computer scientists	1,210	0.7	(nc)
Computer software, applications	140	0.1	18
Computer systems analysts	760	0.4	27
Network and computer systems administrators	200	0.1	15
Network systems/data communications analysts	110	0.1	32
Physical scientists	360	0.2	(nc)
Chemists	160	0.1	46
Materials scientists	200	0.1	29
Engineers	4,270	2.4	(nc)
Civil	70	<	35
Electrical/electronics	650	0.4	(nc)
Electrical	570	0.3	12
Electronics	80	0.1	32
Industrial	1,020	0.6	10
Mechanical	1,320	0.8	10
Sales	230	0.1	27
Other engineers	980	0.6	(nc)
Environmental	190	0.1	18
Metallurgical/metallurgists	640	0.4	19
Safety	150	0.1	19
Technicians	3,450	2.0	(nc)
Computer, numerical tool, and process control programmers	530	0.3	(nc)
Computer programmers	430	0.3	24
Numerical tool and process control programmers	100	0.1	32
Drafters	560	0.3	(nc)
Architectural and civil drafters	40	<	27
Mechanical drafters	520	0.3	19
Engineering technicians	1,740	1.0	(nc)
Electronical/electronics engineering technicians	600	0.3	19
Electro-mechanical technicians	180	0.1	34
Environmental engineering technicians	80	0.1	38
Industrial engineering technicians	590	0.3	47
Mechanical engineering technicians	290	0.2	23
Physical and life science technicians	620	0.4	(nc)
Chemical technicians, except health	500	0.3	23
Environmental science and protection technicians, including health	120	0.1	40

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Nonferrous foundries (castings0) (SIC 3360)			
Scientific and technical personnel	2,840	3.0	(nc)
Managers of scientific and technical personnel	530	0.6	(nc)
Computer and information systems managers	100	0.1	15
Engineering managers	430	0.5	12
Scientists	140	0.1	(nc)
Computer scientists	140	0.1	(nc)
Computer systems analysts	70	0.1	23
Network and computer systems administrators	70	0.1	28
Engineers	1,490	1.6	(nc)
Industrial	570	0.6	17
Mechanical	540	0.6	14
Sales	120	0.1	30
Other engineers	260	0.3	(nc)
Metallurgical/metallurgists	200	0.2	30
Safety	60	0.1	21
Technicians	680	0.7	(nc)
Computer, numerical tool, and process control programmers	320	0.3	(nc)
Computer programmers	80	0.1	31
Numerical tool and process control programmers	240	0.3	41
Drafters	160	0.2	(nc)
Mechanical drafters	160	0.2	27
Engineering technicians	200	0.2	(nc)
Industrial engineering technicians	200	0.2	26
Miscellaneous primary metal products (SIC 3390)			
Scientific and technical personnel	830	3.1	(nc)
Managers of scientific and technical personnel	170	0.6	(nc)
Engineering managers	170	0.6	28
Scientists	40	0.2	(nc)
Physical scientists	40	0.2	(nc)
Materials scientists	40	0.2	4
Engineers	490	1.8	(nc)
Industrial	160	0.6	29
Mechanical	70	0.3	25
Sales	30	0.1	28
Other engineers	230	0.9	(nc)
Metallurgical/metallurgists	200	0.7	16
Safety	30	0.1	37

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Miscellaneous primary metal products (SIC 3390) -- continued:			
Technicians	130	0.5	(nc)
Drafters	50	0.2	(nc)
Mechanical drafters	50	0.2	44
Physical and life science technicians	80	0.3	(nc)
Chemical technicians, except health	80	0.3	42
Metal cans and shipping containers (SIC 3410)			
Scientific and technical personnel	550	1.7	(nc)
Managers of scientific and technical personnel	190	0.6	(nc)
Computer and information systems managers	30	0.1	28
Engineering managers	160	0.5	12
Engineers	220	0.7	(nc)
Electrical/electronics	40	0.1	(nc)
Electrical	40	0.1	21
Industrial	40	0.1	24
Mechanical	110	0.3	29
Sales	30	0.1	12
Technicians	140	0.4	(nc)
Computer, numerical tool, and process control programmers	70	0.2	(nc)
Computer programmers	70	0.2	10
Drafters	30	0.1	(nc)
Mechanical drafters	30	0.1	22
Engineering technicians	40	0.1	(nc)
Electronical/electronics engineering technicians	40	0.1	21
Cutlery, hand tools, and hardware (SIC 3420)			
Scientific and technical personnel	4,630	3.8	(nc)
Managers of scientific and technical personnel	790	0.7	(nc)
Computer and information systems managers	280	0.2	15
Engineering managers	510	0.4	10
Scientists	400	0.3	(nc)
Computer scientists	400	0.3	(nc)
Computer software, applications	110	0.1	42
Computer systems analysts	110	0.1	15
Network and computer systems administrators	130	0.1	20
Network systems/data communications analysts	50	<	22

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Cutlery, hand tools, and hardware (SIC 3420) -- continued:			
Engineers	2,190	1.8	(nc)
Electrical/electronics	30	<	(nc)
Electrical	30	<	11
Industrial	750	0.6	10
Mechanical	1,180	1.0	12
Sales	70	0.1	48
Other engineers	160	0.1	(nc)
Environmental	30	<	26
Metallurgical/metallurgists	80	0.1	20
Safety	50	<	19
Technicians	1,250	1.0	(nc)
Computer, numerical tool, and process control programmers	360	0.3	(nc)
Computer programmers	190	0.2	16
Numerical tool and process control programmers	170	0.1	11
Drafters	350	0.3	(nc)
Mechanical drafters	350	0.3	20
Engineering technicians	540	0.4	(nc)
Electronical/electronics engineering technicians	50	<	40
Industrial engineering technicians	170	0.1	27
Mechanical engineering technicians	320	0.3	30
Plumbing and heating, except electric (SIC 3430)			
Scientific and technical personnel	1,800	3.6	(nc)
Managers of scientific and technical personnel	270	0.5	(nc)
Computer and information systems managers	100	0.2	16
Engineering managers	170	0.3	19
Engineers	750	1.5	(nc)
Electrical/electronics	60	0.1	(nc)
Electrical	60	0.1	17
Industrial	240	0.5	13
Mechanical	340	0.7	12
Sales	30	0.1	21
Other engineers	80	0.2	(nc)
Metallurgical/metallurgists	80	0.2	30
Technicians	780	1.6	(nc)
Computer, numerical tool, and process control programmers	50	0.1	(nc)
Computer programmers	50	0.1	10
Drafters	330	0.7	(nc)
Mechanical drafters	330	0.7	15

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Plumbing and heating, except electric (SIC 3430) -- continued:			
Engineering technicians	400	0.8	(nc)
Electronical/electronics engineering technicians	30	0.1	34
Electro-mechanical technicians	120	0.2	45
Industrial engineering technicians	50	0.1	19
Mechanical engineering technicians	200	0.4	25
Fabricated structural metal products (SIC 3440)			
Scientific and technical personnel	22,690	4.5	(nc)
Managers of scientific and technical personnel	3,270	0.7	(nc)
Computer and information systems managers	840	0.2	10
Engineering managers	2,430	0.5	7
Scientists	1,450	0.3	(nc)
Computer scientists	1,290	0.3	(nc)
Computer software, applications	450	0.1	28
Computer software, systems	70	<	43
Computer systems analysts	270	0.1	18
Network and computer systems administrators	350	0.1	12
Network systems/data communications analysts	150	<	27
Social scientists	160	<	(nc)
Market research analysts	160	<	39
Engineers	8,100	1.6	(nc)
Civil	900	0.2	17
Electrical/electronics	500	0.1	(nc)
Electrical	500	0.1	28
Industrial	2,100	0.4	16
Mechanical	3,020	0.6	19
Sales	630	0.1	15
Other engineers	950	0.2	(nc)
Chemical	80	<	31
Environmental	40	<	25
Metallurgical/metallurgists	530	0.1	22
Safety	300	0.1	12
Technicians	9,870	2.0	(nc)
Computer, numerical tool, and process control programmers	1,280	0.3	(nc)
Computer programmers	520	0.1	11
Numerical tool and process control programmers	760	0.2	16
Drafters	6,650	1.3	(nc)
Architectural and civil drafters	2,860	0.6	13
Mechanical drafters	3,790	0.8	9

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Fabricated structural metal products (SIC 3440) -- continued:			
Engineering technicians	1,900	0.4	(nc)
Electronical/electronics engineering technicians	220	<	29
Electro-mechanical technicians	540	0.1	42
Industrial engineering technicians	540	0.1	21
Mechanical engineering technicians	600	0.1	17
Physical and life science technicians	40	<	(nc)
Environmental science and protection technicians, including health	40	<	33
Screw machine products, bolts, etc. (SIC 3450)			
Scientific and technical personnel	3,160	2.9	(nc)
Managers of scientific and technical personnel	670	0.6	(nc)
Computer and information systems managers	180	0.2	14
Engineering managers	490	0.5	17
Scientists	230	0.2	(nc)
Computer scientists	230	0.2	(nc)
Computer systems analysts	80	0.1	19
Network and computer systems administrators	150	0.1	21
Engineers	1,340	1.3	(nc)
Industrial	540	0.5	21
Mechanical	540	0.5	13
Sales	70	0.1	22
Other engineers	190	0.2	(nc)
Metallurgical/metallurgists	160	0.2	40
Safety	30	<	25
Technicians	920	0.9	(nc)
Computer, numerical tool, and process control programmers	360	0.3	(nc)
Computer programmers	80	0.1	23
Numerical tool and process control programmers	280	0.3	23
Drafters	160	0.2	(nc)
Mechanical drafters	160	0.2	20
Engineering technicians	400	0.4	(nc)
Electronical/electronics engineering technicians	40	<	32
Industrial engineering technicians	100	0.1	26
Mechanical engineering technicians	260	0.2	31
Metal forgings and stampings (SIC 3460)			
Scientific and technical personnel	10,010	3.8	(nc)
Managers of scientific and technical personnel	1,400	0.5	(nc)
Computer and information systems managers	460	0.2	14
Engineering managers	940	0.4	7

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Metal forgings and stampings (SIC 3460) -- continued:			
Scientists	560	0.2	(nc)
Computer scientists	560	0.2	(nc)
Computer software, applications	100	<	23
Computer systems analysts	190	0.1	17
Network and computer systems administrators	230	0.1	11
Network systems/data communications analysts	40	<	23
Engineers	5,170	2.0	(nc)
Electrical/electronics	350	0.1	(nc)
Electrical	270	0.1	29
Electronics	80	<	30
Industrial	1,960	0.8	10
Mechanical	1,990	0.8	13
Sales	390	0.2	30
Other engineers	480	0.2	(nc)
Environmental	70	<	29
Metallurgical/metallurgists	250	0.1	16
Safety	160	0.1	20
Technicians	2,880	1.1	(nc)
Computer, numerical tool, and process control programmers	830	0.3	(nc)
Computer programmers	280	0.1	16
Numerical tool and process control programmers	550	0.2	23
Drafters	1,260	0.5	(nc)
Architectural and civil drafters	80	<	42
Electrical and electronics drafters	50	<	38
Mechanical drafters	1,130	0.4	20
Engineering technicians	790	0.3	(nc)
Electronical/electronics engineering technicians	220	0.1	19
Industrial engineering technicians	570	0.2	31
Metal services, n.e.c. (SIC 3470)			
Scientific and technical personnel	2,680	1.8	(nc)
Managers of scientific and technical personnel	410	0.3	(nc)
Computer and information systems managers	140	0.1	17
Engineering managers	270	0.2	20
Scientists	360	0.2	(nc)
Computer scientists	30	<	(nc)
Network and computer systems administrators	30	<	23
Physical scientists	330	0.2	(nc)
Chemists	260	0.2	17
Materials scientists	70	0.1	32

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Metal services, n.e.c. (SIC 3470) -- continued:			
Engineers	1,180	0.8	(nc)
Electrical/electronics	60	<	(nc)
Electrical	60	<	29
Industrial	280	0.2	13
Mechanical	320	0.2	22
Sales	120	0.1	21
Other engineers	400	0.3	(nc)
Chemical	130	0.1	28
Environmental	70	0.1	21
Metallurgical/metallurgists	130	0.1	23
Safety	70	0.1	18
Technicians	730	0.5	(nc)
Computer, numerical tool, and process control programmers	110	0.1	(nc)
Computer programmers	110	0.1	21
Drafters	30	<	(nc)
Mechanical drafters	30	<	31
Engineering technicians	300	0.2	(nc)
Environmental engineering technicians	90	0.1	32
Industrial engineering technicians	80	0.1	35
Mechanical engineering technicians	130	0.1	30
Physical and life science technicians	290	0.2	(nc)
Chemical technicians, except health	250	0.2	30
Environmental science and protection technicians, including health	40	<	26
Ordnance and accessories, n.e.c. (SIC 3480)			
Scientific and technical personnel	2,320	6.9	(nc)
Managers of scientific and technical personnel	330	1.0	(nc)
Computer and information systems managers	80	0.2	15
Engineering managers	250	0.7	22
Scientists	240	0.7	(nc)
Computer scientists	170	0.5	(nc)
Computer systems analysts	120	0.4	28
Network and computer systems administrators	50	0.2	26
Physical scientists	70	0.2	(nc)
Chemists	70	0.2	18
Engineers	1,090	3.2	(nc)
Industrial	290	0.9	16
Mechanical	550	1.6	17
Other engineers	250	0.8	(nc)
Environmental	120	0.4	14
Metallurgical/metallurgists	50	0.2	29
Safety	80	0.2	12

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Ordnance and accessories, n.e.c. (SIC 3480) -- continued:			
Technicians	660	2.0	(nc)
Drafters	160	0.5	(nc)
Mechanical drafters	160	0.5	23
Engineering technicians	500	1.5	(nc)
Electronical/electronics engineering technicians	240	0.7	35
Electro-mechanical technicians	60	0.2	35
Industrial engineering technicians	130	0.4	28
Mechanical engineering technicians	70	0.2	7
Misc. fabricated metal products (SIC 3490)			
Scientific and technical personnel	13,240	4.8	(nc)
Managers of scientific and technical personnel	2,170	0.8	(nc)
Computer and information systems managers	520	0.2	9
Engineering managers	1,650	0.6	8
Scientists	950	0.3	(nc)
Computer scientists	770	0.3	(nc)
Computer software, applications	120	<	30
Computer systems analysts	210	0.1	16
Network and computer systems administrators	370	0.1	10
Network systems/data communications analysts	70	<	22
Physical scientists	150	0.1	(nc)
Chemists	120	<	28
Materials scientists	30	<	39
Social scientists	30	<	(nc)
Market research analysts	30	<	40
Engineers	5,240	1.9	(nc)
Electrical/electronics	330	0.1	(nc)
Electrical	220	0.1	22
Electronics	110	<	31
Industrial	1,620	0.6	10
Mechanical	2,240	0.8	8
Sales	440	0.2	14
Other engineers	610	0.2	(nc)
Chemical	60	<	41
Environmental	50	<	19
Metallurgical/metallurgists	330	0.1	15
Safety	170	0.1	11
Technicians	4,880	1.8	(nc)
Computer, numerical tool, and process control programmers	1,250	0.5	(nc)
Computer programmers	560	0.2	15
Numerical tool and process control programmers	690	0.3	23

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Misc. fabricated metal products (SIC 3490) -- continued:			
Drafters	1,510	0.5	(nc)
Architectural and civil drafters	40	<	50
Electrical and electronics drafters	70	<	26
Mechanical drafters	1,400	0.5	9
Engineering technicians	1,900	0.7	(nc)
Electronical/electronics engineering technicians	290	0.1	25
Electro-mechanical technicians	190	0.1	26
Industrial engineering technicians	690	0.3	21
Mechanical engineering technicians	730	0.3	13
Physical and life science technicians	220	0.1	(nc)
Chemical technicians, except health	150	0.1	30
Environmental science and protection technicians, including health	70	<	22
Engines and turbines (SIC 3510)			
Scientific and technical personnel	5,620	7.7	(nc)
Managers of scientific and technical personnel	960	1.3	(nc)
Computer and information systems managers	240	0.3	36
Engineering managers	720	1.0	43
Scientists	50	0.1	(nc)
Computer scientists	50	0.1	(nc)
Computer software, systems	50	0.1	41
Engineers	3,920	5.4	(nc)
Electrical/electronics	160	0.2	(nc)
Electrical	110	0.2	46
Electronics	50	0.1	39
Industrial	430	0.6	22
Mechanical	2,820	3.9	34
Sales	250	0.3	30
Other engineers	260	0.4	(nc)
Chemical	40	0.1	33
Metallurgical/metallurgists	160	0.2	38
Safety	60	0.1	30
Technicians	690	1.0	(nc)
Computer, numerical tool, and process control programmers	180	0.3	(nc)
Numerical tool and process control programmers	180	0.3	28
Drafters	350	0.5	(nc)
Mechanical drafters	350	0.5	24
Engineering technicians	160	0.2	(nc)
Electronical/electronics engineering technicians	120	0.2	41
Industrial engineering technicians	40	0.1	35

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Farm and garden machinery (SIC 3520)			
Scientific and technical personnel	5,670	6.0	(nc)
Managers of scientific and technical personnel	1,060	1.1	(nc)
Computer and information systems managers	270	0.3	33
Engineering managers	790	0.8	17
Scientists	340	0.4	(nc)
Computer scientists	340	0.4	(nc)
Computer software, applications	110	0.1	37
Computer systems analysts	230	0.2	19
Engineers	2,430	2.6	(nc)
Electrical/electronics	40	<	(nc)
Electronics	40	<	49
Industrial	700	0.7	22
Mechanical	1,450	1.5	15
Sales	110	0.1	23
Other engineers	130	0.1	(nc)
Metallurgical/metallurgists	100	0.1	31
Safety	30	<	21
Technicians	1,840	1.9	(nc)
Computer, numerical tool, and process control programmers	140	0.2	(nc)
Computer programmers	100	0.1	25
Numerical tool and process control programmers	40	<	36
Drafters	840	0.9	(nc)
Mechanical drafters	840	0.9	21
Engineering technicians	860	0.9	(nc)
Electronical/electronics engineering technicians	100	0.1	44
Electro-mechanical technicians	90	0.1	34
Industrial engineering technicians	130	0.1	19
Mechanical engineering technicians	540	0.6	16
Construction and related machinery (SIC 3530)			
Scientific and technical personnel	30,130	12.2	(nc)
Managers of scientific and technical personnel	3,650	1.5	(nc)
Computer and information systems managers	990	0.4	13
Engineering managers	2,660	1.1	9
Scientists	1,610	0.6	(nc)
Computer scientists	1,610	0.6	(nc)
Computer software, applications	170	0.1	17
Computer software, systems	380	0.2	22
Computer systems analysts	1,000	0.4	16
Network and computer systems administrators	60	<	35

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Construction and related machinery (SIC 3530) -- continued:			
Engineers	15,810	6.4	(nc)
Electrical/electronics	1,460	0.6	(nc)
Electrical	1,110	0.5	14
Electronics	350	0.1	28
Industrial	2,490	1.0	11
Mechanical	9,470	3.8	8
Sales	1,690	0.7	12
Other engineers	700	0.3	(nc)
Chemical	110	<	41
Metallurgical/metallurgists	420	0.2	13
Safety	170	0.1	15
Technicians	9,060	3.7	(nc)
Computer, numerical tool, and process control programmers	1,500	0.6	(nc)
Computer programmers	740	0.3	11
Numerical tool and process control programmers	760	0.3	24
Drafters	4,050	1.6	(nc)
Electrical and electronics drafters	290	0.1	21
Mechanical drafters	3,760	1.5	9
Engineering technicians	3,290	1.3	(nc)
Aerospace engineering and operations technicians	60	<	48
Electronical/electronics engineering technicians	880	0.4	16
Electro-mechanical technicians	280	0.1	22
Industrial engineering technicians	990	0.4	11
Mechanical engineering technicians	1,080	0.4	14
Physical and life science technicians	220	0.1	(nc)
Chemical technicians, except health	100	<	20
Geological and petroleum technicians	120	0.1	38
Metalworking machinery (SIC 3540)			
Scientific and technical personnel	31,410	9.1	(nc)
Managers of scientific and technical personnel	3,830	1.1	(nc)
Computer and information systems managers	1,200	0.4	13
Engineering managers	2,630	0.8	8
Scientists	1,370	0.4	(nc)
Computer scientists	1,260	0.4	(nc)
Computer and information scientists, research	30	<	41
Computer software, applications	710	0.2	41
Computer software, systems	290	0.1	22
Computer systems analysts	190	0.1	18
Network and computer systems administrators	40	<	28
Physical scientists	110	<	(nc)
Materials scientists	110	<	38

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Metalworking machinery (SIC 3540) -- continued:			
Engineers	14,270	4.1	(nc)
Computer	110	<	30
Electrical/electronics	2,080	0.6	(nc)
Electrical	1,350	0.4	15
Electronics	730	0.2	31
Industrial	2,020	0.6	13
Mechanical	7,850	2.3	7
Sales	1,860	0.5	15
Other engineers	350	0.1	(nc)
Metallurgical/metallurgists	290	0.1	16
Safety	60	<	19
Technicians	11,940	3.5	(nc)
Computer, numerical tool, and process control programmers	4,800	1.4	(nc)
Computer programmers	1,290	0.4	16
Numerical tool and process control programmers	3,510	1.0	10
Drafters	4,190	1.2	(nc)
Electrical and electronics drafters	350	0.1	20
Mechanical drafters	3,840	1.1	8
Engineering technicians	2,810	0.8	(nc)
Electronical/electronics engineering technicians	700	0.2	22
Electro-mechanical technicians	430	0.1	43
Industrial engineering technicians	780	0.2	15
Mechanical engineering technicians	900	0.3	28
Physical and life science technicians	140	<	(nc)
Chemical technicians, except health	80	<	42
Environmental science and protection technicians, including health	60	<	38
Special industry machinery (SIC 3550)			
Scientific and technical personnel	25,640	15.0	(nc)
Managers of scientific and technical personnel	2,810	1.7	(nc)
Computer and information systems managers	560	0.3	7
Engineering managers	2,250	1.3	7
Scientists	1,400	0.8	(nc)
Computer scientists	1,400	0.8	(nc)
Computer software, applications	660	0.4	13
Computer software, systems	500	0.3	20
Computer systems analysts	240	0.1	21

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Special industry machinery (SIC 3550) -- continued:			
Engineers	13,470	7.9	(nc)
Computer	200	0.1	34
Electrical/electronics	3,870	2.3	(nc)
Electrical	2,680	1.6	11
Electronics	1,190	0.7	34
Industrial	1,430	0.8	13
Mechanical	6,450	3.8	5
Sales	1,440	0.8	8
Other engineers	80	0.1	(nc)
Chemical	30	<	34
Safety	50	<	23
Technicians	7,960	4.7	(nc)
Computer, numerical tool, and process control programmers	1,080	0.6	(nc)
Computer programmers	370	0.2	11
Numerical tool and process control programmers	710	0.4	24
Drafters	3,330	2.0	(nc)
Electrical and electronics drafters	460	0.3	19
Mechanical drafters	2,870	1.7	7
Engineering technicians	3,550	2.1	(nc)
Aerospace engineering and operations technicians	70	<	40
Electronical/electronics engineering technicians	1,500	0.9	16
Electro-mechanical technicians	230	0.1	18
Industrial engineering technicians	470	0.3	16
Mechanical engineering technicians	1,280	0.8	11
General industrial machinery (SIC 3560)			
Scientific and technical personnel	29,070	11.1	(nc)
Managers of scientific and technical personnel	3,420	1.3	(nc)
Computer and information systems managers	910	0.4	9
Engineering managers	2,510	1.0	8
Scientists	1,700	0.7	(nc)
Computer scientists	1,470	0.6	(nc)
Computer and information scientists, research	50	<	30
Computer software, applications	560	0.2	17
Computer software, systems	360	0.1	31
Computer systems analysts	420	0.2	10
Network and computer systems administrators	50	<	24
Network systems/data communications analysts	30	<	28
Physical scientists	150	0.1	(nc)
Materials scientists	150	0.1	43
Social scientists	80	<	(nc)
Market research analysts	80	<	41

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
General industrial machinery (SIC 3560) -- continued:			
Engineers	15,720	6.0	(nc)
Computer	40	<	48
Electrical/electronics	3,190	1.2	(nc)
Electrical	2,650	1.0	17
Electronics	540	0.2	17
Industrial	2,660	1.0	8
Mechanical	6,740	2.6	6
Sales	2,470	0.9	11
Other engineers	620	0.2	(nc)
Chemical	140	0.1	33
Metallurgical/metallurgists	380	0.1	24
Safety	100	<	17
Technicians	8,230	3.1	(nc)
Computer, numerical tool, and process control programmers	1,820	0.7	(nc)
Computer programmers	640	0.2	9
Numerical tool and process control programmers	1,180	0.5	18
Drafters	2,910	1.1	(nc)
Architectural and civil drafters	90	<	34
Electrical and electronics drafters	410	0.2	17
Mechanical drafters	2,410	0.9	8
Engineering technicians	3,260	1.2	(nc)
Electronical/electronics engineering technicians	1,090	0.4	14
Electro-mechanical technicians	170	0.1	16
Industrial engineering technicians	630	0.2	12
Mechanical engineering technicians	1,370	0.5	10
Physical and life science technicians	240	0.1	(nc)
Chemical technicians, except health	190	0.1	36
Environmental science and protection technicians, including health	50	<	37
Computer and office equipment (SIC 3570)			
Scientific and technical personnel	124,290	35.5	(nc)
Managers of scientific and technical personnel	9,920	1.0	(nc)
Computer and information systems managers	3,290	1.0	10
Engineering managers	6,630	<	10
Scientists	54,050	16.3	(nc)
Computer scientists	50,840	15.4	(nc)
Computer and information scientists, research	260	0.1	49
Computer software, applications	16,940	5.1	15
Computer software, systems	26,000	7.9	15
Computer systems analysts	5,900	1.8	10
Network and computer systems administrators	1,220	0.4	17
Network systems/data communications analysts	520	0.2	18

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Computer and office equipment (SIC 3570) -- continued:			
Mathematical scientists	540	0.2	(nc)
Operations and systems researchers and analysts	540	0.2	42
Physical scientists	30	<	(nc)
Chemists	30	<	42
Social scientists	2,640	0.8	(nc)
Market research analysts	2,640	0.8	22
Engineers	32,020	9.7	(nc)
Computer	9,410	2.8	11
Electrical/electronics	12,700	3.8	(nc)
Electrical	8,060	2.4	21
Electronics	4,640	1.4	15
Industrial	5,340	1.6	16
Mechanical	2,510	0.8	27
Sales	1,070	0.3	20
Other engineers	990	0.3	(nc)
Metallurgical/metallurgists	750	0.2	44
Safety	240	0.1	17
Technicians	28,300	8.5	(nc)
Computer, numerical tool, and process control programmers	13,740	4.1	(nc)
Computer programmers	13,660	4.1	12
Numerical tool and process control programmers	80	<	38
Drafters	2,250	0.7	(nc)
Architectural and civil drafters	50	<	34
Electrical and electronics drafters	1,820	0.6	37
Mechanical drafters	380	0.1	15
Engineering technicians	12,170	3.7	(nc)
Electronical/electronics engineering technicians	9,240	2.8	18
Electro-mechanical technicians	1,410	0.4	34
Mechanical engineering technicians	1,520	0.5	37
Physical and life science technicians	140	<	(nc)
Chemical technicians, except health	100	<	44
Environmental science and protection technicians, including health	40	<	25
Refrigeration and service machinery (SIC 3580)			
Scientific and technical personnel	16,050	7.6	(nc)
Managers of scientific and technical personnel	1,800	0.9	(nc)
Computer and information systems managers	460	0.2	8
Engineering managers	1,340	0.6	10

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Refrigeration and service machinery (SIC 3580) -- continued:			
Scientists	1,000	0.5	(nc)
Computer scientists	950	0.5	(nc)
Computer software, applications	330	0.2	33
Computer software, systems	240	0.1	14
Computer systems analysts	340	0.2	17
Network systems/data communications analysts	40	<	35
Physical scientists	50	<	(nc)
Chemists	50	<	29
Engineers	7,800	3.7	(nc)
Electrical/electronics	910	0.4	(nc)
Electrical	510	0.2	16
Electronics	400	0.2	22
Industrial	2,370	1.1	20
Mechanical	3,150	1.5	12
Sales	970	0.5	19
Other engineers	400	0.2	(nc)
Metallurgical/metallurgists	120	0.1	22
Safety	280	0.1	36
Technicians	5,450	2.6	(nc)
Computer, numerical tool, and process control programmers	720	0.3	(nc)
Computer programmers	340	0.2	12
Numerical tool and process control programmers	380	0.2	23
Drafters	2,360	1.1	(nc)
Electrical and electronics drafters	260	0.1	19
Mechanical drafters	2,100	1.0	13
Engineering technicians	2,230	1.1	(nc)
Electronical/electronics engineering technicians	400	0.2	13
Electro-mechanical technicians	110	0.1	26
Industrial engineering technicians	840	0.4	21
Mechanical engineering technicians	880	0.4	21
Physical and life science technicians	140	0.1	(nc)
Chemical technicians, except health	60	<	17
Environmental science and protection technicians, including health	80	<	5
Industrial machinery, n.e.c. (SIC 3590)			
Scientific and technical personnel	19,980	5.3	(nc)
Managers of scientific and technical personnel	2,630	0.7	(nc)
Computer and information systems managers	740	0.2	11
Engineering managers	1,890	0.5	8

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Industrial machinery, n.e.c. (SIC 3590) -- continued:			
Scientists	550	0.2	(nc)
Computer scientists	550	0.2	(nc)
Computer and information scientists, research	60	<	31
Computer software, applications	190	0.1	20
Computer software, systems	110	<	25
Computer systems analysts	190	0.1	20
Engineers	7,650	2.0	(nc)
Aeronautical	50	<	41
Computer	80	<	32
Electrical/electronics	460	0.1	(nc)
Electrical	240	0.1	21
Electronics	220	0.1	23
Industrial	1,860	0.5	16
Mechanical	3,970	1.1	8
Sales	740	0.2	15
Other engineers	490	0.1	(nc)
Chemical	30	<	46
Metallurgical/metallurgists	220	0.1	31
Safety	240	0.1	34
Technicians	9,150	2.4	(nc)
Computer, numerical tool, and process control programmers	5,460	1.4	(nc)
Computer programmers	1,070	0.3	16
Numerical tool and process control programmers	4,390	1.2	12
Drafters	1,610	0.4	(nc)
Mechanical drafters	1,610	0.4	11
Engineering technicians	2,080	0.6	(nc)
Electronical/electronics engineering technicians	710	0.2	25
Electro-mechanical technicians	130	<	28
Industrial engineering technicians	630	0.2	29
Mechanical engineering technicians	610	0.2	20
Electric distribution equipment (SIC 3610)			
Scientific and technical personnel	7,620	9.5	(nc)
Managers of scientific and technical personnel	840	1.1	(nc)
Computer and information systems managers	150	0.2	22
Engineering managers	690	0.9	10

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Electric distribution equipment (SIC 3610) -- continued:			
Scientists	330	0.4	(nc)
Computer scientists	300	0.4	(nc)
Computer software, applications	100	0.1	42
Computer software, systems	50	0.1	37
Computer systems analysts	60	0.1	30
Network and computer systems administrators	90	0.1	25
Physical scientists	30	<	(nc)
Chemists	30	<	16
Engineers	3,860	4.8	(nc)
Electrical/electronics	2,000	2.5	(nc)
Electrical	1,730	2.2	13
Electronics	270	0.3	33
Industrial	680	0.8	14
Mechanical	470	0.6	15
Sales	630	0.8	28
Other engineers	80	0.1	(nc)
Environmental	30	<	44
Safety	50	0.1	22
Technicians	2,590	3.2	(nc)
Computer, numerical tool, and process control programmers	170	0.2	(nc)
Computer programmers	170	0.2	31
Drafters	1,050	1.3	(nc)
Electrical and electronics drafters	700	0.9	18
Mechanical drafters	350	0.4	11
Engineering technicians	1,370	1.7	(nc)
Electronical/electronics engineering technicians	880	1.1	26
Industrial engineering technicians	250	0.3	34
Mechanical engineering technicians	240	0.3	32
Electrical industrial apparatus (SIC 3620)			
Scientific and technical personnel	19,720	12.8	(nc)
Managers of scientific and technical personnel	1,670	1.1	(nc)
Computer and information systems managers	390	0.3	14
Engineering managers	1,280	0.8	9
Scientists	1,310	0.9	(nc)
Computer scientists	1,280	0.8	(nc)
Computer software, applications	350	0.2	18
Computer software, systems	410	0.3	42
Computer systems analysts	240	0.2	44
Network and computer systems administrators	170	0.1	14
Network systems/data communications analysts	110	0.1	48
Physical scientists	30	<	(nc)
Chemists	30	<	43

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Electrical industrial apparatus (SIC 3620) -- continued:			
Engineers	9,920	6.4	(nc)
Computer	80	0.1	30
Electrical/electronics	5,440	3.5	(nc)
Electrical	4,700	3.0	21
Electronics	740	0.5	34
Industrial	1,570	1.0	17
Mechanical	1,330	0.9	13
Sales	1,300	0.8	17
Other engineers	200	0.1	(nc)
Environmental	60	<	31
Metallurgical/metallurgists	70	0.1	27
Safety	70	0.1	31
Technicians	6,820	4.4	(nc)
Computer, numerical tool, and process control programmers	440	0.3	(nc)
Computer programmers	360	0.2	35
Numerical tool and process control programmers	80	0.1	26
Drafters	1,390	0.9	(nc)
Electrical and electronics drafters	820	0.5	13
Mechanical drafters	570	0.4	21
Engineering technicians	4,920	3.2	(nc)
Electronical/electronics engineering technicians	3,800	2.5	27
Electro-mechanical technicians	190	0.1	24
Industrial engineering technicians	510	0.3	23
Mechanical engineering technicians	420	0.3	25
Physical and life science technicians	70	0.1	(nc)
Chemical technicians, except health	70	0.1	46
Household appliances (SIC 3630)			
Scientific and technical personnel	5,140	4.6	(nc)
Managers of scientific and technical personnel	820	0.7	(nc)
Computer and information systems managers	400	0.4	23
Engineering managers	420	0.4	18
Scientists	850	0.8	(nc)
Computer scientists	720	0.7	(nc)
Computer software, applications	30	<	30
Computer systems analysts	520	0.5	21
Network and computer systems administrators	120	0.1	28
Network systems/data communications analysts	50	<	39
Social scientists	130	0.1	(nc)
Market research analysts	130	0.1	31

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Household appliances (SIC 3630) -- continued:			
Engineers	2,360	2.1	(nc)
Electrical/electronics	130	0.1	(nc)
Electrical	100	0.1	17
Electronics	30	<	49
Industrial	1,280	1.2	17
Mechanical	690	0.6	21
Other engineers	260	0.2	(nc)
Metallurgical/metallurgists	210	0.2	39
Safety	50	<	14
Technicians	1,110	1.0	(nc)
Computer, numerical tool, and process control programmers	310	0.3	(nc)
Computer programmers	230	0.2	22
Numerical tool and process control programmers	80	0.1	28
Drafters	150	0.1	(nc)
Mechanical drafters	150	0.1	49
Engineering technicians	650	0.6	(nc)
Electronical/electronics engineering technicians	150	0.1	19
Industrial engineering technicians	190	0.2	41
Mechanical engineering technicians	310	0.3	14
Electric lighting and wiring equipment (SIC 3640)			
Scientific and technical personnel	11,200	6.0	(nc)
Managers of scientific and technical personnel	1,400	0.8	(nc)
Computer and information systems managers	490	0.3	13
Engineering managers	910	0.5	10
Scientists	1,370	0.7	(nc)
Computer scientists	1,080	0.6	(nc)
Computer software, applications	220	0.1	40
Computer software, systems	110	0.1	31
Computer systems analysts	380	0.2	33
Network and computer systems administrators	260	0.1	9
Network systems/data communications analysts	110	0.1	27
Mathematical scientists	80	<	(nc)
Operations and systems researchers and analysts	80	<	42
Physical scientists	110	0.1	(nc)
Chemists	110	0.1	35
Social scientists	100	0.1	(nc)
Market research analysts	100	0.1	24

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Electric lighting and wiring equipment (SIC 3640) -- continued:			
Engineers	5,080	2.7	(nc)
Computer	90	0.1	20
Electrical/electronics	1,680	0.9	(nc)
Electrical	1,060	0.6	11
Electronics	620	0.3	23
Industrial	1,120	0.6	13
Mechanical	1,230	0.7	15
Sales	470	0.3	33
Other engineers	490	0.3	(nc)
Chemical	60	<	46
Environmental	40	<	23
Metallurgical/metallurgists	320	0.2	37
Safety	70	<	18
Technicians	3,350	1.8	(nc)
Computer, numerical tool, and process control programmers	710	0.4	(nc)
Computer programmers	320	0.2	17
Numerical tool and process control programmers	390	0.2	35
Drafters	970	0.5	(nc)
Electrical and electronics drafters	500	0.3	19
Mechanical drafters	470	0.3	17
Engineering technicians	1,560	0.8	(nc)
Electronical/electronics engineering technicians	910	0.5	11
Electro-mechanical technicians	140	0.1	32
Industrial engineering technicians	300	0.2	21
Mechanical engineering technicians	210	0.1	23
Physical and life science technicians	110	0.1	(nc)
Chemical technicians, except health	110	0.1	38
Household audio and video equipment (SIC 3650)			
Scientific and technical personnel	6,520	8.6	(nc)
Managers of scientific and technical personnel	760	1.0	(nc)
Computer and information systems managers	130	0.2	48
Engineering managers	630	0.8	22
Scientists	640	0.9	(nc)
Computer scientists	640	0.9	(nc)
Computer software, applications	180	0.2	41
Computer software, systems	150	0.2	38
Computer systems analysts	120	0.2	20
Network and computer systems administrators	190	0.3	39

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Household audio and video equipment (SIC 3650) -- continued:			
Engineers	2,220	2.9	(nc)
Electrical/electronics	1,350	1.8	(nc)
Electrical	1,350	1.8	40
Industrial	280	0.4	22
Mechanical	590	0.8	26
Technicians	2,900	3.8	(nc)
Computer, numerical tool, and process control programmers	140	0.2	(nc)
Computer programmers	140	0.2	33
Drafters	130	0.2	(nc)
Electrical and electronics drafters	130	0.2	36
Engineering technicians	2,630	3.5	(nc)
Electronical/electronics engineering technicians	1,190	1.6	19
Electro-mechanical technicians	1,010	1.3	37
Industrial engineering technicians	310	0.4	43
All other engineering technicians	120	0.2	(nc)
Audio and video equipment technicians	120	0.2	34
Communication equipment (SIC 3660)			
Scientific and technical personnel	71,860	27.0	(nc)
Managers of scientific and technical personnel	7,780	2.9	(nc)
Computer and information systems managers	2,260	0.9	20
Engineering managers	5,520	2.1	10
Scientists	17,650	6.6	(nc)
Computer scientists	16,740	6.3	(nc)
Computer software, applications	6,250	2.4	25
Computer software, systems	6,740	2.5	29
Computer systems analysts	2,020	0.8	24
Network and computer systems administrators	1,150	0.4	27
Network systems/data communications analysts	580	0.2	49
Mathematical scientists	30	<	(nc)
Operations and systems researchers and analysts	30	<	32
Physical scientists	110	<	(nc)
Materials scientists	110	<	34
Social scientists	770	0.3	(nc)
Market research analysts	770	0.3	29

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Communication equipment (SIC 3660) -- continued:			
Engineers	24,890	9.4	(nc)
Computer	2,730	1.0	36
Electrical/electronics	11,600	4.4	(nc)
Electrical	6,350	2.4	17
Electronics	5,250	2.0	17
Industrial	4,130	1.6	15
Mechanical	3,940	1.5	21
Sales	1,800	0.7	23
Other engineers	690	0.3	(nc)
Chemical	40	<	45
Metallurgical/metallurgists	560	0.2	20
Safety	90	<	29
Technicians	21,540	8.1	(nc)
Computer, numerical tool, and process control programmers	4,210	1.6	(nc)
Computer programmers	4,000	1.5	29
Numerical tool and process control programmers	210	0.1	34
Drafters	1,900	0.7	(nc)
Electrical and electronics drafters	1,190	0.5	14
Mechanical drafters	710	0.3	18
Engineering technicians	15,430	5.8	(nc)
Electronical/electronics engineering technicians	11,520	4.3	10
Electro-mechanical technicians	1,090	0.4	27
Industrial engineering technicians	2,140	0.8	42
Mechanical engineering technicians	680	0.3	23
Electronic components and accessories (SIC 3670)			
Scientific and technical personnel	131,160	19.8	(nc)
Managers of scientific and technical personnel	12,240	1.8	(nc)
Computer and information systems managers	2,810	0.4	13
Engineering managers	9,430	1.4	11
Scientists	19,010	2.9	(nc)
Computer scientists	17,460	2.6	(nc)
Computer and information scientists, research	120	<	34
Computer software, applications	5,980	0.9	22
Computer software, systems	7,370	1.1	23
Computer systems analysts	2,240	0.3	18
Network and computer systems administrators	1,350	0.2	13
Network systems/data communications analysts	400	0.1	26
Mathematical scientists	110	<	(nc)
Operations and systems researchers and analysts	110	<	45
Physical scientists	490	0.1	(nc)
Chemists	490	0.1	22
Social scientists	950	0.1	(nc)
Market research analysts	950	0.1	28

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Electronic components and accessories (SIC 3670) -- continued:			
Engineers	48,880	7.4	(nc)
Civil	140	<	33
Computer	6,500	1.0	19
Electrical/electronics	21,120	3.2	(nc)
Electrical	7,030	1.1	12
Electronics	14,090	2.1	18
Industrial	10,130	1.5	16
Mechanical	6,780	1.0	27
Sales	1,400	0.2	12
Other engineers	2,810	0.4	(nc)
Chemical	330	0.1	18
Environmental	260	<	28
Metallurgical/metallurgists	1,680	0.3	37
Safety	540	0.1	25
Technicians	51,030	7.7	(nc)
Computer, numerical tool, and process control programmers	2,800	0.4	(nc)
Computer programmers	2,600	0.4	20
Numerical tool and process control programmers	200	<	18
Drafters	3,630	0.6	(nc)
Electrical and electronics drafters	2,830	0.4	12
Mechanical drafters	800	0.1	18
Engineering technicians	44,080	6.7	(nc)
Electronical/electronics engineering technicians	34,000	5.1	18
Electro-mechanical technicians	1,780	0.3	20
Environmental engineering technicians	370	0.1	17
Industrial engineering technicians	4,770	0.7	14
Mechanical engineering technicians	3,160	0.5	37
Physical and life science technicians	520	0.1	(nc)
Chemical technicians, except health	520	0.1	18
Misc. electrical equipment & supplies (SIC 3690)			
Scientific and technical personnel	10,600	7.3	(nc)
Managers of scientific and technical personnel	1,370	1.0	(nc)
Computer and information systems managers	330	0.2	12
Engineering managers	1,040	0.7	20

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Misc. electrical equipment & supplies (SIC 3690) -- continued:			
Scientists	1,000	0.7	(nc)
Computer scientists	730	0.5	(nc)
Computer software, applications	240	0.2	22
Computer software, systems	250	0.2	12
Computer systems analysts	80	0.1	22
Network and computer systems administrators	160	0.1	25
Mathematical scientists	40	<	(nc)
Operations and systems researchers and analysts	40	<	16
Physical scientists	130	0.1	(nc)
Chemists	130	0.1	36
Social scientists	100	0.1	(nc)
Market research analysts	100	0.1	45
Engineers	5,370	3.7	(nc)
Aeronautical	210	0.2	49
Computer	120	0.1	26
Electrical/electronics	1,760	1.2	(nc)
Electrical	1,410	1.0	22
Electronics	350	0.2	18
Industrial	940	0.7	11
Mechanical	1,500	1.0	13
Sales	240	0.2	18
Other engineers	600	0.4	(nc)
Chemical	180	0.1	28
Environmental	160	0.1	28
Metallurgical/metallurgists	140	0.1	35
Safety	120	0.1	19
Technicians	2,860	2.0	(nc)
Computer, numerical tool, and process control programmers	250	0.2	(nc)
Computer programmers	250	0.2	17
Drafters	880	0.6	(nc)
Electrical and electronics drafters	320	0.2	18
Mechanical drafters	560	0.4	21
Engineering technicians	1,730	1.2	(nc)
Electronical/electronics engineering technicians	1,400	1.0	8
Mechanical engineering technicians	330	0.2	18
Motor vehicles and equipment (SIC 3710)			
Scientific and technical personnel	52,390	5.0	(nc)
Managers of scientific and technical personnel	7,570	0.7	(nc)
Computer and information systems managers	1,260	0.1	10
Engineering managers	6,310	0.6	11

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Motor vehicles and equipment (SIC 3710) -- continued:			
Scientists	3,860	0.4	(nc)
Computer scientists	3,100	0.3	(nc)
Computer and information scientists, research	70	<	31
Computer software, applications	400	<	17
Computer software, systems	460	<	45
Computer systems analysts	1,700	0.2	24
Network and computer systems administrators	240	<	24
Network systems/data communications analysts	230	<	41
Mathematical scientists	420	<	(nc)
Operations and systems researchers and analysts	420	<	42
Physical scientists	90	<	(nc)
Chemists	30	<	34
Materials scientists	60	<	39
Social scientists	250	<	(nc)
Market research analysts	250	<	46
Engineers	29,220	2.8	(nc)
Civil	50	<	31
Computer	200	<	32
Electrical/electronics	1,080	0.1	(nc)
Electrical	870	0.1	16
Electronics	210	<	39
Industrial	16,040	1.5	12
Mechanical	9,470	0.9	12
Sales	650	0.1	12
Other engineers	1,730	0.2	(nc)
Chemical	50	<	26
Environmental	100	<	15
Metallurgical/metallurgists	1,090	0.1	22
Safety	490	0.1	13
Technicians	11,740	1.1	(nc)
Computer, numerical tool, and process control programmers	1,990	0.2	(nc)
Computer programmers	920	0.1	20
Numerical tool and process control programmers	1,070	0.1	22
Drafters	4,100	0.4	(nc)
Electrical and electronics drafters	280	<	34
Mechanical drafters	3,820	0.4	26
Engineering technicians	5,380	0.5	(nc)
Electronical/electronics engineering technicians	940	0.1	20
Electro-mechanical technicians	400	<	37
Environmental engineering technicians	50	<	37
Industrial engineering technicians	1,410	0.1	18
Mechanical engineering technicians	2,580	0.2	11
Physical and life science technicians	270	<	(nc)
Chemical technicians, except health	180	<	21
Environmental science and protection technicians, including health	90	<	35

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Aircraft and parts (SIC 3720)			
Scientific and technical personnel	87,220	17.4	(nc)
Managers of scientific and technical personnel	13,490	2.7	(nc)
Computer and information systems managers	3,640	0.7	37
Engineering managers	9,850	2.0	17
Scientists	8,000	1.6	(nc)
Computer scientists	7,020	1.4	(nc)
Computer and information scientists, research	170	<	47
Computer software, applications	1,050	0.2	29
Computer software, systems	3,090	0.6	25
Network and computer systems administrators	2,710	0.5	29
Mathematical scientists	310	0.1	(nc)
Operations and systems researchers and analysts	310	0.1	31
Physical scientists	200	<	(nc)
Chemists	110	<	36
Materials scientists	90	<	25
Social scientists	470	0.1	(nc)
Market research analysts	470	0.1	36
Engineers	50,020	10.0	(nc)
Aeronautical	32,340	6.4	19
Computer	460	0.1	47
Electrical/electronics	1,020	0.2	(nc)
Electrical	360	0.1	35
Electronics	660	0.1	34
Industrial	7,480	1.5	11
Mechanical	6,870	1.4	11
Sales	570	0.1	19
Other engineers	1,280	0.3	(nc)
Chemical	80	<	45
Environmental	80	<	28
Safety	1,120	0.2	13
Technicians	15,710	3.1	(nc)
Computer, numerical tool, and process control programmers	2,410	0.5	(nc)
Numerical tool and process control programmers	2,410	0.5	23
Drafters	2,140	0.4	(nc)
Electrical and electronics drafters	60	<	45
Mechanical drafters	2,080	0.4	17
Engineering technicians	9,880	2.0	(nc)
Aerospace engineering and operations technicians	6,560	1.3	24
Electronical/electronics engineering technicians	1,830	0.4	38
Electro-mechanical technicians	950	0.2	48
Mechanical engineering technicians	540	0.1	35
Physical and life science technicians	1,280	0.3	(nc)
Biological technicians	170	<	35
Chemical technicians, except health	1,110	0.2	49

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Ship and boat building and repairing (SIC 3730)			
Scientific and technical personnel	2,350	1.3	(nc)
Managers of scientific and technical personnel	1,160	0.7	(nc)
Computer and information systems managers	140	0.1	40
Engineering managers	1,020	0.6	25
Scientists	230	0.1	(nc)
Computer scientists	230	0.1	(nc)
Computer systems analysts	230	0.1	36
Engineers	720	0.4	(nc)
Industrial	460	0.3	31
Sales	110	0.1	36
Other engineers	150	0.1	(nc)
Safety	150	0.1	44
Technicians	240	0.1	(nc)
Computer, numerical tool, and process control programmers	60	<	(nc)
Computer programmers	60	<	24
Engineering technicians	90	0.1	(nc)
Electronical/electronics engineering technicians	90	0.1	28
Physical and life science technicians	90	0.1	(nc)
Environmental science and protection technicians, including health	90	0.1	47
Railroad equipment (SIC 3740)			
Scientific and technical personnel	260	0.8	(nc)
Engineers	260	0.8	(nc)
Mechanical	260	0.8	27
Motorcycles, bicycles, and parts (SIC 3750)			
Scientific and technical personnel	610	4.1	(nc)
Managers of scientific and technical personnel	140	1.0	(nc)
Computer and information systems managers	60	0.4	23
Engineering managers	80	0.5	40
Engineers	310	2.1	(nc)
Mechanical	310	2.1	42
Technicians	160	1.1	(nc)
Computer, numerical tool, and process control programmers	100	0.7	(nc)
Numerical tool and process control programmers	100	0.7	49
Drafters	60	0.4	(nc)
Mechanical drafters	60	0.4	35

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Guided missiles, space vehicles, parts (SIC 3760)			
Scientific and technical personnel	17,370	39.6	(nc)
Managers of scientific and technical personnel	1,550	3.6	(nc)
Computer and information systems managers	120	0.3	46
Engineering managers	1,430	3.3	27
Scientists	1,180	2.8	(nc)
Computer scientists	1,180	2.8	(nc)
Computer software, applications	410	1.0	39
Computer software, systems	450	1.1	25
Computer systems analysts	60	0.1	30
Network and computer systems administrators	260	0.6	34
Engineers	12,970	29.3	(nc)
Aeronautical	11,240	26.3	18
Electrical/electronics	70	0.2	(nc)
Electrical	70	0.2	31
Industrial	1,080	2.5	45
Mechanical	430	<	35
Other engineers	150	0.4	(nc)
Safety	150	0.4	34
Technicians	1,670	3.9	(nc)
Computer, numerical tool, and process control programmers	350	0.8	(nc)
Computer programmers	350	0.8	43
Drafters	190	0.4	(nc)
Mechanical drafters	190	0.4	39
Engineering technicians	1,130	2.6	(nc)
Aerospace engineering and operations technicians	850	2.0	31
Mechanical engineering technicians	280	0.7	44
Miscellaneous transportation equipment (SIC 3790)			
Scientific and technical personnel	850	1.4	(nc)
Managers of scientific and technical personnel	230	0.4	(nc)
Computer and information systems managers	70	0.1	25
Engineering managers	160	0.3	19
Engineers	290	0.5	(nc)
Industrial	110	0.2	23
Mechanical	180	0.3	36

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Miscellaneous transportation equipment (SIC 3790) -- continued:			
Technicians	330	0.6	(nc)
Computer, numerical tool, and process control programmers	120	0.2	(nc)
Computer programmers	80	0.1	32
Numerical tool and process control programmers	40	0.1	38
Drafters	160	0.3	(nc)
Mechanical drafters	160	0.3	24
Engineering technicians	50	0.1	(nc)
Industrial engineering technicians	50	0.1	42
Search and navigation equipment (SIC 3810)			
Scientific and technical personnel	54,170	38.5	(nc)
Managers of scientific and technical personnel	6,470	4.6	(nc)
Computer and information systems managers	560	0.4	20
Engineering managers	5,910	4.2	11
Scientists	6,530	4.6	(nc)
Computer scientists	6,490	4.6	(nc)
Computer software, systems	5,040	3.6	18
Computer systems analysts	1,060	0.8	17
Network and computer systems administrators	280	0.2	24
Network systems/data communications analysts	110	0.1	26
Social scientists	40	<	(nc)
Market research analysts	40	<	41
Engineers	33,100	23.5	(nc)
Aeronautical	10,040	7.1	43
Civil	190	0.1	22
Computer	1,450	1.0	21
Electrical/electronics	15,570	11.1	(nc)
Electrical	8,280	5.9	30
Electronics	7,290	5.2	16
Industrial	3,350	2.4	11
Mechanical	1,880	1.3	27
Sales	130	0.1	22
Other engineers	490	0.4	(nc)
Environmental	110	0.1	21
Metallurgical/metallurgists	200	0.1	39
Safety	180	0.1	35
Technicians	8,070	5.7	(nc)
Drafters	420	0.3	(nc)
Mechanical drafters	420	0.3	25
Engineering technicians	7,650	5.4	(nc)
Aerospace engineering and operations technicians	2,140	1.5	24
Electronical/electronics engineering technicians	3,550	2.5	7
Electro-mechanical technicians	680	0.5	31
Industrial engineering technicians	1,280	0.9	36

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Measuring and controlling devices (SIC 3820)			
Scientific and technical personnel	71,930	23.6	(nc)
Managers of scientific and technical personnel	6,970	2.3	(nc)
Computer and information systems managers	1,090	0.4	9
Engineering managers	5,880	1.9	6
Scientists	13,740	4.5	(nc)
Computer scientists	12,100	4.0	(nc)
Computer and information scientists, research	190	0.1	34
Computer software, applications	4,810	1.6	10
Computer software, systems	4,640	1.5	11
Computer systems analysts	1,140	0.4	11
Network and computer systems administrators	900	0.3	8
Network systems/data communications analysts	420	0.1	16
Mathematical scientists	340	0.1	(nc)
Operations and systems researchers and analysts	340	0.1	39
Physical scientists	640	0.2	(nc)
Chemists	550	0.2	22
Materials scientists	40	<	48
Physicists	50	<	42
Social scientists	660	0.2	(nc)
Market research analysts	660	0.2	26
Engineers	29,740	9.7	(nc)
Computer	1,560	0.5	19
Electrical/electronics	13,010	4.3	(nc)
Electrical	9,600	3.1	15
Electronics	3,410	1.1	11
Industrial	3,910	1.3	11
Mechanical	7,570	2.5	11
Sales	2,590	0.9	10
Other engineers	1,100	0.4	(nc)
Chemical	350	0.1	30
Environmental	80	<	16
Metallurgical/metallurgists	500	0.2	15
Safety	170	0.1	19
Technicians	21,480	7.0	(nc)
Computer, numerical tool, and process control programmers	1,460	0.5	(nc)
Computer programmers	1,000	0.3	17
Numerical tool and process control programmers	460	0.2	30
Drafters	3,700	1.2	(nc)
Electrical and electronics drafters	1,840	0.6	11
Mechanical drafters	1,860	0.6	10

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Measuring and controlling devices (SIC 3820) -- continued:			
Engineering technicians	16,070	5.3	(nc)
Electronical/electronics engineering technicians	9,610	3.2	8
Electro-mechanical technicians	2,760	0.9	15
Industrial engineering technicians	1,690	0.6	21
Mechanical engineering technicians	2,010	0.7	17
Physical and life science technicians	250	0.1	(nc)
Chemical technicians, except health	250	0.1	20
Medical instruments and supplies (SIC 3840)			
Scientific and technical personnel	28,660	9.9	(nc)
Managers of scientific and technical personnel	3,530	1.2	(nc)
Computer and information systems managers	750	0.3	8
Engineering managers	2,510	0.9	7
Natural sciences managers	270	0.1	30
Scientists	5,480	1.9	(nc)
Computer scientists	3,090	1.1	(nc)
Computer software, applications	910	0.3	28
Computer software, systems	600	0.2	26
Computer systems analysts	910	0.3	22
Network and computer systems administrators	530	0.2	11
Network systems/data communications analysts	140	0.1	18
Life scientists	480	0.2	(nc)
Biochemists and biophysicists	150	0.1	44
Medical scientists, except epidemiologists	110	<	49
Microbiologists	220	0.1	17
Mathematical scientists	70	<	(nc)
Operations and systems researchers and analysts	70	<	27
Physical scientists	930	0.3	(nc)
Chemists	930	0.3	30
Social scientists	910	0.3	(nc)
Market research analysts	910	0.3	39
Engineers	11,160	3.9	(nc)
Computer	400	0.1	32
Electrical/electronics	2,970	1.0	(nc)
Electrical	2,120	0.7	23
Electronics	850	0.3	22
Industrial	3,090	1.1	11
Mechanical	3,070	1.1	11
Sales	420	0.1	29
Other engineers	1,210	0.4	(nc)
Biomedical	660	0.2	21
Chemical	60	<	18
Environmental	50	<	28
Metallurgical/metallurgists	330	0.1	15
Safety	110	<	26

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Medical instruments and supplies (SIC 3840) -- continued:			
Technicians	8,490	2.9	(nc)
Computer, numerical tool, and process control programmers	610	0.2	(nc)
Computer programmers	520	0.2	12
Numerical tool and process control programmers	90	<	34
Drafters	1,200	0.4	(nc)
Electrical and electronics drafters	200	0.1	23
Mechanical drafters	1,000	0.3	15
Engineering technicians	6,090	2.1	(nc)
Aerospace engineering and operations technicians	30	<	44
Electronical/electronics engineering technicians	2,230	0.8	16
Electro-mechanical technicians	980	0.3	29
Industrial engineering technicians	1,470	0.5	17
Mechanical engineering technicians	1,380	0.5	16
Physical and life science technicians	590	0.2	(nc)
Biological technicians	220	0.1	25
Chemical technicians, except health	370	0.1	20
Ophthalmic goods (SIC 3850)			
Scientific and technical personnel	680	2.3	(nc)
Managers of scientific and technical personnel	320	1.1	(nc)
Computer and information systems managers	70	0.2	31
Engineering managers	250	0.9	41
Scientists	30	0.1	(nc)
Computer scientists	30	0.1	(nc)
Network and computer systems administrators	30	0.1	20
Engineers	290	1.0	(nc)
Industrial	250	0.9	32
Mechanical	40	0.1	27
Technicians	40	0.1	(nc)
Computer, numerical tool, and process control programmers	40	0.1	(nc)
Computer programmers	40	0.1	34
Photographic equipment and supplies (SIC 3860)			
Scientific and technical personnel	2,460	3.4	(nc)
Managers of scientific and technical personnel	430	0.6	(nc)
Computer and information systems managers	120	0.2	24
Engineering managers	310	0.4	17

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Photographic equipment and supplies (SIC 3860) -- continued:			
Scientists	930	1.3	(nc)
Computer scientists	380	0.5	(nc)
Computer software, applications	230	0.3	47
Computer systems analysts	100	0.1	27
Network and computer systems administrators	50	0.1	26
Physical scientists	550	0.8	(nc)
Chemists	550	0.8	41
Engineers	870	1.2	(nc)
Electrical/electronics	120	0.2	(nc)
Electrical	120	0.2	24
Industrial	520	0.7	47
Sales	200	0.3	37
Other engineers	30	<	(nc)
Safety	30	<	20
Technicians	230	0.3	(nc)
Computer, numerical tool, and process control programmers	230	0.3	(nc)
Computer programmers	230	0.3	40
Watches, clocks, watchcases & parts (SIC 3870)			
Scientific and technical personnel	40	<	(nc)
Engineers	40	<	(nc)
Mechanical	40	<	37
Jewelry, silverware, and plated ware (SIC 3910)			
Scientific and technical personnel	340	0.7	(nc)
Managers of scientific and technical personnel	100	0.2	(nc)
Computer and information systems managers	70	0.2	13
Engineering managers	30	0.1	27
Scientists	100	0.2	(nc)
Computer scientists	100	0.2	(nc)
Computer software, applications	40	0.1	19
Computer systems analysts	30	0.1	36
Network and computer systems administrators	30	0.1	48
Engineers	60	0.1	(nc)
Industrial	60	0.1	25
Technicians	80	0.2	(nc)
Computer, numerical tool, and process control programmers	80	0.2	(nc)
Computer programmers	80	0.2	21

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Musical instruments (SIC 3930)			
Scientific and technical personnel	590	4.3	(nc)
Managers of scientific and technical personnel	60	0.4	(nc)
Computer and information systems managers	30	0.2	20
Engineering managers	30	0.2	18
Scientists	30	0.2	(nc)
Computer scientists	30	0.2	(nc)
Network and computer systems administrators	30	0.2	24
Engineers	350	2.6	(nc)
Electrical/electronics	220	1.6	(nc)
Electrical	40	0.3	34
Electronics	180	1.3	24
Industrial	30	0.2	18
Mechanical	100	0.7	23
Technicians	150	1.1	(nc)
Computer, numerical tool, and process control programmers	50	0.4	(nc)
Computer programmers	50	0.4	29
Engineering technicians	100	0.7	(nc)
Electronical/electronics engineering technicians	100	0.7	16
Toys and sporting goods (SIC 3940)			
Scientific and technical personnel	2,930	2.8	(nc)
Managers of scientific and technical personnel	610	0.6	(nc)
Computer and information systems managers	230	0.2	14
Engineering managers	380	0.4	21
Scientists	870	0.8	(nc)
Computer scientists	730	0.7	(nc)
Computer software, applications	90	0.1	33
Computer software, systems	90	0.1	26
Computer systems analysts	370	0.4	28
Network and computer systems administrators	100	0.1	15
Network systems/data communications analysts	80	0.1	33
Physical scientists	70	0.1	(nc)
Chemists	70	0.1	42
Social scientists	70	0.1	(nc)
Market research analysts	70	0.1	27
Engineers	870	0.8	(nc)
Electrical/electronics	30	<	(nc)
Electrical	30	<	34
Industrial	400	0.4	15
Mechanical	350	0.3	15
Other engineers	90	0.1	(nc)
Metallurgical/metallurgists	90	0.1	30

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Toys and sporting goods (SIC 3940) -- continued:			
Technicians	580	0.6	(nc)
Computer, numerical tool, and process control programmers	140	0.1	(nc)
Computer programmers	140	0.1	23
Drafters	140	0.1	(nc)
Mechanical drafters	140	0.1	30
Engineering technicians	300	0.3	(nc)
Electronical/electronics engineering technicians	40	<	26
Environmental engineering technicians	40	<	34
Industrial engineering technicians	70	0.1	28
Mechanical engineering technicians	150	0.1	28
Pens, pencils, office, & art supplies (SIC 3950)			
Scientific and technical personnel	270	0.9	(nc)
Managers of scientific and technical personnel	140	0.5	(nc)
Computer and information systems managers	30	0.1	24
Engineering managers	110	0.4	18
Scientists	60	0.2	(nc)
Physical scientists	60	0.2	(nc)
Chemists	60	0.2	28
Engineers	30	0.1	(nc)
Industrial	30	0.1	32
Technicians	40	0.1	(nc)
Drafters	40	0.1	(nc)
Mechanical drafters	40	0.1	47
Costume jewelry and notions (SIC 3960)			
Scientific and technical personnel	170	1.0	(nc)
Managers of scientific and technical personnel	40	0.2	(nc)
Computer and information systems managers	40	0.2	14
Scientists	30	0.2	(nc)
Computer scientists	30	0.2	(nc)
Computer systems analysts	30	0.2	39
Engineers	50	0.3	(nc)
Mechanical	50	0.3	21
Technicians	50	0.3	(nc)
Computer, numerical tool, and process control programmers	50	0.3	(nc)
Computer programmers	50	0.3	41

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Miscellaneous manufactures (SIC 3990)			
Scientific and technical personnel	3,720	2.0	(nc)
Managers of scientific and technical personnel	590	0.3	(nc)
Computer and information systems managers	250	0.1	12
Engineering managers	340	0.2	14
Scientists	650	0.4	(nc)
Computer scientists	600	0.3	(nc)
Computer software, applications	130	0.1	20
Computer software, systems	50	<	23
Computer systems analysts	200	0.1	16
Network and computer systems administrators	170	0.1	14
Network systems/data communications analysts	50	<	24
Physical scientists	50	<	(nc)
Chemists	50	<	17
Engineers	990	0.5	(nc)
Electrical/electronics	210	0.1	(nc)
Electrical	210	0.1	21
Industrial	310	0.2	22
Mechanical	350	0.2	12
Sales	90	0.1	34
Other engineers	30	<	(nc)
Safety	30	<	18

See explanatory information and SOURCE at end of table.

Table 7. Employed scientists, engineers, technicians (SETs), and SET managers
in SICs 33-39 (selected manufacturing industries, continued),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Miscellaneous manufactures (SIC 3990) -- continued:			
Technicians	1,490	0.8	(nc)
Computer, numerical tool, and process control programmers	160	0.1	(nc)
Computer programmers	160	0.1	30
Drafters	680	0.4	(nc)
Electrical and electronics drafters	150	0.1	24
Mechanical drafters	530	0.3	17
Engineering technicians	590	0.3	(nc)
Electronical/electronics engineering technicians	370	0.2	29
Industrial engineering technicians	60	<	17
Mechanical engineering technicians	160	0.1	50
Physical and life science technicians	60	<	(nc)
Chemical technicians, except health	60	<	9

[1]SET intensity = the ratio of SET employment (including SET managers) in a given SIC to total employment in that SIC, expressed in percentage terms.

[2]Relative standard error of the estimate of filled positions, expressed as a percentage.

KEY: nc = Not computed
< = The estimated actual value is less than 0.05 for percentages when used to characterize SET intensity.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Because of rounding, components may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Railroad transportation (SIC 4010)			
Scientific and technical personnel	11,970	6.0	(nc)
Managers of scientific and technical personnel	130	0.1	(nc)
Computer and information systems managers	80	<	25
Engineering managers	50	<	33
Scientists	320	0.2	(nc)
Computer scientists	320	0.2	(nc)
Computer systems analysts	320	0.2	32
Engineers	11,210	5.6	(nc)
Civil	290	0.2	36
Other engineers	10,920	5.5	(nc)
Safety	10,920	5.5	30
Technicians	310	0.2	(nc)
Computer, numerical tool, and process control programmers	170	0.1	(nc)
Computer programmers	170	0.1	25
Engineering technicians	140	0.1	(nc)
Electronical/electronics engineering technicians	140	0.1	41
Local and suburban transportation (SIC 4110)			
Scientific and technical personnel	290	0.1	(nc)
Managers of scientific and technical personnel	120	0.1	(nc)
Computer and information systems managers	120	0.1	26
Scientists	40	<	(nc)
Computer scientists	40	<	(nc)
Network and computer systems administrators	40	<	25
Technicians	130	0.1	(nc)
Computer, numerical tool, and process control programmers	30	<	(nc)
Computer programmers	30	<	21
Engineering technicians	100	<	(nc)
All other engineering technicians	100	<	(nc)
Transportation inspectors	100	<	50

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Trucking and courier services, excl. air (SIC 4210)			
Scientific and technical personnel	4,390	0.3	(nc)
Managers of scientific and technical personnel	1,180	0.1	(nc)
Computer and information systems managers	1,060	0.1	17
Engineering managers	120	<	31
Engineers	400	<	(nc)
Industrial	170	<	27
Other engineers	230	<	(nc)
Environmental	90	<	33
Safety	140	<	20
Technicians	2,120	0.1	(nc)
Computer, numerical tool, and process control programmers	1,260	0.1	(nc)
Computer programmers	1,260	0.1	28
Engineering technicians	860	0.1	(nc)
All other engineering technicians	860	0.1	(nc)
Transportation inspectors	860	0.1	29
Public warehousing and storage (SIC 4220)			
Scientific and technical personnel	1,180	0.6	(nc)
Managers of scientific and technical personnel	420	0.2	(nc)
Computer and information systems managers	350	0.2	17
Engineering managers	70	<	26
Scientists	340	0.2	(nc)
Computer scientists	340	0.2	(nc)
Computer systems analysts	60	<	41
Network and computer systems administrators	280	0.1	25
Engineers	30	<	(nc)
Other engineers	30	<	(nc)
Safety	30	<	34
Technicians	390	0.2	(nc)
Computer, numerical tool, and process control programmers	390	0.2	(nc)
Computer programmers	390	0.2	25

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Deep sea foreign transportation of freight (SIC 4410)			
Scientific and technical personnel	190	0.4	(nc)
Managers of scientific and technical personnel	140	<	(nc)
Engineering managers	140	<	47
Engineers	50	0.4	(nc)
Other engineers	50	0.4	(nc)
Marine	50	0.4	3
Deep sea domestic transportation of freight (SIC 4420)			
Scientific and technical personnel	170	2.2	(nc)
Managers of scientific and technical personnel	60	0.8	(nc)
Computer and information systems managers	60	0.8	24
Technicians	110	1.4	(nc)
Computer, numerical tool, and process control programmers	110	1.4	(nc)
Computer programmers	110	1.4	30
Water transportation of freight, n.e.c. (SIC 4440)			
Scientific and technical personnel	30	0.2	(nc)
Scientists	30	0.2	(nc)
Computer scientists	30	0.2	(nc)
Network and computer systems administrators	30	0.2	31
Water transportation of passengers (SIC 4480)			
Scientific and technical personnel	50	0.2	(nc)
Managers of scientific and technical personnel	50	0.2	(nc)
Computer and information systems managers	50	0.2	42
Water transportation services (SIC 4490)			
Scientific and technical personnel	990	0.8	(nc)
Managers of scientific and technical personnel	140	0.1	(nc)
Computer and information systems managers	70	0.1	32
Engineering managers	70	0.1	33
Scientists	30	<	(nc)
Computer scientists	30	<	(nc)
Network and computer systems administrators	30	<	37

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Water transportation services (SIC 4490) -- continued:			
Engineers	460	0.4	(nc)
Other engineers	460	0.4	(nc)
Marine	460	0.4	40
Technicians	360	0.3	(nc)
Engineering technicians	360	0.3	(nc)
All other engineering technicians	360	0.3	(nc)
Transportation inspectors	360	0.3	36
Air transportation, scheduled (SIC 4510)			
Scientific and technical personnel	6,290	0.6	(nc)
Managers of scientific and technical personnel	980	0.1	(nc)
Computer and information systems managers	560	0.1	20
Engineering managers	420	<	21
Scientists	2,030	0.2	(nc)
Computer scientists	1,400	0.1	(nc)
Computer software, systems	40	<	38
Computer systems analysts	660	0.1	37
Network and computer systems administrators	620	0.1	47
Network systems/data communications analysts	80	<	29
Mathematical scientists	630	0.1	(nc)
Operations and systems researchers and analysts	630	0.1	26
Engineers	280	<	(nc)
Computer	190	<	50
Other engineers	90	<	(nc)
Safety	90	<	26
Technicians	3,000	0.3	(nc)
Computer, numerical tool, and process control programmers	780	0.1	(nc)
Computer programmers	780	0.1	27
Engineering technicians	2,220	0.2	(nc)
All other engineering technicians	2,220	0.2	(nc)
Transportation inspectors	2,220	0.2	23

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 40-59 (selected trade and regulated industries), and the relative standard error: 1999

[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Air transportation, nonscheduled (SIC 4520)			
Scientific and technical personnel	80	0.2	(nc)
Technicians	80	0.2	(nc)
Engineering technicians	80	0.2	(nc)
Aerospace engineering and operations technicians	30	0.1	40
All other engineering technicians	50	0.1	(nc)
Transportation inspectors	50	0.1	46
Airports, flying fields, and services (SIC 4580)			
Scientific and technical personnel	2,830	2.0	(nc)
Managers of scientific and technical personnel	150	0.1	(nc)
Computer and information systems managers	80	0.1	20
Engineering managers	70	0.1	29
Scientists	270	0.2	(nc)
Computer scientists	270	0.2	(nc)
Network and computer systems administrators	190	0.1	42
Network systems/data communications analysts	80	0.1	50
Engineers	160	0.1	(nc)
Aeronautical	130	0.1	38
Industrial	30	<	36
Technicians	2,250	1.6	(nc)
Computer, numerical tool, and process control programmers	160	0.1	(nc)
Computer programmers	160	0.1	39
Engineering technicians	2,090	1.5	(nc)
Aerospace engineering and operations technicians	380	0.3	50
Electronical/electronics engineering technicians	300	0.2	49
All other engineering technicians	1,410	1.0	(nc)
Transportation inspectors	1,410	1.0	24
Pipelines, except natural gas (SIC 4610)			
Scientific and technical personnel	700	5.4	(nc)
Managers of scientific and technical personnel	90	0.7	(nc)
Engineering managers	90	0.7	17

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Pipelines, except natural gas (SIC 4610) -- continued:			
Engineers	490	3.8	(nc)
Civil	210	1.6	23
Electrical/electronics	120	0.9	(nc)
Electrical	120	0.9	22
Industrial	60	0.5	20
Mechanical	50	0.4	31
Other engineers	50	0.4	(nc)
Environmental	50	0.4	22
Technicians	120	0.9	(nc)
Engineering technicians	120	0.9	(nc)
Electronical/electronics engineering technicians	40	0.3	23
Industrial engineering technicians	80	0.6	45
Passenger transportation arrangements (SIC 4720)			
Scientific and technical personnel	4,180	1.9	(nc)
Managers of scientific and technical personnel	600	0.3	(nc)
Computer and information systems managers	600	0.3	25
Scientists	2,140	1.0	(nc)
Computer scientists	2,100	1.0	(nc)
Computer systems analysts	1,490	0.7	31
Network and computer systems administrators	540	0.3	36
Network systems/data communications analysts	70	<	30
Social scientists	40	<	(nc)
Market research analysts	40	<	30
Technicians	1,440	0.7	(nc)
Computer, numerical tool, and process control programmers	1,440	0.7	(nc)
Computer programmers	1,440	0.7	28
Freight transportation arrangements (SIC 4730)			
Scientific and technical personnel	1,730	0.9	(nc)
Managers of scientific and technical personnel	500	0.3	(nc)
Computer and information systems managers	450	0.2	17
Engineering managers	50	<	21

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Freight transportation arrangements (SIC 4730) -- continued:			
Scientists	160	0.1	(nc)
Computer scientists	120	0.1	(nc)
Network and computer systems administrators	120	0.1	18
Mathematical scientists	40	<	(nc)
Operations and systems researchers and analysts	40	<	33
Engineers	70	<	(nc)
Other engineers	70	<	(nc)
Marine	30	<	35
Safety	40	<	37
Technicians	1,000	0.5	(nc)
Computer, numerical tool, and process control programmers	1,000	0.5	(nc)
Computer programmers	1,000	0.5	24
Misc. transportation services (SIC 4780)			
Scientific and technical personnel	880	1.7	(nc)
Technicians	880	1.7	(nc)
Engineering technicians	710	1.4	(nc)
All other engineering technicians	710	1.4	(nc)
Transportation inspectors	710	1.4	28
Surveying, cartographic, photogrammetric, and mapping technicians	170	0.3	(nc)
Surveyors	170	0.3	37
Telephone communications (SIC 4810)			
Scientific and technical personnel	99,050	8.9	(nc)
Managers of scientific and technical personnel	20,070	1.8	(nc)
Computer and information systems managers	10,630	1.0	8
Engineering managers	9,440	0.9	11
Scientists	36,930	3.3	(nc)
Computer scientists	33,630	3.0	(nc)
Computer and information scientists, research	90	<	31
Computer software, applications	4,980	0.5	15
Computer software, systems	5,700	0.5	22
Computer systems analysts	10,240	0.9	20
Network and computer systems administrators	7,820	0.7	19
Network systems/data communications analysts	4,800	0.4	11
Mathematical scientists	820	0.1	(nc)
Operations and systems researchers and analysts	820	0.1	19

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Telephone communications (SIC 4810) -- continued:			
Social scientists	2,480	0.2	(nc)
Economists	600	0.1	20
Market research analysts	1,880	0.2	16
Engineers	22,350	2.0	(nc)
Civil	180	<	29
Computer	5,800	0.5	18
Electrical/electronics	11,730	1.1	(nc)
Electrical	2,090	0.2	13
Electronics	9,640	0.9	38
Industrial	1,460	0.1	27
Sales	3,070	0.3	19
Other engineers	110	<	(nc)
Biomedical	50	<	34
Safety	60	<	35
Technicians	19,700	1.8	(nc)
Computer, numerical tool, and process control programmers	2,980	0.3	(nc)
Computer programmers	2,980	0.3	17
Drafters	910	0.1	(nc)
Architectural and civil drafters	300	<	25
Electrical and electronics drafters	400	<	22
Mechanical drafters	210	<	27
Engineering technicians	15,810	1.4	(nc)
Electronical/electronics engineering technicians	15,300	1.4	10
Mechanical engineering technicians	270	<	19
All other engineering technicians	240	<	(nc)
Audio and video equipment technicians	240	<	42
Telegraph and other communications (SIC 4820)			
Scientific and technical personnel	1,450	12.4	(nc)
Managers of scientific and technical personnel	690	5.9	(nc)
Computer and information systems managers	660	5.6	25
Engineering managers	30	0.3	33
Scientists	490	4.2	(nc)
Computer scientists	490	4.2	(nc)
Computer software, applications	130	1.1	41
Computer software, systems	150	1.3	28
Network and computer systems administrators	50	0.4	33
Network systems/data communications analysts	160	1.4	34

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Telegraph and other communications (SIC 4820) -- continued:			
Technicians	270	2.3	(nc)
Computer, numerical tool, and process control programmers	270	2.3	(nc)
Computer programmers	270	2.3	39
Radio and television broadcasting (SIC 4830)			
Scientific and technical personnel	32,620	12.9	(nc)
Managers of scientific and technical personnel	2,850	1.1	(nc)
Computer and information systems managers	920	0.4	12
Engineering managers	1,930	0.8	9
Scientists	2,040	0.8	(nc)
Computer scientists	1,340	0.5	(nc)
Computer software, applications	180	0.1	27
Computer software, systems	200	0.1	48
Computer systems analysts	110	<	25
Network and computer systems administrators	540	0.2	20
Network systems/data communications analysts	310	0.1	14
Physical scientists	480	0.2	(nc)
Atmospheric and space scientists	480	0.2	18
Social scientists	220	0.1	(nc)
Market research analysts	220	0.1	22
Engineers	1,430	0.6	(nc)
Computer	80	<	30
Electrical/electronics	1,060	0.4	(nc)
Electrical	590	0.2	20
Electronics	470	0.2	21
Industrial	220	0.1	30
Mechanical	70	<	47
Technicians	26,300	10.4	(nc)
Computer, numerical tool, and process control programmers	400	0.2	(nc)
Computer programmers	400	0.2	36
Engineering technicians	25,900	10.2	(nc)
Electronical/electronics engineering technicians	1,570	0.6	12
All other engineering technicians	24,330	9.6	(nc)
Audio and video equipment technicians	4,510	1.8	11
Broadcast technicians	19,820	7.8	5

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Cable and other pay TV services (SIC 4840)			
Scientific and technical personnel	11,730	5.9	(nc)
Managers of scientific and technical personnel	1,640	0.8	(nc)
Computer and information systems managers	750	0.4	13
Engineering managers	890	0.5	16
Scientists	3,800	1.9	(nc)
Computer scientists	3,480	1.8	(nc)
Computer software, applications	660	0.3	45
Computer software, systems	350	0.2	26
Computer systems analysts	350	0.2	22
Network and computer systems administrators	590	0.3	15
Network systems/data communications analysts	1,530	0.8	27
Social scientists	320	0.2	(nc)
Market research analysts	320	0.2	45
Engineers	720	0.4	(nc)
Computer	230	0.1	47
Electrical/electronics	280	0.1	(nc)
Electrical	80	<	27
Electronics	200	0.1	21
Industrial	150	0.1	31
Sales	60	<	35
Technicians	5,570	2.8	(nc)
Computer, numerical tool, and process control programmers	410	0.2	(nc)
Computer programmers	410	0.2	21
Drafters	60	<	(nc)
Electrical and electronics drafters	60	<	21
Engineering technicians	5,100	2.6	(nc)
Electronical/electronics engineering technicians	1,650	0.8	30
All other engineering technicians	3,450	1.7	(nc)
Audio and video equipment technicians	1,500	0.8	26
Broadcast technicians	1,950	1.0	27
Communications services, n.e.c. (SIC 4890)			
Scientific and technical personnel	2,270	12.1	(nc)
Managers of scientific and technical personnel	550	2.9	(nc)
Computer and information systems managers	210	1.1	23
Engineering managers	340	1.8	36

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Communications services, n.e.c. (SIC 4890) -- continued:			
Scientists	930	5.0	(nc)
Computer scientists	930	5.0	(nc)
Computer software, applications	280	1.5	29
Computer software, systems	270	1.4	25
Computer systems analysts	80	0.4	37
Network and computer systems administrators	180	1.0	42
Network systems/data communications analysts	120	0.6	32
Engineers	60	0.3	(nc)
Electrical/electronics	60	0.3	(nc)
Electronics	60	0.3	30
Technicians	730	3.9	(nc)
Computer, numerical tool, and process control programmers	280	1.5	(nc)
Computer programmers	280	1.5	39
Engineering technicians	450	2.4	(nc)
Electronical/electronics engineering technicians	450	2.4	30
Electric services (SIC 4910)			
Scientific and technical personnel	42,420	11.6	(nc)
Managers of scientific and technical personnel	3,670	1.0	(nc)
Computer and information systems managers	1,040	0.3	11
Engineering managers	2,530	0.7	7
Natural sciences managers	100	<	19
Scientists	7,230	2.0	(nc)
Computer scientists	4,060	1.1	(nc)
Computer and information scientists, research	60	<	42
Computer software, applications	1,160	0.3	13
Computer systems analysts	1,520	0.4	38
Network and computer systems administrators	680	0.2	9
Network systems/data communications analysts	640	0.2	23
Life scientists	50	<	(nc)
Foresters	50	<	27
Mathematical scientists	1,060	0.3	(nc)
Operations and systems researchers and analysts	1,060	0.3	30
Physical scientists	1,330	0.4	(nc)
Chemists	650	0.2	16
Environmental scientists and specialists, including health	680	0.2	21
Social scientists	730	0.2	(nc)
Economists	30	<	36
Market research analysts	590	0.2	27
Urban and regional planners	110	<	25

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Electric services (SIC 4910) -- continued:			
Engineers	15,250	4.2	(nc)
Civil	1,190	0.3	23
Electrical/electronics	7,950	2.2	(nc)
Electrical	7,650	2.1	12
Electronics	300	0.1	24
Industrial	900	0.3	26
Mechanical	840	0.2	14
Sales	110	<	22
Other engineers	4,260	1.2	(nc)
Chemical	150	<	41
Environmental	430	0.1	20
Metallurgical/metallurgists	50	<	41
Mining and geological	50	<	31
Nuclear	2,830	0.8	29
Safety	750	0.2	16
Technicians	16,270	4.4	(nc)
Computer, numerical tool, and process control programmers	1,920	0.5	(nc)
Computer programmers	1,920	0.5	15
Drafters	1,600	0.4	(nc)
Architectural and civil drafters	240	0.1	25
Electrical and electronics drafters	1,100	0.3	10
Mechanical drafters	260	0.1	36
Engineering technicians	7,860	2.2	(nc)
Civil engineering technicians	1,170	0.3	15
Electronical/electronics engineering technicians	5,050	1.4	7
Electro-mechanical technicians	810	0.2	14
Environmental engineering technicians	260	0.1	24
Mechanical engineering technicians	570	0.2	49
Physical and life science technicians	2,620	0.7	(nc)
Chemical technicians, except health	1,170	0.3	15
Environmental science and protection technicians, including health	490	0.1	41
Forest and conservation technicians	90	<	29
Nuclear technicians	870	0.2	33
Surveying, cartographic, photogrammetric, and mapping technicians	2,270	0.6	(nc)
Surveying and mapping technicians	1,630	0.5	15
Surveyors	640	0.2	18

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 40-59 (selected trade and regulated industries), and the relative standard error: 1999

[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Gas production and distribution (SIC 4920)			
Scientific and technical personnel	5,390	4.0	(nc)
Managers of scientific and technical personnel	1,250	0.9	(nc)
Computer and information systems managers	440	0.3	20
Engineering managers	810	0.6	11
Scientists	1,170	0.9	(nc)
Computer scientists	830	0.6	(nc)
Computer software, applications	380	0.3	42
Computer systems analysts	190	0.1	28
Network and computer systems administrators	120	0.1	28
Network systems/data communications analysts	140	0.1	37
Social scientists	340	0.3	(nc)
Market research analysts	340	0.3	27
Engineers	1,180	0.9	(nc)
Civil	620	0.5	19
Electrical/electronics	200	0.2	(nc)
Electrical	200	0.2	49
Other engineers	360	0.3	(nc)
Petroleum	240	0.2	24
Safety	120	0.1	34
Technicians	1,790	1.3	(nc)
Computer, numerical tool, and process control programmers	490	0.4	(nc)
Computer programmers	490	0.4	24
Drafters	290	0.2	(nc)
Architectural and civil drafters	50	<	29
Electrical and electronics drafters	150	0.1	36
Mechanical drafters	90	0.1	28
Engineering technicians	50	<	(nc)
Mechanical engineering technicians	50	<	9
Physical and life science technicians	200	0.2	(nc)
Environmental science and protection technicians, including health	200	0.2	27
Surveying, cartographic, photogrammetric, and mapping technicians	760	0.6	(nc)
Surveying and mapping technicians	610	0.5	20
Surveyors	150	0.1	38

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Combination utility services (SIC 4930)			
Scientific and technical personnel	16,730	11.0	(nc)
Managers of scientific and technical personnel	2,210	1.5	(nc)
Computer and information systems managers	1,090	0.7	43
Engineering managers	1,120	0.7	11
Scientists	3,580	2.4	(nc)
Computer scientists	3,160	2.1	(nc)
Computer software, applications	490	0.3	34
Computer software, systems	90	0.1	43
Computer systems analysts	2,250	1.5	42
Network and computer systems administrators	150	0.1	8
Network systems/data communications analysts	180	0.1	18
Life scientists	60	<	(nc)
Foresters	60	<	22
Physical scientists	170	0.1	(nc)
Chemists	60	<	32
Environmental scientists and specialists, including health	110	0.1	20
Social scientists	190	0.1	(nc)
Market research analysts	190	0.1	28
Engineers	4,830	3.2	(nc)
Civil	310	0.2	25
Electrical/electronics	2,740	1.8	(nc)
Electrical	2,650	1.7	13
Electronics	90	0.1	19
Industrial	380	0.3	23
Mechanical	820	0.5	26
Other engineers	580	0.4	(nc)
Environmental	220	0.1	22
Petroleum	250	0.2	27
Safety	110	0.1	25
Technicians	6,110	4.0	(nc)
Computer, numerical tool, and process control programmers	930	0.6	(nc)
Computer programmers	930	0.6	35
Drafters	1,640	1.1	(nc)
Architectural and civil drafters	90	0.1	38
Electrical and electronics drafters	1,490	1.0	29
Mechanical drafters	60	<	41

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Combination utility services (SIC 4930) -- continued:			
Engineering technicians	2,240	1.5	(nc)
Civil engineering technicians	50	<	49
Electronical/electronics engineering technicians	1,820	1.2	15
Electro-mechanical technicians	180	0.1	15
Mechanical engineering technicians	190	0.1	23
Physical and life science technicians	510	0.3	(nc)
Chemical technicians, except health	230	0.2	27
Environmental science and protection technicians, including health	200	0.1	14
Geological and petroleum technicians	80	0.1	36
Surveying, cartographic, photogrammetric, and mapping technicians	790	0.5	(nc)
Surveying and mapping technicians	720	0.5	11
Surveyors	70	0.1	28
Water supply (SIC 4940)			
Scientific and technical personnel	810	2.5	(nc)
Managers of scientific and technical personnel	220	0.7	(nc)
Computer and information systems managers	50	0.2	23
Engineering managers	170	0.5	21
Scientists	120	0.4	(nc)
Computer scientists	60	0.2	(nc)
Network and computer systems administrators	60	0.2	32
Physical scientists	60	0.2	(nc)
Environmental scientists and specialists, including health	60	0.2	48
Engineers	170	0.5	(nc)
Civil	170	0.5	13
Technicians	300	0.9	(nc)
Computer, numerical tool, and process control programmers	90	0.3	(nc)
Computer programmers	90	0.3	38
Engineering technicians	40	0.1	(nc)
Civil engineering technicians	40	0.1	21
Physical and life science technicians	170	0.5	(nc)
Chemical technicians, except health	110	0.3	28
Environmental science and protection technicians, including health	60	0.2	49

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 40-59 (selected trade and regulated industries), and the relative standard error: 1999

[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Sanitary services (SIC 4950)			
Scientific and technical personnel	7,850	4.6	(nc)
Managers of scientific and technical personnel	1,150	0.7	(nc)
Engineering managers	700	0.4	25
Natural sciences managers	450	0.3	31
Scientists	2,920	1.7	(nc)
Computer scientists	310	0.2	(nc)
Computer systems analysts	150	0.1	23
Network and computer systems administrators	160	0.1	22
Physical scientists	2,610	1.5	(nc)
Chemists	460	0.3	38
Environmental scientists and specialists, including health	2,030	1.2	35
Geoscientists, except hydrologists and geographers	120	0.1	46
Engineers	1,390	0.8	(nc)
Electrical/electronics	40	<	(nc)
Electrical	40	<	42
Sales	300	0.2	31
Other engineers	1,050	0.6	(nc)
Environmental	1,050	0.6	16
Technicians	2,390	1.4	(nc)
Computer, numerical tool, and process control programmers	290	0.2	(nc)
Computer programmers	290	0.2	31
Engineering technicians	1,410	0.8	(nc)
Environmental engineering technicians	1,410	0.8	30
Physical and life science technicians	690	0.4	(nc)
Environmental science and protection technicians, including health	690	0.4	21
Motor vehicles, parts, and supplies (SIC 5010)			
Scientific and technical personnel	3,420	0.7	(nc)
Managers of scientific and technical personnel	920	0.2	(nc)
Computer and information systems managers	560	0.1	10
Engineering managers	360	0.1	25
Scientists	340	0.1	(nc)
Computer scientists	300	0.1	(nc)
Network and computer systems administrators	300	0.1	18
Social scientists	40	<	(nc)
Market research analysts	40	<	14

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Motor vehicles, parts, and supplies (SIC 5010) -- continued:			
Engineers	1,070	0.2	(nc)
Electrical/electronics	120	<	(nc)
Electrical	120	<	30
Mechanical	780	0.2	26
Sales	170	<	27
Technicians	1,090	0.2	(nc)
Computer, numerical tool, and process control programmers	510	0.1	(nc)
Computer programmers	510	0.1	14
Engineering technicians	580	0.1	(nc)
Electronical/electronics engineering technicians	240	0.1	33
Electro-mechanical technicians	150	<	44
Mechanical engineering technicians	190	<	22
Furniture and homefurnishings (SIC 5020)			
Scientific and technical personnel	780	0.5	(nc)
Managers of scientific and technical personnel	290	0.2	(nc)
Computer and information systems managers	260	0.2	10
Engineering managers	30	<	40
Scientists	190	0.1	(nc)
Computer scientists	150	0.1	(nc)
Network and computer systems administrators	150	0.1	17
Social scientists	40	<	(nc)
Market research analysts	40	<	32
Engineers	70	<	(nc)
Sales	70	<	46
Technicians	230	0.1	(nc)
Computer, numerical tool, and process control programmers	200	0.1	(nc)
Computer programmers	200	0.1	18
Drafters	30	<	(nc)
Architectural and civil drafters	30	<	17

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 40-59 (selected trade and regulated industries), and the relative standard error: 1999

[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Lumber and construction materials (SIC 5030)			
Scientific and technical personnel	1,550	0.5	(nc)
Managers of scientific and technical personnel	380	0.1	(nc)
Computer and information systems managers	260	0.1	14
Engineering managers	120	<	16
Scientists	350	0.1	(nc)
Computer scientists	350	0.1	(nc)
Computer systems analysts	180	0.1	49
Network and computer systems administrators	170	0.1	16
Engineers	140	0.1	(nc)
Mechanical	40	<	33
Sales	100	<	34
Technicians	680	0.2	(nc)
Computer, numerical tool, and process control programmers	90	<	(nc)
Computer programmers	90	<	26
Drafters	590	0.2	(nc)
Architectural and civil drafters	510	0.2	18
Mechanical drafters	80	<	44
Professional and commercial equipment (SIC 5040)			
Scientific and technical personnel	122,340	12.8	(nc)
Managers of scientific and technical personnel	9,920	1.0	(nc)
Computer and information systems managers	7,750	0.8	7
Engineering managers	2,170	0.2	10
Scientists	36,360	3.8	(nc)
Computer scientists	32,660	3.4	(nc)
Computer and information scientists, research	580	0.1	49
Computer software, applications	4,740	0.5	20
Computer software, systems	9,410	1.0	16
Computer systems analysts	10,260	1.1	11
Network and computer systems administrators	6,190	0.7	11
Network systems/data communications analysts	1,480	0.2	17
Social scientists	3,700	0.4	(nc)
Market research analysts	3,700	0.4	11

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Professional and commercial equipment (SIC 5040) -- continued:			
Engineers	26,030	2.7	(nc)
Computer	1,160	0.1	27
Electrical/electronics	2,570	0.3	(nc)
Electrical	1,680	0.2	13
Electronics	890	0.1	32
Industrial	420	<	28
Mechanical	710	0.1	14
Sales	21,170	2.2	11
Technicians	50,030	5.3	(nc)
Computer, numerical tool, and process control programmers	33,480	3.5	(nc)
Computer programmers	33,480	3.5	9
Drafters	310	<	(nc)
Architectural and civil drafters	150	<	39
Mechanical drafters	160	<	32
Engineering technicians	16,240	1.7	(nc)
Electronical/electronics engineering technicians	10,700	1.1	24
Electro-mechanical technicians	5,220	0.6	26
Mechanical engineering technicians	320	<	28
Metals and minerals, except petroleum (SIC 5050)			
Scientific and technical personnel	1,280	0.8	(nc)
Managers of scientific and technical personnel	310	0.2	(nc)
Computer and information systems managers	180	0.1	14
Engineering managers	130	0.1	24
Scientists	120	0.1	(nc)
Computer scientists	120	0.1	(nc)
Network and computer systems administrators	120	0.1	13
Engineers	340	0.2	(nc)
Industrial	50	<	33
Sales	170	0.1	43
Other engineers	120	0.1	(nc)
Metallurgical/metallurgists	120	0.1	50
Technicians	510	0.3	(nc)
Computer, numerical tool, and process control programmers	140	0.1	(nc)
Computer programmers	140	0.1	16
Drafters	370	0.2	(nc)
Architectural and civil drafters	220	0.1	40
Mechanical drafters	150	0.1	30

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 40-59 (selected trade and regulated industries), and the relative standard error: 1999

[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Electrical goods (SIC 5060)			
Scientific and technical personnel	51,210	9.1	(nc)
Managers of scientific and technical personnel	5,270	0.9	(nc)
Computer and information systems managers	2,640	0.5	11
Engineering managers	2,630	0.5	11
Scientists	4,830	0.9	(nc)
Computer scientists	4,410	0.8	(nc)
Computer software, applications	720	0.1	26
Computer software, systems	840	0.2	39
Computer systems analysts	220	<	35
Network and computer systems administrators	1,750	0.3	10
Network systems/data communications analysts	880	0.2	47
Social scientists	420	0.1	(nc)
Market research analysts	420	0.1	45
Engineers	21,250	3.8	(nc)
Computer	290	0.1	46
Electrical/electronics	15,890	2.8	(nc)
Electrical	3,060	0.5	12
Electronics	12,830	2.3	23
Industrial	570	0.1	31
Mechanical	650	0.1	32
Sales	3,850	0.7	17
Technicians	19,860	3.5	(nc)
Computer, numerical tool, and process control programmers	3,750	0.7	(nc)
Computer programmers	3,750	0.7	14
Drafters	440	0.1	(nc)
Architectural and civil drafters	50	<	39
Electrical and electronics drafters	390	0.1	36
Engineering technicians	15,670	2.8	(nc)
Electronical/electronics engineering technicians	13,590	2.4	7
Electro-mechanical technicians	1,910	0.3	15
Mechanical engineering technicians	170	<	43
Hardware, plumbing, and heating equipment (SIC 5070)			
Scientific and technical personnel	5,080	1.6	(nc)
Managers of scientific and technical personnel	590	0.2	(nc)
Computer and information systems managers	380	0.1	16
Engineering managers	210	0.1	14

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Hardware, plumbing, and heating equipment (SIC 5070) -- continued:			
Scientists	380	0.1	(nc)
Computer scientists	380	0.1	(nc)
Computer systems analysts	100	<	32
Network and computer systems administrators	280	0.1	17
Engineers	2,130	0.7	(nc)
Electrical/electronics	310	0.1	(nc)
Electrical	180	0.1	28
Electronics	130	<	42
Industrial	60	<	36
Mechanical	1,010	0.3	20
Sales	750	0.2	19
Technicians	1,980	0.6	(nc)
Computer, numerical tool, and process control programmers	540	0.2	(nc)
Computer programmers	540	0.2	16
Drafters	60	<	(nc)
Electrical and electronics drafters	60	<	40
Engineering technicians	1,380	0.4	(nc)
Electronical/electronics engineering technicians	730	0.2	21
Electro-mechanical technicians	480	0.2	38
Mechanical engineering technicians	170	0.1	49
Machinery, equipment, and supplies (SIC 5080)			
Scientific and technical personnel	26,730	3.2	(nc)
Managers of scientific and technical personnel	2,500	0.3	(nc)
Computer and information systems managers	1,490	0.2	19
Engineering managers	1,010	0.1	15
Scientists	2,730	0.3	(nc)
Computer scientists	2,570	0.3	(nc)
Computer and information scientists, research	40	<	35
Computer software, applications	860	0.1	43
Computer software, systems	340	<	43
Computer systems analysts	360	<	19
Network and computer systems administrators	850	0.1	20
Network systems/data communications analysts	120	<	26
Social scientists	160	<	(nc)
Market research analysts	160	<	26

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Machinery, equipment, and supplies (SIC 5080) -- continued:			
Engineers	9,420	1.1	(nc)
Electrical/electronics	1,430	0.2	(nc)
Electrical	1,070	0.1	21
Electronics	360	<	29
Industrial	270	<	31
Mechanical	3,810	0.5	14
Sales	3,910	0.5	30
Technicians	12,080	1.4	(nc)
Computer, numerical tool, and process control programmers	1,110	0.1	(nc)
Computer programmers	1,110	0.1	18
Drafters	330	<	(nc)
Mechanical drafters	330	<	35
Engineering technicians	10,540	1.3	(nc)
Electronical/electronics engineering technicians	5,750	0.7	15
Electro-mechanical technicians	3,880	0.5	19
Industrial engineering technicians	120	<	38
Mechanical engineering technicians	790	0.1	27
Physical and life science technicians	100	<	(nc)
Chemical technicians, except health	100	<	32
Miscellaneous durable goods (SIC 5090)			
Scientific and technical personnel	2,260	0.7	(nc)
Managers of scientific and technical personnel	460	0.1	(nc)
Computer and information systems managers	340	0.1	9
Engineering managers	120	<	23
Scientists	280	0.1	(nc)
Computer scientists	250	0.1	(nc)
Network and computer systems administrators	250	0.1	26
Social scientists	30	<	(nc)
Market research analysts	30	<	33
Engineers	110	<	(nc)
Mechanical	110	<	47
Technicians	1,410	0.4	(nc)
Computer, numerical tool, and process control programmers	650	0.2	(nc)
Computer programmers	650	0.2	22
Drafters	60	<	(nc)
Architectural and civil drafters	60	<	34

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Miscellaneous durable goods (SIC 5090) -- continued:			
Engineering technicians	660	0.2	(nc)
Electronical/electronics engineering technicians	330	0.1	37
Electro-mechanical technicians	300	0.1	27
Environmental engineering technicians	30	<	40
Physical and life science technicians	40	<	(nc)
Chemical technicians, except health	40	<	38
Paper and paper products (SIC 5110)			
Scientific and technical personnel	3,200	1.2	(nc)
Managers of scientific and technical personnel	630	0.2	(nc)
Computer and information systems managers	590	0.2	22
Engineering managers	40	<	33
Scientists	880	0.3	(nc)
Computer scientists	880	0.3	(nc)
Computer systems analysts	160	0.1	42
Network and computer systems administrators	720	0.3	26
Engineers	100	<	(nc)
Industrial	100	<	38
Technicians	1,590	0.6	(nc)
Computer, numerical tool, and process control programmers	1,230	0.5	(nc)
Computer programmers	1,230	0.5	40
Engineering technicians	360	0.1	(nc)
Electronical/electronics engineering technicians	210	0.1	30
Electro-mechanical technicians	150	0.1	42
Drugs, proprietaries, and sundries (SIC 5120)			
Scientific and technical personnel	5,700	2.3	(nc)
Managers of scientific and technical personnel	940	0.4	(nc)
Computer and information systems managers	740	0.3	10
Engineering managers	150	0.1	23
Natural sciences managers	50	<	36

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Drugs, proprietaries, and sundries (SIC 5120) -- continued:			
Scientists	2,310	0.9	(nc)
Computer scientists	880	0.4	(nc)
Computer systems analysts	350	0.1	23
Network and computer systems administrators	530	0.2	13
Life scientists	90	<	(nc)
Medical scientists, except epidemiologists	90	<	42
Physical scientists	960	0.4	(nc)
Chemists	960	0.4	25
Social scientists	380	0.2	(nc)
Market research analysts	380	0.2	43
Engineers	130	0.1	(nc)
Industrial	90	<	27
Other engineers	40	<	(nc)
Chemical	40	<	46
Technicians	2,320	0.9	(nc)
Computer, numerical tool, and process control programmers	1,850	0.7	(nc)
Computer programmers	1,850	0.7	17
Engineering technicians	290	0.1	(nc)
Electronical/electronics engineering technicians	230	0.1	45
Electro-mechanical technicians	60	<	18
Physical and life science technicians	180	0.1	(nc)
Chemical technicians, except health	180	0.1	19
Apparel, piece goods, and notions (SIC 5130)			
Scientific and technical personnel	2,340	1.1	(nc)
Managers of scientific and technical personnel	540	0.3	(nc)
Computer and information systems managers	410	0.2	24
Engineering managers	130	0.1	40
Scientists	930	0.4	(nc)
Computer scientists	530	0.3	(nc)
Computer systems analysts	100	0.1	41
Network and computer systems administrators	350	0.2	17
Network systems/data communications analysts	80	<	49
Social scientists	400	0.2	(nc)
Market research analysts	400	0.2	44

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Apparel, piece goods, and notions (SIC 5130) -- continued:			
Engineers	100	0.1	(nc)
Industrial	100	0.1	40
Technicians	770	0.4	(nc)
Computer, numerical tool, and process control programmers	770	0.4	(nc)
Computer programmers	770	0.4	14
Groceries and related products (SIC 5140)			
Scientific and technical personnel	5,340	0.6	(nc)
Managers of scientific and technical personnel	1,760	0.2	(nc)
Computer and information systems managers	1,430	0.2	7
Engineering managers	330	<	23
Scientists	1,580	0.2	(nc)
Computer scientists	1,330	0.1	(nc)
Computer systems analysts	170	<	27
Network and computer systems administrators	1,070	0.1	23
Network systems/data communications analysts	90	<	35
Mathematical scientists	70	<	(nc)
Operations and systems researchers and analysts	70	<	43
Social scientists	180	<	(nc)
Market research analysts	180	<	27
Engineers	220	<	(nc)
Industrial	90	<	33
Mechanical	60	<	23
Sales	70	<	31
Technicians	1,780	0.2	(nc)
Computer, numerical tool, and process control programmers	1,580	0.2	(nc)
Computer programmers	1,580	0.2	14
Physical and life science technicians	200	<	(nc)
Agricultural and food science technicians	90	<	32
Chemical technicians, except health	110	<	39
Farm-product raw materials (SIC 5150)			
Scientific and technical personnel	330	0.3	(nc)
Managers of scientific and technical personnel	60	0.1	(nc)
Computer and information systems managers	60	0.1	22

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Farm-product raw materials (SIC 5150) -- continued:			
Scientists	190	0.2	(nc)
Computer scientists	40	<	(nc)
Network and computer systems administrators	40	<	29
Life scientists	150	0.1	(nc)
Agricultural scientists	150	0.1	32
Technicians	80	0.1	(nc)
Computer, numerical tool, and process control programmers	80	0.1	(nc)
Computer programmers	80	0.1	24
Chemicals and allied products (SIC 5160)			
Scientific and technical personnel	4,130	2.6	(nc)
Managers of scientific and technical personnel	340	0.2	(nc)
Computer and information systems managers	230	0.2	23
Engineering managers	110	0.1	22
Scientists	1,210	0.8	(nc)
Computer scientists	150	0.1	(nc)
Network and computer systems administrators	150	0.1	20
Mathematical scientists	60	<	(nc)
Operations and systems researchers and analysts	60	<	49
Physical scientists	1,000	0.6	(nc)
Chemists	1,000	0.6	20
Engineers	960	0.6	(nc)
Industrial	50	<	35
Mechanical	50	<	35
Sales	450	0.3	34
Other engineers	410	0.3	(nc)
Chemical	170	0.1	32
Metallurgical/metallurgists	240	0.2	47
Technicians	1,620	1.0	(nc)
Computer, numerical tool, and process control programmers	320	0.2	(nc)
Computer programmers	320	0.2	19
Engineering technicians	220	0.1	(nc)
Electronical/electronics engineering technicians	120	0.1	30
Electro-mechanical technicians	100	0.1	38
Physical and life science technicians	1,080	0.7	(nc)
Chemical technicians, except health	1,080	0.7	19

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Petroleum and petroleum products (SIC 5170)			
Scientific and technical personnel	1,130	0.7	(nc)
Managers of scientific and technical personnel	290	0.2	(nc)
Computer and information systems managers	230	0.2	28
Engineering managers	60	<	34
Scientists	250	0.2	(nc)
Computer scientists	220	0.1	(nc)
Computer systems analysts	50	<	28
Network and computer systems administrators	170	0.1	30
Social scientists	30	<	(nc)
Market research analysts	30	<	39
Engineers	260	0.2	(nc)
Mechanical	50	<	46
Sales	50	<	47
Other engineers	160	0.1	(nc)
Chemical	90	0.1	33
Petroleum	70	0.1	33
Technicians	330	0.2	(nc)
Computer, numerical tool, and process control programmers	100	0.1	(nc)
Computer programmers	100	0.1	34
Engineering technicians	230	0.2	(nc)
Electronical/electronics engineering technicians	70	0.1	31
Electro-mechanical technicians	160	0.1	40
Beer, wine, and distilled beverages (SIC 5180)			
Scientific and technical personnel	650	0.4	(nc)
Managers of scientific and technical personnel	310	0.2	(nc)
Computer and information systems managers	310	0.2	11
Scientists	210	0.1	(nc)
Computer scientists	160	0.1	(nc)
Computer systems analysts	30	<	47
Network and computer systems administrators	130	0.1	16
Social scientists	50	<	(nc)
Market research analysts	50	<	37
Technicians	130	0.1	(nc)
Computer, numerical tool, and process control programmers	130	0.1	(nc)
Computer programmers	130	0.1	17

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Misc. nondurable goods (SIC 5190)			
Scientific and technical personnel	4,470	0.8	(nc)
Managers of scientific and technical personnel	960	0.2	(nc)
Computer and information systems managers	860	0.2	10
Engineering managers	100	<	34
Scientists	1,570	0.3	(nc)
Computer scientists	580	0.1	(nc)
Network and computer systems administrators	440	0.1	23
Network systems/data communications analysts	140	<	41
Life scientists	890	0.2	(nc)
Agricultural scientists	890	0.2	20
Social scientists	100	<	(nc)
Market research analysts	100	<	24
Engineers	290	0.1	(nc)
Industrial	60	<	41
Mechanical	80	<	41
Sales	150	<	45
Technicians	1,650	0.3	(nc)
Computer, numerical tool, and process control programmers	1,470	0.3	(nc)
Computer programmers	1,470	0.3	22
Engineering technicians	180	<	(nc)
Electronical/electronics engineering technicians	180	<	40
Lumber and other building materials (SIC 5210)			
Scientific and technical personnel	4,540	0.7	(nc)
Managers of scientific and technical personnel	870	0.1	(nc)
Computer and information systems managers	720	0.1	26
Engineering managers	150	<	30
Scientists	2,440	0.4	(nc)
Computer scientists	2,440	0.4	(nc)
Computer systems analysts	670	0.1	38
Network and computer systems administrators	1,430	0.2	41
Network systems/data communications analysts	340	0.1	42
Technicians	1,230	0.2	(nc)
Computer, numerical tool, and process control programmers	320	0.1	(nc)
Computer programmers	320	0.1	33
Drafters	910	0.2	(nc)
Architectural and civil drafters	910	0.2	27

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Hardware stores (SIC 5250)			
Scientific and technical personnel	40	<	(nc)
Managers of scientific and technical personnel	40	<	(nc)
Computer and information systems managers	40	<	19
Retail nurseries and garden stores (SIC 5260)			
Scientific and technical personnel	60	0.1	(nc)
Technicians	60	0.1	(nc)
Drafters	60	0.1	(nc)
Architectural and civil drafters	60	0.1	34
Department stores (SIC 5310)			
Scientific and technical personnel	6,600	0.3	(nc)
Managers of scientific and technical personnel	1,880	0.1	(nc)
Computer and information systems managers	1,770	0.1	34
Engineering managers	110	<	24
Scientists	3,870	0.2	(nc)
Computer scientists	3,440	0.1	(nc)
Computer systems analysts	3,210	0.1	45
Network and computer systems administrators	230	<	31
Mathematical scientists	30	<	(nc)
Operations and systems researchers and analysts	30	<	34
Social scientists	400	<	(nc)
Market research analysts	400	<	46
Engineers	30	<	(nc)
Mechanical	30	<	38
Technicians	820	<	(nc)
Computer, numerical tool, and process control programmers	720	<	(nc)
Computer programmers	720	<	27
Engineering technicians	100	<	(nc)
Electronical/electronics engineering technicians	100	<	35
Grocery stores (SIC 5410)			
Scientific and technical personnel	4,030	0.1	(nc)
Managers of scientific and technical personnel	1,330	0.1	(nc)
Computer and information systems managers	1,120	<	15
Engineering managers	210	<	21

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Grocery stores (SIC 5410) -- continued:			
Scientists	1,430	<	(nc)
Computer scientists	1,330	<	(nc)
Computer systems analysts	650	<	49
Network and computer systems administrators	570	<	21
Network systems/data communications analysts	110	<	31
Social scientists	100	<	(nc)
Market research analysts	100	<	29
Engineers	40	<	(nc)
Industrial	40	<	41
Technicians	1,230	<	(nc)
Computer, numerical tool, and process control programmers	1,070	<	(nc)
Computer programmers	1,070	<	23
Drafters	160	<	(nc)
Architectural and civil drafters	160	<	24
Miscellaneous food stores (SIC 5490)			
Scientific and technical personnel	110	0.1	(nc)
Technicians	110	0.1	(nc)
Computer, numerical tool, and process control programmers	110	0.1	(nc)
Computer programmers	110	0.1	45
New and used car dealers (SIC 5510)			
Scientific and technical personnel	2,890	0.3	(nc)
Managers of scientific and technical personnel	640	0.1	(nc)
Computer and information systems managers	640	0.1	12
Scientists	290	<	(nc)
Computer scientists	290	<	(nc)
Network and computer systems administrators	290	<	13
Engineers	1,690	0.2	(nc)
Sales	1,690	0.2	39
Technicians	270	<	(nc)
Computer, numerical tool, and process control programmers	190	<	(nc)
Computer programmers	190	<	22
Engineering technicians	80	<	(nc)
All other engineering technicians	80	<	(nc)
Transportation inspectors	80	<	37

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Auto and home supply stores (SIC 5530)			
Scientific and technical personnel	240	0.1	(nc)
Managers of scientific and technical personnel	140	<	(nc)
Computer and information systems managers	110	<	30
Engineering managers	30	<	43
Technicians	100	<	(nc)
Computer, numerical tool, and process control programmers	100	<	(nc)
Computer programmers	100	<	47
Gasoline service stations (SIC 5540)			
Scientific and technical personnel	170	<	(nc)
Managers of scientific and technical personnel	170	<	(nc)
Computer and information systems managers	140	<	22
Engineering managers	30	<	41
Women's clothing stores (SIC 5620)			
Scientific and technical personnel	500	0.2	(nc)
Managers of scientific and technical personnel	90	<	(nc)
Computer and information systems managers	90	<	29
Scientists	130	0.1	(nc)
Computer scientists	130	0.1	(nc)
Network and computer systems administrators	130	0.1	34
Technicians	280	0.1	(nc)
Computer, numerical tool, and process control programmers	280	0.1	(nc)
Computer programmers	280	0.1	36
Family clothing stores (SIC 5650)			
Scientific and technical personnel	570	0.1	(nc)
Managers of scientific and technical personnel	190	<	(nc)
Computer and information systems managers	190	<	26
Scientists	90	<	(nc)
Computer scientists	90	<	(nc)
Network and computer systems administrators	90	<	27
Technicians	290	0.1	(nc)
Computer, numerical tool, and process control programmers	290	0.1	(nc)
Computer programmers	290	0.1	43

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Shoe stores (SIC 5660)			
Scientific and technical personnel	270	0.1	(nc)
Managers of scientific and technical personnel	270	0.1	(nc)
Computer and information systems managers	270	0.1	35
Furniture and homefurnishings stores (SIC 5710)			
Scientific and technical personnel	1,210	0.2	(nc)
Managers of scientific and technical personnel	470	0.1	(nc)
Computer and information systems managers	470	0.1	23
Scientists	180	<	(nc)
Computer scientists	180	<	(nc)
Network and computer systems administrators	180	<	29
Technicians	560	0.1	(nc)
Computer, numerical tool, and process control programmers	280	0.1	(nc)
Computer programmers	280	0.1	26
Drafters	280	0.1	(nc)
Architectural and civil drafters	280	0.1	50
Radio, television, and computer stores (SIC 5730)			
Scientific and technical personnel	15,620	3.3	(nc)
Managers of scientific and technical personnel	1,530	0.3	(nc)
Computer and information systems managers	1,360	0.3	12
Engineering managers	170	<	45
Scientists	8,650	1.8	(nc)
Computer scientists	8,650	1.8	(nc)
Computer software, applications	710	0.2	25
Computer software, systems	3,700	0.8	24
Computer systems analysts	1,230	0.3	30
Network and computer systems administrators	3,010	0.6	21
Engineers	1,300	0.3	(nc)
Computer	770	0.2	46
Sales	530	0.1	29
Technicians	4,140	0.9	(nc)
Computer, numerical tool, and process control programmers	4,050	0.9	(nc)
Computer programmers	4,050	0.9	13
Engineering technicians	90	<	(nc)
Electronical/electronics engineering technicians	90	<	31

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 40-59 (selected trade and regulated industries), and the relative standard error: 1999

[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Eating and drinking places (SIC 5810)			
Scientific and technical personnel	2,630	<	(nc)
Managers of scientific and technical personnel	500	<	(nc)
Computer and information systems managers	500	<	45
Scientists	2,130	<	(nc)
Computer scientists	2,130	<	(nc)
Computer systems analysts	650	<	36
Network and computer systems administrators	1,480	<	38
Drug stores and proprietary stores (SIC 5910)			
Scientific and technical personnel	250	<	(nc)
Managers of scientific and technical personnel	120	<	(nc)
Computer and information systems managers	120	<	26
Technicians	130	<	(nc)
Computer, numerical tool, and process control programmers	130	<	(nc)
Computer programmers	130	<	27
Miscellaneous shopping goods stores (SIC 5940)			
Scientific and technical personnel	1,960	0.2	(nc)
Managers of scientific and technical personnel	730	0.1	(nc)
Computer and information systems managers	680	0.1	16
Engineering managers	50	<	30
Scientists	450	<	(nc)
Computer scientists	450	<	(nc)
Computer systems analysts	140	<	44
Network and computer systems administrators	310	<	22
Technicians	780	0.1	(nc)
Computer, numerical tool, and process control programmers	780	0.1	(nc)
Computer programmers	780	0.1	33
Nonstore retailers (SIC 5960)			
Scientific and technical personnel	5,740	1.5	(nc)
Managers of scientific and technical personnel	1,120	0.3	(nc)
Computer and information systems managers	1,060	0.3	12
Engineering managers	60	<	43

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Nonstore retailers (SIC 5960) -- continued:			
Scientists	2,610	0.7	(nc)
Computer scientists	2,070	0.5	(nc)
Computer software, applications	70	<	33
Computer software, systems	160	<	37
Computer systems analysts	510	0.1	21
Network and computer systems administrators	860	0.2	15
Network systems/data communications analysts	470	0.1	35
Mathematical scientists	40	<	(nc)
Operations and systems researchers and analysts	40	<	30
Social scientists	500	0.1	(nc)
Market research analysts	500	0.1	22
Engineers	140	<	(nc)
Electrical/electronics	30	<	(nc)
Electrical	30	<	46
Industrial	110	<	46
Technicians	1,870	0.5	(nc)
Computer, numerical tool, and process control programmers	1,760	0.5	(nc)
Computer programmers	1,760	0.5	12
Drafters	60	<	(nc)
Architectural and civil drafters	60	<	44
Engineering technicians	50	<	(nc)
Electronical/electronics engineering technicians	50	<	37
Fuel dealers (SIC 5980)			
Scientific and technical personnel	70	0.1	(nc)
Managers of scientific and technical personnel	30	<	(nc)
Computer and information systems managers	30	<	19
Engineers	40	<	(nc)
Sales	40	<	11
Retail stores, n.e.c. (SIC 5990)			
Scientific and technical personnel	810	0.2	(nc)
Managers of scientific and technical personnel	310	0.1	(nc)
Computer and information systems managers	310	0.1	17
Scientists	260	0.1	(nc)
Computer scientists	260	0.1	(nc)
Network and computer systems administrators	260	0.1	25

See explanatory information and SOURCE at end of table.

Table 8. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 40-59 (selected trade and regulated industries),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Retail stores, n.e.c. (SIC 5990) -- continued:			
Technicians	240	<	(nc)
Computer, numerical tool, and process control programmers	240	<	(nc)
Computer programmers	240	<	24

[1]SET intensity = the ratio of SET employment (including SET managers) in a given SIC to total employment in that SIC, expressed in percentage terms.

[2]Relative standard error of the estimate of filled positions, expressed as a percentage.

KEY: nc = Not computed
< = The estimated actual value is less than 0.05 for percentages when used to characterize SET intensity.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Because of rounding, components may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 60-67 (finance, insurance, and real estate),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Central reserve depositories (SIC 6010)			
Scientific and technical personnel	1,070	9.2	(nc)
Managers of scientific and technical personnel	100	0.9	(nc)
Computer and information systems managers	100	0.9	25
Scientists	970	8.3	(nc)
Computer scientists	650	5.6	(nc)
Computer software, applications	40	0.3	24
Computer systems analysts	510	4.4	34
Network and computer systems administrators	100	0.9	22
Mathematical scientists	320	2.7	(nc)
Operations and systems researchers and analysts	320	2.7	40
Commercial banks (SIC 6020)			
Scientific and technical personnel	71,220	4.9	(nc)
Managers of scientific and technical personnel	11,680	0.8	(nc)
Computer and information systems managers	11,680	0.8	17
Scientists	45,340	3.1	(nc)
Computer scientists	38,340	2.6	(nc)
Computer software, applications	3,570	0.3	25
Computer software, systems	9,270	0.6	22
Computer systems analysts	14,140	1.0	23
Network and computer systems administrators	6,870	0.5	13
Network systems/data communications analysts	4,490	0.3	25
Mathematical scientists	4,680	0.3	(nc)
Operations and systems researchers and analysts	4,580	0.3	19
Statisticians	100	<	39
Social scientists	2,320	0.2	(nc)
Economists	150	<	34
Market research analysts	2,170	0.2	21
Engineers	440	<	(nc)
Electrical/electronics	400	<	(nc)
Electronics	400	<	43
Other engineers	40	<	(nc)
Safety	40	<	33
Technicians	13,760	0.9	(nc)
Computer, numerical tool, and process control programmers	13,710	0.9	(nc)
Computer programmers	13,710	0.9	18
Engineering technicians	50	<	(nc)
All other engineering technicians	50	<	(nc)
Audio and video equipment technicians	50	<	43

See explanatory information and SOURCE at end of table.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 60-67 (finance, insurance, and real estate),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Savings institutions (SIC 6030)			
Scientific and technical personnel	6,730	2.7	(nc)
Managers of scientific and technical personnel	1,570	0.6	(nc)
Computer and information systems managers	1,570	0.6	15
Scientists	4,150	1.6	(nc)
Computer scientists	3,630	1.4	(nc)
Computer software, applications	380	0.2	20
Computer software, systems	150	0.1	45
Computer systems analysts	1,520	0.6	31
Network and computer systems administrators	840	0.3	13
Network systems/data communications analysts	740	0.3	29
Social scientists	520	0.2	(nc)
Market research analysts	520	0.2	39
Technicians	1,010	0.4	(nc)
Computer, numerical tool, and process control programmers	1,010	0.4	(nc)
Computer programmers	1,010	0.4	15
Credit unions (SIC 6060)			
Scientific and technical personnel	4,020	2.1	(nc)
Managers of scientific and technical personnel	1,630	0.8	(nc)
Computer and information systems managers	1,630	0.8	8
Scientists	2,040	1.1	(nc)
Computer scientists	1,690	0.9	(nc)
Computer software, applications	60	<	42
Computer software, systems	90	0.1	18
Computer systems analysts	570	0.3	6
Network and computer systems administrators	570	0.3	12
Network systems/data communications analysts	400	0.2	26
Social scientists	350	0.2	(nc)
Market research analysts	350	0.2	21
Technicians	350	0.2	(nc)
Computer, numerical tool, and process control programmers	350	0.2	(nc)
Computer programmers	350	0.2	13
Foreign banks and branches and agencies (SIC 6080)			
Scientific and technical personnel	360	1.4	(nc)
Managers of scientific and technical personnel	360	1.4	(nc)
Computer and information systems managers	360	1.4	19

See explanatory information and SOURCE at end of table.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 60-67 (finance, insurance, and real estate),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Functions closely related to banking (SIC 6090)			
Scientific and technical personnel	2,270	2.5	(nc)
Managers of scientific and technical personnel	520	0.6	(nc)
Computer and information systems managers	520	0.6	14
Scientists	1,390	1.5	(nc)
Computer scientists	1,350	1.5	(nc)
Computer software, applications	370	0.4	44
Computer software, systems	170	0.2	40
Computer systems analysts	370	0.4	14
Network and computer systems administrators	200	0.2	28
Network systems/data communications analysts	240	0.3	20
Social scientists	40	<	(nc)
Market research analysts	40	<	29
Technicians	360	0.4	(nc)
Computer, numerical tool, and process control programmers	360	0.4	(nc)
Computer programmers	360	0.4	22
Federal and federally sponsored credit (SIC 6110)			
Scientific and technical personnel	500	2.9	(nc)
Managers of scientific and technical personnel	110	0.6	(nc)
Computer and information systems managers	110	0.6	37
Scientists	390	2.2	(nc)
Computer scientists	390	2.2	(nc)
Computer systems analysts	260	1.5	45
Network and computer systems administrators	130	0.8	30
Personal credit institutions (SIC 6140)			
Scientific and technical personnel	5,700	2.8	(nc)
Managers of scientific and technical personnel	910	0.5	(nc)
Computer and information systems managers	910	0.5	23
Scientists	2,990	1.5	(nc)
Computer scientists	2,280	1.1	(nc)
Computer software, applications	90	<	43
Computer software, systems	300	0.2	31
Computer systems analysts	830	0.4	25
Network and computer systems administrators	790	0.4	20
Network systems/data communications analysts	270	0.1	28
Social scientists	710	0.4	(nc)
Market research analysts	710	0.4	37

See explanatory information and SOURCE at end of table.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 60-67 (finance, insurance, and real estate), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Personal credit institutions (SIC 6140) -- continued:			
Technicians	1,800	0.9	(nc)
Computer, numerical tool, and process control programmers	1,800	0.9	(nc)
Computer programmers	1,800	0.9	37
Business credit institutions (SIC 6150)			
Scientific and technical personnel	5,800	4.5	(nc)
Managers of scientific and technical personnel	940	0.7	(nc)
Computer and information systems managers	940	0.7	10
Scientists	4,230	3.3	(nc)
Computer scientists	4,230	3.3	(nc)
Computer software, applications	700	0.5	15
Computer software, systems	400	0.3	23
Computer systems analysts	2,460	1.9	19
Network and computer systems administrators	450	0.4	11
Network systems/data communications analysts	220	0.2	16
Technicians	630	0.5	(nc)
Computer, numerical tool, and process control programmers	630	0.5	(nc)
Computer programmers	630	0.5	20
Mortgage bankers and brokers (SIC 6160)			
Scientific and technical personnel	7,110	2.0	(nc)
Managers of scientific and technical personnel	1,620	0.5	(nc)
Computer and information systems managers	1,620	0.5	9
Scientists	4,230	1.2	(nc)
Computer scientists	3,580	1.0	(nc)
Computer software, applications	500	0.1	26
Computer software, systems	1,030	0.3	33
Computer systems analysts	770	0.2	15
Network and computer systems administrators	820	0.2	11
Network systems/data communications analysts	460	0.1	21
Mathematical scientists	190	0.1	(nc)
Operations and systems researchers and analysts	190	0.1	41
Social scientists	460	0.1	(nc)
Market research analysts	460	0.1	41
Technicians	1,260	0.4	(nc)
Computer, numerical tool, and process control programmers	1,260	0.4	(nc)
Computer programmers	1,260	0.4	20

See explanatory information and SOURCE at end of table.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 60-67 (finance, insurance, and real estate),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Security brokers and dealers (SIC 6210)			
Scientific and technical personnel	23,330	4.5	(nc)
Managers of scientific and technical personnel	3,370	0.7	(nc)
Computer and information systems managers	3,370	0.7	9
Scientists	13,430	2.6	(nc)
Computer scientists	9,330	1.8	(nc)
Computer software, applications	3,140	0.6	20
Computer software, systems	1,680	0.3	13
Computer systems analysts	1,870	0.4	19
Network and computer systems administrators	1,750	0.3	24
Network systems/data communications analysts	890	0.2	12
Mathematical scientists	400	0.1	(nc)
Operations and systems researchers and analysts	400	0.1	25
Social scientists	3,700	0.7	(nc)
Economists	320	0.1	15
Market research analysts	3,380	0.7	14
Technicians	6,530	1.3	(nc)
Computer, numerical tool, and process control programmers	6,530	1.3	(nc)
Computer programmers	6,530	1.3	11
Commodity contracts, brokers, and dealers (SIC 6220)			
Scientific and technical personnel	220	1.3	(nc)
Managers of scientific and technical personnel	90	0.5	(nc)
Computer and information systems managers	90	0.5	36
Technicians	130	0.7	(nc)
Computer, numerical tool, and process control programmers	130	0.7	(nc)
Computer programmers	130	0.7	22
Security and commodity services (SIC 6280)			
Scientific and technical personnel	8,220	5.2	(nc)
Managers of scientific and technical personnel	1,210	0.8	(nc)
Computer and information systems managers	1,210	0.8	37
Scientists	5,620	3.5	(nc)
Computer scientists	3,700	2.3	(nc)
Computer software, applications	660	0.4	17
Computer software, systems	170	0.1	22
Computer systems analysts	1,780	1.1	18
Network and computer systems administrators	1,090	0.7	16

See explanatory information and SOURCE at end of table.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 60-67 (finance, insurance, and real estate),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Security and commodity services (SIC 6280) -- continued:			
Mathematical scientists	990	0.6	(nc)
Operations and systems researchers and analysts	940	0.6	38
Statisticians	50	<	27
Social scientists	930	0.6	(nc)
Market research analysts	930	0.6	25
Technicians	1,390	0.9	(nc)
Computer, numerical tool, and process control programmers	1,390	0.9	(nc)
Computer programmers	1,390	0.9	18
Life insurance (SIC 6310)			
Scientific and technical personnel	37,730	10.0	(nc)
Managers of scientific and technical personnel	5,980	1.6	(nc)
Computer and information systems managers	5,980	1.6	11
Scientists	21,920	5.8	(nc)
Computer scientists	15,330	4.0	(nc)
Computer software, applications	2,790	0.7	42
Computer software, systems	40	<	43
Computer systems analysts	10,630	2.8	15
Network and computer systems administrators	1,870	0.5	15
Mathematical scientists	5,090	1.4	(nc)
Actuaries	2,980	0.8	10
Mathematicians	50	<	39
Operations and systems researchers and analysts	2,000	0.5	16
Statisticians	60	<	36
Social scientists	1,500	0.4	(nc)
Market research analysts	1,500	0.4	17
Technicians	9,830	2.6	(nc)
Computer, numerical tool, and process control programmers	9,720	2.6	(nc)
Computer programmers	9,720	2.6	25
Engineering technicians	30	<	(nc)
All other engineering technicians	30	<	(nc)
Audio and video equipment technicians	30	<	34
Mathematical technicians	80	<	38
Medical service and health insurance (SIC 6320)			
Scientific and technical personnel	31,650	8.6	(nc)
Managers of scientific and technical personnel	3,260	0.9	(nc)
Computer and information systems managers	2,900	0.8	8
Engineering managers	360	0.1	35

See explanatory information and SOURCE at end of table.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 60-67 (finance, insurance, and real estate),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Medical service and health insurance (SIC 6320) -- continued:			
Scientists	20,980	5.7	(nc)
Computer scientists	17,740	4.8	(nc)
Computer software, applications	2,090	0.6	19
Computer software, systems	500	0.1	45
Computer systems analysts	11,370	3.1	13
Network and computer systems administrators	3,140	0.9	12
Network systems/data communications analysts	640	0.2	16
Mathematical scientists	2,260	0.6	(nc)
Actuaries	1,070	0.3	12
Operations and systems researchers and analysts	1,050	0.3	15
Statisticians	140	<	24
Social scientists	980	0.3	(nc)
Market research analysts	980	0.3	19
Technicians	7,410	2.0	(nc)
Computer, numerical tool, and process control programmers	7,410	2.0	(nc)
Computer programmers	7,410	2.0	12
Fire, marine, and casualty insurance (SIC 6330)			
Scientific and technical personnel	34,970	6.2	(nc)
Managers of scientific and technical personnel	3,130	0.6	(nc)
Computer and information systems managers	3,130	0.6	10
Scientists	21,220	3.8	(nc)
Computer scientists	16,430	2.9	(nc)
Computer and information scientists, research	30	<	26
Computer software, applications	2,910	0.5	32
Computer software, systems	280	0.1	33
Computer systems analysts	8,790	1.6	13
Network and computer systems administrators	3,490	0.6	9
Network systems/data communications analysts	930	0.2	21
Mathematical scientists	3,340	0.6	(nc)
Actuaries	2,240	0.4	12
Operations and systems researchers and analysts	720	0.1	26
Statisticians	380	0.1	16
Social scientists	1,450	0.3	(nc)
Economists	230	<	19
Market research analysts	1,220	0.2	17
Engineers	1,960	0.4	(nc)
Other engineers	1,960	0.4	(nc)
Safety	1,960	0.4	33

See explanatory information and SOURCE at end of table.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 60-67 (finance, insurance, and real estate),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Fire, marine, and casualty insurance (SIC 6330) -- continued:			
Technicians	8,660	1.5	(nc)
Computer, numerical tool, and process control programmers	8,450	1.5	(nc)
Computer programmers	8,450	1.5	13
Engineering technicians	50	<	(nc)
All other engineering technicians	50	<	(nc)
Audio and video equipment technicians	50	<	49
Mathematical technicians	160	<	33
Surety insurance (SIC 6350)			
Scientific and technical personnel	930	4.3	(nc)
Managers of scientific and technical personnel	170	0.8	(nc)
Computer and information systems managers	170	0.8	10
Scientists	500	2.3	(nc)
Computer scientists	400	1.9	(nc)
Computer systems analysts	240	1.1	22
Network and computer systems administrators	160	0.7	23
Mathematical scientists	60	0.3	(nc)
Operations and systems researchers and analysts	60	0.3	14
Social scientists	40	0.2	(nc)
Market research analysts	40	0.2	26
Technicians	260	1.2	(nc)
Computer, numerical tool, and process control programmers	260	1.2	(nc)
Computer programmers	260	1.2	12
Title insurance (SIC 6360)			
Scientific and technical personnel	1,840	2.2	(nc)
Managers of scientific and technical personnel	630	0.8	(nc)
Computer and information systems managers	630	0.8	18
Scientists	1,000	1.2	(nc)
Computer scientists	920	1.1	(nc)
Computer systems analysts	750	0.9	32
Network and computer systems administrators	140	0.2	21
Network systems/data communications analysts	30	<	44
Social scientists	80	0.1	(nc)
Market research analysts	80	0.1	22
Technicians	210	0.3	(nc)
Computer, numerical tool, and process control programmers	210	0.3	(nc)
Computer programmers	210	0.3	28

See explanatory information and SOURCE at end of table.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 60-67 (finance, insurance, and real estate),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Pension, health, and welfare funds (SIC 6370)			
Scientific and technical personnel	2,020	3.6	(nc)
Managers of scientific and technical personnel	440	0.8	(nc)
Computer and information systems managers	440	0.8	12
Scientists	1,030	1.8	(nc)
Computer scientists	640	1.1	(nc)
Computer software, applications	120	0.2	28
Computer systems analysts	280	0.5	32
Network and computer systems administrators	180	0.3	18
Network systems/data communications analysts	60	0.1	32
Mathematical scientists	300	0.5	(nc)
Actuaries	180	0.3	31
Operations and systems researchers and analysts	120	0.2	37
Social scientists	90	0.2	(nc)
Market research analysts	90	0.2	34
Technicians	550	1.0	(nc)
Computer, numerical tool, and process control programmers	550	1.0	(nc)
Computer programmers	550	1.0	24
Insurance agents, brokers, and service (SIC 6410)			
Scientific and technical personnel	21,010	2.8	(nc)
Managers of scientific and technical personnel	5,410	0.7	(nc)
Computer and information systems managers	5,410	0.7	8
Scientists	10,480	1.4	(nc)
Computer scientists	7,230	1.0	(nc)
Computer systems analysts	4,030	0.5	11
Network and computer systems administrators	2,650	0.4	9
Network systems/data communications analysts	550	0.1	25
Mathematical scientists	1,490	0.2	(nc)
Actuaries	780	0.1	24
Operations and systems researchers and analysts	370	0.1	22
Statisticians	340	<	40
Social scientists	1,760	0.2	(nc)
Market research analysts	1,760	0.2	22
Engineers	820	0.1	(nc)
Other engineers	820	0.1	(nc)
Safety	820	0.1	26

See explanatory information and SOURCE at end of table.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 60-67 (finance, insurance, and real estate),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Insurance agents, brokers, and service (SIC 6410) -- continued:			
Technicians	4,300	0.6	(nc)
Computer, numerical tool, and process control programmers	4,300	0.6	(nc)
Computer programmers	4,300	0.6	8
Real estate operators and lessors (SIC 6510)			
Scientific and technical personnel	1,800	0.3	(nc)
Managers of scientific and technical personnel	590	0.1	(nc)
Computer and information systems managers	360	0.1	17
Engineering managers	230	<	31
Scientists	510	0.1	(nc)
Computer scientists	360	0.1	(nc)
Network and computer systems administrators	360	0.1	23
Social scientists	150	<	(nc)
Market research analysts	150	<	49
Engineers	320	0.1	(nc)
Civil	320	0.1	27
Technicians	380	0.1	(nc)
Computer, numerical tool, and process control programmers	260	0.1	(nc)
Computer programmers	260	0.1	23
Drafters	120	<	(nc)
Architectural and civil drafters	120	<	42
Real estate agents and managers (SIC 6530)			
Scientific and technical personnel	6,310	0.8	(nc)
Managers of scientific and technical personnel	1,040	0.1	(nc)
Computer and information systems managers	1,040	0.1	13
Scientists	2,180	0.3	(nc)
Computer scientists	1,560	0.2	(nc)
Computer systems analysts	210	<	28
Network and computer systems administrators	1,250	0.2	13
Network systems/data communications analysts	100	<	45
Social scientists	620	0.1	(nc)
Market research analysts	620	0.1	41
Engineers	690	0.1	(nc)
Civil	90	<	48
Mechanical	600	0.1	39

See explanatory information and SOURCE at end of table.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 60-67 (finance, insurance, and real estate),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Real estate agents and managers (SIC 6530) -- continued:			
Technicians	2,400	0.3	(nc)
Computer, numerical tool, and process control programmers	1,840	0.2	(nc)
Computer programmers	1,840	0.2	26
Drafters	140	<	(nc)
Architectural and civil drafters	140	<	33
Engineering technicians	420	0.1	(nc)
Electronical/electronics engineering technicians	420	0.1	30
Title abstract offices (SIC 6540)			
Scientific and technical personnel	260	0.6	(nc)
Managers of scientific and technical personnel	90	0.2	(nc)
Computer and information systems managers	90	0.2	19
Scientists	110	0.3	(nc)
Computer scientists	110	0.3	(nc)
Computer systems analysts	70	0.2	38
Network and computer systems administrators	40	0.1	29
Technicians	60	0.1	(nc)
Computer, numerical tool, and process control programmers	30	0.1	(nc)
Computer programmers	30	0.1	29
Surveying, cartographic, photogrammetric, and mapping technicians	30	0.1	(nc)
Surveying and mapping technicians	30	0.1	36
Subdividers and developers (SIC 6550)			
Scientific and technical personnel	920	0.8	(nc)
Managers of scientific and technical personnel	50	<	(nc)
Engineering managers	50	<	33
Scientists	120	0.1	(nc)
Computer scientists	120	0.1	(nc)
Network and computer systems administrators	120	0.1	28
Engineers	300	0.3	(nc)
Civil	120	0.1	29
Sales	180	0.2	38

See explanatory information and SOURCE at end of table.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 60-67 (finance, insurance, and real estate), and the relative standard error: 1999

[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Subdividers and developers (SIC 6550) -- continued:			
Technicians	450	0.4	(nc)
Computer, numerical tool, and process control programmers	130	0.1	(nc)
Computer programmers	130	0.1	30
Drafters	230	0.2	(nc)
Architectural and civil drafters	230	0.2	26
Surveying, cartographic, photogrammetric, and mapping technicians	90	0.1	(nc)
Surveyors	90	0.1	40
Holding offices (SIC 6710)			
Scientific and technical personnel	6,480	6.0	(nc)
Managers of scientific and technical personnel	1,820	1.7	(nc)
Computer and information systems managers	1,650	1.5	14
Engineering managers	170	0.2	28
Scientists	3,480	3.2	(nc)
Computer scientists	3,260	3.0	(nc)
Computer and information scientists, research	40	<	48
Computer software, applications	610	0.6	26
Computer software, systems	270	0.3	29
Computer systems analysts	960	0.9	18
Network and computer systems administrators	1,000	0.9	14
Network systems/data communications analysts	380	0.4	18
Mathematical scientists	80	0.1	(nc)
Operations and systems researchers and analysts	80	0.1	41
Social scientists	140	0.1	(nc)
Market research analysts	140	0.1	28
Engineers	250	0.2	(nc)
Civil	40	<	33
Sales	30	<	43
Other engineers	180	0.2	(nc)
Environmental	30	<	46
Safety	150	0.1	43
Technicians	930	0.9	(nc)
Computer, numerical tool, and process control programmers	930	0.9	(nc)
Computer programmers	930	0.9	16

See explanatory information and SOURCE at end of table.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 60-67 (finance, insurance, and real estate),
and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Investment offices (SIC 6720)			
Scientific and technical personnel	190	1.0	(nc)
Managers of scientific and technical personnel	140	0.7	(nc)
Computer and information systems managers	140	0.7	19
Technicians	50	0.3	(nc)
Computer, numerical tool, and process control programmers	50	0.3	(nc)
Computer programmers	50	0.3	18
Trusts (SIC 6730)			
Scientific and technical personnel	890	1.6	(nc)
Managers of scientific and technical personnel	360	0.7	(nc)
Computer and information systems managers	360	0.7	12
Scientists	480	0.9	(nc)
Computer scientists	330	0.6	(nc)
Computer systems analysts	80	0.2	30
Network and computer systems administrators	170	0.3	24
Network systems/data communications analysts	80	0.2	26
Social scientists	150	0.3	(nc)
Market research analysts	150	0.3	39
Technicians	50	0.1	(nc)
Computer, numerical tool, and process control programmers	50	0.1	(nc)
Computer programmers	50	0.1	29
Misc. investing (SIC 6790)			
Scientific and technical personnel	3,030	5.4	(nc)
Managers of scientific and technical personnel	770	1.4	(nc)
Computer and information systems managers	500	0.9	12
Engineering managers	270	0.5	43
Scientists	1,900	3.4	(nc)
Computer scientists	1,500	2.7	(nc)
Computer software, applications	710	1.3	36
Computer software, systems	70	0.1	39
Computer systems analysts	440	0.8	30
Network and computer systems administrators	180	0.3	12
Network systems/data communications analysts	100	0.2	20
Mathematical scientists	70	0.1	(nc)
Operations and systems researchers and analysts	70	0.1	39

See explanatory information and SOURCE at end of table.

Table 9. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 60-67 (finance, insurance, and real estate), and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Misc. investing (SIC 6790) -- continued:			
Physical scientists	90	0.2	(nc)
Geoscientists, except hydrologists and geographers	90	0.2	43
Social scientists	240	0.4	(nc)
Market research analysts	240	0.4	18
Technicians	360	0.7	(nc)
Computer, numerical tool, and process control programmers	360	0.7	(nc)
Computer programmers	360	0.7	17

[1]SET intensity = the ratio of SET employment (including SET managers) in a given SIC to total employment in that SIC, expressed in percentage terms.

[2]Relative standard error of the estimate of filled positions, expressed as a percentage.

KEY: nc = Not computed
< = The estimated actual value is less than 0.05 for percentages when used to characterize SET intensity.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Because of rounding, components may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Hotels and motels (SIC 7010)			
Scientific and technical personnel	3,020	0.2	(nc)
Managers of scientific and technical personnel	520	<	(nc)
Computer and information systems managers	350	<	12
Engineering managers	170	<	18
Scientists	1,040	0.1	(nc)
Computer scientists	960	0.1	(nc)
Computer systems analysts	90	<	21
Network and computer systems administrators	820	0.1	15
Network systems/data communications analysts	50	<	32
Social scientists	80	<	(nc)
Market research analysts	80	<	35
Engineers	220	<	(nc)
Electrical/electronics	80	<	(nc)
Electrical	80	<	34
Mechanical	140	<	35
Technicians	1,240	0.1	(nc)
Computer, numerical tool, and process control programmers	270	<	(nc)
Computer programmers	270	<	17
Engineering technicians	970	0.1	(nc)
Electronical/electronics engineering technicians	160	<	40
All other engineering technicians	810	0.1	(nc)
Audio and video equipment technicians	810	0.1	30
Laundry, cleaning, and garment services (SIC 7210)			
Scientific and technical personnel	580	0.1	(nc)
Managers of scientific and technical personnel	100	<	(nc)
Engineering managers	100	<	29
Engineers	340	0.1	(nc)
Industrial	340	0.1	28
Technicians	140	<	(nc)
Computer, numerical tool, and process control programmers	140	<	(nc)
Computer programmers	140	<	24
Photographic studios, portrait (SIC 7220)			
Scientific and technical personnel	100	0.1	(nc)
Technicians	100	0.1	(nc)
Computer, numerical tool, and process control programmers	100	0.1	(nc)
Computer programmers	100	0.1	26

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Funeral service and crematories (SIC 7260)			
Scientific and technical personnel	120	0.1	(nc)
Technicians	120	0.1	(nc)
Computer, numerical tool, and process control programmers	120	0.1	(nc)
Computer programmers	120	0.1	44
Misc. personal services (SIC 7290)			
Scientific and technical personnel	720	0.4	(nc)
Technicians	720	0.4	(nc)
Computer, numerical tool, and process control programmers	720	0.4	(nc)
Computer programmers	720	0.4	47
Advertising (SIC 7310)			
Scientific and technical personnel	8,880	3.1	(nc)
Managers of scientific and technical personnel	1,020	0.4	(nc)
Computer and information systems managers	1,020	0.4	17
Scientists	5,500	1.9	(nc)
Computer scientists	3,820	1.3	(nc)
Computer software, applications	890	0.3	30
Computer software, systems	790	0.3	45
Computer systems analysts	590	0.2	41
Network and computer systems administrators	840	0.3	11
Network systems/data communications analysts	710	0.3	24
Mathematical scientists	120	<	(nc)
Operations and systems researchers and analysts	120	<	48
Social scientists	1,560	0.5	(nc)
Market research analysts	1,560	0.5	12
Technicians	2,360	0.8	(nc)
Computer, numerical tool, and process control programmers	1,970	0.7	(nc)
Computer programmers	1,970	0.7	13
Engineering technicians	390	0.1	(nc)
All other engineering technicians	390	0.1	(nc)
Audio and video equipment technicians	160	0.1	36
Broadcast technicians	230	0.1	35
Credit reporting and collection (SIC 7320)			
Scientific and technical personnel	1,990	1.3	(nc)
Managers of scientific and technical personnel	540	0.4	(nc)
Computer and information systems managers	540	0.4	13

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Credit reporting and collection (SIC 7320) -- continued:			
Scientists	790	0.5	(nc)
Computer scientists	790	0.5	(nc)
Computer systems analysts	420	0.3	20
Network and computer systems administrators	250	0.2	17
Network systems/data communications analysts	120	0.1	21
Technicians	660	0.4	(nc)
Computer, numerical tool, and process control programmers	660	0.4	(nc)
Computer programmers	660	0.4	10
Mailing, reproduction, and stenographic (SIC 7330)			
Scientific and technical personnel	6,150	1.9	(nc)
Managers of scientific and technical personnel	950	0.3	(nc)
Computer and information systems managers	910	0.3	15
Engineering managers	40	<	39
Scientists	2,410	0.7	(nc)
Computer scientists	1,910	0.6	(nc)
Computer software, systems	40	<	36
Computer systems analysts	440	0.1	22
Network and computer systems administrators	1,110	0.3	15
Network systems/data communications analysts	320	0.1	30
Social scientists	500	0.2	(nc)
Market research analysts	500	0.2	30
Engineers	180	0.1	(nc)
Sales	180	0.1	47
Technicians	2,610	0.8	(nc)
Computer, numerical tool, and process control programmers	2,390	0.7	(nc)
Computer programmers	2,390	0.7	21
Surveying, cartographic, photogrammetric, and mapping technicians	220	0.1	(nc)
Cartographers and photogrammetrists	220	0.1	42
Services to buildings (SIC 7340)			
Scientific and technical personnel	310	<	(nc)
Managers of scientific and technical personnel	100	<	(nc)
Computer and information systems managers	100	<	27
Engineers	210	<	(nc)
Mechanical	210	<	47

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Misc. equipment rental and leasing (SIC 7350)			
Scientific and technical personnel	3,720	1.3	(nc)
Managers of scientific and technical personnel	230	0.1	(nc)
Computer and information systems managers	230	0.1	14
Scientists	170	0.1	(nc)
Computer scientists	170	0.1	(nc)
Network and computer systems administrators	170	0.1	39
Engineers	350	0.1	(nc)
Civil	40	<	34
Mechanical	310	0.1	19
Technicians	2,970	1.1	(nc)
Computer, numerical tool, and process control programmers	180	0.1	(nc)
Computer programmers	180	0.1	22
Engineering technicians	2,790	1.0	(nc)
Electronical/electronics engineering technicians	380	0.1	49
All other engineering technicians	2,410	0.9	(nc)
Audio and video equipment technicians	2,410	0.9	28
Personnel supply services (SIC 7360)			
Scientific and technical personnel	73,230	1.9	(nc)
Managers of scientific and technical personnel	2,620	0.1	(nc)
Computer and information systems managers	2,490	0.1	16
Engineering managers	130	<	50
Scientists	12,110	0.3	(nc)
Computer scientists	9,650	0.3	(nc)
Computer software, applications	370	<	33
Computer software, systems	650	<	17
Computer systems analysts	5,380	0.1	13
Network and computer systems administrators	3,250	0.1	12
Life scientists	680	<	(nc)
Microbiologists	680	<	47
Mathematical scientists	280	<	(nc)
Operations and systems researchers and analysts	280	<	33
Physical scientists	1,500	<	(nc)
Chemists	1,500	<	27

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Personnel supply services (SIC 7360) -- continued:			
Engineers	14,020	0.4	(nc)
Civil	680	<	27
Computer	1,930	0.1	32
Electrical/electronics	7,280	0.2	(nc)
Electrical	5,910	0.2	25
Electronics	1,370	<	27
Industrial	3,920	0.1	32
Other engineers	210	<	(nc)
Chemical	110	<	42
Environmental	100	<	38
Technicians	44,480	1.2	(nc)
Computer, numerical tool, and process control programmers	17,700	0.5	(nc)
Computer programmers	17,700	0.5	23
Drafters	5,380	0.1	(nc)
Architectural and civil drafters	1,770	0.1	29
Electrical and electronics drafters	3,130	0.1	23
Mechanical drafters	480	<	47
Engineering technicians	18,680	0.5	(nc)
Aerospace engineering and operations technicians	2,620	0.1	44
Electronical/electronics engineering technicians	10,650	0.3	30
Electro-mechanical technicians	2,320	0.1	30
Environmental engineering technicians	190	<	38
Industrial engineering technicians	360	<	35
Mechanical engineering technicians	2,540	0.1	21
Physical and life science technicians	1,670	<	(nc)
Biological technicians	400	<	37
Chemical technicians, except health	1,270	<	26
Surveying, cartographic, photogrammetric, and mapping technicians	1,050	<	(nc)
Cartographers and photogrammetrists	70	<	31
Surveying and mapping technicians	540	<	26
Surveyors	440	<	25
Computer and data processing services (SIC 7370)			
Scientific and technical personnel	826,950	43.6	(nc)
Managers of scientific and technical personnel	77,390	4.1	(nc)
Computer and information systems managers	58,540	3.1	6
Engineering managers	18,550	1.0	19
Natural sciences managers	300	<	43

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Computer and data processing services (SIC 7370) -- continued:			
Scientists	471,690	24.9	(nc)
Computer scientists	455,890	24.1	(nc)
Computer and information scientists, research	11,800	0.6	10
Computer software, applications	152,610	8.1	6
Computer software, systems	78,090	4.1	8
Computer systems analysts	136,160	7.2	7
Network and computer systems administrators	49,030	2.6	6
Network systems/data communications analysts	28,200	1.5	11
Mathematical scientists	10,580	0.6	(nc)
Actuaries	240	<	45
Operations and systems researchers and analysts	9,490	0.5	11
Statisticians	850	<	47
Social scientists	5,220	0.3	(nc)
Economists	320	<	45
Market research analysts	4,900	0.3	13
Engineers	42,850	2.3	(nc)
Computer	16,400	0.9	10
Electrical/electronics	3,910	0.2	(nc)
Electrical	2,870	0.2	24
Electronics	1,040	0.1	31
Industrial	10,560	0.6	17
Mechanical	230	<	32
Sales	11,180	0.6	23
Other engineers	570	<	(nc)
Environmental	570	<	47
Technicians	235,020	12.4	(nc)
Computer, numerical tool, and process control programmers	218,900	11.5	(nc)
Computer programmers	218,900	11.5	6
Drafters	2,230	0.1	(nc)
Electrical and electronics drafters	2,230	0.1	32
Engineering technicians	13,890	0.7	(nc)
Electronical/electronics engineering technicians	13,550	0.7	27
All other engineering technicians	340	<	(nc)
Audio and video equipment technicians	340	<	27
Misc. business services (SIC 7380)			
Scientific and technical personnel	34,270	1.9	(nc)
Managers of scientific and technical personnel	5,160	0.3	(nc)
Computer and information systems managers	4,700	0.3	10
Engineering managers	460	<	29

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Misc. business services (SIC 7380) -- continued:			
Scientists	11,750	0.6	(nc)
Computer scientists	11,550	0.6	(nc)
Computer and information scientists, research	80	<	39
Computer software, applications	810	<	23
Computer software, systems	850	0.1	36
Computer systems analysts	6,740	0.4	21
Network and computer systems administrators	2,390	0.1	9
Network systems/data communications analysts	680	<	26
Social scientists	200	<	(nc)
Market research analysts	200	<	42
Engineers	2,680	0.2	(nc)
Computer	180	<	28
Electrical/electronics	560	<	(nc)
Electrical	260	<	26
Electronics	300	<	42
Industrial	910	0.1	32
Mechanical	890	0.1	20
Sales	140	<	45
Technicians	14,680	0.8	(nc)
Computer, numerical tool, and process control programmers	7,900	0.4	(nc)
Computer programmers	7,900	0.4	13
Drafters	990	0.1	(nc)
Architectural and civil drafters	460	<	42
Electrical and electronics drafters	530	<	30
Engineering technicians	2,780	0.2	(nc)
Electronical/electronics engineering technicians	1,420	0.1	50
Electro-mechanical technicians	90	<	32
Mechanical engineering technicians	1,270	0.1	38
Surveying, cartographic, photogrammetric, and mapping technicians	3,010	0.2	(nc)
Surveying and mapping technicians	1,910	0.1	40
Surveyors	1,100	0.1	33
Automobile rentals, no drivers (SIC 7510)			
Scientific and technical personnel	810	0.4	(nc)
Managers of scientific and technical personnel	160	0.1	(nc)
Computer and information systems managers	160	0.1	42
Scientists	230	0.1	(nc)
Computer scientists	230	0.1	(nc)
Network and computer systems administrators	230	0.1	44
Technicians	420	0.2	(nc)
Computer, numerical tool, and process control programmers	420	0.2	(nc)
Computer programmers	420	0.2	40

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Automobile repair shops (SIC 7530)			
Scientific and technical personnel	100	<	(nc)
Scientists	100	<	(nc)
Computer scientists	100	<	(nc)
Network and computer systems administrators	100	<	37
Automobile services, except repair (SIC 7540)			
Scientific and technical personnel	790	0.3	(nc)
Technicians	790	0.3	(nc)
Engineering technicians	790	0.3	(nc)
All other engineering technicians	790	0.3	(nc)
Transportation inspectors	790	0.3	34
Electrical repair shops (SIC 7620)			
Scientific and technical personnel	3,320	3.0	(nc)
Scientists	110	0.1	(nc)
Computer scientists	110	0.1	(nc)
Network and computer systems administrators	110	0.1	24
Engineers	880	0.8	(nc)
Electrical/electronics	880	0.8	(nc)
Electrical	620	0.6	29
Electronics	260	0.2	27
Technicians	2,330	2.1	(nc)
Computer, numerical tool, and process control programmers	130	0.1	(nc)
Computer programmers	130	0.1	17
Drafters	100	0.1	(nc)
Mechanical drafters	100	0.1	38
Engineering technicians	2,100	1.9	(nc)
Electronical/electronics engineering technicians	1,550	1.4	20
Electro-mechanical technicians	550	0.5	33
Misc. repair shops (SIC 7690)			
Scientific and technical personnel	2,210	0.9	(nc)
Managers of scientific and technical personnel	200	0.1	(nc)
Engineering managers	200	0.1	49
Scientists	270	0.1	(nc)
Computer scientists	270	0.1	(nc)
Network and computer systems administrators	270	0.1	35
Engineers	140	0.1	(nc)
Industrial	60	<	45
Sales	80	<	44

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Misc. repair shops (SIC 7690) -- continued:			
Technicians	1,600	0.7	(nc)
Computer, numerical tool, and process control programmers	70	<	(nc)
Computer programmers	70	<	22
Drafters	330	0.1	(nc)
Mechanical drafters	330	0.1	28
Engineering technicians	1,200	0.5	(nc)
Electronical/electronics engineering technicians	820	0.3	35
Electro-mechanical technicians	380	0.2	39
Motion picture production and services (SIC 7810)			
Scientific and technical personnel	15,170	5.3	(nc)
Managers of scientific and technical personnel	590	0.2	(nc)
Computer and information systems managers	270	0.1	24
Engineering managers	320	0.1	24
Scientists	510	0.2	(nc)
Computer scientists	510	0.2	(nc)
Computer software, applications	290	0.1	39
Computer software, systems	60	<	40
Computer systems analysts	40	<	33
Network and computer systems administrators	120	<	31
Technicians	14,070	4.9	(nc)
Computer, numerical tool, and process control programmers	900	0.3	(nc)
Computer programmers	900	0.3	25
Engineering technicians	13,170	4.6	(nc)
Electronical/electronics engineering technicians	370	0.1	38
All other engineering technicians	12,800	4.4	(nc)
Audio and video equipment technicians	11,600	4.0	41
Broadcast technicians	1,200	0.4	45
Motion picture distribution and services (SIC 7820)			
Scientific and technical personnel	160	1.2	(nc)
Managers of scientific and technical personnel	80	0.6	(nc)
Computer and information systems managers	80	0.6	33
Technicians	80	0.6	(nc)
Engineering technicians	80	0.6	(nc)
All other engineering technicians	80	0.6	(nc)
Audio and video equipment technicians	80	0.6	39
Motion picture theaters (SIC 7830)			
Scientific and technical personnel	60	<	(nc)
Managers of scientific and technical personnel	60	<	(nc)
Computer and information systems managers	60	<	50

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Producers, orchestras, and entertainers (SIC 7920)			
Scientific and technical personnel	3,130	1.8	(nc)
Managers of scientific and technical personnel	70	<	(nc)
Computer and information systems managers	70	<	48
Technicians	3,060	1.7	(nc)
Computer, numerical tool, and process control programmers	220	0.1	(nc)
Computer programmers	220	0.1	22
Engineering technicians	2,840	1.6	(nc)
Electronical/electronics engineering technicians	130	0.1	33
All other engineering technicians	2,710	1.5	(nc)
Audio and video equipment technicians	2,710	1.5	21
Commercial sports (SIC 7940)			
Scientific and technical personnel	1,170	0.9	(nc)
Technicians	1,170	0.9	(nc)
Computer, numerical tool, and process control programmers	120	0.1	(nc)
Computer programmers	120	0.1	18
Engineering technicians	1,050	0.8	(nc)
All other engineering technicians	1,050	0.8	(nc)
Audio and video equipment technicians	800	0.6	37
Broadcast technicians	250	0.2	50
Misc. amusement, recreation services (SIC 7990)			
Scientific and technical personnel	2,500	0.2	(nc)
Managers of scientific and technical personnel	230	<	(nc)
Computer and information systems managers	150	<	24
Engineering managers	30	<	31
Natural sciences managers	50	<	38
Scientists	190	<	(nc)
Computer scientists	150	<	(nc)
Computer systems analysts	50	<	35
Network and computer systems administrators	100	<	35
Social scientists	40	<	(nc)
Market research analysts	40	<	23
Engineers	130	<	(nc)
Other engineers	130	<	(nc)
Environmental	60	<	32
Marine	70	<	49

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Misc. amusement, recreation services (SIC 7990) -- continued:			
Technicians	1,950	0.2	(nc)
Computer, numerical tool, and process control programmers	340	<	(nc)
Computer programmers	340	<	30
Engineering technicians	1,610	0.1	(nc)
Electronical/electronics engineering technicians	50	<	43
All other engineering technicians	1,560	0.1	(nc)
Audio and video equipment technicians	1,560	0.1	31
Offices and clinics of medical doctors (SIC 8010)			
Scientific and technical personnel	12,280	0.6	(nc)
Managers of scientific and technical personnel	2,200	0.1	(nc)
Computer and information systems managers	2,200	0.1	9
Scientists	9,000	0.5	(nc)
Computer scientists	2,930	0.2	(nc)
Computer software, applications	740	<	19
Computer systems analysts	850	<	21
Network and computer systems administrators	1,080	0.1	10
Network systems/data communications analysts	260	<	27
Life scientists	1,010	0.1	(nc)
Medical scientists, except epidemiologists	1,010	0.1	36
Social scientists	5,060	0.3	(nc)
Clinical, counseling, and school psychologists	4,570	0.2	28
Industrial-Organizational psychologists	50	<	45
Market research analysts	440	<	25
Technicians	1,080	0.1	(nc)
Computer, numerical tool, and process control programmers	820	<	(nc)
Computer programmers	820	<	18
Engineering technicians	40	<	(nc)
All other engineering technicians	40	<	(nc)
Audio and video equipment technicians	40	<	39
Physical and life science technicians	220	<	(nc)
Biological technicians	220	<	25
Offices of other health practitioners (SIC 8040)			
Scientific and technical personnel	8,910	2.0	(nc)
Managers of scientific and technical personnel	120	<	(nc)
Computer and information systems managers	120	<	25
Scientists	8,640	1.9	(nc)
Computer scientists	60	<	(nc)
Network and computer systems administrators	60	<	15
Social scientists	8,580	1.9	(nc)
Clinical, counseling, and school psychologists	8,450	1.9	11
Market research analysts	130	<	39

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Offices of other health practitioners (SIC 8040) -- continued:			
Technicians	150	<	(nc)
Computer, numerical tool, and process control programmers	150	<	(nc)
Computer programmers	150	<	33
Nursing and personal care facilities (SIC 8050)			
Scientific and technical personnel	1,550	0.1	(nc)
Managers of scientific and technical personnel	500	<	(nc)
Computer and information systems managers	500	<	11
Scientists	910	0.1	(nc)
Computer scientists	260	<	(nc)
Computer software, applications	60	<	32
Network and computer systems administrators	200	<	23
Social scientists	650	<	(nc)
Clinical, counseling, and school psychologists	370	<	35
Market research analysts	280	<	26
Technicians	140	<	(nc)
Computer, numerical tool, and process control programmers	140	<	(nc)
Computer programmers	140	<	25
Hospitals (SIC 8060)			
Scientific and technical personnel	62,710	1.3	(nc)
Managers of scientific and technical personnel	8,230	0.2	(nc)
Computer and information systems managers	6,990	0.1	5
Engineering managers	660	<	11
Natural sciences managers	580	<	19
Scientists	41,300	0.8	(nc)
Computer scientists	20,140	0.4	(nc)
Computer and information scientists, research	120	<	22
Computer software, applications	5,210	0.1	12
Computer software, systems	520	<	24
Computer systems analysts	8,210	0.2	8
Network and computer systems administrators	4,370	0.1	5
Network systems/data communications analysts	1,710	<	11
Life scientists	8,790	0.2	(nc)
Biochemists and biophysicists	260	<	32
Epidemiologists	560	<	25
Medical scientists, except epidemiologists	6,780	0.1	31
Microbiologists	1,190	<	9
Mathematical scientists	1,100	<	(nc)
Operations and systems researchers and analysts	480	<	24
Statisticians	620	<	23

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Hospitals (SIC 8060) -- continued:			
Physical scientists	810	<	(nc)
Chemists	550	<	15
Physicists	260	<	14
Social scientists	10,460	0.2	(nc)
Clinical, counseling, and school psychologists	9,980	0.2	6
Market research analysts	480	<	13
Engineers	1,990	<	(nc)
Civil	130	<	23
Electrical/electronics	50	<	(nc)
Electrical	50	<	22
Industrial	70	<	19
Other engineers	1,740	<	(nc)
Biomedical	1,420	<	9
Safety	320	<	31
Technicians	11,190	0.2	(nc)
Computer, numerical tool, and process control programmers	6,990	0.1	(nc)
Computer programmers	6,990	0.1	7
Drafters	30	<	(nc)
Architectural and civil drafters	30	<	32
Engineering technicians	890	<	(nc)
Electronical/electronics engineering technicians	400	<	38
Mechanical engineering technicians	150	<	41
All other engineering technicians	340	<	(nc)
Audio and video equipment technicians	340	<	10
Physical and life science technicians	3,280	0.1	(nc)
Biological technicians	2,760	0.1	28
Chemical technicians, except health	40	<	34
Environmental science and protection technicians, including health	480	<	37
Medical and dental laboratories (SIC 8070)			
Scientific and technical personnel	4,890	2.3	(nc)
Managers of scientific and technical personnel	790	0.4	(nc)
Computer and information systems managers	260	0.1	21
Natural sciences managers	530	0.3	20
Scientists	1,860	0.9	(nc)
Computer scientists	610	0.3	(nc)
Computer software, applications	150	0.1	45
Computer systems analysts	150	0.1	50
Network and computer systems administrators	250	0.1	12
Network systems/data communications analysts	60	<	24
Life scientists	1,220	0.6	(nc)
Microbiologists	1,220	0.6	33
Social scientists	30	<	(nc)
Market research analysts	30	<	39

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999+A691
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Medical and dental laboratories (SIC 8070) -- continued:			
Engineers	120	0.1	(nc)
Other engineers	120	0.1	(nc)
Biomedical	120	0.1	50
Technicians	2,120	1.0	(nc)
Computer, numerical tool, and process control programmers	530	0.3	(nc)
Computer programmers	530	0.3	16
Physical and life science technicians	1,590	0.8	(nc)
Biological technicians	1,590	0.8	28
Home health care services (SIC 8080)			
Scientific and technical personnel	1,290	0.2	(nc)
Managers of scientific and technical personnel	560	0.1	(nc)
Computer and information systems managers	560	0.1	11
Scientists	460	0.1	(nc)
Computer scientists	260	<	(nc)
Computer software, applications	50	<	30
Network and computer systems administrators	210	<	15
Social scientists	200	<	(nc)
Clinical, counseling, and school psychologists	160	<	23
Market research analysts	40	<	48
Technicians	270	<	(nc)
Computer, numerical tool, and process control programmers	270	<	(nc)
Computer programmers	270	<	18
Health and allied services, n.e.c. (SIC 8090)			
Scientific and technical personnel	7,800	2.2	(nc)
Managers of scientific and technical personnel	680	0.2	(nc)
Computer and information systems managers	630	0.2	11
Natural sciences managers	50	<	21
Scientists	6,740	1.9	(nc)
Computer scientists	590	0.2	(nc)
Computer software, applications	120	<	26
Computer systems analysts	30	<	36
Network and computer systems administrators	400	0.1	20
Network systems/data communications analysts	40	<	41
Life scientists	120	<	(nc)
Medical scientists, except epidemiologists	120	<	35
Mathematical scientists	40	<	(nc)
Statisticians	40	<	46

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Health and allied services, n.e.c. (SIC 8090) -- continued:			
Social scientists	5,990	1.7	(nc)
Clinical, counseling, and school psychologists	5,600	1.6	14
Industrial-Organizational psychologists	30	<	40
Market research analysts	360	0.1	49
Technicians	380	0.1	(nc)
Computer, numerical tool, and process control programmers	380	0.1	(nc)
Computer programmers	380	0.1	17
Legal services (SIC 8110)			
Scientific and technical personnel	11,610	1.2	(nc)
Managers of scientific and technical personnel	3,490	0.4	(nc)
Computer and information systems managers	3,490	0.4	9
Scientists	6,200	0.6	(nc)
Computer scientists	6,200	0.6	(nc)
Computer software, applications	1,670	0.2	23
Computer software, systems	470	0.1	26
Network and computer systems administrators	3,200	0.3	13
Network systems/data communications analysts	860	0.1	13
Technicians	1,920	0.2	(nc)
Computer, numerical tool, and process control programmers	1,920	0.2	(nc)
Computer programmers	1,920	0.2	24
Elementary and secondary schools (SIC 8210)			
Scientific and technical personnel	54,240	0.7	(nc)
Managers of scientific and technical personnel	860	<	(nc)
Computer and information systems managers	830	<	12
Engineering managers	30	<	37
Scientists	48,510	0.6	(nc)
Computer scientists	10,850	0.1	(nc)
Computer systems analysts	1,200	<	10
Network and computer systems administrators	9,320	0.1	6
Network systems/data communications analysts	330	<	21
Mathematical scientists	60	<	(nc)
Operations and systems researchers and analysts	60	<	31
Social scientists	37,600	0.5	(nc)
Clinical, counseling, and school psychologists	37,600	0.5	7

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Elementary and secondary schools (SIC 8210) -- continued:			
Technicians	4,870	0.1	(nc)
Computer, numerical tool, and process control programmers	4,310	0.1	(nc)
Computer programmers	4,310	0.1	6
Engineering technicians	560	<	(nc)
All other engineering technicians	560	<	(nc)
Audio and video equipment technicians	410	<	19
Broadcast technicians	150	<	24
Colleges, universities, and professional (SIC 8220)			
Scientific and technical personnel	52,780	1.8	(nc)
Managers of scientific and technical personnel	9,960	0.3	(nc)
Computer and information systems managers	7,410	0.3	6
Engineering managers	950	<	15
Natural sciences managers	1,600	0.1	16
Scientists	25,590	0.9	(nc)
Computer scientists	21,190	0.7	(nc)
Computer and information scientists, research	230	<	40
Computer software, applications	1,510	0.1	18
Computer software, systems	520	<	17
Computer systems analysts	9,890	0.3	6
Network and computer systems administrators	6,450	0.2	5
Network systems/data communications analysts	2,590	0.1	13
Mathematical scientists	1,430	0.1	(nc)
Mathematicians	30	<	41
Operations and systems researchers and analysts	770	<	26
Statisticians	630	<	16
Social scientists	2,970	0.1	(nc)
Clinical, counseling, and school psychologists	2,970	0.1	12
Technicians	17,230	0.6	(nc)
Computer, numerical tool, and process control programmers	12,150	0.4	(nc)
Computer programmers	12,150	0.4	8
Engineering technicians	5,040	0.2	(nc)
All other engineering technicians	5,040	0.2	(nc)
Audio and video equipment technicians	4,250	0.1	7
Broadcast technicians	760	<	12
Transportation inspectors	30	<	26
Surveying, cartographic, photogrammetric, and mapping technicians	40	<	(nc)
Cartographers and photogrammetrists	40	<	33

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Libraries (SIC 8230)			
Scientific and technical personnel	250	1.1	(nc)
Managers of scientific and technical personnel	50	0.2	(nc)
Computer and information systems managers	50	0.2	39
Scientists	200	0.8	(nc)
Computer scientists	200	0.8	(nc)
Computer systems analysts	40	0.2	35
Network and computer systems administrators	160	0.7	40
Vocational schools (SIC 8240)			
Scientific and technical personnel	1,730	1.5	(nc)
Managers of scientific and technical personnel	200	0.2	(nc)
Computer and information systems managers	200	0.2	17
Scientists	1,140	1.0	(nc)
Computer scientists	1,070	0.9	(nc)
Computer software, applications	40	<	34
Computer systems analysts	330	0.3	30
Network and computer systems administrators	610	0.5	31
Network systems/data communications analysts	90	0.1	45
Social scientists	70	0.1	(nc)
Clinical, counseling, and school psychologists	70	0.1	40
Engineers	390	0.3	(nc)
Sales	390	0.3	30
Schools and educational services, n.e.c. (SIC 8290)			
Scientific and technical personnel	1,360	0.7	(nc)
Managers of scientific and technical personnel	300	0.2	(nc)
Computer and information systems managers	300	0.2	15
Scientists	540	0.3	(nc)
Computer scientists	470	0.3	(nc)
Computer systems analysts	230	0.1	45
Network and computer systems administrators	190	0.1	14
Network systems/data communications analysts	50	<	43
Social scientists	70	<	(nc)
Clinical, counseling, and school psychologists	70	<	34
Technicians	520	0.3	(nc)
Computer, numerical tool, and process control programmers	430	0.2	(nc)
Computer programmers	430	0.2	19
Engineering technicians	90	0.1	(nc)
All other engineering technicians	90	0.1	(nc)
Audio and video equipment technicians	90	0.1	21

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Individual and family services (SIC 8320)			
Scientific and technical personnel	10,860	1.4	(nc)
Managers of scientific and technical personnel	740	0.1	(nc)
Computer and information systems managers	710	0.1	10
Natural sciences managers	30	<	30
Scientists	9,490	1.2	(nc)
Computer scientists	850	0.1	(nc)
Computer software, applications	190	<	19
Computer systems analysts	40	<	27
Network and computer systems administrators	570	0.1	16
Network systems/data communications analysts	50	<	29
Social scientists	8,640	1.1	(nc)
Clinical, counseling, and school psychologists	8,640	1.1	11
Technicians	630	0.1	(nc)
Computer, numerical tool, and process control programmers	630	0.1	(nc)
Computer programmers	630	0.1	13
Job training and related services (SIC 8330)			
Scientific and technical personnel	1,490	0.5	(nc)
Managers of scientific and technical personnel	320	0.1	(nc)
Computer and information systems managers	320	0.1	12
Scientists	900	0.3	(nc)
Computer scientists	410	0.1	(nc)
Computer software, applications	70	<	39
Computer systems analysts	70	<	23
Network and computer systems administrators	270	0.1	19
Social scientists	490	0.2	(nc)
Clinical, counseling, and school psychologists	430	0.1	21
Market research analysts	60	<	48
Technicians	270	0.1	(nc)
Computer, numerical tool, and process control programmers	270	0.1	(nc)
Computer programmers	270	0.1	17
Child day care services (SIC 8350)			
Scientific and technical personnel	800	0.1	(nc)
Managers of scientific and technical personnel	160	<	(nc)
Computer and information systems managers	160	<	23

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Child day care services (SIC 8350) -- continued:			
Scientists	450	0.1	(nc)
Computer scientists	70	<	(nc)
Network and computer systems administrators	70	<	24
Social scientists	380	0.1	(nc)
Clinical, counseling, and school psychologists	380	0.1	28
Technicians	190	<	(nc)
Computer, numerical tool, and process control programmers	190	<	(nc)
Computer programmers	190	<	41
Residential care (SIC 8360)			
Scientific and technical personnel	5,060	0.6	(nc)
Managers of scientific and technical personnel	520	0.1	(nc)
Computer and information systems managers	440	0.1	8
Natural sciences managers	80	<	39
Scientists	4,220	0.5	(nc)
Computer scientists	510	0.1	(nc)
Computer software, applications	70	<	35
Computer systems analysts	110	<	46
Network and computer systems administrators	270	<	18
Network systems/data communications analysts	60	<	44
Social scientists	3,710	0.5	(nc)
Clinical, counseling, and school psychologists	3,650	0.5	12
Market research analysts	60	<	25
Technicians	320	<	(nc)
Computer, numerical tool, and process control programmers	320	<	(nc)
Computer programmers	320	<	17
Social services, n.e.c. (SIC 8390)			
Scientific and technical personnel	2,590	1.2	(nc)
Managers of scientific and technical personnel	630	0.3	(nc)
Computer and information systems managers	630	0.3	12
Scientists	1,560	0.8	(nc)
Computer scientists	770	0.4	(nc)
Computer systems analysts	60	<	23
Network and computer systems administrators	610	0.3	9
Network systems/data communications analysts	100	0.1	33
Mathematical scientists	130	0.1	(nc)
Statisticians	130	0.1	46

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Social services, n.e.c. (SIC 8390) -- continued:			
Social scientists	660	0.3	(nc)
Clinical, counseling, and school psychologists	240	0.1	20
Economists	130	0.1	29
Market research analysts	60	<	34
Survey researchers	120	0.1	26
Urban and regional planners	110	0.1	40
Technicians	400	0.2	(nc)
Computer, numerical tool, and process control programmers	400	0.2	(nc)
Computer programmers	400	0.2	13
Museums and art galleries (SIC 8410)			
Scientific and technical personnel	580	0.7	(nc)
Managers of scientific and technical personnel	220	0.3	(nc)
Computer and information systems managers	50	0.1	20
Natural sciences managers	170	0.2	15
Scientists	70	0.1	(nc)
Social scientists	70	0.1	(nc)
Anthropologists and archeologists	30	<	7
Market research analysts	40	0.1	44
Technicians	290	0.4	(nc)
Computer, numerical tool, and process control programmers	110	0.1	(nc)
Computer programmers	110	0.1	11
Engineering technicians	180	0.2	(nc)
All other engineering technicians	180	0.2	(nc)
Audio and video equipment technicians	180	0.2	18
Botanical and zoological gardens (SIC 8420)			
Scientific and technical personnel	840	3.8	(nc)
Managers of scientific and technical personnel	70	0.3	(nc)
Natural sciences managers	70	0.3	23
Scientists	700	3.2	(nc)
Life scientists	700	3.2	(nc)
Agricultural scientists	80	0.4	32
Zoologists and wildlife biologists	620	2.8	6
Technicians	70	0.3	(nc)
Computer, numerical tool, and process control programmers	40	0.2	(nc)
Computer programmers	40	0.2	26
Engineering technicians	30	0.1	(nc)
All other engineering technicians	30	0.1	(nc)
Audio and video equipment technicians	30	0.1	30

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Business associations (SIC 8610)			
Scientific and technical personnel	4,370	3.9	(nc)
Managers of scientific and technical personnel	890	0.8	(nc)
Computer and information systems managers	890	0.8	7
Scientists	2,580	2.3	(nc)
Computer scientists	940	0.8	(nc)
Network and computer systems administrators	900	0.8	20
Network systems/data communications analysts	40	<	25
Mathematical scientists	350	0.3	(nc)
Statisticians	350	0.3	28
Social scientists	1,290	1.2	(nc)
Economists	160	0.1	26
Market research analysts	170	0.2	27
Survey researchers	960	0.9	45
Technicians	900	0.8	(nc)
Computer, numerical tool, and process control programmers	780	0.7	(nc)
Computer programmers	780	0.7	17
Physical and life science technicians	120	0.1	(nc)
Agricultural and food science technicians	60	0.1	39
Environmental science and protection technicians, including health	60	0.1	43
Professional organizations (SIC 8620)			
Scientific and technical personnel	2,580	2.8	(nc)
Managers of scientific and technical personnel	650	1.0	(nc)
Computer and information systems managers	650	1.0	9
Scientists	1,250	1.8	(nc)
Computer scientists	590	0.9	(nc)
Computer systems analysts	70	0.1	26
Network and computer systems administrators	450	0.7	13
Network systems/data communications analysts	70	0.1	22
Mathematical scientists	170	0.3	(nc)
Statisticians	170	0.3	26
Social scientists	490	0.7	(nc)
Economists	90	0.1	26
Market research analysts	70	0.1	28
Survey researchers	330	0.5	31
Technicians	680	<	(nc)
Computer, numerical tool, and process control programmers	680	<	(nc)
Computer programmers	680	<	19

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Labor organizations (SIC 8630)			
Scientific and technical personnel	530	0.4	(nc)
Managers of scientific and technical personnel	180	0.1	(nc)
Computer and information systems managers	180	0.1	16
Scientists	180	0.1	(nc)
Computer scientists	140	0.1	(nc)
Network and computer systems administrators	140	0.1	21
Social scientists	40	<	(nc)
Economists	40	<	35
Technicians	170	0.1	(nc)
Computer, numerical tool, and process control programmers	170	0.1	(nc)
Computer programmers	170	0.1	30
Civic and social associations (SIC 8640)			
Scientific and technical personnel	1,020	0.2	(nc)
Managers of scientific and technical personnel	350	0.1	(nc)
Computer and information systems managers	350	0.1	12
Scientists	530	0.1	(nc)
Computer scientists	180	<	(nc)
Network and computer systems administrators	180	<	16
Life scientists	30	<	(nc)
Conservation scientists	30	<	30
Physical scientists	50	<	(nc)
Environmental scientists and specialists, including health	50	<	35
Social scientists	270	0.1	(nc)
Clinical, counseling, and school psychologists	130	<	34
Survey researchers	90	<	26
Urban and regional planners	50	<	46
Technicians	140	<	(nc)
Computer, numerical tool, and process control programmers	140	<	(nc)
Computer programmers	140	<	26
Political organizations (SIC 8650)			
Scientific and technical personnel	30	0.5	(nc)
Technicians	30	0.5	(nc)
Computer, numerical tool, and process control programmers	30	0.5	(nc)
Computer programmers	30	0.5	23

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Religious organizations (SIC 8660)			
Scientific and technical personnel	440	0.3	(nc)
Managers of scientific and technical personnel	110	0.1	(nc)
Computer and information systems managers	110	0.1	37
Scientists	120	0.1	(nc)
Computer scientists	120	0.1	(nc)
Network and computer systems administrators	120	0.1	26
Technicians	210	0.1	(nc)
Computer, numerical tool, and process control programmers	160	0.1	(nc)
Computer programmers	160	0.1	22
Engineering technicians	50	<	(nc)
All other engineering technicians	50	<	(nc)
Audio and video equipment technicians	50	<	47
Membership organizations, n.e.c. (SIC 8690)			
Scientific and technical personnel	750	0.9	(nc)
Managers of scientific and technical personnel	170	0.2	(nc)
Computer and information systems managers	170	0.2	16
Scientists	430	0.5	(nc)
Computer scientists	140	0.2	(nc)
Computer systems analysts	30	<	35
Network and computer systems administrators	80	0.1	27
Network systems/data communications analysts	30	<	35
Life scientists	290	0.4	(nc)
Conservation scientists	210	0.3	24
Zoologists and wildlife biologists	80	0.1	33
Technicians	150	0.2	(nc)
Computer, numerical tool, and process control programmers	100	0.1	(nc)
Computer programmers	100	0.1	26
Physical and life science technicians	50	0.1	(nc)
Forest and conservation technicians	50	0.1	41
Engineering and architectural services (SIC 8710)			
Scientific and technical personnel	528,270	53.6	(nc)
Managers of scientific and technical personnel	48,070	5.0	(nc)
Computer and information systems managers	4,690	0.5	8
Engineering managers	42,850	4.4	7
Natural sciences managers	530	0.1	26

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Engineering and architectural services (SIC 8710) -- continued:			
Scientists	58,440	6.0	(nc)
Computer scientists	42,370	4.4	(nc)
Computer and information scientists, research	770	0.1	32
Computer software, applications	13,060	1.4	25
Computer software, systems	14,030	1.5	18
Computer systems analysts	6,840	0.7	12
Network and computer systems administrators	4,880	0.5	8
Network systems/data communications analysts	2,790	0.3	14
Life scientists	430	<	(nc)
Zoologists and wildlife biologists	430	<	38
Mathematical scientists	410	<	(nc)
Operations and systems researchers and analysts	410	<	36
Physical scientists	12,560	1.3	(nc)
Atmospheric and space scientists	160	<	49
Chemists	570	0.1	24
Environmental scientists and specialists, including health	6,790	0.7	12
Geoscientists, except hydrologists and geographers	3,230	0.3	17
Hydrologists	1,290	0.1	19
Physicists	520	0.1	28
Social scientists	2,670	0.3	(nc)
Anthropologists and archeologists	60	<	26
Market research analysts	520	0.1	15
Urban and regional planners	2,090	0.2	21
Engineers	203,870	21.1	(nc)
Aeronautical	2,660	0.3	25
Civil	103,320	10.7	9
Computer	1,790	0.2	15
Electrical/electronics	34,760	3.6	(nc)
Electrical	28,950	3.0	12
Electronics	5,810	0.6	16
Industrial	5,280	0.6	13
Mechanical	29,110	3.0	6
Sales	2,130	0.2	18
Other engineers	24,820	2.6	(nc)
Agricultural	560	0.1	35
Chemical	2,910	0.3	16
Environmental	12,720	1.3	11
Marine	800	0.1	46
Metallurgical/metallurgists	920	0.1	27
Mining and geological	1,910	0.2	31
Nuclear	2,140	0.2	35
Petroleum	1,750	0.2	45
Safety	1,110	0.1	25

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Engineering and architectural services (SIC 8710) -- continued:			
Technicians	217,890	21.5	(nc)
Computer, numerical tool, and process control programmers	3,580	0.4	(nc)
Computer programmers	3,580	0.4	10
Drafters	76,730	7.9	(nc)
Architectural and civil drafters	57,790	6.0	5
Electrical and electronics drafters	7,140	0.7	10
Mechanical drafters	11,800	1.2	10
Engineering technicians	68,840	6.1	(nc)
Aerospace engineering and operations technicians	1,150	0.1	28
Civil engineering technicians	35,910	3.7	7
Electronical/electronics engineering technicians	13,130	1.4	10
Electro-mechanical technicians	1,270	0.1	26
Environmental engineering technicians	6,410	0.7	17
Industrial engineering technicians	1,320	0.1	26
Mechanical engineering technicians	9,650	<	10
Physical and life science technicians	2,870	0.3	(nc)
Biological technicians	90	<	27
Chemical technicians, except health	610	0.1	26
Environmental science and protection technicians, including health	1,530	0.2	19
Geological and petroleum technicians	640	0.1	35
Surveying, cartographic, photogrammetric, and mapping technicians	65,870	6.8	(nc)
Cartographers and photogrammetrists	1,880	0.2	17
Surveying and mapping technicians	26,650	2.8	8
Surveyors	37,340	3.9	7
Accounting, auditing, and bookkeeping (SIC 8720)			
Scientific and technical personnel	21,950	3.3	(nc)
Managers of scientific and technical personnel	4,230	0.6	(nc)
Computer and information systems managers	4,070	0.6	19
Engineering managers	160	<	33
Scientists	15,680	2.4	(nc)
Computer scientists	13,320	2.0	(nc)
Computer and information scientists, research	250	<	25
Computer software, applications	2,850	0.4	19
Computer software, systems	1,030	0.2	31
Computer systems analysts	4,600	0.7	19
Network and computer systems administrators	3,500	0.5	9
Network systems/data communications analysts	1,090	0.2	19
Mathematical scientists	2,360	0.4	(nc)
Actuaries	420	0.1	44
Operations and systems researchers and analysts	1,940	0.3	36

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Accounting, auditing, and bookkeeping (SIC 8720) -- continued:			
Engineers	340	0.1	(nc)
Sales	280	<	36
Other engineers	60	<	(nc)
Safety	60	<	48
Technicians	1,700	0.3	(nc)
Computer, numerical tool, and process control programmers	1,650	0.3	(nc)
Computer programmers	1,650	0.3	22
Drafters	50	<	(nc)
Architectural and civil drafters	50	<	48
Research and testing services (SIC 8730)			
Scientific and technical personnel	206,890	33.5	(nc)
Managers of scientific and technical personnel	16,850	2.7	(nc)
Computer and information systems managers	3,980	0.6	9
Engineering managers	6,940	1.1	10
Natural sciences managers	5,930	1.0	10
Scientists	92,670	15.0	(nc)
Computer scientists	16,820	2.7	(nc)
Computer and information scientists, research	2,170	0.4	40
Computer software, applications	3,900	0.6	19
Computer software, systems	3,460	0.6	24
Computer systems analysts	3,710	0.6	13
Network and computer systems administrators	2,240	0.4	8
Network systems/data communications analysts	1,340	0.2	15
Life scientists	20,020	3.2	(nc)
Agricultural scientists	690	0.1	18
Biochemists and biophysicists	5,260	0.9	21
Conservation scientists	100	<	38
Epidemiologists	210	<	50
Medical scientists, except epidemiologists	7,660	1.2	13
Microbiologists	4,000	0.7	17
Zoologists and wildlife biologists	2,100	0.3	40
Mathematical scientists	3,050	0.5	(nc)
Operations and systems researchers and analysts	900	0.2	26
Statisticians	2,150	0.4	21
Physical scientists	27,960	4.5	(nc)
Astronomers	220	<	38
Atmospheric and space scientists	1,580	0.3	31
Chemists	12,780	2.1	11
Environmental scientists and specialists, including health	5,410	0.9	13
Geoscientists, except hydrologists and geographers	1,170	0.2	22
Hydrologists	70	<	39
Materials scientists	1,900	0.3	36
Physicists	4,830	0.8	36

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Research and testing services (SIC 8730) -- continued:			
Social scientists	24,820	4.0	(nc)
Anthropologists and archeologists	1,420	0.2	22
Clinical, counseling, and school psychologists	40	<	36
Economists	1,700	0.3	24
Historians	160	<	36
Market research analysts	5,530	0.9	14
Political scientists	1,390	0.2	42
Sociologists	580	0.1	39
Survey researchers	14,000	2.3	19
Engineers	31,310	5.1	(nc)
Aeronautical	1,920	0.3	32
Civil	1,120	0.2	18
Computer	1,750	0.3	32
Electrical/electronics	9,050	1.5	(nc)
Electrical	5,340	0.9	18
Electronics	3,710	0.6	26
Industrial	1,160	0.2	15
Mechanical	6,120	1.0	14
Sales	1,220	0.2	20
Other engineers	8,970	1.5	(nc)
Agricultural	410	0.1	48
Biomedical	600	0.1	32
Chemical	1,370	0.2	30
Environmental	1,950	0.3	17
Marine	30	<	39
Metallurgical/metallurgists	1,150	0.2	25
Mining and geological	50	<	38
Nuclear	1,950	0.3	43
Safety	1,460	0.2	28
Technicians	66,060	10.7	(nc)
Computer, numerical tool, and process control programmers	6,550	1.1	(nc)
Computer programmers	6,550	1.1	20
Drafters	1,680	0.3	(nc)
Architectural and civil drafters	420	0.1	26
Electrical and electronics drafters	370	0.1	21
Mechanical drafters	890	0.1	23
Engineering technicians	18,520	3.0	(nc)
Aerospace engineering and operations technicians	270	<	34
Civil engineering technicians	1,260	0.2	24
Electronical/electronics engineering technicians	8,780	1.4	18
Electro-mechanical technicians	1,720	0.3	31
Environmental engineering technicians	2,180	0.4	22
Industrial engineering technicians	260	<	32
Mechanical engineering technicians	4,050	0.7	22

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Research and testing services (SIC 8730) -- continued:			
Physical and life science technicians	38,950	6.3	(nc)
Agricultural and food science technicians	4,000	0.7	38
Biological technicians	15,840	2.6	10
Chemical technicians, except health	12,990	2.1	13
Environmental science and protection technicians, including health	5,110	0.8	16
Geological and petroleum technicians	790	0.1	22
Nuclear technicians	220	<	40
Surveying, cartographic, photogrammetric, and mapping technicians	360	0.1	(nc)
Cartographers and photogrammetrists	80	<	40
Surveying and mapping technicians	280	0.1	41
Management and public relations (SIC 8740)			
Scientific and technical personnel	144,320	13.4	(nc)
Managers of scientific and technical personnel	17,250	1.6	(nc)
Computer and information systems managers	9,030	0.8	8
Engineering managers	7,280	0.7	18
Natural sciences managers	940	0.1	17
Scientists	74,440	6.9	(nc)
Computer scientists	44,580	4.1	(nc)
Computer and information scientists, research	1,210	0.1	19
Computer software, applications	8,990	0.8	18
Computer software, systems	4,980	0.5	16
Computer systems analysts	12,760	1.2	18
Network and computer systems administrators	6,300	0.6	17
Network systems/data communications analysts	10,340	1.0	22
Life scientists	1,590	0.1	(nc)
Agricultural scientists	750	0.1	31
Conservation scientists	150	<	50
Microbiologists	580	0.1	48
Zoologists and wildlife biologists	110	<	28
Mathematical scientists	2,400	0.2	(nc)
Actuaries	400	<	44
Operations and systems researchers and analysts	2,000	0.2	41
Physical scientists	14,160	1.3	(nc)
Atmospheric and space scientists	70	<	33
Chemists	840	0.1	30
Environmental scientists and specialists, including health	9,330	0.9	13
Geoscientists, except hydrologists and geographers	2,400	0.2	16
Hydrologists	1,490	0.1	23
Physicists	30	<	31

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Management and public relations (SIC 8740) -- continued:			
Social scientists	11,710	1.1	(nc)
Anthropologists and archeologists	410	<	32
Economists	1,660	0.2	31
Geographers	130	<	42
Historians	70	<	45
Industrial-Organizational psychologists	670	0.1	44
Market research analysts	5,650	0.5	19
Political scientists	410	<	44
Survey researchers	730	0.1	31
Urban and regional planners	1,980	0.2	24
Engineers	23,810	2.2	(nc)
Aeronautical	280	<	28
Civil	6,050	0.6	19
Computer	1,380	0.1	33
Electrical/electronics	2,390	0.2	(nc)
Electrical	1,190	0.1	23
Electronics	1,200	0.1	35
Industrial	1,390	0.1	18
Mechanical	1,490	0.1	27
Sales	1,610	0.2	30
Other engineers	9,220	0.9	(nc)
Chemical	360	<	21
Environmental	7,360	0.7	12
Safety	1,500	0.1	32
Technicians	28,820	2.7	(nc)
Computer, numerical tool, and process control programmers	12,650	1.2	(nc)
Computer programmers	12,650	1.2	24
Drafters	730	0.1	(nc)
Electrical and electronics drafters	140	<	36
Mechanical drafters	590	0.1	22
Engineering technicians	8,770	0.8	(nc)
Civil engineering technicians	3,350	0.3	34
Electronical/electronics engineering technicians	1,650	0.2	18
Environmental engineering technicians	2,200	0.2	34
Industrial engineering technicians	440	<	41
Mechanical engineering technicians	1,130	0.1	47
Mathematical technicians	140	<	36
Physical and life science technicians	5,030	0.5	(nc)
Agricultural and food science technicians	750	0.1	35
Biological technicians	380	<	35
Chemical technicians, except health	390	<	36
Environmental science and protection technicians, including health	2,810	0.3	28
Geological and petroleum technicians	650	0.1	48
Nuclear technicians	50	<	31

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Management and public relations (SIC 8740) -- continued:			
Surveying, cartographic, photogrammetric, and mapping technicians	1,500	0.2	(nc)
Cartographers and photogrammetrists	170	<	32
Surveying and mapping technicians	710	0.1	23
Surveyors	620	0.1	38
Services, n.e.c. (SIC 8990)			
Scientific and technical personnel	9,810	18.9	(nc)
Managers of scientific and technical personnel	600	1.2	(nc)
Computer and information systems managers	270	0.5	20
Engineering managers	210	0.4	16
Natural sciences managers	120	0.2	38
Scientists	6,750	13.0	(nc)
Computer scientists	440	0.8	(nc)
Computer software, applications	130	0.3	22
Computer software, systems	100	0.2	23
Network and computer systems administrators	140	0.3	18
Network systems/data communications analysts	70	0.1	27
Life scientists	260	0.5	(nc)
Medical scientists, except epidemiologists	30	0.1	36
Zoologists and wildlife biologists	230	0.4	26
Mathematical scientists	3,120	6.0	(nc)
Actuaries	2,850	5.5	16
Operations and systems researchers and analysts	170	0.3	40
Statisticians	100	0.2	27
Physical scientists	2,780	5.4	(nc)
Atmospheric and space scientists	980	1.9	16
Environmental scientists and specialists, including health	450	0.9	21
Geoscientists, except hydrologists and geographers	1,120	2.2	13
Hydrologists	200	0.4	19
Physicists	30	0.1	40
Social scientists	150	0.3	(nc)
Anthropologists and archeologists	40	0.1	33
Market research analysts	110	0.2	31
Engineers	930	1.8	(nc)
Civil	480	0.9	15
Electrical/electronics	30	0.1	(nc)
Electrical	30	0.1	46
Mechanical	90	0.2	36
Other engineers	330	0.6	(nc)
Environmental	300	0.6	24
Petroleum	30	0.1	17

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Services, n.e.c. (SIC 8990) -- continued:			
Technicians	1,530	3.0	(nc)
Computer, numerical tool, and process control programmers	400	0.8	(nc)
Computer programmers	400	0.8	22
Drafters	100	0.2	(nc)
Architectural and civil drafters	100	0.2	24
Engineering technicians	340	0.7	(nc)
Civil engineering technicians	130	0.3	38
Electronical/electronics engineering technicians	120	0.2	15
Environmental engineering technicians	90	0.2	24
Physical and life science technicians	580	1.1	(nc)
Environmental science and protection technicians, including health	250	0.5	24
Geological and petroleum technicians	330	0.6	17
Surveying, cartographic, photogrammetric, and mapping technicians	110	0.2	(nc)
Surveying and mapping technicians	60	0.1	26
Surveyors	50	0.1	32
Federal government (SIC 9010)			
Scientific and technical personnel	255,040	9.7	(nc)
Managers of scientific and technical personnel	35,730	1.4	(nc)
Computer and information systems managers	6,760	0.3	<
Engineering managers	15,910	0.6	<
Natural sciences managers	13,060	0.5	<
Scientists	113,050	4.3	(nc)
Computer scientists	52,040	2.0	(nc)
Computer and information scientists, research	3,170	0.1	<
Computer systems analysts	48,250	1.8	<
Network and computer systems administrators	70	<	<
Network systems/data communications analysts	550	<	<
Life scientists	19,290	0.7	(nc)
Agricultural scientists	3,210	0.1	<
Conservation scientists	6,810	0.3	<
Foresters	2,750	0.1	<
Medical scientists, except epidemiologists	1,230	0.1	<
Microbiologists	1,900	0.1	<
Zoologists and wildlife biologists	3,390	0.1	<
Mathematical scientists	9,720	0.4	(nc)
Actuaries	170	<	<
Mathematicians	1,310	0.1	<
Operations and systems researchers and analysts	4,950	0.2	<
Statisticians	3,290	0.1	<

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Federal government (SIC 9010) -- continued:			
Physical scientists	22,110	0.8	(nc)
Astronomers	440	<	<
Atmospheric and space scientists	2,660	0.1	<
Chemists	5,500	0.2	<
Environmental scientists and specialists, including health	5,100	0.2	<
Geoscientists, except hydrologists and geographers	2,710	0.1	<
Hydrologists	2,240	0.1	<
Materials scientists	110	<	<
Physicists	3,350	0.1	<
Social scientists	9,890	0.4	(nc)
Anthropologists and archeologists	980	<	<
Economists	3,720	0.1	<
Geographers	410	<	<
Historians	510	<	<
Market research analysts	1,450	0.1	<
Political scientists	2,400	0.1	<
Sociologists	50	<	<
Urban and regional planners	370	<	<
Engineers	64,150	2.4	(nc)
Aeronautical	6,620	0.3	<
Civil	8,680	0.3	<
Computer	2,160	0.1	<
Electrical/electronics	23,110	0.9	(nc)
Electrical	3,780	0.1	<
Electronics	19,330	0.7	<
Industrial	2,690	0.1	<
Mechanical	8,850	0.3	<
Other engineers	12,040	0.5	(nc)
Agricultural	330	<	<
Biomedical	230	<	<
Chemical	1,020	<	<
Environmental	4,390	0.2	<
Marine	750	<	<
Metallurgical/metallurgists	1,040	<	<
Mining and geological	200	<	<
Nuclear	1,750	0.1	<
Petroleum	280	<	<
Safety	2,050	0.1	<

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Federal government (SIC 9010) -- continued:			
Technicians	42,110	1.6	(nc)
Computer, numerical tool, and process control programmers	60	<	(nc)
Computer programmers	60	<	<
Drafters	270	<	(nc)
Architectural and civil drafters	270	<	<
Engineering technicians	20,810	0.8	(nc)
Electronical/electronics engineering technicians	15,780	0.6	<
Industrial engineering technicians	990	<	<
Mechanical engineering technicians	120	<	<
All other engineering technicians	3,920	0.1	(nc)
Broadcast technicians	110	<	<
Transportation inspectors	3,810	0.1	<
Physical and life science technicians	17,920	0.7	(nc)
Biological technicians	6,590	0.3	<
Chemical technicians, except health	120	<	<
Environmental science and protection technicians, including health	520	<	<
Forensic science technicians	60	<	<
Forest and conservation technicians	10,630	0.4	<
Surveying, cartographic, photogrammetric, and mapping technicians	3,050	0.1	(nc)
Cartographers and photogrammetrists	940	<	<
Surveying and mapping technicians	1,720	0.1	<
Surveyors	390	<	<
State government (SIC 9020)			
Scientific and technical personnel	193,480	8.6	(nc)
Managers of scientific and technical personnel	11,420	0.5	(nc)
Computer and information systems managers	5,090	0.2	1
Engineering managers	2,800	0.1	3
Natural sciences managers	3,530	0.2	13
Scientists	72,270	3.2	(nc)
Computer scientists	22,740	1.0	(nc)
Computer and information scientists, research	170	<	<
Computer systems analysts	13,200	0.6	3
Network and computer systems administrators	3,100	0.1	4
Network systems/data communications analysts	6,270	0.3	1
Life scientists	13,680	0.6	(nc)
Agricultural scientists	1,040	0.1	1
Biochemists and biophysicists	280	<	2
Conservation scientists	2,970	0.1	<
Epidemiologists	680	<	1
Foresters	3,240	0.1	1
Medical scientists, except epidemiologists	460	<	1
Microbiologists	1,190	0.1	3
Zoologists and wildlife biologists	3,820	0.2	2

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
State government (SIC 9020) -- continued:			
Mathematical scientists	4,300	0.2	(nc)
Actuaries	320	<	1
Operations and systems researchers and analysts	2,410	0.1	2
Statisticians	1,570	0.1	3
Physical scientists	19,250	0.9	(nc)
Atmospheric and space scientists	130	<	<
Chemists	2,540	0.1	3
Environmental scientists and specialists, including health	13,190	0.6	2
Geoscientists, except hydrologists and geographers	2,050	0.1	2
Hydrologists	1,090	0.1	1
Physicists	250	<	<
Social scientists	12,300	0.5	(nc)
Anthropologists and archeologists	280	<	1
Clinical, counseling, and school psychologists	4,380	0.2	1
Economists	1,830	0.1	2
Historians	310	<	2
Market research analysts	590	<	<
Survey researchers	710	<	2
Urban and regional planners	4,200	0.2	1
Engineers	42,530	1.9	(nc)
Civil	32,320	1.4	2
Electrical/electronics	1,010	0.1	(nc)
Electrical	640	<	3
Electronics	370	<	<
Industrial	180	<	1
Mechanical	510	<	1
Other engineers	8,510	0.4	(nc)
Agricultural	30	<	5
Environmental	6,420	0.3	1
Metallurgical/metallurgists	310	<	4
Mining and geological	250	<	<
Petroleum	100	<	1
Safety	1,400	0.1	5
Technicians	67,260	3.0	(nc)
Computer, numerical tool, and process control programmers	11,390	0.5	(nc)
Computer programmers	11,390	0.5	1
Drafters	1,760	0.1	(nc)
Architectural and civil drafters	1,760	0.1	1
Engineering technicians	33,460	1.5	(nc)
Civil engineering technicians	25,200	1.1	1
Electronical/electronics engineering technicians	1,590	0.1	2
Electro-mechanical technicians	90	<	<
Environmental engineering technicians	600	<	1
Mechanical engineering technicians	50	<	<

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
State government (SIC 9020) -- continued:			
All other engineering technicians	5,930	0.3	(nc)
Audio and video equipment technicians	500	<	4
Broadcast technicians	390	<	<
Traffic technicians	1,540	0.1	1
Transportation inspectors	3,500	0.2	1
Mathematical technicians	190	<	<
Physical and life science technicians	15,740	0.7	(nc)
Agricultural and food science technicians	1,720	0.1	2
Biological technicians	2,090	0.1	1
Chemical technicians, except health	290	<	1
Environmental science and protection technicians, including health	4,400	0.2	<
Forensic science technicians	2,430	0.1	1
Forest and conservation technicians	4,530	0.2	<
Geological and petroleum technicians	280	<	4
Surveying, cartographic, photogrammetric, and mapping technicians	4,720	0.2	(nc)
Cartographers and photogrammetrists	360	<	2
Surveying and mapping technicians	2,540	0.1	4
Surveyors	1,820	0.1	1
Local government (SIC 9030)			
Scientific and technical personnel	161,740	3.4	(nc)
Managers of scientific and technical personnel	13,700	0.3	(nc)
Computer and information systems managers	6,030	0.1	3
Engineering managers	6,620	0.1	9
Natural sciences managers	1,050	<	16
Scientists	62,900	1.3	(nc)
Computer scientists	23,500	0.5	(nc)
Computer and information scientists, research	40	<	27
Computer software, applications	2,490	0.1	30
Computer software, systems	240	<	22
Computer systems analysts	12,160	0.3	13
Network and computer systems administrators	4,930	0.1	9
Network systems/data communications analysts	3,640	0.1	7
Life scientists	4,750	0.1	(nc)
Agricultural scientists	720	<	19
Biochemists and biophysicists	90	<	29
Conservation scientists	1,460	<	15
Epidemiologists	650	<	19
Foresters	950	<	11
Medical scientists, except epidemiologists	130	<	25
Microbiologists	600	<	21
Zoologists and wildlife biologists	150	<	29
Mathematical scientists	760	<	(nc)
Actuaries	80	<	31
Operations and systems researchers and analysts	370	<	18
Statisticians	310	<	36

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Local government (SIC 9030) -- continued:			
Physical scientists	8,970	0.2	(nc)
Atmospheric and space scientists	30	<	34
Chemists	1,490	<	9
Environmental scientists and specialists, including health	7,150	0.2	11
Hydrologists	220	<	22
Physicists	80	<	29
Social scientists	24,920	0.5	(nc)
Clinical, counseling, and school psychologists	3,940	0.1	10
Economists	730	<	11
Historians	140	<	17
Industrial-Organizational psychologists	40	<	41
Market research analysts	880	<	11
Survey researchers	240	<	47
Urban and regional planners	18,950	0.4	6
Engineers	29,870	0.6	(nc)
Aeronautical	30	<	37
Civil	21,270	0.5	4
Computer	30	<	21
Electrical/electronics	3,390	0.1	(nc)
Electrical	2,950	0.1	13
Electronics	440	<	35
Industrial	140	<	32
Mechanical	990	<	19
Other engineers	4,020	0.1	(nc)
Chemical	110	<	39
Environmental	2,570	0.1	19
Safety	1,340	<	12
Technicians	55,270	1.1	(nc)
Computer, numerical tool, and process control programmers	10,140	0.2	(nc)
Computer programmers	10,140	0.2	6
Drafters	4,030	0.1	(nc)
Architectural and civil drafters	3,510	0.1	8
Electrical and electronics drafters	460	<	31
Mechanical drafters	60	<	22
Engineering technicians	23,060	0.5	(nc)
Civil engineering technicians	12,430	0.3	9
Electronical/electronics engineering technicians	3,980	0.1	8
Electro-mechanical technicians	610	<	38
Environmental engineering technicians	1,970	<	14
Industrial engineering technicians	170	<	30
Mechanical engineering technicians	130	<	26
All other engineering technicians	3,770	0.1	(nc)
Audio and video equipment technicians	480	<	16
Broadcast technicians	240	<	17
Traffic technicians	3,050	0.1	7

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Local government (SIC 9030) -- continued:			
Physical and life science technicians	8,430	0.2	(nc)
Agricultural and food science technicians	80	<	33
Biological technicians	80	<	27
Chemical technicians, except health	530	<	12
Environmental science and protection technicians, including health	4,360	0.1	7
Forensic science technicians	2,540	0.1	10
Forest and conservation technicians	840	<	17
Surveying, cartographic, photogrammetric, and mapping technicians	9,610	0.2	(nc)
Cartographers and photogrammetrists	840	<	14
Surveying and mapping technicians	5,890	0.1	5
Surveyors	2,880	0.1	7
Not allocated by industry[3]			
Scientific and technical personnel	322,850	(nc)	(nc)
Managers of scientific and technical personnel	7,950	(nc)	(nc)
Computer and information systems managers	2,360	(nc)	(nc)
Engineering managers	2,820	(nc)	(nc)
Natural sciences managers	2,770	(nc)	(nc)
Scientists	107,590	(nc)	(nc)
Computer scientists	55,710	(nc)	(nc)
Computer and information scientists, research	4,480	(nc)	(nc)
Computer software, applications	12,460	(nc)	(nc)
Computer software, systems	8,820	(nc)	(nc)
Computer systems analysts	19,170	(nc)	(nc)
Network and computer systems administrators	2,340	(nc)	(nc)
Network systems/data communications analysts	8,440	(nc)	(nc)
Life scientists	8,790	(nc)	(nc)
Agricultural scientists	1,280	(nc)	(nc)
Biochemists and biophysicists	2,490	(nc)	(nc)
Conservation scientists	510	(nc)	(nc)
Epidemiologists	170	(nc)	(nc)
Foresters	1,070	(nc)	(nc)
Medical scientists, except epidemiologists	1,680	(nc)	(nc)
Microbiologists	1,400	(nc)	(nc)
Zoologists and wildlife biologists	190	(nc)	(nc)
Mathematical scientists	9,650	(nc)	(nc)
Actuaries	830	(nc)	(nc)
Mathematicians	1,990	(nc)	(nc)
Operations and systems researchers and analysts	3,490	(nc)	(nc)
Statisticians	3,340	(nc)	(nc)

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers,
in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999
[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Not allocated by industry[3] -- continued:			
Physical scientists	13,510	(nc)	(nc)
Astronomers	20	(nc)	(nc)
Atmospheric and space scientists	1,080	(nc)	(nc)
Chemists	1,930	(nc)	(nc)
Environmental scientists and specialists, including health	1,950	(nc)	(nc)
Geoscientists, except hydrologists and geographers	2,890	(nc)	(nc)
Hydrologists	290	(nc)	(nc)
Materials scientists	4,460	(nc)	(nc)
Physicists	890	(nc)	(nc)
Social scientists	19,930	(nc)	(nc)
Clinical, counseling, and school psychologists	790	(nc)	(nc)
Economists	2,780	(nc)	(nc)
Geographers	180	(nc)	(nc)
Historians	320	(nc)	(nc)
Industrial-Organizational psychologists	990	(nc)	(nc)
Market research analysts	8,420	(nc)	(nc)
Political scientists	80	(nc)	(nc)
Sociologists	690	(nc)	(nc)
Survey researchers	4,810	(nc)	(nc)
Urban and regional planners	870	(nc)	(nc)
Engineers	85,950	(nc)	(nc)
Aeronautical	6,270	(nc)	(nc)
Civil	6,130	(nc)	(nc)
Computer	2,850	(nc)	(nc)
Electrical/electronics	8,800	(nc)	(nc)
Electrical	3,950	(nc)	(nc)
Electronics	4,850	(nc)	(nc)
Industrial	7,280	(nc)	(nc)
Mechanical	21,270	(nc)	(nc)
Sales	7,220	(nc)	(nc)
Other engineers	26,130	(nc)	(nc)
Agricultural	650	(nc)	(nc)
Biomedical	2,880	(nc)	(nc)
Chemical	3,340	(nc)	(nc)
Environmental	7,840	(nc)	(nc)
Marine	2,260	(nc)	(nc)
Metallurgical/metallurgists	3,500	(nc)	(nc)
Mining and geological	1,450	(nc)	(nc)
Nuclear	910	(nc)	(nc)
Petroleum	1,110	(nc)	(nc)
Safety	2,190	(nc)	(nc)

See explanatory information and SOURCE at end of table.

Table 10. Employed scientists, engineers, technicians (SETs), and SET managers, in SICs 70-89 (services), SIC 90 (government), and not allocated by industry, and the relative standard error: 1999

[Filled positions]

Industry and SET occupation	Filled positions	SET intensity[1]	Relative standard error[2]
Not allocated by industry[3] -- continued:			
Technicians	121,360	(nc)	(nc)
Computer, numerical tool, and process control programmers	12,690	(nc)	(nc)
Computer programmers	9,040	(nc)	(nc)
Numerical tool and process control programmers	3,650	(nc)	(nc)
Drafters	18,110	(nc)	(nc)
Architectural and civil drafters	8,090	(nc)	(nc)
Electrical and electronics drafters	4,600	(nc)	(nc)
Mechanical drafters	5,420	(nc)	(nc)
Engineering technicians	67,070	(nc)	(nc)
Aerospace engineering and operations technicians	3,110	(nc)	(nc)
Civil engineering technicians	9,050	(nc)	(nc)
Electronical/electronics engineering technicians	8,770	(nc)	(nc)
Electro-mechanical technicians	5,260	(nc)	(nc)
Environmental engineering technicians	2,120	(nc)	(nc)
Industrial engineering technicians	16,720	(nc)	(nc)
Mechanical engineering technicians	7,020	(nc)	(nc)
All other engineering technicians	15,020	(nc)	(nc)
Audio and video equipment technicians	5,620	(nc)	(nc)
Broadcast technicians	470	(nc)	(nc)
Traffic technicians	410	(nc)	(nc)
Transportation inspectors	8,520	(nc)	(nc)
Mathematical technicians	990	(nc)	(nc)
Physical and life science technicians	18,410	(nc)	(nc)
Agricultural and food science technicians	1,350	(nc)	(nc)
Biological technicians	2,370	(nc)	(nc)
Chemical technicians, except health	6,680	(nc)	(nc)
Environmental science and protection technicians, including health	2,240	(nc)	(nc)
Forensic science technicians	310	(nc)	(nc)
Forest and conservation technicians	650	(nc)	(nc)
Geological and petroleum technicians	3,310	(nc)	(nc)
Nuclear technicians	1,500	(nc)	(nc)
Surveying, cartographic, photogrammetric, and mapping technicians	4,090	(nc)	(nc)
Cartographers and photogrammetrists	1,060	(nc)	(nc)
Surveying and mapping technicians	1,940	(nc)	(nc)
Surveyors	1,090	(nc)	(nc)

[1] SET intensity = the ratio of SET employment (including SET managers) in a given SIC to total employment in that SIC, expressed in percentage terms.

[2] Relative standard error of the estimate of filled positions, expressed as a percentage.

[3] Includes SET and SET managers not reported in a specific industry.

KEY: nc = Not computed
< = The estimated actual value is less than 0.05 for percentages when used to characterize SET intensity, and less than 0.5 for percentages when used to characterize relative standard error.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Because of rounding, components may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 11. Mean hourly wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Managers of SET personnel		Scientists		Engineers		Technicians	
		$	RSE	$	RSE	$	RSE	$	RSE
Total		37.23	1	27.46	1	28.51	1	20.57	1
Agriculture, forestry, and fishing									
Agricultural services	07	<	<	14.17	9	24.16	4	13.74	4
Crop services	072	<	<	<	<	27.38	4	13.37	15
Animal services, except veterinary	075	<	<	14.41	9	<	<	12.72	2
Landscape and horticultural services	078	<	<	<	<	24.10	4	16.04	4
Mining									
Metal mining	10	48.24	9	27.38	6	31.75	12	18.78	3
Gold and silver ores	104	49.14	<	28.44	1	29.45	<	18.95	1
Metal mining services	108	<	<	29.30	<	<	<	<	<
Misc. metal ores, n.e.c.	109	<	<	<	<	26.05	<	<	<
Coal mining	12	36.56	3	<	<	27.47	2	18.84	4
Bituminous coal and lignite mining	122	36.73	2	24.83	3	27.96	<	19.02	4
Oil and gas extraction	13	48.10	3	38.37	4	35.78	2	21.86	7
Crude petroleum and natural gas	131	51.23	<	43.91	<	37.61	1	25.28	1
Oil and gas field services	138	41.76	<	27.27	<	29.54	3	20.85	3
Nonmetallic minerals, except fuels	14	33.03	8	24.10	4	23.33	6	16.94	5
Crushed and broken stone	142	35.64	<	24.23	1	22.12	<	18.32	3
Sand and gravel	144	<	<	<	<	<	<	13.64	<
Chemical and fertilizer minerals	147	<	<	<	<	<	<	<	<
Misc. nonmetallic minerals	149	<	<	<	<	<	<	<	<
Construction									
General building contractors	15	31.90	3	21.16	9	27.07	3	19.05	6
Residential building construction	152	30.99	<	20.00	<	26.29	4	18.31	2
Operative builders	153	<	<	<	<	<	<	17.41	<
Nonresidential building excluding building	154	31.81	<	23.12	<	27.26	3	19.54	3
Heavy construction, excluding building	16	40.34	4	24.05	4	28.45	2	18.79	6
Highway and street construction	161	31.41	<	24.75	<	25.46	2	18.36	1
Heavy construction, except highway	162	42.37	<	23.67	<	29.14	2	18.97	2
Special trade contractors	17	30.86	4	22.00	4	26.21	6	17.90	5
Plumbing, heating, air conditioning	171	31.05	<	22.66	<	26.68	3	18.66	1
Painting and paper hanging	172	<	<	<	<	<	<	<	<
Electrical work	173	33.32	<	21.74	<	25.82	3	17.23	1
Masonry, stonework, and plastering	174	29.65	<	<	<	25.80	11	17.77	<
Carpentry and floor work	175	26.73	<	<	<	23.70	7	18.27	<
Roofing, siding, and sheet-metal work	176	28.32	<	<	<	23.80	5	21.02	<
Concrete work	177	24.85	<	<	<	24.28	9	15.30	3
Misc. special trade contractors	179	32.58	<	20.86	<	25.84	5	17.99	3

See explanatory information and SOURCE at end of table.

Table 11. Mean hourly wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Managers of SET personnel		Scientists		Engineers		Technicians	
		$	RSE	$	RSE	$	RSE	$	RSE
Total manufacturing									
Food and kindred products	20	35.62	4	25.81	3	27.50	3	16.28	7
Meat products	201	32.80	5	20.78	5	25.65	7	14.55	5
Dairy products	202	31.07	10	21.80	5	25.41	4	14.25	3
Preserved fruits & vegetables	203	34.57	4	22.96	5	27.45	6	16.58	5
Grain mill products	204	34.48	14	24.35	5	25.85	6	16.64	4
Bakery products	205	32.14	7	26.81	14	24.44	7	18.56	9
Sugar and confectionery products	206	37.08	5	25.17	4	26.60	5	15.72	5
Fats and oils	207	38.55	5	19.50	3	27.20	6	15.73	12
Beverages	208	38.17	9	28.21	3	29.48	3	16.52	5
Misc. food and kindred products	209	36.94	5	24.02	5	27.92	6	17.06	3
Tobacco products	21	<	<	32.66	6	<	<	<	<
Textile mill products	22	31.14	4	24.77	3	25.22	3	17.86	2
Broadwoven fabric mills, cotton	221	32.14	5	<	<	24.75	3	13.51	4
Broadwoven fabric mills, manmade	222	35.62	3	23.04	3	28.91	4	16.36	4
Broadwoven fabric mills, wool	223	<	<	<	<	<	<	15.89	11
Narrow fabric mills	224	<	<	<	<	<	<	<	<
Knitting mills	225	29.59	10	25.50	4	22.57	4	21.51	3
Textile finishing, except wool	226	32.97	5	25.55	6	25.14	4	17.71	7
Carpets and rugs	227	33.30	3	26.47	7	25.17	3	20.73	2
Yarn and thread mills	228	29.12	4	23.52	4	21.34	9	16.44	5
Miscellaneous textile goods	229	31.95	4	25.34	3	26.49	2	17.06	10
Apparel and other textile products	23	33.25	4	25.91	6	22.91	8	21.27	4
Men's & boys' suits and coats	231	33.86	12	<	<	<	<	<	<
Men's & boys' furnishings	232	34.10	7	<	<	24.57	8	23.00	7
Women's and misses' outerwear	233	40.63	9	31.66	5	17.30	22	24.35	4
Women's and children's undergarments	234	31.02	13	<	<	24.70	5	22.88	4
Miscellaneous apparel and accessories	238	26.21	9	<	<	<	<	<	<
Misc. fabricated textile products	239	29.95	6	18.81	5	24.64	4	19.06	5
Lumber and wood products	24	30.20	4	23.33	5	23.75	4	18.06	6
Logging	241	<	<	21.65	3	<	<	23.39	17
Sawmills and planing mills	242	29.48	9	21.72	3	25.99	8	17.74	6
Millwork, plywood & structural members	243	31.16	5	23.04	7	23.85	5	17.40	5
Wood containers	244	<	<	<	<	<	<	<	<
Wood buildings and mobile homes	245	26.57	5	<	<	22.67	16	17.92	7
Miscellaneous wood products	249	32.80	9	22.11	5	23.88	3	18.77	4
Furniture and fixtures	25	30.42	2	21.80	3	23.90	2	17.20	4
Household furniture	251	29.93	4	21.38	6	21.68	3	18.43	4
Office furniture	252	30.29	4	24.03	7	25.10	2	21.83	3
Public building & related furniture	253	30.31	5	19.00	5	24.87	4	17.81	6
Partitions and fixtures	254	31.08	4	22.05	4	24.65	3	16.70	6
Miscellaneous furniture and fixtures	259	31.99	6	<	<	23.28	6	18.76	7

See explanatory information and SOURCE at end of table.

Table 11. Mean hourly wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Managers of SET personnel		Scientists		Engineers		Technicians	
		$	RSE	$	RSE	$	RSE	$	RSE
Paper and allied products	26	42.22	8	26.96	5	30.01	5	20.22	3
Pulp mills	261	<	<	28.20	2	31.24	3	<	<
Paper mills	262	38.75	3	27.12	3	29.15	3	19.97	4
Paperboard mills	263	42.74	6	24.70	8	28.08	5	22.38	6
Paperboard containers and boxes	265	36.68	5	26.41	7	26.03	4	21.57	3
Misc. converted paper products	267	43.31	11	25.95	4	28.29	3	19.10	4
Printing and publishing	27	34.15	2	25.45	4	25.88	3	22.18	2
Newspapers	271	32.92	2	23.28	3	<	<	23.74	4
Periodicals	272	35.43	5	25.20	6	<	<	25.80	3
Books	273	41.00	6	27.34	6	<	<	23.82	2
Miscellaneous publishing	274	33.96	14	27.98	5	<	<	18.74	4
Commercial printing	275	32.10	2	23.85	4	25.30	5	20.94	2
Manifold business forms	276	29.26	5	20.74	5	<	<	21.11	3
Greeting cards	277	<	<	<	<	<	<	<	<
Blankbooks and bookbinding	278	36.25	8	27.34	5	<	<	20.14	4
Printing trade services	279	29.87	9	23.84	10	<	<	23.00	6
Chemicals and allied products	28	40.82	2	26.52	3	29.33	2	19.04	2
Industrial inorganic chemicals	281	39.73	4	25.60	3	30.15	3	18.47	3
Plastics materials and synthetics	282	41.20	4	29.30	3	30.21	2	20.89	2
Drugs	283	41.79	3	25.06	4	28.26	3	17.43	3
Soap, cleaners, and toilet goods	284	39.73	4	24.08	3	28.08	4	17.30	4
Paints and allied products	285	37.35	4	24.87	2	27.93	4	16.51	3
Industrial organic chemicals	286	41.29	4	29.62	4	30.55	2	21.90	3
Agricultural chemicals	287	34.22	11	25.50	4	28.59	4	20.62	5
Miscellaneous chemical products	289	38.15	5	25.51	2	28.86	4	18.10	3
Petroleum and coal products	29	40.22	5	28.96	4	30.95	3	21.11	6
Petroleum refining	291	41.55	5	29.96	4	31.40	3	21.71	6
Asphalt paving and roofing materials	295	35.47	15	19.38	4	29.11	4	13.47	4
Misc. petroleum and coal products	299	35.04	6	23.77	2	30.46	5	17.64	5
Rubber and misc. plastics products	30	33.45	2	23.25	5	25.60	2	17.38	4
Tires and inner tubes	301	33.68	4	23.41	5	27.21	4	19.32	3
Hose & belting & gaskets & packing	305	33.86	4	21.67	6	24.47	3	16.80	5
Fabricated rubber products, n.e.c.	306	33.88	4	25.18	3	25.03	3	16.83	5
Miscellaneous plastics products, n.e.c.	308	33.26	2	23.03	6	25.74	3	17.40	4
Leather and leather products	31	33.18	5	23.70	9	24.39	4	20.62	6
Footwear, except rubber	314	33.59	7	<	<	24.19	6	20.34	3
Luggage	316	<	<	<	<	<	<	25.53	4
Handbags and personal leather goods	317	<	<	<	<	<	<	<	<

See explanatory information and SOURCE at end of table.

Table 11. Mean hourly wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Managers of SET personnel		Scientists		Engineers		Technicians	
		$	RSE	$	RSE	$	RSE	$	RSE
Stone, clay and glass products	32	33.76	3	24.27	4	26.77	2	18.07	3
Flat glass	321	<	<	<	<	26.65	4	<	<
Glass and glassware, pressed or blown	322	41.07	6	29.31	6	28.31	4	20.56	6
Products of purchased glass	323	37.20	6	22.57	6	25.86	4	19.35	5
Cement, hydraulic	324	31.29	7	22.21	2	26.71	4	18.28	11
Structural clay products	325	<	<	<	<	27.40	7	19.05	14
Pottery and related products	326	32.56	4	<	<	26.12	5	16.06	4
Concrete, gypsum, and plaster products	327	31.58	4	24.02	7	26.38	4	17.08	4
Cut stone and stone products	328	<	<	<	<	<	<	<	<
Misc. nonmetallic mineral products	329	34.11	6	24.59	6	27.34	3	17.57	5
Primary metal industries	33	34.84	3	25.15	4	26.49	2	18.73	5
Blast furnace and basic steel products	331	33.09	<	24.56	<	26.73	1	19.92	2
Iron and steel foundries	332	34.47	<	25.05	4	25.19	2	18.13	3
Primary nonferrous metals	333	34.67	<	23.24	3	26.04	2	18.16	2
Secondary nonferrous metals	334	<	<	21.94	4	22.80	3	15.15	<
Nonferrous rolling and drawing	335	36.41	<	27.02	2	28.06	2	18.58	2
Nonferrous foundries (castings)	336	32.54	<	22.52	<	24.62	2	17.86	2
Miscellaneous primary metal products	339	37.14	<	<	<	26.69	2	14.57	<
Fabricated metal products	34	32.88	1	25.19	4	25.81	2	18.30	4
Metal cans and shipping containers	341	40.01	<	<	<	26.31	4	20.08	4
Cutlery, hand tools, and hardware	342	33.15	<	24.82	<	25.17	1	17.76	1
Plumbing and heating, except electric	343	33.08	<	<	<	25.43	2	17.88	2
Fabricated structural metal products	344	31.16	<	27.14	<	25.75	2	17.60	1
Screw machine products, bolts, etc.	345	31.56	<	24.28	<	25.37	2	18.76	2
Metal forgings and stampings	346	36.42	<	24.94	<	26.33	2	19.53	1
Metal services, n.e.c.	347	28.28	<	20.36	3	24.48	2	16.80	3
Ordnance and accessories, n.e.c.	348	35.73	<	23.98	2	27.06	2	20.15	3
Misc. fabricated metal products	349	33.29	<	23.91	2	25.00	1	17.45	1
Industrial machinery and equipment	35	37.57	2	32.14	2	27.75	2	20.58	2
Engines and turbines	351	35.99	<	27.74	<	27.65	2	19.20	2
Farm and garden machinery	352	33.77	<	25.30	<	24.82	2	16.61	1
Construction and related machinery	353	33.55	<	26.20	<	25.82	1	17.49	1
Metalworking machinery	354	33.32	<	24.16	<	24.82	1	18.84	1
Special industry machinery	355	34.84	<	27.90	<	26.58	1	18.33	1
General industrial machinery	356	34.56	<	27.37	<	26.25	1	18.21	1
Computer and office equipment	357	45.26	<	33.23	<	32.61	1	25.32	2
Refrigeration and service machinery	358	33.59	<	26.08	1	25.45	1	17.44	1
Industrial machinery, n.e.c.	359	32.02	<	24.42	<	25.03	1	18.36	1

See explanatory information and SOURCE at end of table.

Table 11. Mean hourly wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Managers of SET personnel		Scientists		Engineers		Technicians	
		$	RSE	$	RSE	$	RSE	$	RSE
Electronic & other electric equipment	36	41.84	2	32.55	3	29.08	2	18.53	3
Electric distribution equipment	361	34.95	<	24.17	1	25.89	1	17.59	1
Electrical industrial apparatus	362	36.92	<	27.64	1	26.12	1	17.15	1
Household appliances	363	36.43	<	25.37	<	25.71	1	18.45	2
Electric lighting and wiring equipment	364	36.68	<	27.01	2	27.04	2	17.69	1
Household audio and video equipment	365	39.33	<	28.07	<	28.67	1	17.56	1
Communication equipment	366	43.76	<	33.33	<	30.93	1	19.72	3
Electronic components and accessories	367	43.39	<	33.51	<	29.65	1	18.43	1
Misc. electrical equipment & supplies	369	37.28	<	27.45	1	27.33	2	18.04	1
Transportation equipment	37	39.97	3	28.61	4	28.98	2	22.52	7
Motor vehicles and equipment	371	41.35	<	28.16	1	28.12	1	21.76	1
Aircraft and parts	372	39.76	<	29.20	1	30.21	2	24.01	<
Ship and boat building and repairing	373	36.33	<	22.31	<	22.97	6	16.66	2
Railroad equipment	374	<	<	<	<	25.58	2	<	<
Motorcycles, bicycles, and parts	375	35.08	<	<	<	26.52	2	19.13	<
Guided missiles, space vehicles, parts	376	38.74	<	28.66	<	27.97	4	22.69	2
Miscellaneous transportation equipment	379	29.22	<	<	<	23.94	2	18.60	3
Instruments and related products	38	41.75	2	29.95	3	30.69	3	19.44	3
Search and navigation equipment	381	44.04	<	33.83	<	32.56	2	21.00	1
Measuring and controlling devices	382	40.51	<	30.06	<	29.21	1	18.37	1
Medical instruments and supplies	384	40.60	<	25.72	2	28.77	1	18.81	1
Ophthalmic goods	385	38.02	<	<	<	30.14	1	<	<
Photographic equipment and supplies	386	39.37	<	29.91	3	29.38	2	25.77	6
Watches, clocks, watchcases & parts	387	<	<	<	<	<	<	<	<
Miscellaneous manufacturing industries	39	33.72	3	26.27	4	25.83	3	17.67	4
Jewelry, silverware, and plated ware	391	37.26	<	28.13	<	26.86	<	25.46	3
Musical instruments	393	35.80	<	<	<	25.82	2	19.31	3
Toys and sporting goods	394	33.33	<	27.51	2	25.16	2	18.80	4
Pens, pencils, office, & art supplies	395	31.63	<	23.01	7	<	<	<	<
Costume jewelry and notions	396	<	<	<	<	23.70	4	20.02	3
Miscellaneous manufactures	399	33.73	<	25.73	2	25.59	2	17.00	2
Transportation, communications, and utilities									
Railroad transportation	40	38.10	5	26.35	4	27.65	4	24.42	3
Railroad transportation	401	38.10	5	26.35	4	27.65	4	24.42	3
Local and interurban transit	41	28.74	7	19.97	7	<	<	22.35	7
Local and suburban transportation	411	29.50	<	<	<	<	<	23.69	6
Trucking and warehousing	42	30.78	4	21.82	4	23.77	4	19.08	5
Trucking and courier services, excl. air	421	30.51	<	22.54	<	23.60	<	18.75	6
Public warehousing and storage	422	31.57	<	22.82	<	<	<	22.93	2
Water transportation	44	35.81	7	25.77	5	27.67	3	20.60	4
Deep sea foreign transportation of freight	441	37.26	<	<	<	31.42	3	<	<
Deep sea domestic transportation of freight	442	35.89	<	<	<	<	<	27.10	6
Water transportation of freight, n.e.c.	444	<	<	<	<	<	<	<	<
Water transportation of passengers	448	34.24	<	<	<	<	<	<	<
Water transportation services	449	34.50	<	<	<	26.13	6	16.28	8

See explanatory information and SOURCE at end of table.

Table 11. Mean hourly wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Managers of SET personnel		Scientists		Engineers		Technicians	
		$	RSE	$	RSE	$	RSE	$	RSE
Transportation by air	45	35.37	3	24.83	6	26.38	4	21.48	3
Air transportation, scheduled	451	35.55	<	24.32	<	30.76	<	23.05	3
Air transportation, nonscheduled	452	<	<	<	<	<	<	19.79	2
Airports, flying fields, and services	458	34.46	<	33.15	<	25.96	2	18.37	2
Pipelines, except natural gas	46	39.17	6	<	<	32.37	4	26.20	3
Pipelines, except natural gas	461	39.17	6	<	<	32.37	4	26.04	2
Transportation services	47	31.34	6	23.20	6	20.34	7	20.42	3
Passenger transportation arrangements	472	30.74	<	23.32	<	<	<	23.42	3
Freight transportation arrangements	473	31.67	<	21.70	<	21.01	8	23.23	2
Misc. transportation services	478	<	<	<	<	<	<	15.55	3
Communications	48	34.21	2	25.79	3	27.78	2	17.29	2
Telephone communications	481	35.11	<	25.81	<	27.89	1	21.51	<
Telegraph and other communications	482	37.95	<	28.36	<	<	<	24.26	5
Radio and television broadcasting	483	28.12	<	24.18	3	26.03	2	13.03	1
Cable and other pay TV services	484	32.82	<	23.30	<	27.62	3	16.55	1
Communications services, n.e.c.	489	32.28	<	29.66	<	29.17	<	23.13	4
Utilities and sanitary services	49	37.97	3	26.72	4	31.40	2	23.03	3
Electric services	491	36.97	<	26.88	1	31.74	1	23.06	1
Gas production and distribution	492	38.42	<	27.51	<	28.06	2	22.02	2
Combination utility services	493	40.70	<	29.20	<	30.31	1	24.90	3
Water supply	494	31.31	<	20.50	<	27.95	2	20.22	3
Sanitary services	495	38.39	<	21.15	5	28.64	5	19.03	5
Wholesale trade									
Wholesale trade, durable goods	50	39.22	2	27.28	3	28.87	2	22.88	2
Motor vehicles, parts, and supplies	501	34.12	4	22.70	5	28.10	3	23.59	7
Furniture and homefurnishings	502	33.84	6	22.93	4	23.86	5	25.38	3
Lumber and construction materials	503	36.03	5	27.99	4	31.16	12	17.54	7
Professional and commercial equipment	504	41.38	2	27.52	4	26.65	3	25.59	3
Metals and minerals, except petroleum	505	35.28	6	26.60	9	26.66	5	17.58	5
Electrical goods	506	40.22	3	27.97	6	30.56	3	19.44	3
Hardware, plumbing, and heating equipment	507	36.12	5	23.82	6	29.41	7	19.97	5
Machinery, equipment, and supplies	508	33.94	2	25.37	5	26.89	4	19.81	5
Miscellaneous durable goods	509	32.60	5	25.26	8	25.97	3	19.30	4
Wholesale trade, nondurable goods	51	34.61	3	26.11	3	28.70	5	22.26	3
Paper and paper products	511	36.84	4	24.27	5	25.71	4	22.28	4
Drugs, proprietaries, and sundries	512	37.23	8	26.78	5	28.89	3	24.17	4
Apparel, piece goods, and notions	513	40.84	5	25.74	6	25.41	11	25.08	3
Groceries and related products	514	32.73	5	27.08	7	24.32	4	22.49	3
Farm-product raw materials	515	30.74	7	18.32	9	<	<	23.04	3
Chemicals and allied products	516	36.25	5	26.83	5	30.50	4	21.40	7
Petroleum and petroleum products	517	33.83	6	25.69	9	30.73	7	17.74	8
Beer, wine, and distilled beverages	518	30.50	6	24.83	6	<	<	25.26	3
Misc. nondurable goods	519	31.81	5	23.44	6	27.03	10	23.18	4

See explanatory information and SOURCE at end of table.

Table 11. Mean hourly wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Managers of SET personnel		Scientists		Engineers		Technicians	
		$	RSE	$	RSE	$	RSE	$	RSE
Retail trade									
Building materials and garden supplies	52	32.31	14	24.60	15	<	<	17.49	5
Lumber and other building materials	521	32.94	14	24.62	15	<	<	17.05	6
Paint, glass, and wallpaper stores	523	<	<	<	<	<	<	<	<
Hardware stores	525	<	<	<	<	<	<	<	<
Retail nurseries and garden stores	526	<	<	<	<	<	<	15.78	20
General merchandise stores	53	35.50	8	26.71	5	<	<	20.54	3
Department stores	531	35.64	8	26.85	5	<	<	20.56	3
Food stores	54	25.91	5	22.49	5	<	<	21.72	2
Grocery stores	541	25.48	6	22.54	5	<	<	21.63	2
Miscellaneous food stores	549	<	<	<	<	<	<	23.27	8
Automotive dealers and service stations	55	25.44	4	21.14	7	19.28	7	17.83	6
New and used car dealers	551	24.98	4	21.09	8	19.35	7	21.76	5
Auto and home supply stores	553	24.14	7	<	<	<	<	22.41	5
Gasoline service stations	554	25.68	11	<	<	<	<	<	<
Boat dealers	555	<	<	<	<	<	<	<	<
Apparel and accessory stores	56	33.39	7	23.70	5	<	<	23.64	3
Women's clothing stores	562	34.66	11	24.86	4	<	<	24.43	5
Family clothing stores	565	30.17	6	19.31	6	<	<	21.91	5
Shoe stores	566	36.35	18	<	<	<	<	<	<
Furniture and homefurnishings stores	57	33.10	5	25.24	5	22.12	7	22.65	3
Furniture and homefurnishings stores	571	25.53	7	22.37	6	<	<	22.55	8
Radio, television, and computer stores	573	35.35	5	25.27	5	20.56	9	22.68	2
Eating and drinking places	58	35.72	12	26.31	5	<	<	<	<
Eating and drinking places	581	35.72	12	26.31	5	<	<	<	<
Misc. retail stores	59	34.47	3	26.28	4	26.80	14	22.70	2
Drug stores and proprietary stores	591	34.22	7	<	<	<	<	24.95	3
Miscellaneous shopping goods stores	594	33.07	4	24.31	6	<	<	22.98	4
Nonstore retailers	596	36.15	4	25.50	6	22.66	10	22.41	4
Fuel dealers	598	<	<	<	<	<	<	<	<
Retail stores, n.e.c.	599	33.55	10	26.62	7	<	<	23.84	3
Finance, insurance, and real estate									
Depository institutions	60	36.38	3	26.75	4	28.79	1	24.78	2
Central reserve depositories	601	33.53	<	28.19	<	<	<	<	<
Commercial banks	602	37.81	<	27.16	1	28.55	<	24.91	2
Savings institutions	603	35.49	<	23.66	<	<	<	21.99	2
Credit unions	606	25.19	<	20.04	<	<	<	18.62	3
Foreign banks and branches and agencies	608	45.71	<	<	<	<	<	<	<
Functions closely related to banking	609	36.09	<	31.58	<	<	<	27.71	5
Nondepository institutions	61	37.42	3	27.69	5	<	<	24.50	4
Federal and federally sponsored credit	611	42.61	<	25.22	<	<	<	<	<
Personal credit institutions	614	38.32	<	24.40	<	<	<	27.63	4
Business credit institutions	615	39.29	<	29.23	<	<	<	22.23	4
Mortgage bankers and brokers	616	35.48	<	28.64	<	<	<	24.55	2

See explanatory information and SOURCE at end of table.

Table 11. Mean hourly wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Managers of SET personnel		Scientists		Engineers		Technicians	
		$	RSE	$	RSE	$	RSE	$	RSE
Security and commodity brokers	62	40.96	3	28.83	6	<	<	28.87	2
Security brokers and dealers	621	42.06	<	29.38	<	<	<	30.01	3
Commodity contracts, brokers, and dealers	622	39.79	<	<	<	<	<	26.42	3
Security and commodity services	628	38.12	<	26.92	<	<	<	27.61	2
Insurance carriers	63	39.35	2	27.52	2	28.08	8	25.02	1
Life insurance	631	40.05	<	26.79	<	<	<	25.76	1
Medical service and health insurance	632	39.36	<	26.42	<	<	<	25.16	2
Fire, marine, and casualty insurance	633	39.56	<	29.18	<	26.42	<	24.23	2
Surety insurance	635	37.95	<	26.85	<	<	<	26.82	2
Title insurance	636	34.09	<	29.33	<	<	<	23.05	3
Pension, health, and welfare funds	637	36.22	<	28.40	<	<	<	24.34	2
Insurance agents, brokers, and service	64	33.83	6	24.46	5	24.53	4	22.96	3
Insurance agents, brokers, and service	641	33.83	6	24.46	5	24.53	4	22.96	3
Real estate	65	33.34	3	22.47	6	24.07	7	21.38	9
Real estate operators and lessors	651	30.58	<	21.64	<	27.77	4	21.91	3
Real estate agents and managers	653	34.77	<	23.01	<	23.09	5	23.44	2
Title abstract offices	654	26.56	<	18.02	<	<	<	14.80	6
Subdividers and developers	655	55.48	<	20.80	<	24.63	12	19.30	3
Holding and other investment offices	67	39.09	6	28.46	7	25.21	10	24.46	3
Holding offices	671	37.95	<	27.40	<	21.91	4	25.90	3
Investment offices	672	41.13	<	<	<	<	<	26.13	7
Trusts	673	29.82	<	26.09	<	<	<	19.15	5
Misc. investing	679	45.72	<	32.81	<	<	<	23.20	4
Services									
Hotels and other lodging places	70	34.69	5	20.92	5	18.64	9	15.65	6
Hotels and motels	701	34.73	4	21.01	4	18.79	2	15.65	6
Personal services	72	35.98	6	27.02	17	27.21	8	23.61	4
Laundry, cleaning, and garment services	721	39.60	<	<	<	27.21	<	24.11	3
Photographic studios, portrait	722	<	<	<	<	<	<	17.54	5
Funeral service and crematories	726	<	<	<	<	<	<	24.37	7
Misc. personal services	729	<	<	<	<	<	<	24.07	6
Business services	73	40.28	2	30.17	2	30.43	4	25.83	2
Advertising	731	38.86	<	27.68	<	<	<	21.77	5
Credit reporting and collection	732	33.24	<	22.94	<	<	<	23.96	2
Mailing, reproduction, and stenographic	733	34.09	<	21.78	<	23.11	7	21.52	7
Services to buildings	734	24.87	<	<	<	24.62	5	<	<
Misc. equipment rental and leasing	735	30.56	<	27.44	<	23.50	5	18.12	1
Personnel supply services	736	34.85	<	27.22	1	29.51	1	22.44	3
Computer and data processing services	737	41.00	<	30.60	<	31.47	1	27.06	1
Misc. business services	738	35.54	<	27.08	<	25.62	5	20.59	4
Auto repair, services, and parking	75	36.25	3	26.33	6	<	<	16.39	5
Automobile rentals, no drivers	751	36.52	<	25.53	<	<	<	26.40	4
Automobile repair shops	753	<	<	27.10	<	<	<	<	<
Automobile services, except repair	754	<	<	<	<	<	<	12.21	10

See explanatory information and SOURCE at end of table.

Table 11. Mean hourly wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Managers of SET personnel		Scientists		Engineers		Technicians	
		$	RSE	$	RSE	$	RSE	$	RSE
Misc. repair services	76	29.14	3	21.26	4	27.09	5	17.71	5
Electrical repair shops	762	<	<	17.66	<	26.15	<	18.33	1
Misc. repair shops	769	29.20	<	22.74	<	29.86	2	17.00	1
Motion pictures	78	32.17	11	23.61	5	<	<	18.67	9
Motion picture production and services	781	32.29	13	24.56	8	<	<	18.81	8
Motion picture distribution and services	782	28.87	11	<	<	<	<	12.80	8
Motion picture theaters	783	35.21	7	<	<	<	<	<	<
Amusement and recreation services	79	30.98	17	20.69	11	25.89	9	15.43	6
Producers, orchestras, and entertainers	792	31.32	13	<	<	<	<	16.07	8
Commercial sports	794	<	<	<	<	<	<	15.87	12
Misc. amusement, recreation services	799	29.43	17	21.34	10	24.39	9	13.98	9
Health services	80	30.67	3	24.77	6	21.87	6	19.22	3
Offices and clinics of medical doctors	801	29.83	3	25.29	7	<	<	19.66	4
Offices of other health practitioners	804	31.09	10	26.85	6	<	<	24.34	3
Nursing and personal care facilities	805	24.36	5	22.37	7	<	<	16.22	5
Hospitals	806	32.13	2	24.25	3	21.98	3	19.97	3
Medical and dental laboratories	807	30.10	6	23.39	4	19.25	25	14.19	3
Home health care services	808	27.34	4	24.94	7	<	<	20.34	4
Health and allied services, n.e.c.	809	28.09	6	21.04	5	<	<	25.71	5
Legal services	81	37.56	5	27.44	4	<	<	24.45	3
Legal services	811	37.56	5	27.44	4	<	<	24.45	3
Educational services	82	31.22	3	23.25	2	19.93	3	18.79	1
Elementary and secondary schools	821	28.94	4	24.18	1	<	<	20.55	2
Colleges, universities, and professional	822	31.61	3	21.59	3	<	<	18.27	2
Libraries	823	29.15	6	24.48	13	<	<	<	<
Vocational schools	824	26.62	5	21.07	12	20.56	5	<	<
Schools and educational services, n.e.c.	829	28.65	4	22.36	7	<	<	17.96	9
Social services	83	24.95	4	19.94	4	<	<	18.85	2
Individual and family services	832	24.41	5	19.81	4	<	<	17.75	2
Job training and related services	833	21.96	4	19.15	7	<	<	18.67	3
Child day care services	835	22.19	9	18.89	11	<	<	15.14	5
Residential care	836	25.62	7	20.29	5	<	<	18.82	5
Social services, n.e.c.	839	27.52	7	19.82	6	<	<	21.92	2
Museums, botanical, zoological gardens	84	23.49	7	15.58	12	<	<	16.46	4
Museums and art galleries	841	22.46	8	16.90	7	<	<	16.97	5
Botanical and zoological gardens	842	24.18	6	14.75	6	<	<	13.40	5
Membership organizations	86	28.13	3	21.31	9	<	<	21.89	4
Business associations	861	27.65	3	21.52	14	<	<	22.73	3
Professional organizations	862	32.74	4	24.71	10	<	<	23.91	2
Labor organizations	863	29.68	5	27.92	7	<	<	27.29	3
Civic and social associations	864	23.60	5	17.17	8	<	<	19.46	4
Political organizations	865	<	<	<	<	<	<	<	<
Religious organizations	866	24.32	7	17.35	7	<	<	19.14	7
Membership organizations, n.e.c.	869	23.94	7	21.70	7	<	<	20.21	6

See explanatory information and SOURCE at end of table.

Table 11. Mean hourly wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Managers of SET personnel		Scientists		Engineers		Technicians	
		$	RSE	$	RSE	$	RSE	$	RSE
Engineering and management services	87	38.57	2	26.57	5	28.24	2	17.52	2
Engineering and architectural services	871	38.66	2	28.43	4	27.70	3	17.01	2
Accounting, auditing, and bookkeeping	872	38.74	9	26.01	4	28.57	9	20.75	5
Research and testing services	873	39.82	2	24.15	5	31.83	5	17.17	4
Management and public relations	874	37.04	3	28.31	10	27.83	5	21.99	4
Services, n.e.c.	89	39.22	9	30.18	7	27.52	6	19.39	4
Services, n.e.c.	899	39.22	9	30.14	7	27.72	6	19.39	4
Public administration									
Federal, state, and local government	90	33.20	<	24.40	1	28.18	1	17.98	1
Federal government	901	35.62	<	27.90	1	31.16	<	19.24	<
State government	902	28.70	1	21.34	1	25.06	<	16.65	1
Local government	903	30.63	1	22.24	2	26.27	2	18.62	2

KEY: RSE = Relative standard error of the mean hourly wage, expressed as a percentage.
< = Too few cases to estimate or RSE less than 0.5 percent.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Mean hourly wages are calculated from the mean values of 11 wage intervals, using data from the BLS National Compensation Survey. See Technical Notes for more detail. Two-digit SIC information incorporates information for all 3-digit industries, including those 3-digit industries not displayed separately. Includes wage information for industry/occupation combinations for which employment estimates are unavailable.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/ Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 12. Mean annual wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Mean annual wages (dollars)			
		Managers of SET personnel	Scientists	Engineers	Technicians
Total		77,429	57,121	59,308	42,784
Agriculture, forestry, and fishing					
Agricultural services	07	<	29,470	50,258	28,577
Crop services	072	<	<	56,950	27,800
Animal services, except veterinary	075	<	29,960	<	26,460
Landscape and horticultural services	078	<	<	50,130	33,370
Mining					
Metal mining	10	100,330	56,933	66,023	39,058
Gold and silver ores	104	102,197	59,162	61,264	39,425
Metal mining services	108	<	60,940	<	<
Misc. metal ores, n.e.c.	109	<	<	54,180	<
Coal mining	12	76,048	<	57,150	39,180
Bituminous coal and lignite mining	122	76,390	51,650	58,163	39,572
Oil and gas extraction	13	100,052	79,795	74,423	45,466
Crude petroleum and natural gas	131	106,573	91,313	78,234	52,590
Oil and gas field services	138	86,861	56,717	61,454	43,354
Nonmetallic minerals, except fuels	14	68,704	50,136	48,534	35,236
Crushed and broken stone	142	74,127	50,401	46,022	38,104
Sand and gravel	144	<	<	<	28,364
Chemical and fertilizer minerals	147	<	<	<	<
Misc. nonmetallic minerals	149	<	<	<	<
Construction					
General building contractors	15	66,339	44,006	56,301	39,619
Residential building construction	152	64,460	41,603	54,698	38,085
Operative builders	153	<	<	<	36,210
Nonresidential building excluding building	154	66,159	48,090	56,698	40,637
Heavy construction, excluding building	16	83,920	50,024	59,161	39,069
Highway and street construction	161	65,320	51,470	52,963	38,199
Heavy construction, except highway	162	88,120	49,238	60,607	39,452
Special trade contractors	17	64,185	45,743	54,509	37,229
Plumbing, heating, air conditioning	171	64,580	47,130	55,492	38,815
Painting and paper hanging	172	<	<	<	<
Electrical work	173	69,305	45,220	53,714	35,834
Masonry, stonework, and plastering	174	61,660	<	53,657	36,970
Carpentry and floor work	175	55,590	<	49,301	38,000
Roofing, siding, and sheet-metal work	176	58,910	<	49,507	43,720
Concrete work	177	51,690	<	50,510	31,807
Misc. special trade contractors	179	67,760	43,390	53,743	37,432

See explanatory information and SOURCE at end of table.

Table 12. Mean annual wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Mean annual wages (dollars)			
		Managers of SET personnel	Scientists	Engineers	Technicians
Total manufacturing					
Food and kindred products	20	74,101	53,681	57,189	33,862
Meat products	201	68,223	43,235	53,358	30,255
Dairy products	202	64,632	45,331	52,845	29,641
Preserved fruits & vegetables	203	71,912	47,757	57,101	34,488
Grain mill products	204	71,727	50,655	53,777	34,605
Bakery products	205	66,867	55,765	50,829	38,609
Sugar and confectionery products	206	77,119	52,357	55,333	32,699
Fats and oils	207	80,190	40,550	56,574	32,717
Beverages	208	79,404	58,691	61,329	34,351
Misc. food and kindred products	209	76,821	49,965	58,085	35,474
Tobacco products	21	<	67,920	<	<
Textile mill products	22	64,757	51,529	52,454	37,150
Broadwoven fabric mills, cotton	221	66,841	<	51,470	28,097
Broadwoven fabric mills, manmade	222	74,085	47,905	60,132	34,037
Broadwoven fabric mills, wool	223	<	<	<	33,057
Narrow fabric mills	224	<	<	<	<
Knitting mills	225	61,550	53,048	46,952	44,749
Textile finishing, except wool	226	68,562	53,135	52,292	36,835
Carpets and rugs	227	69,270	55,050	52,353	43,121
Yarn and thread mills	228	60,584	48,910	44,380	34,198
Miscellaneous textile goods	229	66,455	52,698	55,096	35,487
Apparel and other textile products	23	69,162	53,897	47,642	44,240
Men's & boys' suits and coats	231	70,423	<	<	<
Men's & boys' furnishings	232	70,930	<	51,110	47,834
Women's and misses' outerwear	233	84,506	65,850	35,980	50,650
Women's and children's undergarments	234	64,514	<	51,380	47,580
Miscellaneous apparel and accessories	238	54,510	<	<	<
Misc. fabricated textile products	239	62,287	39,120	51,240	39,640
Lumber and wood products	24	62,827	48,526	49,407	37,565
Logging	241	<	45,040	<	48,660
Sawmills and planing mills	242	61,319	45,180	54,053	36,911
Millwork, plywood & structural members	243	64,808	47,931	49,604	36,184
Wood containers	244	<	<	<	<
Wood buildings and mobile homes	245	55,260	<	47,160	37,272
Miscellaneous wood products	249	68,220	45,982	49,665	39,030
Furniture and fixtures	25	63,284	45,340	49,713	35,784
Household furniture	251	62,265	44,480	45,080	38,339
Office furniture	252	62,998	49,990	52,218	45,388
Public building & related furniture	253	63,055	39,510	51,733	37,043
Partitions and fixtures	254	64,652	45,860	51,279	34,730
Miscellaneous furniture and fixtures	259	66,533	<	48,428	39,010

See explanatory information and SOURCE at end of table.

Table 12. Mean annual wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Mean annual wages (dollars)			
		Managers of SET personnel	Scientists	Engineers	Technicians
Paper and allied products	26	87,810	56,082	62,422	42,051
Pulp mills	261	<	58,660	64,979	<
Paper mills	262	80,607	56,416	60,639	41,538
Paperboard mills	263	88,890	51,369	58,412	46,542
Paperboard containers and boxes	265	76,300	54,927	54,142	44,860
Misc. converted paper products	267	90,093	53,973	58,833	39,717
Printing and publishing	27	71,010	52,922	53,834	46,133
Newspapers	271	68,479	48,425	<	49,380
Periodicals	272	73,700	52,426	<	53,650
Books	273	85,280	56,874	<	49,540
Miscellaneous publishing	274	70,644	58,184	<	38,986
Commercial printing	275	66,749	49,611	52,633	43,550
Manifold business forms	276	60,860	43,138	<	43,900
Greeting cards	277	<	<	<	<
Blankbooks and bookbinding	278	75,400	56,875	<	41,880
Printing trade services	279	62,140	49,576	<	47,850
Chemicals and allied products	28	84,906	55,155	60,999	39,604
Industrial inorganic chemicals	281	82,631	53,242	62,703	38,402
Plastics materials and synthetics	282	85,690	60,932	62,833	43,445
Drugs	283	86,915	52,131	58,783	36,266
Soap, cleaners, and toilet goods	284	82,648	50,094	58,416	35,995
Paints and allied products	285	77,692	51,729	58,093	34,343
Industrial organic chemicals	286	85,885	61,612	63,540	45,539
Agricultural chemicals	287	71,171	53,051	59,469	42,882
Miscellaneous chemical products	289	79,361	53,046	60,040	37,646
Petroleum and coal products	29	83,658	60,229	64,367	43,907
Petroleum refining	291	86,421	62,320	65,303	45,156
Asphalt paving and roofing materials	295	73,772	40,320	60,564	28,020
Misc. petroleum and coal products	299	72,890	49,440	63,354	36,689
Rubber and misc. plastics products	30	69,576	48,352	53,244	36,143
Tires and inner tubes	301	70,060	48,699	56,595	40,198
Hose & belting & gaskets & packing	305	70,432	45,077	50,893	34,943
Fabricated rubber products, n.e.c.	306	70,481	52,374	52,056	34,999
Miscellaneous plastics products, n.e.c.	308	69,178	47,910	53,539	36,204
Leather and leather products	31	69,010	49,290	50,720	42,881
Footwear, except rubber	314	69,870	<	50,320	42,310
Luggage	316	<	<	<	53,100
Handbags and personal leather goods	317	<	<	<	<

See explanatory information and SOURCE at end of table.

Table 12. Mean annual wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Mean annual wages (dollars)			
		Managers of SET personnel	Scientists	Engineers	Technicians
Stone, clay and glass products	32	70,216	50,479	55,675	37,579
Flat glass	321	<	<	55,443	<
Glass and glassware, pressed or blown	322	85,423	60,968	58,880	42,763
Products of purchased glass	323	77,378	46,947	53,776	40,245
Cement, hydraulic	324	65,080	46,190	55,564	38,024
Structural clay products	325	<	<	56,988	39,627
Pottery and related products	326	67,712	<	54,320	33,399
Concrete, gypsum, and plaster products	327	65,692	49,957	54,863	35,527
Cut stone and stone products	328	<	<	<	<
Misc. nonmetallic mineral products	329	70,944	51,144	56,864	36,547
Primary metal industries	33	72,453	52,308	55,107	38,949
Blast furnace and basic steel products	331	68,828	51,077	55,607	41,418
Iron and steel foundries	332	71,706	52,097	52,404	37,715
Primary nonferrous metals	333	72,107	48,348	54,170	37,769
Secondary nonferrous metals	334	<	45,640	47,423	31,520
Nonferrous rolling and drawing	335	75,724	56,204	58,360	38,648
Nonferrous foundries (castings)	336	67,680	46,835	51,202	37,151
Miscellaneous primary metal products	339	77,250	<	55,503	30,296
Fabricated metal products	34	68,395	52,399	53,687	38,070
Metal cans and shipping containers	341	83,214	<	54,734	41,759
Cutlery, hand tools, and hardware	342	68,956	51,622	52,355	36,931
Plumbing and heating, except electric	343	68,809	<	52,893	37,181
Fabricated structural metal products	344	64,817	56,456	53,568	36,606
Screw machine products, bolts, etc.	345	65,649	50,495	52,771	39,015
Metal forgings and stampings	346	75,756	51,883	54,757	40,630
Metal services, n.e.c.	347	58,820	42,343	50,926	34,942
Ordnance and accessories, n.e.c.	348	74,308	49,886	56,291	41,918
Misc. fabricated metal products	349	69,240	49,739	51,994	36,281
Industrial machinery and equipment	35	78,146	66,859	57,731	42,811
Engines and turbines	351	74,860	57,700	57,497	39,941
Farm and garden machinery	352	70,240	52,630	51,615	34,542
Construction and related machinery	353	69,774	54,484	53,708	36,375
Metalworking machinery	354	69,307	50,259	51,628	39,192
Special industry machinery	355	72,470	58,041	55,300	38,136
General industrial machinery	356	71,873	56,937	54,596	37,877
Computer and office equipment	357	94,136	69,108	67,834	52,651
Refrigeration and service machinery	358	69,856	54,251	52,936	36,280
Industrial machinery, n.e.c.	359	66,613	50,786	52,065	38,183

See explanatory information and SOURCE at end of table.

Table 12. Mean annual wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Mean annual wages (dollars)			
		Managers of SET personnel	Scientists	Engineers	Technicians
Electronic & other electric equipment	36	87,045	67,699	60,484	38,550
Electric distribution equipment	361	72,699	50,269	53,855	36,600
Electrical industrial apparatus	362	76,805	57,481	54,321	35,684
Household appliances	363	75,780	52,780	53,481	38,381
Electric lighting and wiring equipment	364	76,295	56,181	56,242	36,807
Household audio and video equipment	365	81,813	58,382	59,623	36,522
Communication equipment	366	91,020	69,326	64,334	41,018
Electronic components and accessories	367	90,246	69,709	61,668	38,334
Misc. electrical equipment & supplies	369	77,535	57,096	56,850	37,515
Transportation equipment	37	83,134	59,519	60,274	46,850
Motor vehicles and equipment	371	85,995	58,584	58,484	45,261
Aircraft and parts	372	82,694	60,737	62,827	49,941
Ship and boat building and repairing	373	75,561	46,390	47,771	34,664
Railroad equipment	374	<	<	53,210	<
Motorcycles, bicycles, and parts	375	72,973	<	55,160	39,803
Guided missiles, space vehicles, parts	376	80,583	59,620	58,174	47,209
Miscellaneous transportation equipment	379	60,779	<	49,789	38,680
Instruments and related products	38	86,828	62,288	63,832	40,438
Search and navigation equipment	381	91,593	70,381	67,731	43,677
Measuring and controlling devices	382	84,265	62,518	60,757	38,202
Medical instruments and supplies	384	84,451	53,494	59,826	39,123
Ophthalmic goods	385	79,082	<	62,693	<
Photographic equipment and supplies	386	81,900	62,204	61,128	53,610
Watches, clocks, watchcases & parts	387	<	<	<	<
Miscellaneous manufacturing industries	39	70,132	54,637	53,718	36,758
Jewelry, silverware, and plated ware	391	77,484	58,516	55,880	52,960
Musical instruments	393	74,450	<	53,715	40,157
Toys and sporting goods	394	69,329	57,225	52,329	39,106
Pens, pencils, office, & art supplies	395	65,808	47,860	<	<
Costume jewelry and notions	396	<	<	49,290	41,630
Miscellaneous manufactures	399	70,161	53,522	53,228	35,358
Transportation, communications, and utilities					
Railroad transportation	40	79,247	54,820	57,517	50,802
Railroad transportation	401	79,247	54,820	57,517	50,802
Local and interurban transit	41	59,780	41,530	<	46,490
Local and suburban transportation	411	61,360	<	<	49,280
Trucking and warehousing	42	64,033	45,385	49,440	39,685
Trucking and courier services, excl. air	421	63,454	46,884	49,079	39,008
Public warehousing and storage	422	65,672	47,463	<	47,690

See explanatory information and SOURCE at end of table.

Table 12. Mean annual wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Mean annual wages (dollars)			
		Managers of SET personnel	Scientists	Engineers	Technicians
Water transportation	44	74,478	53,610	57,550	42,852
Deep sea foreign transportation of freight	441	77,500	<	65,360	<
Deep sea domestic transportation of freight	442	74,650	<	<	56,380
Water transportation of freight, n.e.c.	444	<	<	<	<
Water transportation of passengers	448	71,220	<	<	<
Water transportation services	449	71,760	<	54,350	33,860
Transportation by air	45	73,581	51,657	54,872	44,670
Air transportation, scheduled	451	73,943	50,584	63,976	47,940
Air transportation, nonscheduled	452	<	<	<	41,170
Airports, flying fields, and services	458	71,663	68,953	54,001	38,212
Pipelines, except natural gas	46	81,480	<	67,321	54,500
Pipelines, except natural gas	461	81,480	<	67,321	54,163
Transportation services	47	65,182	48,258	42,304	42,488
Passenger transportation arrangements	472	63,940	48,509	<	48,710
Freight transportation arrangements	473	65,872	45,118	43,693	48,330
Misc. transportation services	478	<	<	<	32,343
Communications	48	71,152	53,635	57,784	35,956
Telephone communications	481	73,028	53,693	58,005	44,749
Telegraph and other communications	482	78,933	58,981	<	50,470
Radio and television broadcasting	483	58,482	50,294	54,142	27,111
Cable and other pay TV services	484	68,250	48,463	57,437	34,430
Communications services, n.e.c.	489	67,143	61,702	60,680	48,119
Utilities and sanitary services	49	78,966	55,571	65,312	47,901
Electric services	491	76,891	55,904	66,027	47,974
Gas production and distribution	492	79,919	57,233	58,373	45,798
Combination utility services	493	84,655	60,741	63,037	51,785
Water supply	494	65,140	42,650	58,140	42,051
Sanitary services	495	79,857	43,990	59,563	39,585
Wholesale trade					
Wholesale trade, durable goods	50	81,566	56,736	60,049	47,598
Motor vehicles, parts, and supplies	501	70,970	47,213	58,454	49,077
Furniture and homefurnishings	502	70,380	47,687	49,620	52,793
Lumber and construction materials	503	74,944	58,221	64,803	36,479
Professional and commercial equipment	504	86,070	57,242	55,433	53,223
Metals and minerals, except petroleum	505	73,380	55,330	55,450	36,555
Electrical goods	506	83,651	58,179	63,561	40,440
Hardware, plumbing, and heating equipment	507	75,133	49,561	61,182	41,524
Machinery, equipment, and supplies	508	70,580	52,767	55,933	41,206
Miscellaneous durable goods	509	67,798	52,530	54,020	40,146

See explanatory information and SOURCE at end of table.

Table 12. Mean annual wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Mean annual wages (dollars)			
		Managers of SET personnel	Scientists	Engineers	Technicians
Wholesale trade, nondurable goods	51	71,992	54,319	59,685	46,299
Paper and paper products	511	76,612	50,491	53,470	46,336
Drugs, proprietaries, and sundries	512	77,431	55,702	60,095	50,269
Apparel, piece goods, and notions	513	84,951	53,542	52,860	52,170
Groceries and related products	514	68,071	56,323	50,596	46,780
Farm-product raw materials	515	63,940	38,114	<	47,910
Chemicals and allied products	516	75,409	55,790	63,440	44,493
Petroleum and petroleum products	517	70,370	53,434	63,918	36,897
Beer, wine, and distilled beverages	518	63,440	51,653	<	52,550
Misc. nondurable goods	519	66,162	48,747	56,214	48,218
Retail trade					
Building materials and garden supplies	52	67,204	51,159	<	36,385
Lumber and other building materials	521	68,525	51,206	<	35,463
Paint, glass, and wallpaper stores	523	<	<	<	<
Hardware stores	525	<	<	<	<
Retail nurseries and garden stores	526	<	<	<	32,830
General merchandise stores	53	73,846	55,570	<	42,709
Department stores	531	74,120	55,850	<	42,771
Food stores	54	53,889	46,783	<	45,192
Grocery stores	541	53,009	46,875	<	44,997
Miscellaneous food stores	549	<	<	<	48,400
Automotive dealers and service stations	55	52,912	43,970	40,090	37,094
New and used car dealers	551	51,960	43,870	40,250	45,261
Auto and home supply stores	553	50,209	<	<	46,610
Gasoline service stations	554	53,402	<	<	<
Boat dealers	555	<	<	<	<
Apparel and accessory stores	56	69,450	49,305	<	49,170
Women's clothing stores	562	72,090	51,710	<	50,810
Family clothing stores	565	62,750	40,160	<	45,570
Shoe stores	566	75,620	<	<	<
Furniture and homefurnishings stores	57	68,848	52,499	46,008	47,100
Furniture and homefurnishings stores	571	53,100	46,520	<	46,900
Radio, television, and computer stores	573	73,526	52,555	42,766	47,160
Eating and drinking places	58	74,300	54,721	<	<
Eating and drinking places	581	74,300	54,721	<	<
Misc. retail stores	59	71,691	54,659	55,749	47,220
Drug stores and proprietary stores	591	71,180	<	<	51,890
Miscellaneous shopping goods stores	594	68,771	50,562	<	47,790
Nonstore retailers	596	75,194	53,046	47,115	46,611
Fuel dealers	598	<	<	<	<
Retail stores, n.e.c.	599	69,780	55,380	<	49,590

See explanatory information and SOURCE at end of table.

Table 12. Mean annual wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Mean annual wages (dollars)			
		Managers of SET personnel	Scientists	Engineers	Technicians
Finance, insurance, and real estate					
Depository institutions	60	75,670	55,644	59,880	51,535
Central reserve depositories	601	69,730	58,647	<	<
Commercial banks	602	78,640	56,494	59,376	51,818
Savings institutions	603	73,810	49,214	<	45,750
Credit unions	606	52,400	41,680	<	38,730
Foreign banks and branches and agencies	608	95,070	<	<	<
Functions closely related to banking	609	75,070	65,701	<	57,630
Nondepository institutions	61	77,830	57,596	<	50,970
Federal and federally sponsored credit	611	88,620	52,470	<	<
Personal credit institutions	614	79,700	50,763	<	57,480
Business credit institutions	615	81,710	60,800	<	46,240
Mortgage bankers and brokers	616	73,790	59,577	<	51,060
Security and commodity brokers	62	85,210	59,967	<	60,050
Security brokers and dealers	621	87,480	61,107	<	62,410
Commodity contracts, brokers, and dealers	622	82,760	<	<	54,950
Security and commodity services	628	79,290	55,997	<	57,430
Insurance carriers	63	81,844	57,232	58,416	52,035
Life insurance	631	83,290	55,724	<	53,573
Medical service and health insurance	632	81,879	54,961	<	52,340
Fire, marine, and casualty insurance	633	82,290	60,690	54,960	50,396
Surety insurance	635	78,930	55,840	<	55,780
Title insurance	636	70,900	60,997	<	47,950
Pension, health, and welfare funds	637	75,330	59,067	<	50,630
Insurance agents, brokers, and service	64	70,370	50,866	51,010	47,760
Insurance agents, brokers, and service	641	70,370	50,866	51,010	47,760
Real estate	65	69,350	46,749	50,059	44,459
Real estate operators and lessors	651	63,611	45,009	57,760	45,568
Real estate agents and managers	653	72,320	47,855	48,031	48,750
Title abstract offices	654	55,230	37,489	<	30,775
Subdividers and developers	655	115,410	43,270	51,228	40,151
Holding and other investment offices	67	81,291	59,191	52,433	50,895
Holding offices	671	78,938	56,981	45,568	53,880
Investment offices	672	85,550	<	<	54,360
Trusts	673	62,030	54,257	<	39,820
Misc. investing	679	95,093	68,236	<	48,250

See explanatory information and SOURCE at end of table.

Table 12. Mean annual wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Mean annual wages (dollars)			
		Managers of SET personnel	Scientists	Engineers	Technicians
Services					
Hotels and other lodging places	70	72,150	43,522	38,775	32,544
Hotels and motels	701	72,231	43,684	39,080	32,544
Personal services	72	74,836	56,203	56,600	49,120
Laundry, cleaning, and garment services	721	82,370	<	56,600	50,150
Photographic studios, portrait	722	<	<	<	36,470
Funeral service and crematories	726	<	<	<	50,690
Misc. personal services	729	<	<	<	50,070
Business services	73	83,773	62,748	63,283	53,723
Advertising	731	80,820	57,576	<	45,270
Credit reporting and collection	732	69,130	47,719	<	49,840
Mailing, reproduction, and stenographic	733	70,897	45,298	48,060	44,767
Services to buildings	734	51,730	<	51,200	<
Misc. equipment rental and leasing	735	63,570	57,070	48,896	37,695
Personnel supply services	736	72,483	56,609	61,384	46,689
Computer and data processing services	737	85,284	63,655	65,455	56,280
Misc. business services	738	73,928	56,332	53,285	42,816
Auto repair, services, and parking	75	75,410	54,770	<	34,090
Automobile rentals, no drivers	751	75,960	53,110	<	54,900
Automobile repair shops	753	<	56,370	<	<
Automobile services, except repair	754	<	<	<	25,390
Misc. repair services	76	60,610	44,220	56,356	36,842
Electrical repair shops	762	<	36,740	54,399	38,130
Misc. repair shops	769	60,730	47,290	62,099	35,358
Motion pictures	78	66,924	49,113	<	38,833
Motion picture production and services	781	67,167	51,078	<	39,127
Motion picture distribution and services	782	60,060	<	<	26,620
Motion picture theaters	783	73,230	<	<	<
Amusement and recreation services	79	64,452	43,034	53,851	32,093
Producers, orchestras, and entertainers	792	65,150	<	<	33,413
Commercial sports	794	<	<	<	32,997
Misc. amusement, recreation services	799	61,209	44,377	50,732	29,075
Health services	80	63,797	51,521	45,493	39,979
Offices and clinics of medical doctors	801	62,050	52,617	<	40,891
Offices of other health practitioners	804	64,670	55,854	<	50,620
Nursing and personal care facilities	805	50,670	46,529	<	33,740
Hospitals	806	66,829	50,443	45,730	41,550
Medical and dental laboratories	807	62,617	48,657	40,030	29,523
Home health care services	808	56,870	51,880	<	42,300
Health and allied services, n.e.c.	809	58,414	43,766	<	53,470
Legal services	81	78,130	57,080	<	50,870
Legal services	811	78,130	57,080	<	50,870

See explanatory information and SOURCE at end of table.

Table 12. Mean annual wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Mean annual wages (dollars)			
		Managers of SET personnel	Scientists	Engineers	Technicians
Educational services	82	64,935	48,363	41,450	39,089
Elementary and secondary schools	821	60,191	50,301	<	42,727
Colleges, universities, and professional	822	65,756	44,903	<	37,986
Libraries	823	60,640	50,924	<	<
Vocational schools	824	55,360	43,827	42,770	<
Schools and educational services, n.e.c.	829	59,590	46,493	<	37,353
Social services	83	51,898	41,486	<	39,210
Individual and family services	832	50,758	41,206	<	36,920
Job training and related services	833	45,680	39,847	<	38,830
Child day care services	835	46,150	39,275	<	31,500
Residential care	836	53,300	42,197	<	39,140
Social services, n.e.c.	839	57,230	41,227	<	45,590
Museums, botanical, zoological gardens	84	48,868	32,400	<	34,237
Museums and art galleries	841	46,709	35,153	<	35,297
Botanical and zoological gardens	842	50,290	30,669	<	27,871
Membership organizations	86	58,514	44,334	<	45,531
Business associations	861	57,520	44,750	<	47,285
Professional organizations	862	68,110	51,396	<	49,730
Labor organizations	863	61,730	58,080	<	56,770
Civic and social associations	864	49,100	35,709	<	40,470
Political organizations	865	<	<	<	<
Religious organizations	866	50,590	36,080	<	39,810
Membership organizations, n.e.c.	869	49,800	45,145	<	42,040
Engineering and management services	87	80,229	55,273	58,737	36,448
Engineering and architectural services	871	80,425	59,133	57,621	35,381
Accounting, auditing, and bookkeeping	872	80,586	54,099	59,426	43,150
Research and testing services	873	82,823	50,224	66,211	35,712
Management and public relations	874	77,052	58,876	57,889	45,732
Services, n.e.c.	89	81,572	62,765	57,238	40,341
Services, n.e.c.	899	81,572	62,682	57,661	40,341

See explanatory information and SOURCE at end of table.

Table 12. Mean annual wages of employed scientists, engineers, technicians (SETs), and managers of SET personnel, by detailed industry of employment: 1999

Detailed industry	SIC	Mean annual wages (dollars)			
		Managers of SET personnel	Scientists	Engineers	Technicians
Public administration					
Federal, state, and local government	90	69,045	50,754	58,611	37,390
Federal government	901	74,082	58,032	64,815	40,007
State government	902	59,695	44,397	52,118	34,634
Local government	903	63,712	46,265	54,648	38,724

KEY: < = Too few cases to estimate.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Mean annual wages have been calculated by multiplying mean hourly wages by a "full-time" figure of 2,080 hours. Since the annual figures are calculated directly from the hourly figures, the relative standard error has not been calculated separately for the mean annual wages entries. See Technical Notes for more detail. Two-digit SIC information incorporates information for all 3-digit industries, including those 3-digit industries not displayed separately. Includes wage information for industry/occupation groups for which employment estimates are unavailable.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/ Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 13. Mean hourly wages of employed scientists, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean hourly wages (dollars)					
		Total scientists	Physical scientists	Math scientists	Life scientists	Social scientists	Computer scientists
Total		27.46	25.64	27.37	23.79	23.43	28.77
Agriculture, forestry, and fishing							
Agricultural services	07	14.17	<	<	14.17	<	<
Mining							
Metal mining	10	27.38	27.38	<	<	<	<
Oil and gas extraction	13	38.37	39.54	<	<	18.50	31.07
Nonmetallic minerals, except fuels	14	24.10	24.59	<	<	<	23.05
Construction							
General building contractors	15	21.16	<	<	<	15.59	22.01
Heavy construction, excluding building	16	24.05	<	<	<	<	24.05
Special trade contractors	17	22.00	24.30	<	<	<	21.95
Total manufacturing							
Food and kindred products	20	25.81	21.68	<	24.26	29.02	28.17
Tobacco products	21	32.66	32.66	<	<	<	<
Textile mill products	22	24.77	24.89	<	<	<	24.73
Apparel and other textile products	23	25.91	<	<	<	<	25.91
Lumber and wood products	24	23.33	<	<	21.81	<	26.41
Furniture and fixtures	25	21.80	<	<	<	<	21.80
Paper and allied products	26	26.96	26.50	<	21.06	<	27.65
Printing and publishing	27	25.45	<	24.53	<	23.50	25.74
Chemicals and allied products	28	26.52	26.26	30.78	26.13	33.51	27.05
Petroleum and coal products	29	28.96	26.60	<	<	<	30.82
Rubber and misc. plastics products	30	23.25	23.96	<	<	25.01	22.65
Leather and leather products	31	23.70	<	<	<	<	23.70
Stone, clay and glass products	32	24.27	23.34	<	<	23.20	25.15
Primary metal industries	33	25.15	25.20	24.48	<	<	25.18
Fabricated metal products	34	25.19	23.39	<	<	38.41	24.42
Industrial machinery and equipment	35	32.14	28.58	25.69	<	34.26	32.12
Electronic & other electric equipment	36	32.55	28.11	25.10	<	28.59	32.95
Transportation equipment	37	28.61	26.65	24.92	<	35.28	28.53
Instruments and related products	38	29.95	25.11	29.71	23.79	25.65	30.98
Miscellaneous manufacturing industries	39	26.27	24.71	<	<	23.57	26.65
Transportation, communications, and utilities							
Railroad transportation	40	26.35	<	<	<	<	26.35
Local and interurban transit	41	19.97	<	<	<	<	19.97
Trucking and warehousing	42	21.82	<	15.56	<	22.72	22.66
Water transportation	44	25.77	<	<	<	<	25.77
Transportation by air	45	24.83	24.17	23.38	<	24.31	25.69
Transportation services	47	23.20	<	16.35	<	<	23.41
Communications	48	25.79	21.86	21.33	<	22.94	26.16
Utilities and sanitary services	49	26.72	23.67	24.28	28.20	26.64	28.44

See explanatory information and SOURCE at end of table.

Table 13. Mean hourly wages of employed scientists, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean hourly wages (dollars)					
		Total scientists	Physical scientists	Math scientists	Life scientists	Social scientists	Computer scientists
Wholesale trade							
Wholesale trade, durable goods	50	27.28	24.57	<	<	30.58	26.94
Wholesale trade, nondurable goods	51	26.11	26.72	23.00	23.38	25.10	26.71
Retail trade							
Building materials and garden supplies	52	24.60	<	<	<	<	24.60
General merchandise stores	53	26.71	<	18.94	<	22.84	27.30
Food stores	54	22.49	<	<	<	14.06	23.12
Automotive dealers and service stations	55	21.14	<	<	<	<	21.14
Apparel and accessory stores	56	23.70	<	<	<	<	23.70
Furniture and homefurnishings stores	57	25.24	<	<	<	<	25.24
Eating and drinking places	58	26.31	<	<	<	<	26.31
Misc. retail stores	59	26.28	<	<	<	24.12	26.76
Finance, insurance, and real estate							
Depository institutions	60	26.75	<	18.37	<	22.14	28.03
Nondepository institutions	61	27.69	<	29.93	<	23.81	28.11
Security and commodity brokers	62	28.83	<	22.44	<	27.53	29.89
Insurance carriers	63	27.52	<	29.31	<	22.85	27.51
Insurance agents, brokers, and service	64	24.46	<	29.91	<	23.76	23.50
Real estate	65	22.47	<	<	<	17.81	24.13
Holding and other investment offices	67	28.46	23.43	28.11	<	27.97	28.62
Services							
Hotels and other lodging places	70	20.92	<	<	<	17.11	21.24
Personal services	72	27.02	<	<	<	<	27.02
Business services	73	30.17	21.45	31.96	22.39	20.18	30.42
Auto repair, services, and parking	75	26.33	<	<	<	<	26.33
Misc. repair services	76	21.26	<	<	<	<	21.26
Motion pictures	78	23.61	<	<	<	<	23.61
Amusement and recreation services	79	20.69	<	<	<	15.41	23.13
Health services	80	24.77	34.13	25.48	23.69	24.91	24.64
Legal services	81	27.44	<	<	<	<	27.44
Educational services	82	23.25	<	21.33	<	24.54	21.79
Social services	83	19.94	22.08	19.14	<	19.74	21.00
Museums, botanical, zoological gardens	84	15.58	<	<	14.78	<	25.31
Membership organizations	86	21.31	19.18	26.65	22.37	15.22	26.56
Engineering and management services	87	26.57	25.05	26.16	25.98	19.86	29.76
Services, n.e.c.	89	30.18	23.87	36.95	22.09	22.12	27.79

See explanatory information and SOURCE at end of table.

Table 13. Mean hourly wages of employed scientists, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean hourly wages (dollars)					
		Total scientists	Physical scientists	Math scientists	Life scientists	Social scientists	Computer scientists
Public administration							
Federal, state, and local government	90	24.40	24.74	26.90	22.40	23.22	25.12

KEY: < = Too few cases to estimate.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Mean hourly wages are calculated from the mean values of 11 wage intervals, using data from the BLS National Compensation Survey. See Technical Notes for more detail. Includes wage information for industry/occupation combinations for which employment estimates are unavailable.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/ Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 14. Mean annual wages of employed scientists, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean annual wages (dollars)					
		Total scientists	Physical scientists	Math scientists	Life scientists	Social scientists	Computer scientists
Total		57,121	53,329	56,920	49,469	48,725	59,850
Agriculture, forestry, and fishing							
Agricultural services	07	29,470	<	<	29,470	<	<
Mining							
Metal mining	10	56,933	56,933	<	<	<	<
Oil and gas extraction	13	79,795	82,236	<	<	38,480	64,620
Nonmetallic minerals, except fuels	14	50,136	51,145	<	<	<	47,950
Construction							
General building contractors	15	44,006	<	<	<	32,430	45,772
Heavy construction, excluding building	16	50,024	<	<	<	<	50,024
Special trade contractors	17	45,743	50,540	<	<	<	45,641
Total manufacturing							
Food and kindred products	20	53,681	45,100	<	50,454	60,360	58,587
Tobacco products	21	67,920	67,920	<	<	<	<
Textile mill products	22	51,529	51,770	<	<	<	51,435
Apparel and other textile products	23	53,897	<	<	<	<	53,897
Lumber and wood products	24	48,526	<	<	45,370	<	54,935
Furniture and fixtures	25	45,340	<	<	<	<	45,340
Paper and allied products	26	56,082	55,130	<	43,810	<	57,526
Printing and publishing	27	52,922	<	51,025	<	48,867	53,545
Chemicals and allied products	28	55,155	54,611	64,030	54,353	69,700	56,263
Petroleum and coal products	29	60,229	55,318	<	<	<	64,110
Rubber and misc. plastics products	30	48,352	49,842	<	<	52,030	47,107
Leather and leather products	31	49,290	<	<	<	<	49,290
Stone, clay and glass products	32	50,479	48,552	<	<	48,250	52,312
Primary metal industries	33	52,308	52,426	50,910	<	<	52,366
Fabricated metal products	34	52,399	48,656	<	<	79,900	50,800
Industrial machinery and equipment	35	66,859	59,444	53,430	<	71,250	66,816
Electronic & other electric equipment	36	67,699	58,467	52,210	<	59,460	68,549
Transportation equipment	37	59,519	55,425	51,830	<	73,370	59,339
Instruments and related products	38	62,288	52,244	61,800	49,481	53,360	64,433
Miscellaneous manufacturing industries	39	54,637	51,390	<	<	49,030	55,438
Transportation, communications, and utilities							
Railroad transportation	40	54,820	<	<	<	<	54,820
Local and interurban transit	41	41,530	<	<	<	<	41,530
Trucking and warehousing	42	45,385	<	32,360	<	47,260	47,125
Water transportation	44	53,610	<	<	<	<	53,610
Transportation by air	45	51,657	50,280	48,630	<	50,570	53,450
Transportation services	47	48,258	<	34,010	<	<	48,692
Communications	48	53,635	45,460	44,370	<	47,712	54,416
Utilities and sanitary services	49	55,571	49,219	50,490	58,660	55,402	59,148

See explanatory information and SOURCE at end of table.

Table 14. Mean annual wages of employed scientists, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean annual wages (dollars)					
		Total scientists	Physical scientists	Math scientists	Life scientists	Social scientists	Computer scientists
Wholesale trade							
Wholesale trade, durable goods	50	56,736	51,100	<	<	63,600	56,034
Wholesale trade, nondurable goods	51	54,319	55,570	47,850	48,625	52,210	55,570
Retail trade							
Building materials and garden supplies	52	51,159	<	<	<	<	51,159
General merchandise stores	53	55,570	<	39,400	<	47,510	56,789
Food stores	54	46,783	<	<	<	29,250	48,091
Automotive dealers and service stations	55	43,970	<	<	<	<	43,970
Apparel and accessory stores	56	49,305	<	<	<	<	49,305
Furniture and homefurnishings stores	57	52,499	<	<	<	<	52,499
Eating and drinking places	58	54,721	<	<	<	<	54,721
Misc. retail stores	59	54,659	<	<	<	50,180	55,650
Finance, insurance, and real estate							
Depository institutions	60	55,644	<	38,224	<	46,043	58,309
Nondepository institutions	61	57,596	<	62,260	<	49,520	58,464
Security and commodity brokers	62	59,967	<	46,681	<	57,272	62,181
Insurance carriers	63	57,232	<	60,962	<	47,537	57,203
Insurance agents, brokers, and service	64	50,866	<	62,214	<	49,420	48,880
Real estate	65	46,749	<	<	<	37,040	50,191
Holding and other investment offices	67	59,191	48,730	58,465	<	58,180	59,534
Services							
Hotels and other lodging places	70	43,522	<	<	<	35,600	44,175
Personal services	72	56,203	<	<	<	<	56,203
Business services	73	62,748	44,630	66,461	46,570	41,980	63,276
Auto repair, services, and parking	75	54,770	<	<	<	<	54,770
Misc. repair services	76	44,220	<	<	<	<	44,220
Motion pictures	78	49,113	<	<	<	<	49,113
Amusement and recreation services	79	43,034	<	<	<	32,040	48,108
Health services	80	51,521	70,982	53,007	49,268	51,810	51,253
Legal services	81	57,080	<	<	<	<	57,080
Educational services	82	48,363	<	44,362	<	51,050	45,322
Social services	83	41,486	45,930	39,800	<	41,068	43,686
Museums, botanical, zoological gardens	84	32,400	<	<	30,735	<	52,650
Membership organizations	86	44,334	39,900	55,430	46,539	31,645	55,250
Engineering and management services	87	55,273	52,112	54,409	54,039	41,314	61,910
Services, n.e.c.	89	62,765	49,640	76,864	45,950	46,010	57,795

See explanatory information and SOURCE at end of table.

Table 14. Mean annual wages of employed scientists, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean annual wages (dollars)					
		Total scientists	Physical scientists	Math scientists	Life scientists	Social scientists	Computer scientists
Public administration							
Federal, state, and local government	90	50,754	51,460	55,964	46,589	48,288	52,249

KEY: < = Too few cases to estimate.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Mean annual wages have been calculated by multiplying mean hourly wages by a "full-time" figure of 2,080 hours. See Technical Notes for more detail. Includes wage information for industry/occupation groups for which employment estimates are unavailable.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/ Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 15. Mean hourly wages of employed engineers, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean hourly wages (dollars)								
		Engineers								
		Total	Aero-nautical	Civil	Electrical/ electronics	Computer	Mech-anical	Indus-trial	Sales	Other
Total		28.51	31.03	26.76	29.96	32.19	27.41	27.62	27.95	28.57
Agriculture, forestry, and fishing										
Agricultural services	07	24.16	<	24.10	<	<	<	<	<	24.27
Mining										
Metal mining	10	31.75	<	24.63	<	<	30.50	<	<	32.35
Coal mining	12	27.47	<	<	<	<	<	<	<	27.47
Oil and gas extraction	13	35.78	<	37.44	32.78	<	<	33.12	27.79	36.28
Nonmetallic minerals, except fuels	14	23.33	<	<	<	<	<	<	<	23.33
Construction										
General building contractors	15	27.07	<	26.23	33.52	<	32.69	25.26	26.83	27.49
Heavy construction, excluding building	16	28.45	<	29.15	<	<	31.19	24.25	28.68	22.71
Special trade contractors	17	26.21	<	24.66	26.01	<	26.58	37.10	27.19	22.33
Total manufacturing										
Food and kindred products	20	27.50	<	<	29.75	<	26.54	28.31	29.56	25.49
Textile mill products	22	25.22	<	<	<	<	24.55	24.05	32.09	26.88
Apparel and other textile products	23	22.91	<	<	<	<	26.17	21.53	<	<
Lumber and wood products	24	23.75	<	<	<	<	23.05	24.00	<	23.86
Furniture and fixtures	25	23.90	<	<	<	<	23.98	24.06	<	21.59
Paper and allied products	26	30.01	<	27.84	29.72	<	28.24	32.32	30.37	28.13
Printing and publishing	27	25.88	<	<	24.63	<	27.06	26.83	<	23.23
Chemicals and allied products	28	29.33	<	30.09	30.87	<	28.38	29.76	28.56	29.27
Petroleum and coal products	29	30.95	<	31.83	34.27	<	30.44	29.85	27.94	32.00
Rubber and misc. plastics products	30	25.60	<	28.22	28.04	<	25.32	24.54	28.01	26.21
Leather and leather products	31	24.39	<	<	<	<	<	24.39	<	<
Stone, clay and glass products	32	26.77	<	26.49	28.34	<	26.45	25.08	26.72	27.88
Primary metal industries	33	26.49	<	27.06	27.51	36.95	26.60	25.52	26.90	26.81
Fabricated metal products	34	25.81	<	24.23	29.56	<	25.73	25.34	26.33	24.92
Industrial machinery and equipment	35	27.75	<	<	29.83	35.47	25.54	26.57	27.48	26.56
Electronic & other electric equipment	36	29.08	30.77	30.01	28.80	34.20	28.11	28.36	29.13	27.61
Transportation equipment	37	28.98	30.28	<	28.55	35.70	27.23	27.97	28.64	28.70
Instruments and related products	38	30.69	34.78	32.06	31.37	32.82	27.77	28.60	28.88	30.12
Miscellaneous manufacturing industries	39	25.83	<	<	25.99	<	26.16	24.98	26.23	26.88
Transportation, communications, and utilities										
Railroad transportation	40	27.65	<	29.04	<	<	<	<	<	27.61
Trucking and warehousing	42	23.77	<	<	<	<	<	25.39	<	22.59
Water transportation	44	27.67	<	<	<	<	<	<	<	27.67
Transportation by air	45	26.38	<	27.63	<	<	23.37	26.21	<	<
Pipelines, except natural gas	46	32.37	<	35.70	27.27	<	30.42	30.12	<	35.24
Transportation services	47	20.34	<	<	<	<	<	19.22	<	21.38
Communications	48	27.78	<	26.29	27.23	28.23	26.94	27.95	29.28	26.09
Utilities and sanitary services	49	31.40	<	29.71	31.75	<	31.12	34.14	28.67	31.00

See explanatory information and SOURCE at end of table.

Table 15. Mean hourly wages of employed engineers, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean hourly wages (dollars)								
		Engineers								
		Total	Aero-nautical	Civil	Electrical/ electronics	Computer	Mech-anical	Indus-trial	Sales	Other
Wholesale trade										
Wholesale trade, durable goods	50	28.87	<	27.09	30.01	26.26	26.93	26.22	28.84	<
Wholesale trade, nondurable goods	51	28.70	<	<	<	<	31.82	26.04	27.26	31.29
Retail trade										
Automotive dealers and service stations	55	19.28	<	<	<	<	<	<	19.28	<
Furniture and homefurnishings stores	57	22.12	<	<	<	15.67	<	<	24.30	<
Misc. retail stores	59	26.80	<	<	<	<	19.87	34.07	21.97	<
Finance, insurance, and real estate										
Depository institutions	60	28.79	<	<	28.79	<	<	<	<	<
Insurance carriers	63	28.08	<	24.49	<	29.88	<	31.62	<	26.46
Insurance agents, brokers, and service	64	24.53	<	<	<	<	<	<	<	24.53
Real estate	65	24.07	<	27.08	<	<	21.45	<	30.64	<
Holding and other investment offices	67	25.21	<	21.48	<	<	<	<	35.28	20.44
Services										
Hotels and other lodging places	70	18.64	<	<	21.38	<	17.08	<	<	<
Personal services	72	27.21	<	<	<	<	<	27.21	<	<
Business services	73	30.43	<	26.75	31.32	31.99	29.50	27.57	31.49	40.17
Misc. repair services	76	27.09	<	<	26.76	<	<	33.34	27.37	<
Amusement and recreation services	79	25.89	<	<	30.06	<	<	<	<	23.67
Health services	80	21.87	<	26.33	26.51	<	<	28.65	<	21.31
Educational services	82	19.93	<	<	<	<	<	<	19.93	<
Social services	83	<	<	<	<	<	<	<	<	<
Museums, botanical, zoological gardens	84	<	<	<	<	<	<	<	<	<
Membership organizations	86	<	<	<	<	<	<	<	<	<
Engineering and management services	87	28.24	31.30	26.80	30.24	31.16	28.50	28.49	29.99	28.62
Services, n.e.c.	89	27.52	<	26.70	<	<	27.20	<	<	28.93
Public administration										
Federal, state, and local government	90	28.18	33.88	26.11	31.34	32.17	29.79	27.67	<	27.36

KEY: < = Too few cases to estimate.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Mean hourly wages are calculated from the mean values of 11 wage intervals, using data from the BLS National Compensation Survey. See Technical Notes for more detail. Includes wage information for industry/occupation combinations for which employment estimates are unavailable.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/ Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 16. Mean annual wages of employed engineers, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean annual wages (dollars)								
		Engineers								
		Total	Aero-nautical	Civil	Computer	Electrical/ electronics	Indus-trial	Mech-anical	Sales	Other
Total		59,308	64,550	55,660	66,960	62,309	57,450	57,010	58,130	59,428
Agriculture, forestry, and fishing										
Agricultural services	07	50,258	<	50,130	<	<	<	<	<	50,480
Mining										
Metal mining	10	66,023	<	51,220	<	<	<	63,440	<	67,279
Coal mining	12	57,150	<	<	<	<	<	<	<	57,150
Oil and gas extraction	13	74,423	<	77,880	<	68,190	68,900	<	57,810	75,473
Nonmetallic minerals, except fuels	14	48,534	<	<	<	<	<	<	<	48,534
Construction										
General building contractors	15	56,301	<	54,550	<	69,730	52,530	67,990	55,800	57,182
Heavy construction, excluding building	16	59,161	<	60,620	<	<	50,450	64,870	59,660	47,249
Special trade contractors	17	54,509	<	51,290	<	54,110	77,180	55,280	56,550	46,448
Total manufacturing										
Food and kindred products	20	57,189	<	<	<	61,880	58,880	55,200	61,490	53,005
Textile mill products	22	52,454	<	<	<	<	50,020	51,070	66,740	55,919
Apparel and other textile products	23	47,642	<	<	<	<	44,770	54,430	<	<
Lumber and wood products	24	49,407	<	<	<	<	49,930	47,950	<	49,630
Furniture and fixtures	25	49,713	<	<	<	<	50,040	49,870	<	44,909
Paper and allied products	26	62,422	<	57,910	<	61,820	67,230	58,750	63,170	58,513
Printing and publishing	27	53,834	<	<	<	51,220	55,800	56,290	<	48,318
Chemicals and allied products	28	60,999	<	62,580	<	64,225	61,900	59,040	59,410	60,885
Petroleum and coal products	29	64,367	<	66,210	<	71,293	62,080	63,310	58,120	66,559
Rubber and misc. plastics products	30	53,244	<	58,700	<	58,319	51,040	52,670	58,270	54,512
Leather and leather products	31	50,720	<	<	<	<	50,720	<	<	<
Stone, clay and glass products	32	55,675	<	55,100	<	58,944	52,170	55,010	55,580	57,988
Primary metal industries	33	55,107	<	56,280	76,860	57,230	53,070	55,340	55,960	55,764
Fabricated metal products	34	53,687	<	50,400	<	61,483	52,720	53,520	54,770	51,833
Industrial machinery and equipment	35	57,731	<	<	73,770	62,044	55,260	53,130	57,160	55,241
Electronic & other electric equipment	36	60,484	64,000	62,420	71,140	59,908	58,990	58,470	60,590	57,421
Transportation equipment	37	60,274	62,980	<	74,260	59,382	58,180	56,650	59,580	59,713
Instruments and related products	38	63,832	72,340	66,690	68,270	65,255	59,480	57,760	60,060	62,642
Miscellaneous manufacturing industries	39	53,718	<	<	<	54,054	51,950	54,410	54,550	55,910
Transportation, communications, and utilities										
Railroad transportation	40	57,517	<	60,410	<	<	<	<	<	57,440
Trucking and warehousing	42	49,440	<	<	<	<	52,810	<	<	46,978
Water transportation	44	57,550	<	<	<	<	<	<	<	57,550
Transportation by air	45	54,872	<	57,460	<	<	54,520	48,610	<	<
Pipelines, except natural gas	46	67,321	<	74,250	<	56,730	62,640	63,280	<	73,300
Transportation services	47	42,304	<	<	<	<	39,980	<	<	44,463
Communications	48	57,784	<	54,680	58,710	56,643	58,130	56,030	60,900	54,262
Utilities and sanitary services	49	65,312	<	61,800	<	66,035	71,000	64,730	59,620	64,485

See explanatory information and SOURCE at end of table.

Table 16. Mean annual wages of employed engineers, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean annual wages (dollars)								
		Engineers								
		Total	Aero-nautical	Civil	Computer	Electrical/ electronics	Indus-trial	Mech-anical	Sales	Other
Wholesale trade										
Wholesale trade, durable goods	50	60,049	<	56,340	54,620	62,433	54,530	56,010	59,980	<
Wholesale trade, nondurable goods	51	59,685	<	<	<	<	54,160	66,180	56,690	65,081
Retail trade										
Automotive dealers and service stations	55	40,090	<	<	<	<	<	<	40,090	<
Furniture and homefurnishings stores	57	46,008	<	<	32,590	<	<	<	50,540	<
Misc. retail stores	59	55,749	<	<	<	<	70,860	41,340	45,700	<
Finance, insurance, and real estate										
Depository institutions	60	59,880	<	<	<	59,880	<	<	<	<
Insurance carriers	63	58,416	<	50,940	62,160	<	65,770	<	<	55,050
Insurance agents, brokers, and service	64	51,010	<	<	<	<	<	<	<	51,010
Real estate	65	50,059	<	56,330	<	<	<	44,610	63,720	<
Holding and other investment offices	67	52,433	<	44,670	<	<	<	<	73,370	42,520
Services										
Hotels and other lodging places	70	38,775	<	<	<	44,470	<	35,520	<	<
Personal services	72	56,600	<	<	<	<	56,600	<	<	<
Business services	73	63,283	<	55,640	66,540	65,136	57,340	61,360	65,490	83,543
Misc. repair services	76	56,356	<	<	<	55,672	69,350	<	56,920	<
Amusement and recreation services	79	53,851	<	<	<	62,530	<	<	<	49,222
Health services	80	45,493	<	54,770	<	55,130	59,590	<	<	44,324
Educational services	82	41,450	<	<	<	<	<	<	41,450	<
Social services	83	<	<	<	<	<	<	<	<	<
Museums, botanical, zoological gardens	84	<	<	<	<	<	<	<	<	<
Membership organizations	86	<	<	<	<	<	<	<	<	<
Engineering and management services	87	58,737	65,100	55,740	64,810	62,909	59,260	59,270	62,380	59,521
Services, n.e.c.	89	57,238	<	55,530	<	<	<	56,570	<	60,170
Public administration										
Federal, state, and local government	90	58,611	70,470	54,310	66,920	65,184	57,550	61,960	<	56,902

KEY: < = Too few cases to estimate.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Mean annual wages have been calculated by multiplying mean hourly wages by a "full-time" figure of 2,080 hours. See Technical Notes for more detail. Includes wage information for industry/occupation groups for which employment estimates are unavailable.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/ Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 17. Mean hourly wages of employed technicians, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean hourly wages (dollars)								
						Engineering technicians				
		Total	Computer programmers	Drafters	Science [1]	Total	Electrical/ electronic	Mechanical	Civil	Other
Total		20.57	26.03	18.07	16.41	18.49	18.94	19.50	16.95	18.36
Agriculture, forestry, and fishing										
Agricultural services	07	13.74	<	16.04	12.82	<	<	<	<	<
Mining										
Metal mining	10	18.78	<	<	18.02	19.37	21.80	<	<	18.62
Coal mining	12	18.84	<	<	19.50	18.68	<	<	<	18.68
Oil and gas extraction	13	21.86	27.50	22.12	21.70	19.57	20.65	20.18	24.21	18.12
Nonmetallic minerals, except fuels	14	16.94	22.85	<	15.40	16.62	<	<	<	16.62
Construction										
General building contractors	15	19.05	28.07	17.99	<	19.20	18.78	<	19.78	18.24
Heavy construction, excluding building	16	18.79	<	20.29	<	18.31	26.82	<	<	17.72
Special trade contractors	17	17.90	23.01	19.01	<	16.24	15.92	20.10	13.00	15.92
Total manufacturing										
Food and kindred products	20	16.28	23.48	<	14.11	20.89	15.78	21.54	<	20.44
Tobacco products	21	<	<	<	<	<	<	<	<	<
Textile mill products	22	17.86	22.36	<	13.17	16.46	17.76	17.10	<	16.17
Apparel and other textile products	23	21.27	23.33	18.03	<	17.43	<	18.81	<	17.16
Lumber and wood products	24	18.06	20.60	16.01	18.75	18.90	<	23.09	<	17.90
Furniture and fixtures	25	17.20	18.73	16.69	20.31	16.55	<	16.91	<	16.52
Paper and allied products	26	20.22	23.71	18.33	17.39	21.00	21.19	20.75	<	<
Printing and publishing	27	22.18	23.55	<	<	17.25	18.64	<	<	16.96
Chemicals and allied products	28	19.04	24.93	19.18	18.27	21.29	19.37	20.81	<	22.41
Petroleum and coal products	29	21.11	25.68	<	20.42	26.56	<	<	<	26.56
Rubber and misc. plastics products	30	17.38	17.88	18.93	15.51	17.59	17.44	17.53	<	17.73
Leather and leather products	31	20.62	22.38	<	16.50	<	<	<	<	<
Stone, clay and glass products	32	18.07	22.64	17.08	16.41	18.46	18.50	17.71	18.64	18.47
Primary metal industries	33	18.73	20.65	17.81	17.19	19.24	19.41	19.11	<	19.13
Fabricated metal products	34	18.30	19.16	17.30	16.96	19.31	20.85	19.07	<	18.26
Industrial machinery and equipment	35	20.58	25.10	17.44	19.33	18.69	18.43	18.76	<	19.41
Electronic & other electric equipment	36	18.53	26.47	17.92	16.58	17.66	17.21	20.56	<	18.82
Transportation equipment	37	22.52	21.79	22.98	22.77	22.57	21.47	18.66	22.13	24.96
Instruments and related products	38	19.44	24.36	19.72	16.92	18.76	18.17	18.20	<	20.77
Miscellaneous manufacturing industries	39	17.67	20.68	15.98	15.70	17.31	16.98	17.69	<	17.52

See explanatory information and SOURCE at end of table.

Table 17. Mean hourly wages of employed technicians, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean hourly wages (dollars)								
						Engineering technicians				
		Total	Computer programmers	Drafters	Science [1]	Total	Electrical/ electronic	Mechanical	Civil	Other
Transportation, communications, and utilities										
Railroad transportation	40	24.42	27.03	<	<	21.25	21.25	<	<	<
Local and interurban transit	41	22.35	<	<	<	22.35	<	<	<	22.35
Trucking and warehousing	42	19.08	23.82	<	<	10.97	<	<	<	10.97
Water transportation	44	20.60	26.54	<	<	17.70	<	<	<	17.70
Transportation by air	45	21.48	22.26	<	<	21.31	19.96	<	<	21.42
Pipelines, except natural gas	46	26.20	<	<	<	26.20	<	<	<	26.20
Transportation services	47	20.42	23.32	<	<	15.17	<	<	<	15.17
Communications	48	17.29	24.22	20.05	<	16.63	21.51	22.15	21.63	12.74
Utilities and sanitary services	49	23.03	26.40	22.57	23.52	22.22	23.18	23.67	24.33	20.16
Wholesale trade										
Wholesale trade, durable goods	50	22.88	28.05	17.68	14.18	18.79	18.83	17.66	<	19.51
Wholesale trade, nondurable goods	51	22.26	24.50	<	18.41	17.27	17.23	18.10	<	<
Retail trade										
Building materials and garden supplies	52	17.49	23.01	15.31	<	<	<	<	<	<
General merchandise stores	53	20.54	21.34	<	<	14.75	14.75	<	<	<
Food stores	54	21.72	22.49	16.07	<	<	<	<	<	<
Automotive dealers and service stations	55	17.83	21.44	<	<	14.52	15.34	<	<	13.74
Apparel and accessory stores	56	23.64	23.64	<	<	<	<	<	<	<
Furniture and homefurnishings stores	57	22.65	22.62	23.71	<	21.08	21.08	<	<	<
Misc. retail stores	59	22.70	22.86	<	<	14.93	14.93	<	<	<
Finance, insurance, and real estate										
Depository institutions	60	24.78	24.80	<	<	18.05	<	<	<	18.05
Nondepository institutions	61	24.50	24.50	<	<	<	<	<	<	<
Security and commodity brokers	62	28.87	28.87	<	<	<	<	<	<	<
Insurance carriers	63	25.02	25.10	<	19.15	15.33	<	<	<	15.33
Insurance agents, brokers, and service	64	22.96	22.96	<	<	<	<	<	<	<
Real estate	65	21.38	24.27	19.02	<	15.65	15.86	<	<	15.05
Holding and other investment offices	67	24.46	24.88	<	17.19	<	<	<	<	<

See explanatory information and SOURCE at end of table.

Table 17. Mean hourly wages of employed technicians, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean hourly wages (dollars)								
						Engineering technicians				
		Total	Computer programmers	Drafters	Science [1]	Total	Electrical/ electronic	Mechanical	Civil	Other
Services										
Hotels and other lodging places	70	15.65	22.95	<	<	13.61	16.57	<	<	13.03
Personal services	72	23.61	23.61	<	<	<	<	<	<	<
Business services	73	25.83	27.67	19.57	14.47	17.80	16.84	19.30	<	19.36
Auto repair, services, and parking	75	16.39	25.37	<	<	11.95	<	<	<	11.95
Misc. repair services	76	17.71	22.11	19.10	<	17.23	17.23	<	<	<
Motion pictures	78	18.67	27.30	<	<	18.01	25.88	<	<	17.78
Amusement and recreation services	79	15.43	23.26	<	<	14.48	17.38	<	<	14.33
Health services	80	19.22	22.70	16.04	13.30	17.14	18.42	22.03	<	13.75
Legal services	81	24.45	24.45	<	<	<	<	<	<	<
Educational services	82	18.79	20.20	<	<	14.59	<	<	<	14.59
Social services	83	18.85	18.85	<	<	<	<	<	<	<
Museums, botanical, zoological gardens	84	16.46	20.75	<	<	13.40	<	<	<	13.40
Membership organizations	86	21.89	23.64	<	13.26	12.09	<	<	<	12.09
Engineering and management services	87	17.52	26.05	17.26	15.03	17.12	19.46	20.27	17.18	15.75
Services, n.e.c.	89	19.39	26.65	20.81	16.15	16.81	17.52	<	16.43	16.63
Public administration										
Federal, state, and local government	90	17.98	22.09	17.40	14.94	18.43	21.34	21.82	16.14	19.02

[1] The classification "science technicians" includes biological, agricultural, and food technicians and technologists, except health; chemical technicians and technologists, except health; nuclear technicians and technologists; petroleum technicians and technologists; all other physical and life science technicians and technologists; and mathematical technicians.

KEY: < = Too few cases to estimate.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Mean hourly wages are calculated from the mean values of 11 wage intervals, using data from the BLS National Compensation Survey. See Technical Notes for more detail. Includes wage information for industry/occupation combinations for which employment estimates are unavailable.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/ Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 18. Mean annual wages of employed technicians, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean annual wages (dollars)								
						Engineering technicians				
		Total	Computer programmers	Drafters	Science [1]	Total	Electrical/ electronic	Mechanical	Civil	Other
Total		42,784	54,144	37,591	34,126	38,452	39,390	40,560	35,270	38,186
Agriculture, forestry, and fishing										
Agricultural services	07	28,577	<	33,370	26,670	<	<	<	<	<
Mining										
Metal mining	10	39,058	<	<	37,490	40,296	45,330	<	<	38,733
Coal mining	12	39,180	<	<	40,560	38,858	<	<	<	38,858
Oil and gas extraction	13	45,466	57,210	46,020	45,124	40,697	42,950	41,980	50,350	37,684
Nonmetallic minerals, except fuels	14	35,236	47,540	<	32,027	34,574	<	<	<	34,574
Construction										
General building contractors	15	39,619	58,380	37,404	<	39,934	39,060	<	41,150	37,933
Heavy construction, excluding building	16	39,069	<	42,200	<	38,076	55,790	<	<	36,858
Special trade contractors	17	37,229	47,860	39,556	<	33,777	33,120	41,800	27,030	33,112
Total manufacturing										
Food and kindred products	20	33,862	48,850	<	29,365	43,452	32,820	44,800	<	42,510
Tobacco products	21	<	<	<	<	<	<	<	<	<
Textile mill products	22	37,150	46,510	<	27,400	34,237	36,940	35,570	<	33,640
Apparel and other textile products	23	44,240	48,530	37,510	<	36,257	<	39,120	<	35,700
Lumber and wood products	24	37,565	42,848	33,294	38,999	39,307	<	48,030	<	37,230
Furniture and fixtures	25	35,784	38,970	34,711	42,240	34,431	<	35,170	<	34,370
Paper and allied products	26	42,051	49,310	38,120	36,183	43,682	44,080	43,160	<	<
Printing and publishing	27	46,133	48,980	<	<	35,886	38,770	<	<	35,288
Chemicals and allied products	28	39,604	51,850	39,900	38,001	44,278	40,280	43,290	<	46,614
Petroleum and coal products	29	43,907	53,410	<	42,459	55,247	<	<	<	55,247
Rubber and misc. plastics products	30	36,143	37,191	39,363	32,251	36,589	36,270	36,470	<	36,872
Leather and leather products	31	42,881	46,550	<	34,320	<	<	<	<	<
Stone, clay and glass products	32	37,579	47,100	35,532	34,124	38,391	38,477	36,850	38,770	38,430
Primary metal industries	33	38,949	42,947	37,038	35,745	40,016	40,378	39,740	<	39,801
Fabricated metal products	34	38,070	39,849	35,990	35,281	40,158	43,362	39,670	<	37,975
Industrial machinery and equipment	35	42,811	52,213	36,271	40,199	38,887	38,346	39,020	<	40,364
Electronic & other electric equipment	36	38,550	55,045	37,273	34,490	36,734	35,805	42,770	<	39,125
Transportation equipment	37	46,850	45,337	47,804	47,378	46,948	44,647	38,810	46,030	51,920
Instruments and related products	38	40,438	50,674	41,017	35,184	39,008	37,775	37,860	<	43,202
Miscellaneous manufacturing industries	39	36,758	43,006	33,250	32,650	35,997	35,320	36,790	<	36,439

See explanatory information and SOURCE at end of table.

Table 18. Mean annual wages of employed technicians, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean annual wages (dollars)								
		Total	Computer programmers	Drafters	Science [1]	Engineering technicians				
						Total	Electrical/ electronic	Mechanical	Civil	Other
Transportation, communications, and utilities										
Railroad transportation	40	50,802	56,230	<	<	44,210	44,210	<	<	<
Local and interurban transit	41	46,490	<	<	<	46,490	<	<	<	46,490
Trucking and warehousing	42	39,685	49,540	<	<	22,820	<	<	<	22,820
Water transportation	44	42,852	55,200	<	<	36,810	<	<	<	36,810
Transportation by air	45	44,670	46,300	<	<	44,327	41,510	<	<	44,545
Pipelines, except natural gas	46	54,500	<	<	<	54,500	<	<	<	54,500
Transportation services	47	42,488	48,510	<	<	31,550	<	<	<	31,550
Communications	48	35,956	50,380	41,709	<	34,598	44,740	46,070	44,980	26,494
Utilities and sanitary services	49	47,901	54,920	46,948	48,917	46,226	48,232	49,240	50,600	41,921
Wholesale trade										
Wholesale trade, durable goods	50	47,598	58,340	36,763	29,490	39,083	39,161	36,730	<	40,580
Wholesale trade, nondurable goods	51	46,299	50,950	<	38,302	35,934	35,841	37,650	<	<
Retail trade										
Building materials and garden supplies	52	36,385	47,860	31,840	<	<	<	<	<	<
General merchandise stores	53	42,709	44,380	<	<	30,680	30,680	<	<	<
Food stores	54	45,192	46,790	33,410	<	<	<	<	<	<
Automotive dealers and service stations	55	37,094	44,590	<	<	30,205	31,920	<	<	28,580
Apparel and accessory stores	56	49,170	49,170	<	<	<	<	<	<	<
Furniture and homefurnishings stores	57	47,100	47,040	49,310	<	43,850	43,850	<	<	<
Misc. retail stores	59	47,220	47,550	<	<	31,050	31,050	<	<	<
Finance, insurance, and real estate										
Depository institutions	60	51,535	51,580	<	<	37,550	<	<	<	37,550
Nondepository institutions	61	50,970	50,970	<	<	<	<	<	<	<
Security and commodity brokers	62	60,050	60,050	<	<	<	<	<	<	<
Insurance carriers	63	52,035	52,210	<	39,830	31,880	<	<	<	31,880
Insurance agents, brokers, and service	64	47,760	47,760	<	<	<	<	<	<	<
Real estate	65	44,459	50,480	39,560	<	32,535	32,980	<	<	31,308
Holding and other investment offices	67	50,895	51,760	<	35,760	<	<	<	<	<

See explanatory information and SOURCE at end of table.

Table 18. Mean annual wages of employed technicians, by broad industry group of employment and detailed occupation: 1999

Broad industry group of employment	SIC	Mean annual wages (dollars)								
						Engineering technicians				
		Total	Computer programmers	Drafters	Science [1]	Total	Electrical/ electronic	Mechanical	Civil	Other
Services										
Hotels and other lodging places	70	32,544	47,740	<	<	28,314	34,460	<	<	27,100
Personal services	72	49,120	49,120	<	<	<	<	<	<	<
Business services	73	53,723	57,560	40,713	30,094	37,028	35,035	40,150	<	40,270
Auto repair, services, and parking	75	34,090	52,760	<	<	24,850	<	<	<	24,850
Misc. repair services	76	36,842	45,980	39,729	<	35,845	35,845	<	<	<
Motion pictures	78	38,833	56,780	<	<	37,464	53,830	<	<	36,982
Amusement and recreation services	79	32,093	48,370	<	<	30,136	36,160	<	<	29,816
Health services	80	39,979	47,210	33,370	27,666	35,646	38,320	45,830	<	28,600
Legal services	81	50,870	50,870	<	<	<	<	<	<	<
Educational services	82	39,089	42,010	<	<	30,345	<	<	<	30,345
Social services	83	39,210	39,210	<	<	<	<	<	<	<
Museums, botanical, zoological gardens	84	34,237	43,150	<	<	27,870	<	<	<	27,870
Membership organizations	86	45,531	49,170	<	27,569	25,150	<	<	<	25,150
Engineering and management services	87	36,448	54,190	35,908	31,277	35,619	40,480	42,170	35,730	32,758
Services, n.e.c.	89	40,341	55,440	43,290	33,587	34,968	36,440	<	34,180	34,598
Public administration										
Federal, state, and local government	90	37,390	45,940	36,191	31,063	38,334	44,395	45,390	33,560	39,548

[1] The classification "science technicians" includes biological, agricultural, and food technicians and technologists, except health; chemical technicians and technologists, except health; nuclear technicians and technologists; petroleum technicians and technologists; all other physical and life science technicians and technologists; and mathematical technicians.

KEY: < = Too few cases to estimate.
n.e.c. = Not elsewhere classified.
SIC = Standard Industrial Classification. See Technical Notes for explanation.

NOTE: Mean annual wages have been calculated by multiplying mean hourly wages by a "full-time" figure of 2,080 hours. See Technical Notes for more detail. Includes wage information for industry/occupation groups for which employment estimates are unavailable.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/ Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 19. Mean and median hourly wages of employed scientists, engineers, and technicians (SETs), by detailed occupational classification: 1999

Detailed occupation	SOC code	Total filled positions	Hourly wages (dollars)		Relative standard error[1]
			Mean	Median	
All SET occupations		5,302,900	26.59	(nc)	1
Managers of scientific and technical personnel		566,000	37.23	(nc)	1
Computer and information systems managers	11-3021	280,800	35.79	34.97	<
Engineering managers	11-9041	248,200	39.21	38.52	<
Natural sciences managers	11-9121	36,900	34.84	33.75	<
Scientists		1,842,400	27.46	(nc)	1
Computer scientists		1,254,100	28.77	(nc)	1
Computer and information scientists, research	15-1011	26,300	32.30	31.38	<
Computer software, applications	15-1031	287,600	31.62	30.45	<
Computer software, systems	15-1032	209,000	31.84	31.07	<
Computer systems analysts	15-1051	428,200	27.85	26.91	<
Network and computer systems administrators	15-1071	204,700	24.08	22.98	<
Network systems/data communications analysts	15-1081	98,300	26.78	25.24	1
Life scientists		94,100	23.79	(nc)	1
Agricultural scientists	19-1010	9,700	21.69	20.56	<
Biochemists and biophysicists	19-1021	11,800	27.01	25.15	1
Conservation scientists	19-1031	12,200	21.78	21.64	<
Epidemiologists	19-1041	2,300	23.57	22.03	<
Foresters	19-1032	10,100	20.34	19.73	<
Medical scientists, except epidemiologists	19-1042	21,200	26.87	23.93	2
Microbiologists	19-1022	15,600	24.37	22.21	1
Zoologists and wildlife biologists	19-1023	11,100	20.87	20.12	1
Mathematical scientists		74,400	27.37	(nc)	<
Actuaries	15-2011	12,600	34.56	31.88	1
Mathematicians	15-2021	3,500	32.68	32.86	<
Operations and systems researchers and analysts	15-2031	43,800	25.89	23.35	2
Statisticians	15-2041	14,600	24.35	22.65	<
Physical scientists		181,600	25.64	(nc)	<
Astronomers	19-2011	700	36.47	36.96	<
Atmospheric and space scientists	19-2021	7,200	25.76	25.60	<
Chemists	19-2031	73,800	24.80	23.07	<
Environmental scientists and specialists, including health	19-2041	53,600	22.60	20.99	1
Geoscientists, except hydrologists and geographers	19-2042	20,900	29.33	26.18	1
Hydrologists	19-2043	6,900	26.26	25.53	<
Materials scientists	19-2032	8,200	28.39	27.33	1
Physicists	19-2012	10,300	36.61	36.63	<

See explanatory information and SOURCE at end of table.

Table 19. Mean and median hourly wages of employed scientists, engineers, and technicians (SETs), by detailed occupational classification: 1999

Detailed occupation	SOC code	Total filled positions	Hourly wages (dollars)		Relative standard error[1]
			Mean	Median	
Social scientists		238,200	23.43	(nc)	1
Anthropologists and archeologists	19-3091	3,200	17.79	16.89	1
Clinical, counseling, and school psychologists	19-3031	92,500	23.90	22.75	1
Economists	19-3011	14,500	29.59	27.92	1
Geographers	19-3092	700	21.37	19.98	<
Historians	19-3093	1,500	19.88	18.35	<
Industrial-Organizational psychologists	19-3032	1,800	34.23	33.59	<
Market research analysts	19-3021	67,700	25.33	22.89	1
Political scientists	19-3094	4,300	35.03	35.71	1
Sociologists	19-3041	1,300	22.74	20.78	1
Survey researchers	19-3022	22,000	10.84	8.36	1
Urban and regional planners	19-3051	28,700	22.44	21.41	<
Engineers		1,231,600	28.51	(nc)	1
Aeronautical	17-2011	71,800	31.03	31.35	<
Civil	17-2051	209,100	26.76	25.83	<
Computer	17-2061	60,400	32.19	31.12	<
Electrical/electronics		256,000	29.96	(nc)	<
Electrical	17-2071	149,200	29.58	29.15	1
Electronics	17-2072	106,800	30.49	29.96	1
Industrial	17-2112	155,900	27.62	26.81	<
Mechanical	17-2141	202,900	27.41	26.85	<
Sales	41-9031	93,600	27.95	26.13	<
Other engineers		181,800	28.57	(nc)	1
Agricultural	17-2021	2,300	26.85	26.25	<
Biomedical	17-2031	6,500	25.21	24.36	<
Chemical	17-2041	28,600	30.89	31.84	<
Environmental	17-2081	51,500	27.43	26.39	1
Marine	17-2121	4,500	28.16	27.89	<
Metallurgical/metallurgists	17-2131	21,700	28.54	28.29	<
Mining and geological	17-2151	7,200	29.76	28.03	1
Nuclear	17-2161	9,600	35.04	35.87	<
Petroleum	17-2171	9,600	34.99	35.71	<
Safety	17-2111	40,500	25.81	25.16	1

See explanatory information and SOURCE at end of table.

Table 19. Mean and median hourly wages of employed scientists, engineers, and technicians (SETs), by detailed occupational classification: 1999

Detailed occupation	SOC code	Total filled positions	Hourly wages (dollars)		Relative standard error[1]
			Mean	Median	
Technicians		1,662,900	20.57	(nc)	1
Computer, numerical tool, and process control programmers		552,800	26.03	(nc)	<
Computer programmers	15-1021	528,600	26.42	24.55	<
Numerical tool and process control programmers	51-4012	24,200	17.45	17.27	<
Drafters		198,600	18.07	(nc)	1
Architectural and civil drafters	17-3011	92,800	17.40	16.37	1
Electrical and electronics drafters	17-3012	39,900	18.82	17.93	1
Mechanical drafters	17-3013	66,000	18.57	17.37	1
Engineering technicians		610,800	18.49	(nc)	1
Aerospace engineering and operations technicians	17-3021	17,300	23.38	21.39	1
Civil engineering technicians	17-3022	91,000	16.95	16.35	<
Electronical/electronics engineering technicians	17-3023	242,200	18.94	18.45	1
Electro-mechanical technicians	17-3024	40,300	17.91	16.79	1
Environmental engineering technicians	17-3025	18,600	16.86	15.58	<
Industrial engineering technicians	17-3026	51,700	20.83	19.41	<
Mechanical engineering technicians	17-3027	57,600	19.50	18.41	<
All other engineering technicians		92,100	16.53	(nc)	2
Audio and video equipment technicians	27-4011	39,100	16.36	13.51	4
Broadcast technicians	27-4012	25,600	13.33	11.33	1
Traffic technicians	53-6041	5,000	15.70	14.56	<
Transportation inspectors	53-6051	22,400	20.66	20.29	1
Mathematical technicians	15-2019	1,600	21.01	17.44	<
Physical and life science technicians		195,600	16.56	(nc)	1
Agricultural and food science technicians	19-4011	15,100	14.09	12.75	1
Biological technicians	19-4021	39,600	15.42	14.66	<
Chemical technicians, except health	19-4031	78,700	17.35	16.46	1
Environmental science and protection technicians, including health	19-4091	26,200	16.47	15.63	1
Forensic science technicians	19-4092	5,300	18.37	17.40	<
Forest and conservation technicians	19-4093	17,100	14.11	13.20	<
Geological and petroleum technicians	19-4041	10,800	19.58	17.43	1
Nuclear technicians	19-4051	2,600	24.81	24.00	<
Surveying, cartographic, photogrammetric, and mapping technicians		103,600	16.07	(nc)	<
Cartographers and photogrammetrists	17-1021	6,200	19.74	19.20	1
Surveying and mapping technicians	17-3031	47,300	14.07	12.87	1
Surveyors	17-1022	50,200	17.50	16.61	1

[1]Relative standard error of the estimate of the mean hourly wage, expressed as a percentage

KEY: < = The estimated actual value is less than 0.5 for percentages.
(nc) = Not computed. Median wages available only for detailed occupations.
SOC = Standard Occupational Classification. See Technical Notes for explanation.

NOTE: Wage data are derived entirely from total occupation estimates. Mean hourly wages are calculated from the mean values of 11 wage intervals, using data from the BLS National Compensation Survey. See Technical Notes for more detail.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/Bureau of Labor Statistics, Occupational Employment Statistics Survey.

Table 20. Mean and median annual wages of employed scientists, engineers, and technicians (SETs), by detailed occupational classification: 1999

Detailed occupation	SOC code	Total filled positions	Annual wages (dollars)	
			Mean	Median
All SET occupations		5,302,900	55,300	(nc)
Managers of scientific and technical personnel		566,000	77,429	(nc)
Computer and information systems managers	11-3021	280,800	74,430	72,730
Engineering managers	11-9041	248,200	81,560	80,110
Natural sciences managers	11-9121	36,900	72,470	70,190
Scientists		1,842,400	57,121	(nc)
Computer scientists		1,254,100	59,850	(nc)
Computer and information scientists, research	15-1011	26,300	67,180	65,270
Computer software, applications	15-1031	287,600	65,780	63,330
Computer software, systems	15-1032	209,000	66,230	64,620
Computer systems analysts	15-1051	428,200	57,920	55,980
Network and computer systems administrators	15-1071	204,700	50,090	47,790
Network systems/data communications analysts	15-1081	98,300	55,710	52,500
Life scientists		94,100	49,469	(nc)
Agricultural scientists	19-1010	9,700	45,110	42,770
Biochemists and biophysicists	19-1021	11,800	56,170	52,310
Conservation scientists	19-1031	12,200	45,310	45,020
Epidemiologists	19-1041	2,300	49,020	45,820
Foresters	19-1032	10,100	42,300	41,050
Medical scientists, except epidemiologists	19-1042	21,200	55,880	49,780
Microbiologists	19-1022	15,600	50,690	46,190
Zoologists and wildlife biologists	19-1023	11,100	43,400	41,850
Mathematical scientists		74,400	56,920	(nc)
Actuaries	15-2011	12,600	71,880	66,310
Mathematicians	15-2021	3,500	67,970	68,360
Operations and systems researchers and analysts	15-2031	43,800	53,850	48,560
Statisticians	15-2041	14,600	50,650	47,100
Physical scientists		181,600	53,329	(nc)
Astronomers	19-2011	700	75,860	76,870
Atmospheric and space scientists	19-2021	7,200	53,580	53,250
Chemists	19-2031	73,800	51,580	47,990
Environmental scientists and specialists, including health	19-2041	53,600	47,000	43,660
Geoscientists, except hydrologists and geographers	19-2042	20,900	61,000	54,460
Hydrologists	19-2043	6,900	54,620	53,100
Materials scientists	19-2032	8,200	59,060	56,840
Physicists	19-2012	10,300	76,140	76,180

See explanatory information and SOURCE at end of table.

Table 20. Mean and median annual wages of employed scientists, engineers, and technicians (SETs), by detailed occupational classification: 1999

Detailed occupation	SOC code	Total filled positions	Annual wages (dollars)	
			Mean	Median
Social scientists		238,200	48,725	(nc)
Anthropologists and archeologists	19-3091	3,200	37,010	35,120
Clinical, counseling, and school psychologists	19-3031	92,500	49,720	47,330
Economists	19-3011	14,500	61,550	58,070
Geographers	19-3092	700	44,450	41,560
Historians	19-3093	1,500	41,350	38,170
Industrial-Organizational psychologists	19-3032	1,800	71,200	69,880
Market research analysts	19-3021	67,700	52,680	47,610
Political scientists	19-3094	4,300	72,860	74,280
Sociologists	19-3041	1,300	47,310	43,220
Survey researchers	19-3022	22,000	22,540	17,400
Urban and regional planners	19-3051	28,700	46,670	44,540
Engineers		1,231,600	59,308	(nc)
Aeronautical	17-2011	71,800	64,550	65,200
Civil	17-2051	209,100	55,660	53,730
Computer	17-2061	60,400	66,960	64,730
Electrical/electronics		256,000	62,309	(nc)
Electrical	17-2071	149,200	61,520	60,640
Electronics	17-2072	106,800	63,410	62,320
Industrial	17-2112	155,900	57,450	55,770
Mechanical	17-2141	202,900	57,010	55,840
Sales	41-9031	93,600	58,130	54,360
Other engineers		181,800	59,428	(nc)
Agricultural	17-2021	2,300	55,840	54,600
Biomedical	17-2031	6,500	52,430	50,670
Chemical	17-2041	28,600	64,250	66,220
Environmental	17-2081	51,500	57,050	54,890
Marine	17-2121	4,500	58,580	58,010
Metallurgical/metallurgists	17-2131	21,700	59,370	58,830
Mining and geological	17-2151	7,200	61,900	58,300
Nuclear	17-2161	9,600	72,870	74,600
Petroleum	17-2171	9,600	72,780	74,280
Safety	17-2111	40,500	53,680	52,330

See explanatory information and SOURCE at end of table.

Table 20. Mean and median annual wages of employed scientists, engineers, and technicians (SETs), by detailed occupational classification: 1999

Detailed occupation	SOC code	Total filled positions	Annual wages (dollars)	
			Mean	Median
Technicians		1,662,900	42,784	(nc)
Computer, numerical tool, and process control programmers		552,800	54,144	(nc)
Computer programmers	15-1021	528,600	54,960	51,060
Numerical tool and process control programmers	51-4012	24,200	36,300	35,930
Drafters		198,600	37,591	(nc)
Architectural and civil drafters	17-3011	92,800	36,190	34,050
Electrical and electronics drafters	17-3012	39,900	39,150	37,300
Mechanical drafters	17-3013	66,000	38,620	36,120
Engineering technicians		610,800	38,452	(nc)
Aerospace engineering and operations technicians	17-3021	17,300	48,630	44,480
Civil engineering technicians	17-3022	91,000	35,270	34,000
Electronical/electronics engineering technicians	17-3023	242,200	39,390	38,380
Electro-mechanical technicians	17-3024	40,300	37,250	34,920
Environmental engineering technicians	17-3025	18,600	35,060	32,420
Industrial engineering technicians	17-3026	51,700	43,320	40,370
Mechanical engineering technicians	17-3027	57,600	40,560	38,300
All other engineering technicians		92,100	34,385	(nc)
Audio and video equipment technicians	27-4011	39,100	34,020	28,090
Broadcast technicians	27-4012	25,600	27,740	23,560
Traffic technicians	53-6041	5,000	32,650	30,280
Transportation inspectors	53-6051	22,400	42,980	42,190
Mathematical technicians	15-2019	1,600	43,710	36,270
Physical and life science technicians		195,600	34,437	(nc)
Agricultural and food science technicians	19-4011	15,100	29,310	26,510
Biological technicians	19-4021	39,600	32,060	30,490
Chemical technicians, except health	19-4031	78,700	36,080	34,250
Environmental science and protection technicians, including health	19-4091	26,200	34,270	32,510
Forensic science technicians	19-4092	5,300	38,200	36,190
Forest and conservation technicians	19-4093	17,100	29,340	27,460
Geological and petroleum technicians	19-4041	10,800	40,730	36,260
Nuclear technicians	19-4051	2,600	51,600	49,920
Surveying, cartographic, photogrammetric, and mapping technicians		103,600	33,416	(nc)
Cartographers and photogrammetrists	17-1021	6,200	41,060	39,950
Surveying and mapping technicians	17-3031	47,300	29,260	26,760
Surveyors	17-1022	50,200	36,400	34,550

KEY: (nc) = Not computed. Median wages available only for detailed occupations.
SOC = Standard Occupational Classification. See Technical Notes for explanation.

NOTE: Wage data are derived entirely from total occupation estimates. Mean annual wages have been calculated by multiplying mean hourly wages by a "full-time" figure of 2,080 hours. Since the annual figures are calculated directly from the hourly figures, the relative standard error has not been calculated separately for the mean annual wages entries. See Technical Notes for more detail.

SOURCE: National Science Foundation/Division of Science Resources Statistics, using data from U.S. Department of Labor/Bureau of Labor Statistics, Occupational Employment Statistics Survey.