2016 BRDI-1(S) - Guidelines

General guidelines for reporting inter-company transactions in this survey:

Reporting for "worldwide activities"- The reporting unit is your company, including all domestic and foreign subsidiaries that are more than 50% owned by your company for financial reporting purposes. All transactions between subdivisions within this reporting unit should be eliminated as inter-company transactions. For reporting purposes, your foreign parent (if you are foreign owned) and any foreign affiliates your company does not own by more than 50% should not be treated as part of 'your company' in your report. Transactions with these units should be treated the same as with any unrelated third parties such as business partners, customers, or suppliers you do not own.

Reporting for "domestic operations"- In this survey "domestic operations" refers to your company's operations located in the 50 United States and the District of Columbia. When reporting for your domestic operations, include transactions with foreign subsidiaries. For example, Question 7 asks how much of your company's total sales and revenues were from your company's domestic operations. All revenue from the domestic operations, including sales to subsidiaries or affiliated companies overseas, should be reported in this question.

Company Information

1. Was your company a majority-owned subsidiary of a foreign company in 2016?

Question 1 asks about the ownership of the company receiving the survey. Special reporting instructions apply to companies that were majority-owned by a foreign company. If your answer is "No", continue to Question 2. If your answer is "Yes", enter the name of the parent company then skip to Question 3.

REPORTING INSTRUCTIONS FOR FOREIGN-OWNED COMPANIES:

If you are owned by a foreign parent, the reporting unit for this survey is your U.S.- located company, including all your majority-owned subsidiaries and divisions regardless of location. For reporting purposes, your foreign parent and any other foreign affiliates your company does not own should be treated the same as any business partner, customer, or supplier you do not own.

If you pay your foreign parent for R&D services, those costs should be included in your response to Question 11.

If your foreign parent pays or reimburses your company for R&D services, the costs for this R&D should be included in your response to Ouestion 17, line a.

Report your survey data using U.S. generally accepted accounting principles (U.S. GAAP) as recognized by the Financial Accounting Standard Board (FASB). If your company follows International Financial Reporting Standards (IFRS), we request that you make adjustments in order to conform to U.S. GAAP.

2. Did another U.S. company other than a holding company own more than 50 percent of the voting interest in your company during 2016?

Question 2 asks about the majority of the ownership of the voting interest of the company receiving the survey. Special reporting instructions apply to companies that have been acquired by another company. If your answer is "No", continue to Question 3. If your answer is "Yes", enter the name of the parent company, the EIN of the owner, and the date that your parent company purchased your company.

REPORTING INSTRUCTIONS FOR U.S.-OWNED COMPANIES:

If your company was purchased between April 1, 2016 and December 31, 2016, report only for the period January 1, 2016 to the date of purchase. If your company was purchased before April 1, 2016, return this form to the Census Bureau – you are not required to complete the rest of this survey unless your owner instructs you to complete this survey.

Example 1: Company A was acquired by Company P (a U.S. company) on Feb. 1, 2016. Because Company A was acquired by a U.S. company prior to April 1, 2016, Company A is not required to complete this survey. Company A will stop here and return the form to the Census Bureau.

Example 2: Company B is acquired by Company P (a U.S. company) on July 1, 2016. Because Company B was acquired by a U.S. company on or after April 1, 2016, Company B must complete the survey, reporting data for the period January 1, 2016 through July 1, 2016.

Why April 1?

The Census Bureau has determined that for this survey the benefit of collecting data from a company for a period less than one quarter of a year does not outweigh the burden placed on the company to report the data.

Why is this important?

Companies are asked this question for three reasons: to eliminate double counting in cases where both parties in a business acquisition receive the survey; to guide foreign-owned companies to special instructions; and to reduce the burden on companies who would otherwise be reporting data for a period less than one quarter of the year.

3. Has your company ceased operations?

If your answer is "Yes", enter the date that your company ceased operations.

REPORTING INSTRUCTIONS:

If your company ceased operations between April 1, 2016 and December 31, 2016, report only for the period January 1, 2016 to the date your company ceased operations. If your company ceased operations before April 1, 2016, return this form to the Census Bureau – you are not required to complete the rest of this survey.

<u>Scenario 1:</u> Your company ceased operations before April 1, 2016. Complete Questions 1 through 3 and return the survey to the Census Bureau.

<u>Scenario 2:</u> Your company ceased operations between April 1, 2016 and December 31, 2016. You should complete the survey as instructed and report for the period from January 1, 2016 to the date your company ceased operations.

Why April 1?

The Census Bureau has determined that for this survey the benefit of collecting data from a company for a period less than one quarter of a year does not outweigh the burden placed on the company to report the data.

Why is this important?

Data from companies that have ceased operations during 2016 are needed in order to accurately measure the total activity of companies operating in the United States during 2016.

4. Please provide the name and phone number of the person completing this survey.

Why is this important?

This information gives the Census Bureau a single point of contact at each company surveyed in case questions arise about survey responses. The point of contact for this survey may differ from that for other Census Bureau surveys.

5. Please describe your company's primary business activity during 2016.

This information is needed in order to tabulate more accurate and useful industry-level data.

6. What was the amount of your company's worldwide sales and revenues during 2016?

Your company's worldwide net sales and revenues include sales by your foreign operations and subsidiaries as well as revenues from domestic operations. If your company is owned by a foreign parent, report sales to your parent and those affiliates not owned by your company.

Include sales and operating revenues for discontinued operations.

Exclude non-operating income such as dividends and interest as well as excise, sales, and other revenue-based taxes.

7. How much of the amount reported in Question 6 was attributable to or originated from domestic operations?

Question 7 asks for the company's sales and revenues generated by domestic operations regardless of where the customers are located. "Domestic operations" does not mean sales to customers located in the United States. If your company is owned by a foreign parent, then sales to your parent and those affiliates not owned by your company are included.

Include sales and operating revenues to foreign customers, including foreign subsidiaries.

Example: U.S. Manufacturing Corporation sells parts to customers around the world. However, because all its operations are located inside the United States, 100% of its sales is attributable to its domestic operations.

Product (good or service) innovation

A product innovation is the market introduction of a **new** or **significantly** improved good or service with respect to its capabilities, user friendliness, components, or sub-systems.

- Product innovations (new or improved) must be new to your company, but they do not need to be new to your market.
- Product innovations could have been originally developed by your company or by other companies.

8. During the three years 2014 to 2016, did your company introduce:

- a. New or significantly improved goods (Exclude the simple resale of new goods purchased from other companies and changes of a solely aesthetic nature)?
- b. New or significantly improved services?

For the purpose of this question, "new or significantly improved" is in reference to the company's prior experience. For example, a computer manufacturer that introduced its first cell phone in 2014 would answer, "Yes" to line a, "New or significantly improved goods".

9. Please give the percentage of your total sales in 2016 from:

Question 9 asks how much of the company's total worldwide sales in 2016 are attributable to different types of product innovations. Specifically, it asks what percent of the company's total worldwide sales in 2016 that were from:

- a. New or significantly improved goods and services introduced during 2014 to 2016 that were **new to your market.** Your company introduced a new or significantly improved good or service to your market before your competitors. (It may have been available in other markets.)
- b. New or significantly improved goods and services introduced during 2014 to 2016 that were **new only to your company.** Your company introduced a new or significantly improved good or service that was already available from your competitors in your market.
- c. Goods and services that were **unchanged or only marginally modified** during 2014 to 2016 (include the resale of new goods or services purchased from other companies).

Process innovation

A process innovation is the implementation of a **new** or **significantly** improved production process, distribution method, or support activity for your goods or services.

- Process innovations must be new to your company, but they do not need to be new to your market.
- The innovation could have been originally developed by your company or by other companies.
- Exclude purely organizational innovations.

10. During the three years 2014 to 2016, did your company introduce:

- a. New or significantly improved methods of manufacturing or producing goods or services?
- b. New or significantly improved logistics, delivery or distribution methods for your inputs, goods, or services?
- c. New or significantly improved supporting activities for your processes, such as maintenance systems or operations for purchasing, accounting, or computing?

Question 10 asks whether the company introduced any process innovations over the past three years. For the purpose of this question, "new of significantly improved" is in reference to the company's prior experience.

R&D paid for by your company

11. What was the total worldwide R&D expense for your company in 2016?

Question 11 requests total worldwide R&D expense. The reporting unit is your company, including all domestic and foreign subsidiaries that are more than 50% owned by your company for financial reporting purposes. All transactions between subdivisions within this reporting unit should be eliminated as inter-company transactions. Total worldwide R&D expense also includes payments by your company for R&D services performed by (i) unrelated third parties, (ii) affiliates for which your company has less than a 50% ownership stake, and/or (iii) your foreign parent, if your company is foreign-owned.

R&D includes both direct costs such as salaries of researchers as well as administrative and overhead costs clearly associated with the company's R&D.

<u>Scenario 1</u>: Your company is publicly traded. Report worldwide R&D expense as reported on SEC Form 10-K as defined in FASB ASC Topic 730, Research and Development (FASB Statement No. 2, Accounting for Research and Development Costs.)

<u>Scenario 2</u>: Your company is foreign-owned. Report the R&D expense figure of the U.S.-located company and domestic and foreign subsidiaries that are more than 50% owned by your U.S.-located company, if any. Do not include expenses by your foreign parent or by any foreign affiliate your U.S.-located company does not own. For reporting purposes, these entities should be treated the same as any unrelated third party such as a customer or supplier you do not own.

Scenario 3: Your company is privately owned. You should follow the same procedures as public companies when reporting R&D expense and follow the guidance in FASB ASC Topic 730, Research and Development (FASB Statement No. 2, Accounting for Research and Development

Costs.). Privately held companies that cannot report on this basis should note reporting principles and difficulties in the space for "Remarks" at the end of the survey.

The following are examples of activities that typically would be **excluded** from research and development in accordance with FASB Statement No. 2, Activities Constituting Research and Development (http://www.fasb.org/pdf/fas2.pdf):

- a. Engineering follow-through in an early phase of commercial production.
- b. Quality control during commercial production including routine testing of products.
- c. Trouble-shooting in connection with break-downs during commercial production.
- d. Routine, on-going efforts to refine, enrich, or otherwise improve upon the qualities of an existing product.
- e. Adaptation of an existing capability to a particular requirement or customer's need as part of a continuing commercial activity.
- f. Seasonal or other periodic design changes to existing products.
- g. Routine design of tools, jigs, molds, and dies.
- h. Activity, including design and construction engineering, related to the construction, relocation, rearrangement, or start-up of facilities or equipment other than (1) pilot plants (see paragraph 9(h)) and (2) facilities or equipment whose sole use is for a particular research and development project (see paragraph 11(a)).
- i. Legal work in connection with patent applications or litigation, and the sale or licensing of patents.

Exclude from worldwide R&D expense:

- Costs for R&D that were paid for by a third party such as R&D performed under contract.
- For medical products companies, exclude costs for phase IV clinical trials since these trials take place after products have achieved technical and market feasibility.

Research and development activity in software:

Does R&D include development of software and Internet applications?

- Yes, as long as the research and development activities include an element of uncertainty, are intended to close knowledge gaps, and meet scientific and technological needs.
- Report in this survey all software R&D as defined here regardless of the eventual user (internal or external).

R&D activity in software INCLUDES:

- Software development or improvement activities that expand scientific or technological knowledge
- Construction of new theories and algorithms in the field of computer science

R&D activity in software EXCLUDES:

- Software development that does not depend on a scientific or technological advance, such as:
 - o supporting or adapting existing systems
 - o adding functionality to existing application programs, and
 - o routine debugging of existing systems and software
- Creation of new software based on known methods and applications
- Conversion or translation of existing software and software languages

• Adaptation of a product to a specific client, unless knowledge that significantly improved the base program was added in that process

For further guidance on accounting for software development costs see FASB Statement No. 86 (Accounting for the Costs of Computer Software to Be Sold, Leased); and FASB Interpretation No. 6 (Applicability of FASB Statement No. 2 to Computer Software).

12. Is the amount entered in Question 11 greater than zero?

Question 12 instructs the company to skip to Question 17 if its response to Question 11 is zero.

13. Does the amount reported in Question 11 include any of the following costs?

Although most companies share a general framework for R&D, we request that certain items be excluded for the sake of consistency. Certain costs and expenses are to be reported in Question 16 reflecting your company's R&D activities that were paid for by others.

Question 13 asks whether the company's R&D expense figure reported in Question 11 included costs for six specific categories:

- a. Collaborative R&D that was reimbursed by business partners, such as through costsharing agreements
 - o These agreements are very common in the biotechnology and pharmaceutical industries, but less so in other industries.
- b. R&D paid for by government or private foundation grants
 - Examples include Small Business Innovation and Research (SBIR) grants,
 Department of Energy demonstration grants, and Gates Foundation research grants.
- c. Technical services not an integral part of an R&D project (such as product support provided by R&D employees)
 - O This category most often applies to software and service companies where R&D staff also provides technical support and/or services to customers.
- d. Bid and proposal costs
 - o This category represents the costs a company incurs applying to win a contract. Some government contractors group these costs with their R&D spending.
- e. Expense your company claimed resulting from the acquisition of another company with unfinished R&D projects (in-process R&D).
- f. Phase IV clinical trials.
 - These clinical trials are conducted after a drug is marketed to assess its safety and efficacy.

Why is this important?

Not all companies treat the six cost categories listed in this question consistently with respect to their inclusion or exclusion from R&D expense figures. This question allows the survey to measure and correct for these inconsistencies.

14. If you answered "Yes" to any of the costs in Question 13, what was the amount of these costs that was included in your response to Question 11?

Question 14 asks the company to estimate the amount of its R&D expense figure reported in Question 11 that was from the categories listed in Question 13.

Why is this important?

The six cost categories listed in Question 13 are not treated consistently by all companies with respect to their inclusion or exclusion from R&D expense figures. This question allows the survey to measure and correct these inconsistencies.

15. Subtract Question 14 from Question 11 and enter the result here. This is the total R&D paid for by your company in 2016.

Question 15 asks the company to subtract the amount reported in Question 14 from the amount reported in Question 11. This survey refers to this amount as "total R&D paid for by your company".

Why is this important?

The six cost categories listed in Question 13 are not treated consistently by all companies with respect to their inclusion or exclusion from R&D expense figures. This question allows the survey to measure and correct for these inconsistencies.

16. Of the total R&D paid for by your company reported in Question 15, how much was for the following categories?

Research is defined as experimental or theoretical work undertaken primarily to acquire new knowledge or understanding of phenomena and observable facts. Applied research has the goal of solving a specific problem or meeting a specific commercial objective. Basic research has the goal of acquiring new knowledge or understanding of a given topic without a specific commercial application in mind.

Development is defined as the systematic use of research and practical experience to produce new or significantly improved goods, services, or processes. In simple terms, the intended output of research is ideas and the intended output of development is products.

For example, a project that aims to investigate the influence of different materials on fuel cell efficiency would be classified as basic research. A project that aims to improve fuel cell efficiency using new materials would be classified as applied research.

R&D paid for by others

17. What were your company's total worldwide costs (both direct and indirect) in 2016 for the following that were funded, paid for, or reimbursed by others not owned by your company?

Costs should be considered "funded, paid for, or reimbursed by others" if the company has been or expects to be paid for the costs by a customer, business partner, or grant-making organization. R&D includes both direct costs such as salaries of researchers as well as administrative and overhead costs clearly associated with the company's R&D. Include in this question R&D costs reported as costs of goods or services sold in your company's financial statements.

Note: Foreign-owned companies should report costs that are funded, paid for, or reimbursed by their foreign parent in this question.

Exclude payments in excess of the actual cost of the work performed (such as profits or fees). Also exclude costs that were reported in Question 15, as they should not be double counted in this question.

If your company administers a federally- funded research and development center (FFRDC) for an agency of the federal government, all FFRDC R&D costs should be excluded for reporting to this survey. For a complete list of FFRDCs, see http://www.nsf.gov/statistics/ffrdclist/.

The categories in this question, listed below, define the survey term, "R&D paid for by others":

- a. R&D that was reimbursed by your company's foreign parent (if you are owned by a foreign parent)
- b. Collaborative R&D that was reimbursed by business partners, such as through cost-sharing agreements
 - o These agreements are very common in the biotechnology and pharmaceutical industries, but less so in other industries.
- c. R&D paid for by government or private foundation grants
 - o Examples include Small Business Innovation and Research (SBIR) grants, Department of Energy demonstration grants, and Gates Foundation research grants.
- d. Defense R&D goods or services (including DOD 6.1 through 6.7 funding), provided as a prime or as a sub, to the government and/or government contractors
 - This category most often applies to defense contractors and subcontractors performing tasks such as designing, building, and testing prototypes of new military weapon systems and developing custom software for defense applications.
 - o Include all defense R&D funded by the Department of Defense (DOD), the Department of Energy's weapons programs, the Department of Homeland Security, and other Federal agencies.
 - o R&D funds from DOD include all funds for research, development, test, and evaluation (R&D) activities (6.1 through 6.7 budget appropriations).
 - o Include defense R&D performed as a prime contractor and/or as a subcontractor.
 - o Exclude IR&D or independent R&D. IR&D is reported in Section 2 of this survey.
- e. Medical clinical trial Phase I-III services provided to others not owned by your company (include pass-through costs)
 - o This category involves the testing of potential medical products in human subjects. Phase I III clinical trials must be successfully completed in order for a product to be approved for use in the general population.
 - o Include pass-through/out-of-pocket costs paid to investigators and patients participating in clinical trials.

- Exclude costs for Phase IV clinical trials because these trials take place after a product has been approved for sale.
- Offices of physicians, dentists, and other health practitioners with employees acting as investigators for clinical trials generally should report 0 (zero) to this item. These companies should only report compensation for sponsored studies if the investigators' role in the study extends beyond monitoring his/her own patients to the development and management of overall study protocols.
- f. All other contract R&D services paid for by customers

18. Of the total R&D paid for by others reported in Question 17, line g, how much was for the following categories?

Research is defined as experimental or theoretical work undertaken primarily to acquire new knowledge or understanding of phenomena and observable facts. Applied research has the goal of solving a specific problem or meeting a specific commercial objective. Basic research has the goal of acquiring new knowledge or understanding of a given topic without a specific commercial application in mind.

Development is defined as the systematic use of research and practical experience to produce new or significantly improved goods, services, or processes. In simple terms, the intended output of research is ideas and the intended output of development is products.

For example, a project that aims to investigate the influence of different materials on fuel cell efficiency would be classified as basic research. A project that aims to improve fuel cell efficiency using new materials would be classified as applied research.

Employees

19. What was the total number of worldwide employees working at your company for the pay period that included March 12, 2016?

Question 19 asks the company to report its total number of employees (both R&D and non-R&D employees) for all locations, both foreign and domestic. In order to collect consistent data from all companies, the employment figure reported should be for the pay period that included March 12, 2016. If this is not possible, companies should report employment for the date closest to March 12, 2016.

Include full- and part-time employees.

Leased or temporary employees and consultants should be excluded from this question because this survey does not consider them employees of the reporting company.

20. How many of the employees reported in Question 19 were employees of your company's domestic operations and foreign operations?

Question 20 asks the company to report, of the employees reported in Question 19, the number

of employees employed by domestic operations and the number of employees that were employed by operations outside of the United States.

Counts of (1) Domestic operations, (2) Foreign operations, and (3) Total employees should be recorded.

NOTE: The total should equal Question 19.

21. How many employees reported in Question 20 were R&D employees and how many were all other employees?

Question 21 asks the company to report how many of its employees were R&D employees.

R&D employees include all employees who work on R&D or who provide direct support to R&D, such as researchers, R&D managers, technicians, clerical staff, and others assigned to R&D groups.

Exclude employees who provide only indirect support to R&D, such as corporate personnel, security guards, and cafeteria workers.

Counts of (1) Domestic operations, (2) Foreign operations, and (3) Total employees should be recorded for:

- a. R&D employees
- b. All other employees
- c. Total employees

NOTE: The total employees line should equal the total for Question 20.

22. Of the domestic R&D employees reported in Question 21, column 1, line a, what was the number of full-time equivalent (FTE) R&D employees working at your company for the pay period that included March 12, 2016?

Question 22 asks the company to report the number of full-time equivalent employees engaged in R&D using the same reference period as the earlier employee questions. The headcount of full-time equivalent R&D employees should be adjusted to account for employees who work part-time as well as those employees who split their time between R&D and other activities. The purpose of this question is to accurately measure the amount of effort employees are devoting to R&D in the business sector.

23. Approximately how long did it take to complete this survey?

Question 23 asks you to estimate the time in hours and minutes that it took to complete this survey. This helps us understand the amount of burden the survey averages for companies.