Welcome to the 2017 Annual Business Survey

This worksheet is intended to assist you with gathering information and preparing your data prior to reporting online. Businesses that reported business activity for all or any part of 2017 are eligible to be selected to respond to this survey. Businesses with 1-9 employees should use ABS-1 Worksheet for assistance. Businesses reporting for ABS-1 will be asked questions on the following topics:

- Company Information
- Owner Characteristics
- Innovation
- Research and Development
- Technology and Intellectual Property
- Financing and Other Business Characteristics
- Contact Information

Please view the online report for specific instructions.

Return to https://portal.census.gov when you are ready to report online.

COMPANY INFORMATION

This section collects information on the operations and structure of the business. This section should take approximately 5 minutes to complete.

CEASED OPERATIONS
Has this business ceased operations? ☐ Yes ☐ No. of the Public Research Continue of the Publ
□ No – Skip to BUSINESS OWNERSHIP – FOREIGN ENTITY
REASON OPERATIONS CEASED
Why did this business cease operations? Select all that apply. Owner's military deployment Owner's illness or injury Owner(s) retired Owner(s) deceased Operated for a specific or one-time event Inadequate cash flow or low sales Lack of business loans/credit Lack of personal loans/credit Started another business Sold this business Other
DATE OPERATIONS CEASED
Enter the month and year this business ceased operations.
MM/YYYY
If response is between 1/2018 and 12/2018, you are still required to complete the survey covering the business activity for 2017, even though this business is not currently operating.
If response is between 1/2017 and 12/2017, you are still required to complete the survey covering the portion of the year this business was active for 2017, even though this business is not currently operating.
If response is prior to 1/2017, this business is not required to complete this survey. Skip to 'Contact Information'.
BUSINESS OWNERSHIP – FOREIGN ENTITY
In 2017, was this business a majority-owned subsidiary of a foreign company? Yes – If 'Yes' note the reporting unit for the survey is the U.S. located business No

BUSINESS OWNERSHIP – U.S. ENTITY
In 2017, did another U.S. company or other entity own more than 50 percent of this business? Examples of other entities include estates, trusts, employee stock ownership plans (ESOPs), associations, membership clubs, and cooperatives. □ Yes – Skip to 10% OR MORE OWNERSHIP □ No
BUSINESS OWNERSHIP – GOVERNMENT OR TRIBAL ENTITY
In 2017, was this business owned by a government or tribal entity? ☐ Yes ☐ No
10% OR MORE OWNERSHIP
In 2017, did at least one person own 10% or more of this business? (Do not count parent companies, estates, trusts or other entities.) □ Yes □ No – Select "No" only if no person owned 10% or more of this business
NUMBER OF OWNERS
In 2017, how many people owned this business? • Do not combine two or more owners to create one owner • Count spouses and partners as separate owners 1 person 2 people 3 people 4 people 5-10 people 5-10 people Don't know
NUMBER OF PAID OWNERS
Of the <response from="" generated="" number="" of="" owners=""></response> reported as owner(s), how many received a W-2 issued by this business for salary or wages? If none, report zero.

NUMBER OF EMPLOYEES

For the pay period including March 12, 2017, how many people worked for this business, including those paid through grants? Include both full-time and part-time workers as well as yourself. Count each person only once.

|--|

- A. Employees who received a W-2 issued by this business for salary or wages
- B. Individuals who received payment in other ways (for example, contractors/consultants/ temporary workers who received a 1099 or payment from another business), including those who received stock or other forms of compensation.
- C. Unpaid individuals who worked for the business (for example, interns, friends, family members)

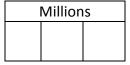
Number of
People

TOTAL SALES AND REVENUES

What was the amount of this business's sales and revenues, including grants, during 2017? Round to the nearest one thousand dollars. If none report zero.

2017 sales, revenues, and grants

\$ Billions			



Thousands		

SOURCES OF SALES AND REVENUE

Approximately what share of this business's 2017 sales and revenues, including grants, came from the following?

- a. Selling goods to customers, including other businesses
- b. Selling services to customers, including other businesses
- c. Licensing
- d. Grants
- e. Other (specify):

% % % %

DOMESTIC SALES AND REVENUES

How much of the <response from 'TOTAL SALES AND REVENUES'> in 2017 sales, revenue, and grants was attributable to or originated from domestic operations? Include sales and operating revenues to foreign customers, including foreign subsidiaries. For example, a U.S. manufacturing corporation sells parts to customers around the world, however, because all of its operations are located inside the United Sates it reports 100% of its sales in this question.

Domestic Operations

\$ Billions			

Millions			
	Milli	Millions	

Thou		

PRIMARY BUSINESS ACTIVITY					
Describe this business's primary business activity during 2017.					

OWNER CHARACTERISTICS

This section collects information on the owners of the business. Based on the number of owners you reported in the company information section, you may be asked to complete this section for up to four owners of the business. This section takes approximately 4 - 8 minutes to complete.

PERCENT OWNERSHIP

For the person(s) owning the largest percentage(s) in this business in 2017, please list each person's name and percentage owned.

- Do not report percentages owned by parent companies, estates, trusts, or other entities
- If more than 4 people owned this business equally, select any 4 people
- Round percentages to whole numbers. For example, report 1/3 ownership as 33%.

Name of Owner	Percentage Owned
_	
(

SEX	•	
Wł	nat is the sex of Owner X?	
	☐ Male	
	☐ Female	
ETI	HNICITY	
ls (Owner X of Hispanic, Latino, or Spanish origin?	
	\square No, not of Hispanic, Latino, or Spanish origin	
	☐ Yes, Mexican, Mexican American, Chicano	
	☐ Yes, Puerto Rican	
	☐ Yes, Cuban	
	☐ Yes, another Hispanic, Latino, or Spanish origin - enter origin below Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spa	• •
RA	CE	
Wł	nat is Owner X's race? NOTE: For this survey, Hispanic origins are not rall White	aces. Select all that apply.
	☐ Black or African American	
	☐ American Indian or Alaska Native —Enter name of enrolled or princ	cipal tribe

☐ Asian Indian
☐ Chinese
☐ Filipino
□ Japanese
☐ Korean
☐ Vietnamese
☐ Other Asian –Enter race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.
□ Native Hawaiian
☐ Guamanian or Chamorro
☐ Samoan
☐ Other Pacific Islander –Enter race, for example, Fijian, Tongan, and so on.
□ Some other race –Enter race.
MILITARY SERVICE
Has Owner X ever served in any branch of the U.S. Armed Forces, including the Coast Guard, the National Guard, or Reserve component of any service branch? ☐ Yes
□ No – SKIP to INITIAL ACQUISITION
MILITARY SERVICE DISABILITY
Is Owner X disabled as the result of illness or injury incurred or aggravated during military service? ☐ Yes ☐ No
OTHER MILITARY SERVICE
Do any of the following characteristics describe Owner X's military service? <i>Select all that apply.</i> ☐ Served on active duty military service, not including training for the Reserves or National Guard
\square Served on active duty military service after September 11, 2001
☐ Served on active duty military service in 2017
□ Served in the National Guard or as a reservist of any branch of the U.S. Armed Forces in 2017□ None of the above

INITIAL ACQUISITION

How did Owner X initially acquire ownership of this business? <i>Select all that apply.</i> ☐ Founded or started ☐ Purchased ☐ Inherited ☐ Received transfer of ownership or gift
INITIAL ACQUISITION YEAR
In what year did Owner X acquire ownership of this business? YEAR Don't Know
JOB FUNCTION(S)
In 2017, which of the following were Owner X's function(s) in this business? <i>Select all that apply.</i> ☐ Managing day-to-day operations ☐ Providing services and/or producing goods ☐ Financial control with the authority to sign loans, leases, and contracts ☐ None of these functions
AVERAGE NUMBER OF HOURS WORKED
In 2017, what was the average number of hours per week that Owner X spent managing or working in this business? None Less than 20 hours 20-39 hours 40 hours 41-59 hours 60 hours or more
PRIMARY INCOME SOURCE
In 2017, did this business provide Owner X's primary source of income? ☐ Yes ☐ No

PRIOR BUSINESS OWNERSHIP

Prior to establishing, purchasing, or acquiring this business, how many previous businesses has
Owner X owned? (Include self-employed businesses.)
☐ 0 – Skip to Education Prior to Owning the Business
□ 2
□ 3
□ 4
☐ 5 or more
PRIOR BUSINESS OWNERSHIP – CONTINUED
Not including this business, what is the status of the previous business Owner X started most recently?
☐ Business is still operating and Owner X still owns it
☐ Business is no longer in operation
☐ Business was purchased by another company
☐ Business was purchased by another individual
☐ Other (specify):
EDUCATION PRIOR TO OWNING THE BUSINESS
Prior to establishing, purchasing, or acquiring this business, what was the highest degree or level of
school Owner X completed?
☐ Less than high school / secondary school graduate - Skip to Age
☐ High school / secondary school graduate – Diploma or GED - Skip to Age
☐ Technical, trade, or vocational school - Skip to Age
☐ Some college, but no degree - Skip to Age
☐ Associate Degree (for example, AA, AS) - Skip to Age
☐ Bachelor's Degree (for example, BA, BS)
☐ Master's, Degree (for example, MA, MEng, Med, MSW, MBA)
☐ Doctorate Degree (for example, PhD, EdD)
☐ Professional Degree, beyond a Bachelor's Degree (for example, MD, DDS, DVM, LLB, JD)
FIELD OF HIGHEST DEGREE PRIOR TO OWNING THE BUSINESS
Prior to establishing, purchasing, or acquiring this business, what was the field of the highest degree
completed for Owner X? <i>Select all that apply.</i>
☐ Biological, agricultural and environmental life sciences
☐ Chemistry, except biochemistry
☐ Computer and mathematical sciences and other technology and technical fields
☐ Earth, atmospheric and ocean sciences
☐ Economics, political, psychology, sociology and other social sciences
☐ Engineering

☐ Health

☐ Physics and astronomy								
☐ Science and mathematics teacher ed								
☐ Other science and engineering related fields, not listed above☐ Art and humanities fields								
☐ Education, except science and math	taachar aducati	on						
☐ Management and administration fiel		OH						
☐ Sales and marketing fields	us .							
☐ Social service and related fields								
☐ Other non-science and non-engineer	ing related field	ds, not listed above						
_	_							
AGE								
What was the age of Owner X as of December	er 31, 2017?							
☐ Under 25								
□ 25-34								
□ 35-44								
□ 45-54								
□ 55-64								
☐ 65 or over								
U.S. CITIZENSHIP								
Is Owner V a citizen of the United Ctates?								
Is Owner X a citizen of the United States? ☐ Yes								
□ No								
L NO								
PLACE OF BIRTH								
Was Owner X born in the United States?								
☐ Yes								
□ No								
REASONS FOR OWNING THE BUSINESS								
How important to Owner X are each of the f	ollowing reasor	ns for owning this bu	siness? Select one for					
each row.	Mam.	Comouhat	Not et ell					
	Very Important	Somewhat Important	Not at all Important					
A. Wanted to be my own boss								
B. Flexible hours								
C. Balance work and family								
D. Opportunity for greater income								
E. Best avenue for my								
ideas/goods/services								

ABS-1 Worksheet

F. G.	Unable to find employment Working for someone else didn't		
Н.	appeal to me Always wanted to start my own business		
l.	An entrepreneurial friend or family member was my role model		
J.	Wanted to carry on the family business		
K.	Wanted to help and/or become more involved in my community		
L.	Other (specify)		

INNOVATION

This section collects information on the business's innovations and innovation activities. An innovation is the introduction of a new or significantly improved product, process, organizational method, or marketing method by this business.

An innovation must have characteristics or intended uses that are new or which provide a significant improvement over what was previously used or sold by the business. However, an innovation can fail or take time to prove itself.

An innovation need only be new or significantly improved for the business. It could have been originally developed or used by other businesses or organizations.

This section asks about the three previous years including the calendar year 2017 instead of one year as in other sections of this questionnaire.

This section should take approximately 20 minutes to complete.

INNOVATION BUSINESS STRATEGIES

During the three years 2015 to 2017, how important were each of the following strategies to this business? *Select one for each row.*

111033	. Select one for each row.	Very Important	Somewhat Important	Not at all Important
a.	Focus on improving existing goods or services			
b.	Focus on introducing new goods or services			
c.	Focus on reaching new customer groups			
d.	Focus on customer-specific solutions			
e.	Focus on low price			
f.	Focus on reducing costs			
g.	Focus on satisfying key customers			
h.	Focus on developing niche or specialized markets			
i.	Focus on opening up new domestic markets			
j.	Focus on opening up new export markets			
k.	Focus on internal processes/improve internal processes			
I.	Focus on improving delivery of existing products or services			
m.	Focus on employee skills/improve work force			

n.		nderstanding and/or stomer needs			С]				
GOODS OR SERVICES OFFERED										
□ Y	During the three years 2015 to 2017, did this business sell any goods or offer any services? ☐ Yes ☐ No − Skip to ORGANIZATIONAL AND MARKETING INNOVATION									
PRODUC	T INNOVATI	ON								
_	he three year	rs 2015 to 2017, did this bu	siness introduce	e new or sign	ificantl	y impi	oved:			
Sciection	ie joi eden i	····			Yes	No	Not Applica			
<i>solei</i> sma	<i>ly aesthetic n</i> rtphone, furr	e the simple resale of new gature). A good is usually a taiture, or packaged software and film are also goods.	angible object s	uch as a						
	B. Services . A service is usually intangible, such as retailing, insurance, deducational courses, air travel, consulting, etc.									
_		oods) OR B. (Services) from product innovation.	the 'Product In	inovation' q	uestion	is Ye	s, then	we		
	onse to A. (Go 'Process Imp	oods) AND B. (Services) from	m the 'Product	Innovation'	questic	on is N	o, then	l		
BUSINES	S PRODUCT	INNOVATION								
_	-	rs 2015 to 2017, were any o for each row.	f this business's	product inn	ovation	ns (go	ods or			
							Yes	No		
New mar	to the ket?	This business introduced a (good or service) into your have already been availab	market before	its competit	•					
-	new to business?	This business introduced a (good or service) that was the market	•		•					

PERCENT OF SALES FROM PRODUCT INNOVATION

Include your total sales only for the year 2017. Give the percent of total sales in 2017 only from:

TOTAL SALES FROM 2017	1	0	0	%
C. Products (goods or services) that were unchanged or only marginally modified during the three years 2015 to 2017, (include the resale of new products purchased from other companies)				%
B. New or significantly improved products (goods or services) introduced during the three years 2015 to 2017, that were only new to this business				%
A. New or significantly improved products (goods or services) introduced during the three years 2015 to 2017, that were new to the market				%

PROCESS INNOVATION

During the three years 2015 to 2017, did this business introduce new or significantly improved: **Select one for each row.**

	Yes	No	Not Applicable
A. Methods of manufacturing for producing goods or services			
B. Logistics, delivery or distribution methods for inputs, goods or services			
C. Supporting activities for processes, such as maintenance systems or operations for purchasing, accounting, or computing			

If response to A. (Methods of Manufacturing), B. (Logistics, delivery, or distribution methods) or C. (Supporting activities) 'Process Innovation' question is Yes, then we consider this to be a process innovation.

If response to A. (Goods) AND B. (Services) from the 'Product Innovation' question is No, AND response to A. (Methods of Manufacturing), B. (Logistics, delivery, or distribution methods) AND C. (Supporting activities) from the 'Process Innovation' question is No, then skip to 'Organizational and Marketing Innovation'.

PRODUCT OR PROCESS INNOVATION ACTIVITIES

Innovation activities include the acquisition of machinery, equipment, buildings, software, and licenses; engineering and development work, feasibility studies, design, training, R&D and marketing when they are specifically undertaken to develop and/or implement a product or process innovation. This includes also all types of R&D consisting of research and development activities to create new knowledge or solve scientific or technical problems.

During the three years 2015 to 2017, did this business engage in the following product or process innovation activities? *Select one for each row.*

Product or process innovation activities only Yes No A. In-house R&D Research and development activities undertaken by this business to create new knowledge or solve scientific or technical problems (include software development that meets this requirement) If yes, did this business perform R&D during the three years 2015 to 2017: ☐ Continuously (business had permanent R&D staff inhouse) ☐ Occasionally (as needed only) **B. External R&D** This business contracted-out R&D to other companies (include affiliated companies) or to public or private research organizations C. Acquisition of New machinery, equipment software and building that were machinery, acquired for the purpose of developing goods, services, equipment, manufacturing or logistics software & buildings D. Acquisition of Acquisition of existing know-how, copyrighted works, patented existing knowledge and non-patented inventions, etc. from other companies or from other organizations for the development of new or significantly companies or improved products and processes organizations E. Training for In-house or contracted out training for your personnel innovative activities specifically for the development and/or introduction of new or significantly improved products and processes F. Market In-house or contracted out activities for the market introduction of introduction of your new or significantly improved goods or innovations services, including market research, launch advertising, and

social media announcements

G. Brand Building In-house or contracted out activities such as advertising or promotion to build this business's brand identity or brand name						
H. Design	In-house or contracted out activities to alter the shappearance or usability of goods or services	iape,				
I. Other	Other in-house or contracted out activities to deve implement new or significantly improved products such as feasibility studies, testing, industrial engine	or processes				
RESULTS OF INNOVATI	ON ACTIVITIES					
•	2015 to 2017, did this business have any innovation rocess innovation because the activities were:	activities that	did not			
		Yes	No			
A. Abandone	d or suspended before completion					
	ng at the end of 2017					
PUBLIC FINANCIAL SUF	PPORT FOR INNOVATION ACTIVITIES					
During the three years 2015 to 2017, did this business receive any public financial support for innovation activities from the following levels of U.S. government? Include financial support from tax credits, grants, subsidized loans, and loan guarantees. Exclude R&D and other innovation activities conducted entirely for the public sector under contract. Select one for each row. Innovation activities only						
		Yes	No			
A. Local or Sta	ate government					
B. U.S. Federa	al government					
ININION/ATION ACTIVITI	EC DV TVDE AND LOCATION OF COORERATION DAD	FNIED				

INNOVATION ACTIVITIES BY TYPE AND LOCATION OF COOPERATION PARTNER

During the three years 2015 to 2017, with which of the following companies or organizations and indicating their location, did this business cooperate with on any of its innovation activities? Innovation cooperation is active participation with other companies or organizations on innovation activities. Both partners do not need to commercially benefit. Exclude work that is contracted out. *Select all that apply.*

Type and Location of Cooperation Partner United All other Not States countries Applicable

	A.	Other affiliated companies (legal entities under common ownership)				
	В.	Suppliers of equipment, materials, components,				
	C.	or software Clients or customers from the private sector				
	D.	Clients or customers from the public sector				
	E.	Competitors or other companies in your sector				
	F.	Companies not in your sector				
	G.	Consultants or commercial labs				
	Н.	Universities or other higher education institutes				
	l.	Government or public research institutes				
	J.	Private research institutes				
ORGA	NIZ	ATIONAL AND MARKETING INNOVATION				
		e three years 2015 to 2017, did this business introduce	2 2044			
	-	e for each row.	e Hew.			
		, c. c			Yes	No
	Α. Ι	Business practices for organizing procedures (for exar	nple, first	time use		
		supply chain management, business re-engineering, k	•			
	ma	nagement, lean production, quality management, etc	:.)			
	В. Г	Methods of organizing work responsibilities and deci	sion mak	ing (for		
		ample, first time use of a new system of employee res				
		rk, decentralization, integration or de-integration of c	•			
		ucation/training systems, etc.)	•			
	C. 1	Methods of organizing external relations with other o	ompanie	s or public		
		ganizations (for example, first time use of alliances, pa		•		
	_	sourcing or sub-contracting, etc.)	•	•		
	D. /	Aesthetic design or packaging of a good or service (ex	clude cha	inges that		
		er the product's functional or user characteristics – th		_		
		ovations)	·			
	E. N	Media or techniques for product promotion (for exam	ple, first	time use of		
	a n	ew advertising media, a new brand image, introduction	n of loya	Ity cards,		
	etc	.)				
	F. N	Methods for product placement or sales channels (for	example	. first time		
		e of franchising or distribution licenses, direct selling,				
		w concepts for product presentation, etc.)		<u>.</u>		
	G 1	Methods of pricing goods or services (for example, fir	st time !!	se of		
		iable pricing by demand, discount systems, etc.)	or time as			
		,				

If response to A. (Goods) AND B. (Services) from the 'Product Innovation' question is No, AND response to A. (Methods of Manufacturing), B. (Logistics, delivery, or distribution methods) AND C. (Supporting activities) from the 'Process Innovation' question is No, AND response to A.

(Business Practices), B. (Organizing work responsibilities and decision making), C. (Organizing external relations), D. (Design or packaging), E. (Product promotion), F. (Product placement), AND G. (Pricing) from the 'Organization and Marketing Innovation question is NO, then skip to 'Business Reason for Not Innovating'.

FACTORS INTERFERING WITH BUSINESS INNOVATION

During the three years 2015 to 2017, how important were the following factors in interfering with this business's ability to innovate? *Select one for each row.*

		Very Important	Somewhat Important	Not at all Important
A.	Lack of internal finance			
В.	Lack of credit or private equity			
C.	Innovation costs too high			
D.	Lack of skilled employees within the business			
E.	Lack of collaboration partners			
F.	Difficulties in obtaining government grants or subsidies			
G.	Uncertain market demand for your ideas			
Н.	Too much competition in your market			

REGULATIONS AND INNOVATION

What is the effect of the following types of legislation or regulations on this business's innovation activities during the three years 2015 to 2017. *Select all that apply*.

	Stimulated	Created no major	Created	Generated an excessive	Not applicable
Legislation or regulation	innovation	problems	uncertainty	burden	
Product safety / consumer protection					
Operational and worker safety					
Environmental					
Intellectual property					
Tax					
Employment or social affairs					
Other, Specify					

Skip to 'R&D Activities'

BUSINESS REASONS FOR NOT INNOVATING

Which of the following best describes why this business had no innovation activities during the three years 2015 to 2017:

No compelling reason to innovate - **Skip to 'REASONS FOR NOT INNOVATING'**

☐ Considered innovating,	but too many issues p	prevented it
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FACTORS PREVENTING INNOVATION

During the three years 2015 to 2017, how important were the following factors in preventing this business from innovating? *Select one for each row.*

	Very Important	Somewhat Important	Not at all Important
A. Lack of internal finance			
B. Lack of credit or private equity			
C. Innovation costs too high			
D. Lack of skilled employees within the business			
E. Lack of collaboration partners			
F. Difficulties in obtaining government grants or subsidies			
G. Uncertain market demand for your ideas			
H. Too much competition in your market			
I. Legislation/regulation that generated excessive burden			
J. Legislation/regulation that created uncertainty			
K. Legislation/regulation that lacked consistency across the United States			

REASONS FOR NOT INNOVATING

How important were the following reasons for this business not to conduct innovation activities during the three years 2015 to 2017? *Select one for each row.*

Very Importa		Somewhat Important	Not at all Important	
A. Low demand for innovations in your market				
B. No need to innovate due to previous innovations				
C. No need to innovate due to very little competition business's market	in the 🛚			
D. Lack of good ideas for innovations				

Research and Development

This section collects information on research and development activity from businesses.

What is 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.

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
- supporting or adapting existing systems
- adding functionality to existing application programs, and
- 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

Reporting unit

The reporting unit is this business, including all subsidiaries and divisions. Include subsidiary companies where there is more than 50 percent ownership.

Reporting period

Report data for the calendar year 2017, if possible, or for this business's fiscal year ending between April 2017 and March 2018.

Estimates are acceptable:

Report all items to the best of your ability.

This section should take approximately 12 minutes to complete.

R&D ACTIVITIES

During 2017, did this business do any of the following R&D activities? Include activities that:

- This business performed
- Others paid this business to do
- This business paid others to do

Select one for each row.

		Yes	No
A.	Conducted activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses		
В.	Conducted activities aimed at acquiring new knowledge for solving a specific problem or meeting a specific commercial objective		
C.	Conducted 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		
D.	Developed and tested goods, services, or processes that were	_	_
	derived from scientific research or technical findings		
E.	Developed software that advanced scientific or technological knowledge		
F.	Produced findings that could be published in academic journals or presented at scientific conferences		
G.	Applied scientific or technical knowledge in a way that has never been done before		
Н.	Created new scientific or technical solutions that can be generalized to other situations		
I.	Conducted work to discover previously unknown technological facts, structures, or relationships		
J.	Conducted work to extend the understanding of scientific facts, relationships, or principles in ways that could be useful to others		

If response is No to A - J, then skip to 'Patents Pending'

R&D COSTS

What was the total cost (both direct and indirect) in 2017 for all the R&D activities reported as "Yes" in the 'R&D ACTIVITIES' question? Your best estimate is acceptable.

Include the following costs:

- Salaries, wages, fringe benefits
- Plant, machinery, and equipment, except that which was capitalized because it had an alternative future use
- Materials, supplies, software
- Rent, utilities
- Consultants, contractors

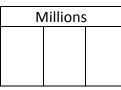
• Depreciation expense from plant, machinery, and equipment that was capitalized because it had an alternative future use

Do not include:

- Costs for routine product testing, quality control, and technical services unless they are an integral part of an R&D project
- Market research
- Efficiency surveys or management studies
- Literary, artistic, or historical projects, such as films, music, or books and other publications
- Prospecting or exploration for natural resources

Total costs for R&D activities reported in the 'R&D Activities' question for 2017

\$ Billions		



Thousands		

TYPES OF R&D COSTS

Of the **<response generated from 'R&D Costs'>** total R&D amount reported in the 'R&D COSTS' question, what percent was for each of the following types of costs?

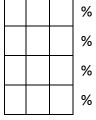
- a. Salaries, wages, and fringe benefits
- b. Expensed machinery and equipment (not capitalized)
- c. Materials and supplies
- d. Payments to business partners for collaborative R&D
- e. Purchased R&D services
- f. Depreciation on R&D property and equipment
- g. All other costs (for example, consultants, contractors, travel, rent)

			%
			%
			%
			%
			%
			%
,			%
	Tot	al =	100%

FUNDING SOURCES FOR R&D ACTIVITIES

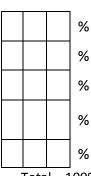
Of the <response generated from 'R&D Costs'> total R&D amount reported in 'R&D COSTS' question, how much was paid for by the following sources?

- a. This U.S. business
- b. Your foreign owner (if the business is foreign owned)
- c. Another U.S. business
- d. Other businesses located outside the U.S.



e.	U.S.	university	or	college
----	------	------------	----	---------

- f. U.S. non-profit organization
- g. U.S. Federal government (including R&D grants)
- h. U.S. State or Local government (not including state universities)
- i. All other organizations outside the U.S.



Total = 100%

R&D PAID FOR BY THIS BUSINESS

Of the **response generated from 'R&D Costs'>** total R&D amount reported in the 'R&D COSTS' question, how much did this business pay others to perform?

Total costs for R&D paid for by this business

\$ Billions		

Millions		

Thousands		

PERCENT PAID FOR R&D CONDUCTED BY OTHERS

Of the **response generated from 'R&D PAID FOR BY THIS BUSINESS'>** R&D amount your company paid others to perform, what percentage went to another U.S. business, a U.S. university or college, or another source?

AMOUNT OF R&D PAID TO:

- a. Another U.S. business
- b. U.S. university or college
- c. Other (specify): _____

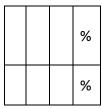
		%
		%
		%

Total = 100%

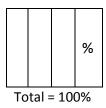
R&D CATEGORIES

Of the **response generated from 'R&D Costs'** total R&D amount reported in the 'R&D COSTS' question, how much was for the following categories?

- a. <u>Basic research</u> activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses
- b. <u>Applied research</u> activities aimed at solving a specific problem or meeting a specific commercial objective



 c. <u>Development</u> – 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



R&D EMPLOYEES

For the pay period including March 12, 2017, how many employees from this business's foreign and domestic operations, were **R&D employees** and how many were **all other 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.

	(1) Domestic	(2) Foreign Operations	(3) Total	
	Operations		Employees	
a. R&D employees	<calculate value=""></calculate>	<calculate value=""></calculate>	<calculate value=""></calculate>	
Female R&D employees			<calculate value=""></calculate>	
Male R&D employees			<calculate value=""></calculate>	
b. All other employees			<calculate value=""></calculate>	
c. Total employees	<calculate value=""></calculate>	<calculate value=""></calculate>	<calculate value=""></calculate>	

R&D EMPLOYEE OCCUPATIONS

For the pay period including March 12, 2017, how many of the **response generated from 'Total R&D Employees (a.3)'>** total R&D employees reported in the 'R&D EMPLOYEES' question worked in the occupations listed below?

	(1) Domestic	(2) Foreign	(3) Total
	Operations	Operations	Employees
a. Researchers (including			<calculate value=""></calculate>
R&D scientists, engineers,			
and their managers)			
Number of			<calculate value=""></calculate>
Researchers with PhD			
(excluding MD, JD,			
and EdD)			
b. R&D technicians and			
equivalent staff			

☐ Yes ☐ No

c. R&D support staff (clerical and other)			
d. Total R&D employees	<calculate value=""></calculate>	<calculate value=""></calculate>	<calculate value=""></calculate>

DOMESTIC R&D EMPLOYEES FULL TIME EQUIVALENT

Of the <response 'domestic="" (a.1)="" employees="" from="" generated="" question'="" r&d="" –=""> domestic R&D employees reported previously, what was the number of full-time equivalents (FTEs) for R&D activity? For full-time R&D employees use the number of employees for the FTEs. For other full-time employees not working solely on R&D or part-time employees working on R&D use the share of full-time work week they work on R&D.</response>
Total FTEs
DOMESTIC RESEARCHERS FULL TIME EQUIVALENT
Of the < response generated from 'Domestic Researchers – R&D Occupations Question (a.1)> domestic researchers reported previously, what was the number of full-time equivalents (FTEs) for R&D activity?
Total FTEs
TAX CREDIT FOR RESEARCH ACTIVITIES

Did this business file for the tax credit for increasing research activities (IRS Form 6765) in 2017?

TECHNOLOGY AND INTELLECTUAL PROPERTY

This section collects information on intellectual property and technology use for the business.

This section should take approximately 7 minutes to complete.

PATENTS PENDING

How many U.S. patent applications, if any, did this business have pending as of the end of 2017? If none, report zero.

PATENTS OWNED

How many U.S. patents did this business own as of the end of 2017? If none, report zero.

INTELLECTUAL PROPERTY ACTIVITIES

Indicate whether this business did any of the following during 2017. Select one for each row.

		Yes	No
a.	Transferred intellectual property (IP) to others not owned by this business through participation in		
b.	technical assistance or "know how" agreements Received IP from others not owned by this business through participation in technical assistance or "know how" agreements		
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		
d.	Allowed free use of patents or other IP owned by this business (for example, allowing free use of software patents by the open source community)		
e.	Made use of open source patents or other freely		

IMPORTANCE OF INTELLECTUAL PROPERTY

During 2017, how important to this business were the following types of intellectual property protection? *Select one for each row.*

Very	Somewhat	Not at all
Important	Important	Important

Α. Ι	Utility patents (patents for	rinventions	5)				
	Design patents (patents fo						
	Frademarks	тарреатан	icc)			П	П
	Copyrights					П	
	Frade secrets			П		П	П
							П
r. I	Nondisclosure agreements	•				ш	
OIGITAL SH	IARE OF BUSINESS ACTIVI	TY					
	w much of each type of in for each row.	formation	was kept	in digital	format	at this b	usiness?
		None	Up to 50%	More than 50%	All	Don't know	This type of information not collected by
B. C. D.							this business
Considering	g the amount spent on eac Cloud services are services a the internet.) <i>Select one</i>	provided b	oy a third ow.	party tha	t this b	usiness a	accesses on-
		Nor	ne Up to 50%	than		l Don Kno	w use this IT
A.	All IT functions						function □
В.	Security or firewall					_	
C.	Servers Data storage and					_	

management (Examples:

E.	Amazon Web Services, IBM Bluemix, Microsoft Azure) Collaboration and file synchronization (Examples: Dropbox, OneDrive, Google Drive)			
F. G.	Data Analysis Billing and account			
Н.	management Customer relationship			
I.	management Other: (specify)			

BUSINESS TECHNOLOGIES

In 2017, to what extent did this business use the following technologies in producing goods or services? *Select one for each row.*

		No use	Testing, but not using in production or service	In use for less than 5% of production or service	In use for between 5% – 25% of production	In use for more than 25% of production or service	Don't know
^	A				or service □		
	Augmented reality						
В.	Automated guided vehicles (AGV) or AGV systems	Ц	Ь	Ц	Ц		
C.	Automated storage and retrieval systems						
D	Machine learning						
Ε.	Machine vision software						
F.	Natural language processing						
G.	Radio-frequency identification (RFID) inventory system						
Н.	Robotics						
I.	Touchscreens/kiosks for customer interface (Examples: self-checkout, self-						

Attachment B

	check-in,				
	touchscreen				
	ordering)		_	_	
J.	Voice recognition software				

ABS-1 Worksheet

FINANCING AND OTHER BUSINESS CHARACTERISTICS

ONE FAMILY MAJORITY OWNERSHIP

This section collects information on various characteristics of the business. This section should take approximately 3 minutes to complete.

In 2017, did two or more members of one family own the majority of this business? Family refers to spouses/unmarried partners, parents/guardians, children, siblings, or close relatives. Yes No
JOINT OWNERSHIP
In 2017, did spouses/unmarried partners jointly own this business? ☐ Yes ☐ No – Skip to FUNDING FROM OWNER(S)
EQUAL OPERATION
In 2017, was this business operated equally by both spouses/unmarried partners? ☐ Yes, equally operated by spouses/unmarried partners ☐ No, primarily operated by Owner 1 ☐ No, primarily operated by Owner 2
CAPITAL FUNDING
For the owner(s) reported, what was the source(s) of capital used to start or initially acquire this business? <i>Select all that apply.</i>
☐ Personal/family savings of owner(s)☐ Personal/family assets other than savings of owner(s)
☐ Personal/family home equity loan
☐ Personal credit card(s) carrying balances
☐ Business credit card(s) carrying balances
\square Government-guaranteed business loan from a bank or financial institutions, including SBA-
guaranteed loans
☐ Business loan from a bank or financial institution
☐ Business loan from a federal, state, or local government
☐ Business loan/investment from family/friend(s)
☐ Investment by venture capitalist(s)
☐ Grants
☐ Other source(s) of capital

☐ Don't know
☐ None needed – Skip to FUNDING FROM OWNER(S)
AMOUNT OF CAPITAL NEEDED TO START OR INITIALLY ACQUIRE THE BUSINESS
For the owner(s) reported, what was the total amount of capital used to start or initially acquire this business?
☐ Less than \$5,000
□ \$5,000 - \$9,999
□ \$10,000 - \$24,999
□ \$25,000 - \$49,999
□ \$50,000 - \$99,999
□ \$100,000 - \$249,999
□ \$250,000 - \$999,999
□ \$1,000,000 - \$2,999,999
☐ \$3,000,000 or more
☐ Don't know
FUNDING FROM OWNER(S)
For 2017, what was the total amount of money that the owner(s) personally put into the business? Your best estimate is fine. Include: Investments from personal savings Personal retirement accounts Home equity loans Personally borrowed funds
☐ Business does not have owners
□ \$0
□ \$1 - \$4,999
□ \$5,000 - \$9,999
□ \$10,000 - \$24,999
□ \$25,000 - \$49,999
□ \$50,000 - \$99,999
□ \$100,000 - \$249,999
☐ \$250,000 or more
☐ Don't Know

FUNDING FROM INSIDERS

For 2017, what was the total amount of investment funds this business received from family,
friends, and employees?
□ \$0
□ \$1 - \$4,999
□ \$5,000 - \$9,999
□ \$10,000 - \$24,999
□ \$25,000 - \$49,999
□ \$50,000 - \$99,999
□ \$100,000 - \$249,999
□ \$250,000 or more
☐ Don't know
FUNDING FROM BANKS OR OTHER FINANCIAL INSTITUTIONS
For 2017, what was the total amount of money this business borrowed from a bank or other financial institutions, including business loans, a business credit card carrying a balance, or a business line of credit? Include all draws on a business line of credit, even if paid off during the
year.
□ \$0
□ \$1 - \$4,999
□ \$5,000 - \$9,999
□ \$10,000 - \$24,999
□ \$25,000 - \$49,999
□ \$50,000 - \$99,999
□ \$100,000 - \$249,999
□ \$250,000 or more
☐ Don't know
FUNDING FROM OUTSIDE INVESTORS
For 2017, what was the total amount of money this business received from angel investors, venture capitalists, or other businesses in return for a share of ownership in this business? (An "angel investor" is an affluent individual who provides capital for a business start-up, usually ir
exchange for convertible debt or ownership equity.)
□ \$0
□ \$1 - \$4,999
□ \$5,000 - \$9,999
□ \$10,000 - \$24,999
□ \$25,000 - \$49,999
□ \$50,000 - \$99,999

□ \$100,000 - \$249,999	
□ \$250,000 or more	
□ Don't know	
UNDING FROM GOVERNMENT GRANTS	
For 2017, what was the total amount of money this business received from government grant such as the Small Business Innovation Research (SBIR) and/or Small Business Technology Transfer (STTR) programs)? \square \$0	S
□ \$1 - \$4,999	
□ \$5,000 - \$9,999	
□ \$10,000 - \$24,999	
□ \$25,000 - \$49,999 	
□ \$50,000 - \$99,999	
□ \$100,000 - \$249,999	
□ \$250,000 or more	
□ Don't know	
AVOIDANCE OF ADDITIONAL FINANCING	
At any time during 2017, did this business need additional financing?	
\square Yes, business needed additional financing and the owner(s) chose not to apply	
☐ Yes, business needed additional financing and the owner(s) did apply - Skip to PROFITABILITY	
☐ No, business did not need additional financing — Skip to PROFITABILITY	
REASON FOR AVOIDANCE OF ADDITIONAL FINANCING NEEDED	
Why did this business choose not to apply for additional financing? <i>Select all that apply</i> . Did not think business would be approved by lender Did not want to accrue debt Decided the financing costs would be too high Preferred to reinvest the business profits instead Felt the loan search/application process would be too time consuming Decided to wait until funding conditions improved Decided to wait until business hit milestones to be in stronger position to raise funds None of the above	

PROFITABILITY

For 2017, did this business have profits, losses, or break even? □ Profits □ Losses □ Break even
NEGATIVE IMPACT ON PROFITABILITY
For 2017, which of the following negatively impacted the profitability of this business? Only include responses that impacted profitability. <i>Select all that apply.</i> Access to financial Cost of financial capital Finding qualified labor Taxes Government regulations (for example, U.S. Federal, state and/or local) Slow business or lost sales Customers or clients not making payments or paying late The unpredictability of business conditions Changes or updates in technology None of the above
TYPES OF CUSTOMERS
In 2017, which of the following types of customers accounted for 10% or more of this business's total sales of goods and/or services? <i>Select all that apply.</i> □ U.S. Federal government □ State and local government, including school districts, transportation authorities, etc. □ Other businesses, including distributors of your product(s) □ Other organizations (foreign governments, nonprofits, etc.) □ Individuals
TYPES OF WORKERS
In 2017, which of the following types of workers were used by this business? <i>Select all that apply.</i> □ Full-time paid employees (workers who received a W-2) □ Part-time paid employees (workers who received a W-2) □ Paid day laborers
☐ Temporary staffing obtained from a temporary help service☐ Leased employees from a leasing service or a professional employer organization

\Box Contractors, subcontractors, independent contractors, or outside consultants (workers who received a 1099 or payment from another company)
☐ None of the above
EMPLOYEE BENEFITS
In 2017, which of the following employee benefits were paid totally or partly by this business?
Select all that apply.
☐ Health insurance
☐ Contributions to retirement plans, including 401(k), Keogh, etc.
☐ Profit sharing and/or stock options
☐ Paid holidays, vacation, and/or sick leave
☐ Tuition assistance and/or reimbursement
☐ None of the above

CONTACT INFORMATION

tact Name:								
cact Name: :								
l address:								
tional Remarks	Please use	this space f	for anv exi	olanations	that mav b	e essentia	l in under	standing
reported data.	i icase ase i	inis space	ioi uiiy ex	pianations	inat may b	e essentia	i iii diidei	Starianing

Enter the first and last name of the person who is filling out this survey. We request a telephone

THANK YOU