Section C. Survey Documents

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NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

OFFICE OF THE
DIRECTOR

FROM THE DIRECTOR
NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) requests your company's participation in the 2000 Survey of Industrial Research and Development that the Bureau of the Census is conducting for us. This annual survey is the only source of detailed information on U.S. industry's research and development (R&D) performance.

Your company's participation is vital to the accuracy of the resulting information. Because R&D expenditures are concentrated in relatively few companies, a completed response is needed from each surveyed firm -- *there is no substitute for the information that you can provide*. Your company can be assured of complete confidentiality. Survey data will be released only in aggregate form so that responses of individual companies cannot be identified.

If you have questions concerning the operation of this survey, please direct them to the Census Bureau at (301) 457-1339. Survey results are made available in an annual report entitled *Research and Development in Industry*. If you would like to receive a copy of the most recent report, please call the NSF publication clearinghouse at (301) 947-2722 or send an e-mail message to paperpubs@nsf.gov.

Thank you for your assistance in this important effort.

Sincerely

Rita R. Colwell

Rita R. Colwell
Director

RD-1-CL
(1-2001)

UNITED STATES DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. Census Bureau
Washington, DC 20233-0001
OFFICE OF THE DIRECTOR

FROM THE ACTING DIRECTOR
U.S. CENSUS BUREAU

We have enclosed your company's report form and instructions for the 2000 "Survey of Industrial Research and Development (R&D)." In addition to the traditional report form, we have included a Computerized Self-Administered Questionnaire diskette that you may use as an alternative format for reporting. Please refer to the instructions for installation. If you have any questions about installing or using the diskette, please contact the Electronic Reporting Staff on 301–457–4125.

The diskette and Form RD-1 contain information from the previous report for your company. **Please review the instructions, complete the diskette or the form, and return it within 60 days.** Information you report should cover the domestic operations of your consolidated enterprise for calendar year 2000. Federal law requires your response to four items identified on the form. Your voluntary response to all other items is needed to assure useful results.

Data from this survey have many business and policy uses. They provide information for examining R&D tax credits. Some businesses are able to use R&D tax credits to reduce their federal tax burden. The data also assist public officials in allocating research funding by state, which may benefit companies like yours. In addition, analysts use the results to compare spending in this country with other countries to ensure that U.S. businesses are not at a competitive disadvantage.

We recognize that providing this information is a burden, and we have worked hard to minimize it. For example, if you do not have book records for any item, **you may provide carefully prepared estimates.** The law that authorizes this survey (Title 13, United States Code) requires that we keep your report in full confidence. Only sworn Census Bureau employees will see your information, and they will use it only for statistical purposes.

We conduct this survey with National Science Foundation (NSF) support. We have enclosed a letter from the Director of NSF encouraging your response to the survey. If you have any questions, please call my staff on 301–457–1339. Thank you in advance for your cooperation.

Sincerely,

William G. Barron

Enclosures

PLEASE RETURN BY:

OMB No. 3145-0027: Approval Expires 12/31/2001

NOTICE – Your report to the Census Bureau is **confidential** by law (Title 13, U.S. Code). It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

RETURN TO

U.S. Census Bureau
1201 East 10th Street
Jeffersonville, IN 47132-0001

Name of person who supplied 1999 data

MANDATORY REPORTING REQUIREMENTS

Data supplied in items 1A and 1B and in item 3A, line 3, columns 4 and 6, for 2000 on this form will satisfy the mandatory reporting requirements. (Title 13, U.S. Code.)

PLEASE READ ENCLOSED INSTRUCTIONS BEFORE COMPLETING THIS FORM.

CENSUS USE ONLY

SURVEY CODE

4001

INDUSTRY CODE

WEIGHT

STATE

ADDRESS

SIC CODE

FORM **RD-1**
(12-12-2000)

U.S. DEPARTMENT OF COMMERCE
U.S. CENSUS BUREAU
COLLECTING AND COMPILING AGENT FOR
THE NATIONAL SCIENCE FOUNDATION

SURVEY OF INDUSTRIAL RESEARCH AND DEVELOPMENT DURING 2000

In correspondence pertaining to this report refer to this **CENSUS FILE NUMBER (11 digits)**

(Please correct any error in name and address, including ZIP Code.)

THIS REPORT SHOULD COVER YOUR ENTIRE CONSOLIDATED DOMESTIC ENTERPRISE, INCLUDING ALL U.S. SUBSIDIARIES AND DIVISIONS.

The term "company" on this form refers to the consolidated domestic enterprise.

- Please complete this form by the date printed at the top of this page and return it in the envelope provided. Make a copy for your records.
- Please read the enclosed instructions before completing this form.
- Report figures in thousands of dollars. Reasonable estimates are acceptable.
- Explain significant changes in year-to-year data in the remarks section.

COVERAGE REVIEW

Was this company owned or controlled by another company on December 31, 2000?

1303 ☐ Yes – *See instructions for Coverage Review.*

1304 ☐ No – *Continue with item 1*

Section I – GENERAL COMPANY DATA

Item 1 – RECEIPTS AND EMPLOYMENT FOR THE COMPANY

A. Sales, operating receipts and revenues from all domestic operations of the company, net of returns and allowances. (Report in thousands of dollars)

EXCLUDE domestic intra-company transfers and sales by foreign subsidiaries.

INCLUDE receipts for sales of products and services provided to other companies, individuals, U.S. Government agencies, and foreign countries.

1999			2000		
Bil.	Mil.	Thou.	Bil.	Mil.	Thou.
101			102		

B. Domestic company employment in all activities during the pay period which includes the 12th of March 2000 (Item 1 of I.R.S. Form 941, if one Form 941 was filled for the entire company.)

Number	Number
111	112

Item 2 – NUMBER OF RESEARCH AND DEVELOPMENT SCIENTISTS AND ENGINEERS

Apportion on a full-time equivalent basis. *See page 4 of the instruction booklet for more detail.*

	January 2000	January 2001
	Number	Number
A. Federal research and development	503	504
B. Company and other research and development	505	506
C. TOTAL – *Sum of lines 2A and 2B* →	501	502

PLEASE CONTINUE ON REVERSE.

Section I – GENERAL COMPANY DATA – Continued

Item 3 – COSTS INCURRED FOR RESEARCH AND DEVELOPMENT
(Report in thousands of dollars)

	1999									2000								
	Federal funds (1)			Company and other (2)			Total ((1)+(2)) (3)			Federal funds (4)			Company and other (5)			Total ((4)+(5)) (6)		
	Bil.	Mil.	Thou.	Bil.	Mil.	Thou.	Bil.	Mil.	Thou.	Bil.	Mil.	Thou.	Bil.	Mil.	Thou.	Bil.	Mil.	Thou.
A. Performed within the company **1.** Basic research	301			302			303			304			305			306		
2. Applied research and development **a.** Applied research	311			312			313			314			315			316		
b. Development	321			322			323			324			325			326		
c. Total – *Sum of lines a and b*	331			332			333			334			335			336		
3. Total – *Sum of lines 1 and 2.c.*	341			342			343			344			345			346		
B. Outside the company – **Federal** funds and **company** funds for research and development **performed by others** outside the company **within the United States** *(Exclude from 3A.3. above)*	351			352			353			354			355			356		
C. Foreign – **Company** funds for research and development **performed by foreign subsidiaries** or other organizations **outside the United States** *(Exclude from 3A.3. and 3B. above)*				362									365					
D. TOTAL – Company and other funds, except Federal (This line represents company sponsored research and development with the exception of "other funds.") – ***Sum of 3A.3, B, and C, (column 5)*** →				372									375					

Item 4 – COMPANY AND OTHER FUNDS, EXCEPT FEDERAL, FOR RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE COMPANY BUDGETED FOR THE YEAR 2001

(Comparable to the 2000 figure reported in Item 3A.3., column (5).)

2001		
Bil.	Mil.	Thou.
401		

Section II – RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE DOMESTIC COMPANY

Item 5 – COSTS INCURRED FOR FEDERAL RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE COMPANY BY PRINCIPAL GOVERNMENT AGENCY

Allocate the total reported in Item 3A., line 3, column (4), Federal funds, into the following principal agencies:

	Key code	1999 (1)			2000 (2)		
	5	Bil.	Mil.	Thou.	Bil.	Mil.	Thou.
1. Department of Defense	01						
2. National Aeronautics and Space Administration	02						
3. Department of Energy	03						
4. Other Federal agencies	04						
5. TOTAL COSTS – *Sum of lines 1 through 4* →	05						

Item 6 – COSTS INCURRED FOR RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE COMPANY BY MAJOR TYPE OF EXPENSE

Allocate the total reported in Item 3A., line 3, column (6), total company research and development – *Exclude lines 3B. and 3C.*

	Key code	1999 (1)			2000 (2)		
	6	Bil.	Mil.	Thou.	Bil.	Mil.	Thou.
1. Wages and salaries of research and development personnel – *Include scientists and engineers, technicians, secretaries, and other personnel.*	01						
2. Costs of materials and supplies consumed – *Do not include in this item components, models, and other materials supplied by other research organizations.*	02						
3. Depreciation on R & D property and equipment	05						
4. Other costs – *Include service and supporting costs, and share of overhead.*	03						
5. TOTAL COSTS – *Sum of lines 1 through 4* →	04						

PLEASE CONTINUE ON PAGE 3.

FORM **RD-1 (Item 7)**
(12-12-2000)

SURVEY OF INDUSTRIAL RESEARCH AND DEVELOPMENT DURING 2000

U.S. DEPARTMENT OF COMMERCE
U.S. CENSUS BUREAU
COLLECTING AND COMPILING AGENT FOR
THE NATIONAL SCIENCE FOUNDATION

Refer to this CENSUS FILE NUMBER in any correspondence pertaining to this report

Section II — RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE DOMESTIC COMPANY — Continued

Item 7 — COST OF RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE COMPANY BY STATE

Allocate the total reported in Item 3.A., line 3, columns (4) and (6), by the States in which your various research and development laboratories or facilities are located. Estimate the costs associated with each State. If necessary, you may report up to 10 percent of your total as "Not distributed by State."

Key code	State	1999 Federal funds (1)			1999 Total funds (2)			2000 Federal funds (1)			2000 Total funds (2)		
9		Bil.	Mil.	Thou	Bil.	Mil.	Thou	Bil.	Mil.	Thou	Bil.	Mil.	Thou
01	AL												
02	AK												
03	AZ												
04	AR												
05	CA												
06	CO												
07	CT												
08	DE												
09	DC												
10	FL												
11	GA												
12	HI												
13	ID												
14	IL												
15	IN												
16	IA												
17	KS												
18	KY												
19	LA												
20	ME												
21	MD												
22	MA												
23	MI												
24	MN												
25	MS												
26	MO												

Key code	State	1999 Federal funds (1)			1999 Total funds (2)			2000 Federal funds (1)			2000 Total funds (2)		
9		Bil.	Mil.	Thou	Bil.	Mil.	Thou	Bil.	Mil.	Thou	Bil.	Mil.	Thou
27	MT												
28	NE												
29	NV												
30	NH												
31	NJ												
32	NM												
33	NY												
34	NC												
35	ND												
36	OH												
37	OK												
38	OR												
39	PA												
40	RI												
41	SC												
42	SD												
43	TN												
44	TX												
45	UT												
46	VT												
47	VA												
48	WA												
49	WV												
50	WI												
51	WY												
52	*												
53	**TOTAL COSTS — *Sum of lines 1 through 52*** →	953						954					

PLEASE CONTINUE ON REVERSE.

Section II — RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE DOMESTIC COMPANY — Continued

Item 8 – ENERGY RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE COMPANY

- Report expenditures for energy research and development by type of energy sources. Include the project cost or portion of project cost incurred for the purpose of increasing energy resources or capabilities. These expenditures should be included in Item 3.A., line 3, columns (4) and (6).
- Estimate expenditures for energy research by energy source for 2001.

	Key code	1999						2000						2001					
		Federal funds (1)			Total funds (2)			Federal funds (1)			Total funds (2)			Projected Federal funds (3)			Projected total funds (4)		
	10	Bil.	Mil.	Thou.	Bil.	Mil.	Thou.	Bil.	Mil.	Thou.	Bil.	Mil.	Thou.	Bil.	Mil.	Thou.	Bil.	Mil.	Thou.
A. Nuclear	03																		
B. Fossil fuels	12																		
C. Geothermal, solar, conservation and utilization	16																		
D. All other energy	17																		
E. TOTAL – *Sum of lines A through D* →	18																		

Section III – RESEARCH AND DEVELOPMENT PERFORMED OUTSIDE THE DOMESTIC COMPANY WITH COMPANY FUNDS

Item 9 – FOREIGN RESEARCH AND DEVELOPMENT BY COUNTRY

Report the amount of total foreign research and development, Item 3.C., column (5), for the countries with the largest expenditures. If necessary, write in countries not listed. Report the balance of foreign research and development on line 9.

	Key code	1999 (1)			2000 (2)		
	12	Bil.	Mil.	Thou.	Bil.	Mil.	Thou.
1. Canada	01						
2. Germany	02						
3. France	03						
4. Japan	04						
5. United Kingdom	05						
6. Puerto Rico	06						
7. Other — *Specify*	07						
8. Other — *Specify*	08						
9. Balance not distributed	09						
10. TOTAL – *Sum of lines 1 through 9* →	10						

Item 10 – COVERAGE AND OPERATIONAL STATUS

Are research and development expenditures for the entire domestic enterprise, including subsidiaries, reported on this form?

1301 ☐ Yes 1302 ☐ No – *Please explain in the "Remarks" section below*

Item 11 – CERTIFICATION – This report is substantially accurate and has been prepared in accordance with instructions

Name of person to contact regarding this report	Telephone	Area code	Number	Extension

Signature of authorized official	Title	701 Date

801 Remarks

THANK YOU FOR YOUR RESPONSE.

U.S. DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. CENSUS BUREAU

INSTRUCTIONS FOR SURVEY OF INDUSTRIAL RESEARCH AND DEVELOPMENT DURING 2000 FORM RD-1

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GENERAL INSTRUCTIONS

Comprehensive and timely information about the nature and support of corporate research and development activities is an important component in the overall assessment of our nation's scientific and technological resources. The information you provide is used to prepare national measures of industrial research and development (R&D) not available from any other source. By carefully completing this report, the accuracy of this information is assured.

TAX INCENTIVES – Most states offer some type of incentive for research and development activity. Many of the states offer an income tax credit modeled after the federal research and experimentation tax credit guidelines. Other types of incentives include sales and use tax credits and property tax credit. A few states which offer tax incentives are: California, Minnesota, Washington, and Wisconsin. For further information on state tax incentives, please contact the Comptroller of the Treasury in your state.

DUE DATE – Please complete and return this form in the envelope provided within 60 days. Make a copy for your records.

SURVEY SCOPE – This report covers publicly traded and privately-owned, nonfarm business firms in all sectors of the United States economy. It does not include operations owned by Federal, state or local governments, nonprofit organizations, or trust or pension plans.

If your company is owned by a Federal, state or local government, is a nonprofit organization, or is a trust or pension plan which performs no activity other than investments, do not report. Please note in the remarks section on the back page of the form and return it.

REPORTING ENTITY – Report research and development activities for all domestic operations of your **entire consolidated domestic enterprise**, including subsidiaries and divisions. The term "company" in these instructions refers to the consolidated domestic enterprise. Report for all parts of the company located in the 50 states and the District of Columbia. Report net receipts and employment figures for all parts of the company, even those that do not perform R&D, as long as they are located in the 50 states or the District of Columbia.

If this form has been directed to a holding company, report for all subsidiaries and operations under the ownership and control of the holding company.

If you report separately for a component of this company based upon an arrangement with the Census Bureau, please continue to do so.

COVERAGE REVIEW – Check the appropriate box if this company was owned or controlled by another company on December 31, 2000. If yes, follow the instructions below:

- If you have been reporting separately for this component of the company based upon an arrangement with the Census Bureau, please complete the form.
- If your company is owned by a foreign company, please complete the form and fill out the new owner information in the remarks section, page 4.
- If your company was purchased by another company on or prior to March 31, 2000, please write the name and address of the new owner in the remarks section, page 4, sign the form in Item 11, and fax the form to (301) 457–1318.
- If your company was purchased after March 31, 2000, please complete the form for the months prior to the purchase of your company, write the name and address of the new owner in the remarks section, page 4, and return the form in the envelope provided.

If you have questions, please call the R&D Survey staff at (301) 457-4677 to determine whether you are required to complete the form.

PERIOD COVERED BY THE REPORT – Report figures for calendar year 2000. Fiscal year data are acceptable for all items except for employment, provided your fiscal year ends between September 2000 and March 2001. Please report employment figures (Items 1B and 2) for the specific times indicated for these items.

HOW TO REPORT – Report all value figures in thousands of dollars. If you cannot answer a question from your company records, please estimate the answer carefully.

Example: 1,123,678,599 dollars.

	Bil.	Mil.	Thou.
Report	$1	123	679

If you estimate your answers in millions of dollars, please fill the thousands box with zeros.

Example: 1,124

	Bil.	Mil.	Thou.
Report	$1	124	000

FIGURES FOR 1999 PRINTED ON THE FORM – If your company reported for 1999, entries from that form have been printed on the present form. If these figures are incorrect, please revise them. Please describe in the "Remarks" section the reasons for any substantial increase or decrease in the 2000 figures entered on this form when compared to corresponding 1999 figures or changes in the 1999 figures. Examples of such reasons are new government contracts, acquisitions and divestitures, and revised accounting method. If you acquired or disposed of a unit performing an important amount of research and development during the 2-year period, please identify the unit in "Remarks," and give the total amount of research and development accounted for by that unit.

ADDITIONAL FORMS – Photocopies of this form are acceptable. If you require additional forms, write to the U.S. Census Bureau, 1201 East 10th Street, Jeffersonville, IN 47132-0001 or call (812) 218–3331.

GENERAL INSTRUCTIONS – Continued

FILING EXTENSIONS – If you cannot complete the form in 60 days, request an extension of time by:

- calling the Census Touchtone Data Entry System on 1-800-851-2014 (have your 10-digit Census File Number, "CFN", available. The CFN is printed on the form above your address.)

OR

- writing to the address below (Please include your 10-digit Census File Number):

U.S. Census Bureau
1201 East 10th Street
Jeffersonville, IN 47132-0001

ALTERNATIVE REPORTING FORMATS – Included with the survey form is a computer diskette. Reporting your company information on the diskette is an alternative means of completing the survey. **If you do report on the diskette do not mail in the paper form.**

Receiving your data on diskette benefits us through reduced processing costs. Please refer questions concerning operation of the diskette to the Electronic Reporting Staff at (301) 457–4125.

BURDEN HOUR ESTIMATE – Public reporting burden for this collection of information is estimated to average 15 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimates or any other aspects of this collection of information, including suggestions for reducing this burden, to Suzanne H. Plimpton, National Science Foundation, 4201 Wilson Boulevard, Room 485, Arlington, VA 22230.

Direct **QUESTIONS** regarding this form to the U.S. Census Bureau, Manufacturing and Construction Division, ATTN.: Special Studies Branch, Room 2135/4, Washington, DC 20233–6900, call (301) 457–1339 or E-mail to antoinette.j.ralston@census.gov. (Please see the instructions for Item 11 on page 7 for E-mail warning.)

DEFINITION OF RESEARCH AND DEVELOPMENT

R&D includes basic and applied research in the sciences and engineering. It also includes design and development of new products and processes and enhancement of existing products and processes.

R&D includes activities carried on by persons trained, either formally or by experience, in the physical sciences such as chemistry and physics, the biological sciences such as medicine, and engineering and computer science. R&D includes these activities if the purpose is to do one or more of the following things:

1. Pursue a planned search for **new knowledge**, whether or not the search has reference to a specific application. (Basic research)
2. Apply **existing knowledge** to problems involved in the **creation of a new product or process**, including work required to evaluate possible uses. (Applied research)
3. Apply **existing knowledge** to problems involved in the **improvement of a present product or process**. (Development)

Research and development includes the activities described above whether assigned to separate R&D organizational units of the company or carried out by company laboratories and technical groups not part of an R&D organization. Reporting the R&D activities of such latter groups may require the use of estimates for some of your responses.

Activities to be **excluded** from R&D:

- R&D from acquired companies prior to acquisition
- R&D amortization above actual cost resulting from valuing capitalized R&D at fair market value for acquisitions accounted for by the purchase method of accounting
- Test and evaluation once a prototype becomes a production model
- Routine product testing
- Geological and geophysical exploration activities
- Technical services such as:
  - quality and quantity control
  - technical plant sanitation control
  - trouble-shooting in connection with breakdowns in full-scale production
- Advertising programs to promote or demonstrate new products or processes
- Assistance in preparation of speeches and publications for persons not engaged in research and development.
- Social Science R&D which is defined to encompass those activities devoted to further understanding the behavior of groups of human beings or of individuals as members of groups. Some of the topics include the following:
  - Personnel R&D
  - Economic R&D
  - Artificial intelligence and expert systems R&D
  - Consumer, market, and opinion R&D
  - Engineering psychology R&D
  - Management and organization R&D
  - Actuarial and demographic R&D
  - Educational processes and applications R&D
  - R&D in law

ITEM BY ITEM INSTRUCTIONS

Section I – GENERAL COMPANY DATA

Item 1 – RECEIPTS AND EMPLOYMENT FOR THE COMPANY

Item 1A – Net Sales, Operating Receipts and Revenues

Include:

- Sales, operating receipts and revenues from all domestic operations of the company, net of returns and allowances. This includes receipts from sales of products and services provided to other companies, individuals, U.S. Government agencies, and foreign countries.
- Net selling value of shipments, f.o.b. plant, after discounts and allowances minus freight charges and excise taxes
- Revenue from investments, rents, and royalties only if it is the principal business of the company. Finance, insurance and real estate companies should include interest, dividends, commissions and rental income as part of revenues.
- Value of assets sold under a capital lease agreement
- Export transfers to your foreign subsidiaries

Exclude:

- Sales and other taxes collected and paid directly to government taxing agencies
- Domestic intra-company transfers
- Receipts from sale of products and services provided by your foreign subsidiaries
- Income from interest, dividends and commissions, (except for companies in the finance, insurance and real estate industries).
- Other nonoperating income (e.g., royalties)

Item 1B – Domestic Company Employment

Include:

- The number of full and part-time employees of the company as defined on Treasury Form 941, Employer's Quarterly Federal Tax Return, and Circular E, Employer's Tax Guide, if filed for the entire company.
- The number of employees in all activities in the 50 States and the District of Columbia during the pay period which includes March 12, 2000.
- Persons on paid sick leave, paid holidays, and paid vacations during the pay period which includes March 12, 2000.

Report the number of employees, not payroll.

Item 2 – NUMBER OF RESEARCH AND DEVELOPMENT SCIENTISTS AND ENGINEERS

Scientists and engineers are defined for this survey as all persons engaged in scientific or engineering work at a level which requires a knowledge of physical or life sciences or engineering or mathematics. Their experience is equivalent to completion of a 4-year college course with a major in these fields, regardless of whether or not they actually hold a degree in this field.

The figure on R&D scientists and engineers will be obtained primarily from two sources:

1. For company laboratories performing only research and development, report the number of scientists and engineers employed in January, 2001.
2. For employees whose activities are not solely devoted to R&D, report the proportion of their time that is devoted to R&D. For example, if a company had the full-time equivalent of 60 scientists and engineers in January 2001 and one-fourth of their time was charged to R&D projects, the figure for the number of R&D scientists and engineers for this company would be 15.

Item 3 – COSTS INCURRED FOR RESEARCH AND DEVELOPMENT

▶ Source of Funds for Research and Development Costs

Federal funds

Include:

- Federally-sponsored research and development performed within the company. Include only the amount of work done on Federal R&D contracts or subcontracts in the current year.
- R&D portion of procurement contracts or subcontracts

Exclude:

- For Item 3A exclude Federal R&D contracts and R&D portions of procurement contracts that your company subcontracted to other R&D organizations. Including these funds would cause duplication in the statistical totals, which include data on work actually performed by each company. Report subcontracted costs in Item 3B.
- Expenditures for independent research and development (IR&D). These are included in company funds. (See definition below.)

Company and other funds

Include:

- Company-sponsored research and development performed within the company and R&D performed under contract from non-Federal sources

Item 3 – COSTS INCURRED FOR RESEARCH AND DEVELOPMENT – Continued

Company and other funds – Continued

Include:

- Costs for independent research and development (IR&D). We define IR&D funds as R&D performed by the company for which you anticipate reimbursement by the government through indirect charges for the purchase of products or services. Qualified projects usually have potential interest to the Department of Defense or other agencies of the Federal government. These IR&D funds are excluded from federal funds received for federally-sponsored research and development contracts.
- Costs for which you anticipate reimbursement as company funds. Report expenditures in the period for which they are incurred. Do not include the actual reimbursement.

Item 3A – PERFORMED WITHIN THE COMPANY

▶ Types of R&D Costs

Include as R&D costs:

- Wages, salaries, and related costs
- Materials and supplies consumed
- R&D depreciation
- Cost of computer software used in R&D activities
- Utilities, such as telephone, telex, electricity, water, and gas
- Travel costs and professional dues
- Property taxes and other taxes (except income taxes) incurred on account of the R&D organization or the facilities they use
- Insurance expenses
- Maintenance and repair, including maintenance of buildings and grounds
- Company overhead including: personnel, accounting, procurement and inventory, and salaries of research executives not on the payroll of the R&D organization

Exclude as R&D costs:

- R&D from acquired companies prior to acquisition
- R&D amortization above actual cost resulting from valuing capitalized R&D at fair market value for acquisitions accounted for by the purchase method of accounting
- Capital expenditures
- Test and evaluation once a prototype becomes a production model
- Patent expenses
- Income taxes and interest
- R&D performed abroad (see Item 3C), such as in Canada and Puerto Rico
- R&D performed by non-company R&D organizations of any kind (see Item 3B)
- Portion of company-held R&D contracts that are subcontracted outside the reporting company (see Item 3B)
- Fellowships, grants, and gifts to promote R&D or the study of science and engineering

Item 3A.1 – Basic Research

Include the cost of research projects which represent original investigation for the advancement of scientific knowledge and which do not have specific immediate commercial objectives, although they may be in the fields of present or potential interest to the reporting company.

Item 3A.2a – Applied Research

Include the cost of research projects which represent investigation in discovery of new scientific knowledge and which have specific commercial objectives with respect to either products or processes.

Item 3A.2b – Development

Include the cost of projects which represent technical activity concerned with non-routine problems encountered in translating research into products or processes.

Include:

- Expenditures for designing and conducting clinical trials of drugs, pharmaceuticals, or other products that have not been marketed
- Software development
  - Designing and/or adapting software if the application has commercial value (exclude software development for internal use)
  - Beta version of software being developed which has potential commercial application
- Design and operation of pilot plants and semi-work plants
- Engineering activity required to advance the design of a product or process so it meets specific functional and economic requirements
- Design, construction, and testing of prototypes and models including test models for defense contracts
- Designs for special manufacturing equipment and tools
- Preparation of reports, drawings, formulas, specifications, standard practice instructions, or operating manuals

Exclude:

- Software development intended for within company use only
- Beta version of software being developed which does not have potential commercial application
- Routine technical services to customers
- Toolmaking and tool tryout
- Production of detailed construction drawings and manufacturing blueprints

Item 3A.2c – Total Costs for Applied Research and Development

Add line 3A.2a and line 3A.2b.

Item 3A.3 – Total Costs for Basic and Applied Research and Development Performed Within the Company

Add line 3A.1 and line 3A.2c.

▶ Estimating basic, applied, and development expenditures

If your company does not keep records that can be allocated to these specific categories, estimate by the following:

1. Isolate projects that clearly fall into the development category of R&D costs. If your company fabricates products, development activity will include the design, construction, and testing of prototypes and models. If your company's R&D involves the development of a "process" as in chemicals and petroleum, this development activity would primarily include the design and operation of pilot plants or semi-work plants.
2. Isolate the organizational units which have R&D activities that can be readily classified based on the function assigned to the unit. R&D work performed in production units as well as in various laboratories is generally classified as development R&D.
3. Distribute the balance of R&D costs on the basis of individual projects or on the basis of other summaries of the work.

Item 3B – OUTSIDE THE COMPANY

Report payments in the form of contracts, grants, and fellowships made to other industrial firms, commercial laboratories, consultants, educational institutions, hospitals, and research institutions or other organizations.

Federal Funds (column 4): Report R&D activities that your company subcontracted to other organizations using **federal funds** you received for R&D contracts and R&D portions of procurement contracts.

Company and Other Funds (column 5): Report R&D activities that your company subcontracted to other organizations using **company or other nonfederal funds**.

Item 3C – FOREIGN

Report the amount of R&D financed by the U.S. parent or its foreign subsidiaries, including Canada and Puerto Rico, and performed by company R&D laboratories, branch plants, or other organizations, located outside the United States. Foreign subsidiaries are those outside the 50 States and the District of Columbia.

Exclude R&D activities performed by foreign subsidiaries which were financed by foreign governments or other outside organizations.

Item 3D – TOTAL

With the exception of "Other funds," this number represents company-sponsored R&D. It is comparable to information reported on Form 10K, if you report to the Securities and Exchange Commission.

Add line 3A.3 (column 5), line 3B (column 5) , and line 3C.

Item 4 – COMPANY AND OTHER FUNDS, EXCEPT FEDERAL, FOR RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE COMPANY BUDGETED FOR THE YEAR 2001

Report the estimated cost of company and other nonfederally sponsored R&D that will be performed within the 50 states and the District of Columbia in 2001. This item is comparable to the 2000 figure reported in Item 3A.3, column 5.

Section II – RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE DOMESTIC COMPANY

Item 5 – COSTS INCURRED FOR FEDERAL RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE COMPANY BY PRINCIPAL GOVERNMENT AGENCY

Distribute the cost of Federal research and development work (Item 3A, line 3, columns 1 and 4) by Federal agency – If exact figures are not available by agency, please estimate or apportion according to the number of scientists and engineers working on the Federal projects and/or the costs of Federal programs.

Item 6 – COSTS INCURRED FOR RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE COMPANY BY MAJOR TYPE OF EXPENSE

If most R&D is performed in units where summaries are regularly prepared by element of cost, base the breakdown of research and development costs upon the records of such units. If existing records do not yield figures for this item, the item may be estimated.

Item 6.1 – Wages and Salaries

Report the gross earnings paid in calendar year 2000 to employees engaged in R&D (follow the definition of salaries and wages that is used for calculating the withholding tax). Include salaries of officers in the research establishment(s) if a corporation; exclude payments to proprietor or partners if an unincorporated concern. (Scientists and engineers are defined in item 2.) Exclude employee fringe benefits which are to be reported in Item 6.3 – Other Costs.

Item 6.2 – Materials and Supplies

Report the delivered cost for all purchased materials consumed, whether received from other companies, withdrawn from inventory, or received from other establishments of this company. Include all work that was done for your laboratories and other technical units by non-company organizations (for example, model construction by a non-company model shop). Exclude purchases from other R&D organizations.

Item 6.3 – Depreciation

Report depreciation on R&D property and equipment related to your R&D activities.

Item 6.4 – Other Costs

Include items related to your R&D activities and not included in Items 6.1, 6.2, and 6.3. Include utilities, books and periodicals, property and other taxes, employee fringe benefits, and company overhead.

Item 7 – COST OF RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE COMPANY BY STATE

Report the cost of R&D for each State in which your company has research and development laboratories or facilities. It is not necessary to calculate separately individual assignments which may be made outside the home State of a particular research staff.

As much as 10 percent of the total may, if desired, be reported in line 52 as "Not distributed by State."

Item 8 – ENERGY RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE COMPANY

Include all spending for R&D to increase energy resources or capabilities, including the development of energy equipment. Energy research and development can include costs of R&D projects (both product and process) on exploration, extraction, transportation, processing, storage, generation (including conversion), distribution, conservation, etc., of present, new, or improved forms of energy. Record energy R&D spending according to type of energy in Items 8A through 8D.

If R&D spending is for joint or multiple purposes, estimate and report the portion of cost incurred for the energy purpose. In the limited number of cases where the separation of joint (multiple) costs by type of energy cannot be estimated, include the total cost of the R&D project when the primary purpose of the project is energy research and development. If the project is not primarily for energy research and development then exclude all of the project cost.

Item 8B – "Fossil Fuels" Include "Synthetic Fuels" and "Mining"

"Synthetic fuels" includes programs designed to convert coal to gaseous and liquid products. "Mining" is composed of programs for developing equipment and techniques to improve the productivity and recovery rates of coal mining.

Item 8C – "Conservation and Utilization"

Includes R&D activities undertaken to reduce consumption either at the point of energy use or in the transmission, transportation, storage, and conversion of energy. Examples of such are R&D undertaken primarily to reduce fuel consumption in manufacturing, to improve the efficiency of transportation of energy products, or to produce an end product which is more efficient in energy consumption.

Item 8D – "All Other Energy"

Includes areas such as wind, waste, hydroelectric, etc. Also include in this category the development of energy equipment which cannot be readily classified in Items 8A through 8C.

Section III – RESEARCH AND DEVELOPMENT PERFORMED OUTSIDE THE DOMESTIC COMPANY WITH COMPANY FUNDS

This section of the report form covers the R&D reported in item 3.C of section I, on page two.

Item 9 – FOREIGN RESEARCH AND DEVELOPMENT BY COUNTRY

Allocate the totals reported in Item 3.C., column 5 by the country in which your various research and development takes place. Estimate the costs associated with each country. If necessary, you may write in countries not listed.

Item 10 – COVERAGE AND OPERATIONAL STATUS

Check the appropriate box if the domestic company expenditures on this form, including all subsidiaries, have R&D. If no, please explain in remarks section or in a transmittal letter.

Item 11 – CERTIFICATION

Report the name and telephone number of the person to contact regarding this report. Please sign and date the form.

If you wish to correspond by E-mail, please provide your E-mail address in the "Remarks" section.

WARNING CONCERNING ELECTRONIC MAIL – The Internet is NOT a secure means of transmitting information unless it is encrypted. If you choose to communicate with the Census Bureau via electronic mail, the Census Bureau cannot guarantee the privacy of the information while transmitted, but will safeguard it in accordance with Title 13. Be advised that making inquires regarding this survey via electronic mail may divulge your participation in this survey.

PLEASE RETURN BY:

OMB No. 3145-0027: Approval Expires 12/31/2001

NOTICE — Your report to the Census Bureau is **confidential** by law (title 13, U.S. Code).

The instructions and definitions on this form are not complete. Please read the enclosed instruction sheet before completing this form.

RETURN TO

U.S. CENSUS BUREAU
1201 East 10th Street
Jeffersonville, IN 47132-0001

MANDATORY REPORTING REQUIREMENTS

Data supplied in items 2A and B and in item 3.A.3, columns 1 and 3 for 2000 on this form will satisfy the mandatory reporting requirements (title 13, U.S. Code).

FORM **RD-1A**
(1-29-2001)

U.S. DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. CENSUS BUREAU

SURVEY OF INDUSTRIAL RESEARCH AND DEVELOPMENT DURING 2000

FROM THE ACTING DIRECTOR
U.S. CENSUS BUREAU

We have enclosed your company's report form and instructions for the 2000 Survey of Industrial Research and Development (R&D). **Please read the definition of R&D on page 2 of the form** and review Item 1. If your company does not conduct R&D, please call the Touchtone Data Entry system to report on 1-800-851-2014. **If your company conducted R&D in 2000, please review the instructions, complete the form, and return it within 30 days.** Federal law requires your response to four items identified on the form. Your voluntary response to all other items is needed to assure useful results.

This survey provides information for examining R&D tax credits. Some businesses are able to use R&D tax credits to reduce their Federal tax burden. The data assist public officials in allocating research funding by state, which may benefit companies like yours. Analysts also use the results to compare R&D spending in this country with other countries to ensure that U.S. businesses are not at a competitive disadvantage.

Information you report should cover the domestic operations of your consolidated enterprise for calendar year 2000. We recognize that providing this information is a burden, and we have worked hard to minimize it. For example, if you do not have book records for any item, **you may provide carefully prepared estimates.** The law that authorizes this survey (Title 13, United States Code) requires that we keep your report in full confidence. Only sworn U.S. Census Bureau employees will see your information, and they will use it only for statistical purposes.

We conduct this survey with National Science Foundation (NSF) support. We have enclosed a letter from the Director of the NSF encouraging your response to the survey. If you have any questions, please call my staff on (301) 457-1339. Thank you in advance for your cooperation.

Sincerely,

William G. Barron

Enclosures

PLEASE OPEN AND BEGIN THE SURVEY WITH ITEM 1.

RESEARCH AND DEVELOPMENT

R&D includes basic and applied research in the sciences and engineering. It also includes design and development of new products and processes and enhancement of existing products and processes.

R&D includes activities carried on by persons trained, either formally or by experience, in the physical sciences such as chemistry and physics, the biological sciences such as medicine, and engineering and computer science. R&D includes these activities if the purpose is to do one or more of the following things:

1. Pursue a planned search for **new knowledge**, whether or not the search has reference to a specific application. (Basic Research)
2. Apply **existing knowledge** to problems involved in the **creation of a new product or process** including work required to evaluate possible uses. (Applied Research)
3. Apply **existing knowledge** to problems involved in the **improvement of a present product or process**. (Development)

Research and development includes the activities described above whether assigned to separate R&D organizational units of the company or carried out by company laboratories and technical groups not part of an R&D organization. Reporting the R&D activities of such latter groups may require the use of estimates for some of your responses.

Activities to be **excluded** from R&D are as follows: research in social sciences or psychology, routine product testing, geological and geophysical exploration activities and technical services.

See instructions for more detail.

Item 1 – CHECK FOR RESEARCH AND DEVELOPMENT

Mark (X) the appropriate box.

201 ☐ Company had R&D in 2000 – *Complete form, enter zeros where applicable, and return this form.*

203 ☐ Company does not conduct R&D – *Either call TDE to report (1–800–851–2014) OR mark the 203 box and mail the form.*

NOTE – After reviewing Item 1 if you need further assistance please call (301) 457–1339.

Item 2 – RECEIPTS, EMPLOYMENT AND NUMBER OF SCIENTISTS AND ENGINEERS FOR COMPANY

	2000			
	Bil.	Mil.	Thou.	Dol.
A. Sales, operating receipts and revenues from all domestic operations of the company, net of returns and allowances. (Report in thousands of dollars) **INCLUDE** receipts for sales of products and services provided to other companies, individuals, U.S. Government agencies, and foreign countries from all domestic operations of your company.	102 $			000

	2000
	Number
B. Report domestic company employment in all activities during the pay period which includes the 12th of March 2000. (Item 1 of I.R.S. Form 941, if Form 941 was filed for the entire company.)	112

	January 2001
	Number
C. Report the full-time equivalent number of R&D scientists and engineers employed in January 2001. For employees whose activities are not solely devoted to research and development, report the proportion of their time that is devoted to research and development. *(See instructions for examples)*	502

Item 3 – COSTS INCURRED FOR RESEARCH AND DEVELOPMENT IN 2000

		Source of funds											
		Federal (1)				Company and other (2)				Total ((1) + (2)) (3)			
		Bil.	Mil.	Thou.	Dol.	Bil.	Mil.	Thou.	Dol.	Bil.	Mil.	Thou.	Dol.
A. Performed within the company													
1. Basic research		304 $			000	305 $			000	306 $			000
2. Applied research and development	**a.** Applied research	314 $			000	315 $			000	316 $			000
	b. Development	324 $			000	325 $			000	326 $			000
	c. Total *(Sum of lines a and b)* →	334 $			000	335 $			000	336 $			000
3. TOTAL ***(Sum of lines 1 and 2c)*** →		344 $			000	345 $			000	346 $			000
B. Outside the company – **Federal** funds and **company** funds for research and development **performed by others** outside the company **within the United States** *(Exclude from 3A.3 above)*		354 $			000	355 $			000	356 $			000
C. Foreign – **Company** funds for research and development **performed by foreign subsidiaries** or other organizations **outside the United States** *(Exclude from 3A.3 and 3B above)*						365 $			000				
D. TOTAL – Company and other funds, except Federal *(This line represents company sponsored research and development with the exception of "other funds.") (Sum of 3A.3 (column 2), B, and C)* →						375 $			000				

Item 4 – COMPANY AND OTHER FUNDS, EXCEPT FEDERAL, FOR RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE COMPANY BUDGETED FOR THE YEAR 2001

Bil.	Mil.	Thou.	Dol.
401 $			000

Item 5A – COVERAGE AND OPERATIONAL STATUS

Are research and development costs for the entire consolidated domestic enterprise, including subsidiaries, reported on this form?

☐ Yes ☐ No – *Please explain in remarks below.*

Was this company owned or controlled by another company on December 31, 2000?

☐ Yes – *Complete 5B.* Date acquired → 601 [Month | Year] ☐ No

Item 5B – NEW OWNER INFORMATION (See instructions for Coverage Review)

602 Name	603 Address		
604 City	605 State	606 ZIP Code	

CHECK ITEM Please complete the check list below BEFORE returning this questionnaire. By checking these items you will reduce the likelihood of our calling you to resolve an error or inconsistency.

	Yes	No
In item 2A:		
1. Sales is reported in **thousands** of dollars	☐	☐
In item 2B:		
2. Your answer describes the number of **employees**, NOT company payroll	☐	☐
In item 3:		
3. Verify that **Federal funds** (column 1) plus **Company funds** (column 2) equals **Total funds** (column 3) for: Basic research (3A.1), applied research (3A.2a), development (3A.2b), total applied research and development (3A.2c), and total costs within the company (3A.3)	☐	☐

IF THE ANSWER TO ANY OF THE ABOVE CHECKS IS "NO", PLEASE MAKE THE NECESSARY CORRECTIONS IN THE APPROPRIATE ITEM(S) OR PROVIDE AN EXPLANATION IN THE REMARKS SECTION.

Item 6 – CERTIFICATION – This report is substantially accurate and has been prepared in accordance with instructions.

Name of person to contact regarding this report	Area code	Number	Extension

Signature of authorized official	Title	701 Date

801 Remarks (If you wish to correspond by E-mail, please place your E-mail address here.)

U.S. DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. CENSUS BUREAU
COLLECTING AND COMPILING AGENT FOR
THE NATIONAL SCIENCE FOUNDATION
WASHINGTON, DC 20233

INSTRUCTIONS FOR SURVEY OF INDUSTRIAL RESEARCH AND DEVELOPMENT DURING 2000
FORM RD-1A

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GENERAL INSTRUCTIONS

Comprehensive and timely information about the nature and support of corporate research and development activities is an important component in the overall assessment of our nation's scientific and technological resources. The information you provide is used to prepare national measures of industrial research and development (R&D) not available from any other source. By carefully completing this report, the accuracy of this information is assured.

TAX INCENTATIVES – Most states offer some type of incentive for research and development activity. Many of the states offer an income tax credit modeled after the federal research and experimentation tax credit guidelines. Other types of incentives include sales and use tax credits and property tax credit. A few states which offer incentives are California, Minnesota, Washington, and Wisconsin. For further information on state tax incentives, please contact the Comptroller of the Treasury in your state.

DUE DATE – Please complete and return this form in the envelope provided within 30 days. Make a copy for your records.

SURVEY SCOPE – This report covers publicly traded and privately-owned, nonfarm business firms in all sectors of the United States economy. It does not include operations owned by Federal, state or local governments, nonprofit organizations, or trust or pension plans.

If your company is owned by a Federal, state or local government, is a nonprofit organization, or is a trust or pension plan which performs no activity other than investments, do not report. Please note in the remarks section on the back page of the form and return it.

REPORTING ENTITY – Report research and development activities for all domestic operations of your **entire consolidated domestic enterprise**, including subsidiaries and divisions. The term "company" in these instructions refers to the consolidated domestic enterprise. Report for all parts of the company located in the 50 states and the District of Columbia. Report net receipts and employment figures for all parts of the company, even those that do not perform R&D, as long as they are located in the 50 states or the District of Columbia.

If this form has been directed to a holding company, report for all subsidiaries and operations under the ownership and control of the holding company.

COVERAGE REVIEW – Check the appropriate box if this company was owned or controlled by another company on December 31, 2000. If yes, follow the instructions below:

- If your company is owned by a foreign company, please complete the form and fill out the new owner information on the back page of the form.
- If your company was purchased by another company on or prior to March 31, 2000, please complete the new owner information on the back page of the form, sign the form in Item 6, and fax the form to (301) 457–1318.
- If your company was purchased after March 31, 2000, please complete the form for the months prior to the purchase of your company, fill out the new owner information on the back page of the form, and return the form in the envelope provided.

If you have questions, please call the R&D Survey staff at (301) 457-4677 to determine whether you are required to complete the form.

PERIOD COVERED BY THE REPORT – Report figures for calendar year 2000. Fiscal year data are acceptable for all items except for employment, provided your fiscal year ends between September 2000 and March 2001. Please report employment figures (Items 2B and 2C) for the specific times indicated for these items.

HOW TO REPORT – Report all value figures in thousands of dollars. If you cannot answer a question from your company records, please estimate the answer carefully.

Example: 1,123,678,599 dollars.

	Bil.	Mil.	Thou.	Dol.
Report	$1	123	679	000

If you estimate your answers in millions of dollars, please fill the thousands box with zeros.

Example: 1,124

	Bil.	Mil.	Thou.	Dol.
Report	$1	124	000	000

ADDITIONAL FORMS – Photocopies of this form are acceptable. If you require additional forms, write to the U.S. Census Bureau, 1201 East 10th Street, Jeffersonville, IN 47132-0001 or call (812) 218–3331.

FILING EXTENSIONS – If you cannot complete the form in 30 days, request an extension of time by:

- calling the Census Touchtone Data Entry System on 1-800-851-2014 (have your 10-digit Census File Number, "CFN", available. The CFN is printed on the form above your address.)

OR

- writing to the address below (Please include your 10-digit Census File Number):

U.S. Census Bureau
1201 East 10th Street
Jeffersonville, IN 47132-0001

BURDEN HOUR ESTIMATE – Public reporting burden for this collection of information is estimated to average 1 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimates or any other aspects of this collection of information including suggestions for reducing this burden to Gail A. McHenry, National Science Foundation, 4201 Wilson Boulevard, Room 485, Arlington, VA 22230.

Direct **QUESTIONS** regarding this form to the U.S. Census Bureau, Manufacturing and Construction Division, ATTN.: Special Studies Branch, Room 2135/4, Washington, DC 20233–6900, call (301) 457–1339 or E-mail to antoinette.j.ralston@census.gov. (Please see the instructions for Item 6 on page 6 for E-mail warning.)

DEFINITION OF RESEARCH AND DEVELOPMENT

R&D includes basic and applied research in the sciences and engineering. It also includes design and development of new products and processes and enhancement of existing products and processes.

R&D includes activities carried on by persons trained, either formally or by experience, in the physical sciences such as chemistry and physics, the biological sciences such as medicine, and engineering and computer science. R&D includes these activities if the purpose is to do one or more of the following things:

1. Pursue a planned search for **new knowledge**, whether or not the search has reference to a specific application. (Basic research)

2. Apply **existing knowledge** to problems involved in the **creation of a new product or process**, including work required to evaluate possible uses. (Applied research)

3. Apply **existing knowledge** to problems involved in the **improvement of a present product or process**. (Development)

Research and development includes the activities described above whether assigned to separate R&D organizational units of the company or carried out by company laboratories and technical groups not part of an R&D organization. Reporting the R&D activities of such latter groups may require the use of estimates for some of your responses.

Activities to be **EXCLUDED** from R&D:

- R&D from acquired companies prior to acquisition
- R&D amortization above actual cost resulting from valuing capitalized R&D at fair market value for acquisitions accounted for by the purchase method of accounting.
- Test and evaluation once a prototype becomes a production model
- Routine product testing
- Geological and geophysical exploration activities
- Technical services such as:
  - quality and quantity control
  - technical plant sanitation control
  - trouble-shooting in connection with breakdowns in full-scale production
- Advertising programs to promote or demonstrate new products or processes
- Assistance in preparation of speeches and publications for persons not engaged in research and development.
- Social Science R&D which is defined to encompass those activities devoted to further understanding the behavior of groups of human beings or of individuals as members of groups. Some of the topics include the following:
  - Personnel R&D
  - Economic R&D
  - Artificial intelligence and expert systems R&D
  - Consumer, market, and opinion R&D
  - Engineering psychology R&D
  - Management and organization R&D
  - Actuarial and demographic R&D
  - Educational processes and applications R&D
  - R&D in law

ITEM BY ITEM INSTRUCTIONS

Item 1 – CHECK FOR RESEARCH AND DEVELOPMENT

Check the box that best describes the R&D activities of your company. If your company performed R&D in 2000 then check box 201 and continue with Item 2.

If your company did **not** conduct R&D in 2000 then **call the Census Touchtone Data Entry system at 1-800-851-2014 to complete the survey.** Have your 10-digit Census File Number (CFN) ready before calling. The CFN is located above the address. This system will allow you to report that your company performed no R&D in 2000. Do not mail in the form.

Alternatively, check the appropriate box, 203, on the form. Do not complete the data items. Go to Item 6, sign and return the form in the envelope provided. **You must call or mail in the form to complete your reporting requirements for the survey.**

Item 2 – RECEIPTS, EMPLOYMENT AND NUMBER OF SCIENTISTS AND ENGINEERS FOR COMPANY

Item 2A – Net Sales, Operating Receipts and Revenues

Include:

- Sales, operating receipts and revenues from all domestic operations of the company, net of returns and allowances. This includes receipts from sales of products and services provided to other companies, individuals, U.S. Government agencies, and foreign countries.
- Net selling value of shipments, f.o.b. plant, after discounts and allowances minus freight charges and excise taxes.
- Revenue from investments, rents, and royalties only if it is the principal business of the company. Finance, insurance and real estate companies should include interest, dividends, commissions and rental income as part of revenues.
- Value of assets sold under a capital lease agreement
- Export transfers to your foreign subsidiaries

Item 2A – Net Sales, Operating Receipts and Revenues – Continued

Exclude:

- Sales and other taxes collected and paid directly to government taxing agencies
- Domestic intra-company transfers
- Receipts from sale of products and services provided by your foreign subsidiaries
- Income from interest, dividends and commissions, (except for companies in finance, insurance and real estate industries).
- Other nonoperating income (e.g., royalties)

Item 2B – Domestic Company Employment

Include:

- The number of full/part-time employees of the company as defined on Treasury Form 941, Employer's Quarterly Federal Tax Return, and Circular E, Employer's Tax Guide, if filed for the entire company.
- The number of employees in all activities in the 50 States and the District of Columbia during the pay period which includes March 12, 2000.
- Persons on paid sick leave, paid holidays, and paid vacations during the pay period which includes March 12, 2000.

Report the number of employees, not payroll.

Item 2C – Number of Research and Development Scientists and Engineers

Scientists and engineers are defined for this survey as all persons engaged in scientific or engineering work at a level which requires a knowledge of physical or life sciences or engineering or mathematics. Their experience is equivalent to completion of a 4-year college course with a major in these fields, regardless of whether or not they actually hold a degree in this field.

The figure on R&D scientists and engineers will be obtained primarily from two sources:

1. For company laboratories performing only research and development, report the number of scientists and engineers employed in January, 2001.
2. For employees whose activities are not solely devoted to R&D, report the proportion of their time that is devoted to R&D. For example, if a company had the full-time equivalent of 60 scientists and engineers in January 2001 and one-fourth of their time was charged to R&D projects, the figure for the number of R&D scientists and engineers for this company would be 15.

Item 3 – COSTS INCURRED FOR RESEARCH AND DEVELOPMENT

▶ Source of Funds for Research and Development Costs

Federal funds

Include:

- Federally-sponsored research and development performed within the company. Include only the amount of work done on Federal R&D contracts or subcontracts in the current year.
- R&D portion of procurement contracts or subcontracts

Exclude:

- For Item 3A exclude Federal R&D contracts and R&D portions of procurement contracts that your company subcontracted to other R&D organizations. Including these funds would cause duplication in the statistical totals, which include data on work actually performed by each company. Report subcontracted costs in Item 3B.
- Expenditures for independent research and development (IR&D). These are included in company funds. (See definition below.)

Company and other funds

Include:

- Company-sponsored research and development performed within the company and R&D performed under contract from non-Federal sources
- Costs for independent research and development (IR&D). We define IR&D funds as R&D performed by the company for which you anticipate reimbursement by the government through indirect charges for the purchase of products or services. Qualified projects usually have potential interest to the Department of Defense or other agencies of the Federal government. These IR&D funds are excluded from federal funds received for federally-sponsored research and development contracts.
- Costs for which you anticipate reimbursement as company funds. Report expenditures in the period for which they are incurred. Do not include the actual reimbursement.

Item 3A – PERFORMED WITHIN THE COMPANY

▶ Types of R&D Costs

Include as R&D costs:

- Wages, salaries, and related costs
- Materials and supplies consumed
- R&D depreciation

Item 3A – PERFORMED WITHIN THE COMPANY – Continued

▶ Types of R&D Costs – Continued

Include as R&D costs – Continued:

- Cost of computer software used in R&D activities
- Utilities, such as telephone, telex, electricity, water, and gas
- Travel costs and professional dues
- Property taxes and other taxes (except income taxes) incurred on account of the R&D organization or the facilities they use
- Insurance expenses
- Maintenance and repair, including maintenance of buildings and grounds
- Company overhead including: personnel, accounting, procurement and inventory, and salaries of research executives not on the payroll of the R&D organization

Exclude as R&D costs:

- R&D from acquired companies prior to acquisition
- R&D amortization above actual cost resulting from valuing capitalized R&D at fair market value for acquisitions accounted for by the purchase method of accounting.
- Capital expenditures
- Test and evaluation once a prototype becomes a production model
- Patent expenses
- Income taxes and interest
- R&D performed abroad (see Item 3C), such as in Canada and Puerto Rico
- R&D performed by non-company R&D organizations of any kind (see Item 3B)
- Portion of company-held R&D contracts that are subcontracted outside the reporting company (see Item 3B)
- Fellowships, grants, and gifts to promote R&D or the study of science and engineering

Item 3A.1 – Basic Research

Include the cost of research projects which represent original investigation for the advancement of scientific knowledge and which do not have specific immediate commercial objectives, although they may be in the fields of present or potential interest to the reporting company.

Item 3A.2a – Applied Research

Include the cost of research projects which represent investigation in discovery of new scientific knowledge and which have specific commercial objectives with respect to either products or processes.

Item 3A.2b – Development

Include the cost of projects which represent technical activity concerned with non-routine problems encountered in translating research into products or processes.

Include:

- Expenditures for designing and conducting clinical trials of drugs, pharmaceuticals, or other products that have not been marketed
- Software development
  - Designing and/or adapting software if the application has commercial value (exclude software development for internal use)
  - Beta version of software being developed which has potential commercial application
- Design and operation of pilot plants and semi-work plants
- Engineering activity required to advance the design of a product or process so it meets specific functional and economic requirements
- Design, construction, and testing of prototypes and models including test models for defense contracts
- Designs for special manufacturing equipment and tools
- Preparation of reports, drawings, formulas, specifications, standard practice instructions, or operating manuals

Exclude:

- Routine technical services to customers
- Toolmaking and tool tryout
- Production of detailed construction drawings and manufacturing blueprints
- Software development intended for within company use only
- Beta version of software being developed which does not have potential commercial application

Item 3A.2c – Total Costs for Applied Research and Development

Add line 3A.2a and line 3A.2b.

Item 3A.3 – Total Costs for Basic and Applied Research and Development Performed Within the Company

Add line 3A.1 and line 3A.2c.

▶ Estimating basic, applied, and development expenditures

If your company does not keep records that can be allocated to these specific categories, estimate by the following:

1. Isolate projects that clearly fall into the development category of R&D costs. If your company fabricates products, development activity will include the design, construction, and testing of prototypes and models. If your company's R&D involves the development of a "process" as in chemicals and petroleum, this development activity would primarily include the design and operation of pilot plants or semi-work plants.
2. Isolate the organizational units which have R&D activities that can be readily classified based on the function assigned to the unit. R&D work performed in production units as well as in various laboratories is generally classified as development R&D.
3. Distribute the balance of R&D costs on the basis of individual projects or on the basis of other summaries of the work.

Item 3B – OUTSIDE THE COMPANY

Report payments in the form of contracts, grants, and fellowships made to other industrial firms, commercial laboratories, consultants, educational institutions, hospitals, and research institutions or other organizations.

Federal Funds (column 1): Report R&D activities that your company subcontracted to other organizations using **federal funds** you received for R&D contracts and R&D portions of procurement contracts.

Company and Other Funds (column 2): Report R&D activities that your company subcontracted to other organizations using **company or other nonfederal funds**.

Item 3C – FOREIGN

Report the amount of R&D financed by the U.S. parent or its foreign subsidiaries, including Canada and Puerto Rico, and performed by company R&D laboratories, branch plants, or other organizations, located outside the United States. Foreign subsidiaries are those outside the 50 States and the District of Columbia.

Exclude R&D activities performed by foreign subsidiaries which were financed by foreign governments or other outside organizations.

Item 3D – TOTAL

With the exception of "Other funds," this number represents company-sponsored R&D. It is comparable to information reported on Form 10K, if you report to the Securities and Exchange Commission.

Add line 3A.3 (column 2), line 3B (column 2) , and line 3C.

Item 4 – COMPANY AND OTHER FUNDS, EXCEPT FEDERAL, FOR RESEARCH AND DEVELOPMENT PERFORMED WITHIN THE COMPANY BUDGETED FOR THE YEAR 2001

Report the estimated cost of company and other nonfederally sponsored R&D that will be performed within the 50 states and the District of Columbia in 2001. This item is comparable to the 2000 figure reported in Item 3A.3, column 2.

Item 5A – COVERAGE AND OPERATIONAL STATUS

Check the appropriate box indicating whether or not R&D costs for the entire consolidated domestic enterprise, including subsidiaries were reported on this form. If no, please explain in the remarks section.

Check the appropriate box whether this company was owned or controlled by another company on December 31, 2000. If yes, please report the month and year your company was acquired and fill out the new owner information in Item 5B. Please see "COVERAGE REVIEW" in the General Instructions for a description of how to proceed in filling out the form.

Item 5B – NEW OWNER INFORMATION

If the company was owned or controlled by another company on December 31, 2000, provide the name and address of the new owner. In the "Remarks" section, specify the change or correction, e.g., wholly-owned subsidiary of ABC Company", "merger with XYZ Company", "acquired by 123 Corporation".

CHECK ITEM

Mark "Yes" or "No" as appropriate for each of the checks in this item. If the answer is "No" provide an explanation in the remarks section.

Item 6 – CERTIFICATION

Report the name and telephone number of the person to contact regarding this report. Please sign and date the form.

If you wish to correspond by E-mail, please put your E-mail address in the remarks section.

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