



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

FORM
BRDI-M (02-08-2017)

2016 BUSINESS R&D AND INNOVATION SURVEY

OMB No. 0607-0912: Approval Expires 12/31/2018

DUE DATE:

Need help or have questions about filling out the form?

Visit <https://www.census.gov/manufacturing/brdis>

Here, you can access question-by-question detailed instructions and learn more about the survey.

Call toll-free 1-844-825-7931, between 8:00 a.m. and 4:45 p.m. Eastern time, Monday through Friday.

Please file your form electronically (see details below).

Or mail your completed form to:

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

INTERNET REPORTING OPTION AVAILABLE – We encourage you to complete this survey online at: <https://portal.census.gov>

Authentication Code:

YOUR RESPONSE IS REQUIRED BY LAW. The survey is conducted under the authority of Title 13, United States Code, Sections 8(b), 131, and 182, and Title 42, United States Code, Sections 1861-76 (National Science Foundation Act of 1950, as amended). Title 13, United States Code, Sections 224 and 225 require your response. The U.S. Census Bureau is required by Section 9 of the same law to keep your information **CONFIDENTIAL** and can use your responses only to produce statistics. The Census Bureau is not permitted to publicly release your responses in a way that could identify your business, organization, or institution. Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

THIS COLLECTION HAS BEEN APPROVED by the Office of Management and Budget (OMB). The eight-digit OMB approval number is 0607-0912 and appears at the upper right of this page. Without this approval, we could not conduct this survey.

We estimate this survey will take 15 minutes, on average, to complete. On the back of this form you will find the full burden estimate statement.

THANK YOU – YOUR RESPONSE IS IMPORTANT. Accurate and timely statistical information could not be produced without your cooperation and goodwill. Thank you.

~ This survey is jointly conducted by the U.S. Census Bureau and the National Science Foundation ~



A. OVERALL COMPANY INFORMATION

- ▶ Please use a blue or black ink pen.
- ▶ Mark to indicate your answer.

If you have more than one business, please respond only for the business named in the address label of the questionnaire.

1. Was your company a majority-owned subsidiary of a foreign company in 2016?
 - Yes
 - No

2. Did another U.S. company own more than 50 percent of your company during 2016?
 - Yes → Go to Question 44
 - No

3. Has your company ceased operations?
 - Yes → Go to Question 44
 - No

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

5. What year did your company start? Give the year your company first obtained an EIN (Employer Identification Number) or first filed a tax return, whichever is earlier. Please answer for the firm identified.

Year company started

B. HUMAN RESOURCES

6. For the pay period including March 12, 2016, how many people worked for your company, including those paid through grants? Include both full-time and part-time workers as well as yourself. Please count each person only once.

| | Number of people |
|--|--|
| Owners | |
| a. Owners who received a W-2 issued by your company for salary or wages | <input type="text"/> <input type="text"/> <input type="text"/> |
| b. Other owners (paid or unpaid) | <input type="text"/> <input type="text"/> <input type="text"/> |
| Non-owners | |
| c. Employees who received a W-2 issued by your company for salary or wages | <input type="text"/> <input type="text"/> <input type="text"/> |
| d. Individuals who received payment in other ways (e.g., contractors/consultants/ temporary workers who received a 1099 or payment from another company) | <input type="text"/> <input type="text"/> <input type="text"/> |
| e. Unpaid individuals who worked for your company (e.g., interns, friends, family members) | <input type="text"/> <input type="text"/> <input type="text"/> |

7. Not counting those listed in question 6, which of the following were key people you used as advisors for your company during the past year?

| | Yes | No |
|--|--------------------------|--------------------------|
| a. Scientist or technical expert | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Financial expert or accountant | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Business expert | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Marketing expert | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Individual who offered general advice | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Legal, regulatory, or compliance expert | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Other (specify): <input style="width: 150px;" type="text"/> | | |

8. If your company hired an employee within the last three years, answer the following about your most recent hire:

| | Yes | No | N/A |
|---|--------------------------|--------------------------|--------------------------|
| a. He/she performs the same tasks we performed before hiring him/her. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. We hired him/her to get skills we otherwise would not have had. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. We hired him/her to take over certain tasks. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

9. Does your company have any employees who reside outside the United States?
 - Yes
 - No



C. FINANCIAL INFORMATION

10. What was the amount of your company's sales and revenues, including grants, during 2016? Please round to the nearest one thousand dollars. Your best estimate is fine.

| | | | |
|----------------------------------|----------------------|----------------------|-------|
| 2016 sales, revenues, and grants | \$Mil. | Thou. | Dol. |
| | <input type="text"/> | <input type="text"/> | 0 0 0 |

11. Approximately what share of your company's 2016 sales and revenues, including grants, came from the following?

| | | | | |
|---|----------------------|----------------------|----------------------|---|
| a. Selling goods to customers, including other companies | <input type="text"/> | <input type="text"/> | <input type="text"/> | % |
| b. Selling services to customers, including other companies | <input type="text"/> | <input type="text"/> | <input type="text"/> | % |
| c. Licensing | <input type="text"/> | <input type="text"/> | <input type="text"/> | % |
| d. Grants | <input type="text"/> | <input type="text"/> | <input type="text"/> | % |
| e. Other (specify): | <input type="text"/> | <input type="text"/> | <input type="text"/> | % |
| TOTAL = 100% | | | | |

12. Approximately what percent of your sales and revenues for 2016 were from customers in the United States and its territories? If none, enter zero.

Percent of revenues %

13. During 2016, did your company try to get funding (e.g., loans, investments, or gifts) from the sources listed below?

| | Yes, got funding | Yes, tried but did not get funding | No, did not try |
|--|--------------------------|------------------------------------|--------------------------|
| a. Owners' personal assets or credit | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Banks or credit unions | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Friends or relatives | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Angel investors | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Venture capital or private equity | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Federal government's Small Business Technology Transfer Program (STTR) or Small Business Innovation Research Program (SBIR) or other grants | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Crowdfunding | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Other (specify): | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="text"/> | | | |

D. INNOVATION

14. Did your company sell any goods or offer any services during the last three years?

Yes
 No → **Go to Question 18.**

15. During the last three years, did your company do the following regarding the introduction of a good or service your company offers? The good or service should be new or significantly improved with respect to its characteristics or intended uses. Do not include adaptation or customization of your company's goods or services for a specific client's needs.

| | Yes | No |
|--|--------------------------|--------------------------|
| a. Offered a new good or service that no company has ever offered before | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Offered a new good or service that your company has never offered before | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Significantly improved a good or service's performance by making changes in materials, equipment, components or software | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Developed a new use for one of your goods or services with only minor changes to its technical specifications | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Added a new feature to one of your goods or services that enhance the performance of your company's goods or services | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Made it significantly easier for customers to use one of your goods or services (e.g., easier access, more user friendly) | <input type="checkbox"/> | <input type="checkbox"/> |

16. During the last three years, did your company do the following regarding the production or delivery method for the goods or services your company offers?

| | Yes | No |
|--|--------------------------|--------------------------|
| a. Used a new way of purchasing, accounting, computing, maintenance, inventory control, or other support activities to produce or deliver your goods or services | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Used a new way to distribute your goods or services to reduce costs | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Introduced techniques, equipment, or software that are new to your firm to significantly improve the goods or services you offer | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Made significant improvements in techniques or processes by increasing automation, decreasing energy consumption, or using software | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Decreased production costs by significantly improving the materials, components, or software inputs | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Changed methods to deliver your company's goods or services faster or more reliably | <input type="checkbox"/> | <input type="checkbox"/> |



17. During the last three years, did your company do the following regarding significant changes in product design or packaging, product placement, product promotion, or pricing?

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Made significant changes to the design or packaging of a good or service other than changes that alter how it is used | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Promoted your company's goods or services in a way that represents a significant departure from your company's existing marketing methods | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Used new ways to sell your company's goods or services (e.g., first time use of franchising or distribution licenses, direct selling, exclusive retailing, new concepts for presentation of your goods or services) | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Used new pricing methods or strategies to market your company's goods and services | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Created or opened up a new market for your company's goods or services | <input type="checkbox"/> | <input type="checkbox"/> |

18. During the last three years, did your company do the following regarding significant changes in your company's business practices, workplace organization, or external relations?

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Implemented new methods to improve internal processes or deliver goods or services (e.g., introduce supply chain management systems or business re-engineering, lean production and quality management systems) | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Applied new methods or processes to improve workplace organization (e.g., education and training systems to improve learning and sharing, implement changes in workplace responsibilities or authority of managers and employees) | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Started a new way of interacting with other firms or organizations (e.g., alliances, partnerships, outsourcing, subcontracting) | <input type="checkbox"/> | <input type="checkbox"/> |

E. INTELLECTUAL PROPERTY

19. How many U.S. patent applications, if any, does your company currently have pending? If none, enter zero.

Number of U.S. patent applications currently pending

20. How many U.S. patents does your company currently own? If none, enter zero.

Number of U.S. patents owned

21. Please indicate whether or not your company did each of the following during the last three years.

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Transferred intellectual property (IP) to others not owned by your company through participation in technical assistance or "know how" agreements | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Received IP from others not owned by your company through participation in technical assistance or "know how" agreements | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Participated in cross-licensing agreements in which two or more parties grant a license to each other for the use of the subject matter claimed in one or more of the patents owned by each party | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Allowed free use of patents or other IP owned by your company (e.g., allowing free use of software patents by the open source community) | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Made use of open source patents or other freely available IP not owned by your company | <input type="checkbox"/> | <input type="checkbox"/> |

22. During the last three years, how important were the following?

- | | Very important | Somewhat important | Not important |
|---|--------------------------|--------------------------|--------------------------|
| a. Utility patents (patents for inventions) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Design patents (patents for appearance) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Trademarks | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Copyrights | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Trade secrets | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Nondisclosure agreements | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



F. RESEARCH AND DEVELOPMENT (R&D)

Research and development (R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge and to devise new applications of available knowledge.

23. During 2016, did your company do any of the following R&D activities? Include activities that:

- **Your company performed**
- **Others paid your company to do**
- **Your company paid others to do**

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Developed and tested services, processes, or prototypes that were derived from scientific research or technical findings | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Developed software that advanced scientific or technological knowledge | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Produced findings that could be published in academic journals or presented at scientific conferences | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Applied scientific or technical knowledge in a way that has never been done before | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Created new scientific or technical solutions that can be generalized to other situations | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Conducted work to discover previously unknown technological facts, structures, or relationships | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Conducted work to extend the understanding of scientific facts, relationships, or principles in ways that could be useful to others | <input type="checkbox"/> | <input type="checkbox"/> |

24. Did you answer "Yes" to any activities in Question 23?

- Yes
- No → Go to Question 30.

25. What was the total cost (both direct and indirect) in thousands in 2016 for all the R&D activities you answered "Yes" to in Question 23? Your best estimate is fine. Please include all costs:

- **Salaries, wages, fringe benefits**
- **Equipment, materials, supplies, software**
- **Rent, utilities**
- **Consultants, contractors**

Total cost for R&D activities reported in Question 23 for 2016

| | | |
|---|---|--|
| \$Mil. | Thou. | Dol. |
| <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> | <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> |

26. Of the total R&D amount you reported in Question 25, what percent was for each of the following types of costs?

- | | |
|---|---|
| a. Salaries, wages, and fringe benefits for company's employees | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |
| b. Equipment | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |
| c. Software purchases and licenses | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |
| d. Other costs (e.g., consultants, contractors, travel, rent) | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |

TOTAL = 100%

27. Of the total R&D amount you reported in Question 25, how much was paid for by the following sources?

- | | |
|--|---|
| a. Your U.S. company | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |
| b. Your foreign owner (if your company is foreign owned) | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |
| c. Another U.S. company | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |
| d. U.S. university or college | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |
| e. U.S. non-profit organization | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |
| f. U.S. Federal government (including R&D grants) | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |
| g. U.S. State or Local government (not including state universities) | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |
| h. Other (specify): | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |

TOTAL = 100%

28. Of the total R&D amount you reported in Question 25, how much was for the following categories?

- | | |
|--|---|
| a. Basic Research - activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |
| b. Applied Research - activities aimed at solving a specific problem or meeting a specific commercial objective | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |
| c. Development - systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes | <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> % |

TOTAL = 100%



29. How many people worked on the R&D activities you reported in Question 23 for the pay period that included March 12, 2016?

- a. Owners
- b. Employees who received a W-2 issued by your company for salary or wages
- c. Other paid workers (e.g., contractors, consultants, temporary workers)
- d. Unpaid workers
- e. Total

32. Where would you like for your company to be in five years? Check all that apply.

- Company will have a larger number of employees
- Company will have about the same number of employees as it has currently
- Company will be purchased by another company
- Uncertain
- Other (specify):

G. YOUR COMPANY STRATEGIES

30. How important is each of the following in how your company seeks a competitive advantage?

- | | Very important | Somewhat important | Not important |
|---|--------------------------|--------------------------|--------------------------|
| a. Your low prices | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. The quality of your goods or services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Your unique goods or services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. The convenience you offer | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Your reputation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Please list any other important reasons for how your company seeks a competitive advantage | | | |

31. How important is each of the following to your company's future success?

- | | Very important | Somewhat important | Not important |
|---|--------------------------|--------------------------|--------------------------|
| a. Updating or improving an existing good or service | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Developing a good or service that will save customers' money | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Developing a good or service that will improve current customers' experience | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Having a formal business strategic plan in writing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Partnerships with other businesses | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Partnerships with one or more universities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Providing customized goods or services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

H. ABOUT THE OWNER

If your company has more than one owner, answer for the owner with the most responsibility for the direction of the company.

33. How important to you are each of the following reasons for owning your company?

- | | Very important | Somewhat important | Not important |
|---|--------------------------|--------------------------|--------------------------|
| a. Wanted to be my own boss | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Flexible hours | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Opportunity for greater income | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Best avenue for my ideas/goods/services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Had to start company to find work | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Please list any other important reasons for owning your own company: | | | |

34. Approximately, how many hours each week do you work at this company? Include all hours whether paid or unpaid.

Number of hours

35. Is this the first company you started?

- Not applicable: I did not start this company
- Yes
- No

→ **Go to Question 37.**



36. Not including the company discussed in this questionnaire, what is the status of the company you started most recently?

- Company is still in business and I still own it
- Company is no longer in business
- Company was purchased by another company
- Company was purchased by another individual
- Other (specify):

37. What is the highest level of education you completed?

- Less than high school
- High school graduate
- Some college
- Bachelor's degree
- Master's degree
- Professional degree (e.g., JD, LLB, MD, DDS, DVN)
- Research doctorate (e.g., PhD, DSc, EdD)
- Other (specify):

38. What was the major field of study for your highest degree?

- Business management/administration
- Communication
- Computer science
- Education (includes research and administration, and teaching)
- Engineering
- Humanities (includes history, foreign languages and literature, and letters)
- Life sciences (includes agricultural sciences/natural resources, biological/biomedical sciences and health sciences)
- Mathematics
- Physical sciences (includes astronomy, atmospheric science and meteorology, chemistry, geological and earth sciences, ocean/marine sciences, and physics)
- Psychology
- Social sciences
- Other (specify):

39. Are you Hispanic or Latino?

- Yes
- No

40. What is your race? Please select one or more.

- American Indian or Alaska Native
- Native Hawaiian or other Pacific Islander
- Asian
- Black or African-American
- White

41. Are you male or female?

- Male
- Female

42. Where were you born?

- Inside the U.S.
- Outside the U.S.

43. Are you a U.S. citizen?

- Yes
- No



I. CONTACT INFORMATION

44. Please provide the following information for the person we may contact regarding the answers to this survey.

Name

Title

Telephone

Area Code and Phone Number

Extension

E-mail address

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

Hours Minutes

 :

46. Enter any comments below.

Thank you for your participation in this survey.

We estimate this survey will take 15 minutes, on average, to complete, including the time for reviewing instructions, researching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: ERD Survey Comments 0607-0912, U.S. Census Bureau, 4600 Silver Hill Road, Room ERD-6H128, Washington, DC 20233. You may e-mail comments to erd.survey.comments@census.gov. Be sure to use ERD Survey Comments 0607-0912 as the subject.

