Findings and Recommendations from Cognitive Testing for the Annual Business Survey – Globalization Module

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Research Objectives

The Annual Business Survey (ABS) asks questions about the business owner(s) as well as various characteristics about the business. The 2020 ABS cognitive testing will include new questions in the Globalization module. These proposed questions focused on:

- Type of Exporting Activity
- Type of Importing Activity
- Type and Sources of Business Activity
- Intellectual Property Transactions
- Transactions Involving Manufacturing Activities

These draft questions were discussed using cognitive interviewing. The objectives of these interviews were to learn how respondents:

- understand and interpret the data requests;
- understand the terminology used throughout the questions;
- keep records related to the data items; and,
- perceive the burden that would be associated with answering the questions.

The round one innovation module draft can be found in appendix A. The round one protocol can be found in appendix B. The round two innovation module draft can be found in appendix C. the round two protocol can be found in appendix D.

Note: The two rounds of testing were conducted in close proximity, time-wise, from each other. Between the rounds of testing, some changes were made to the draft materials. This report will attempt to summarize findings from all interviews, but the primary focus will be on the findings from Round 2 of the interviews, and provides recommendations based on those draft questions.

Research Methodology

Between June and August 2019, Aryn Hernandez and Krysten Mesner from the U.S. Census Bureau's Data Collection and Methodology Research Branch (DCRMB) conducted 36 cognitive interviews over two rounds of testing, regarding proposed new questions. Participants in the interviews were recruited from a list of recent respondents to the ABS. Generally, those recent respondents were the primary participants in the interviews, but on occasion these respondents brought one or more colleagues to the interviews, because they were integral to the typical survey data collection process. On occasion, these people who accompanied the original participant turned into the primary participant in these interviews. Interviews were conducted in-person.

Cognitive interviews were the testing methodology used for this project. Cognitive interviews are used to, '(a) understand the thought processes used to answer survey items, and (b) to use this knowledge to find better ways of constructing, formulating, and asking survey questions' (Forsyth and Lessler, 1991).¹ Cognitive interviews traditionally focus on the four steps of Tourangeau's (1984) cognitive response model: comprehension, retrieval, judgment, and communication/reporting.² Comprehension refers to the respondent's interpretation and understanding of the question's language, structure, and grammar. In order to answer the question, a respondent must understand what information is being requested on the survey. Retrieval is the step where relevant information is obtained, either from records or from memory. The next step, judgment, describes the respondent's evaluation of the completeness or relevance of the data obtained. It is here that estimates are made based on partial or incomplete data. The last step, communication or reporting, deals with mapping the response to the answer space provided and possibly altering the answer.

While Tourangeau's model is suitable for household and social surveys, the establishment survey setting presents additional factors that must be considered. First, instead of or in addition to a reliance on memory, establishment surveys rely heavily on records and the information contained within them. Second, organizations tend to have distributed knowledge. Some people are experts in one type of information, while others keep information about something else. Third, competing priorities, both for the organization and the individual(s) completing the questionnaire, mean that the survey sometimes does not receive the amount of attention that researchers and data collectors would like. Finally, organizations regularly authorize only a few individuals to release data. If the data provider is not authorized to release the data, an additional step must be added to the response process. Tourangeau's model was expanded by Sudman *et al* (2000) to account for these factors. ³

¹ Forsyth, B.H. and Lessler, J.T. (1991). 'Cognitive Laboratory Methods: A Taxonomy.' In <u>Measurement Errors in Surveys</u>, P.P. Biemer, R.M. Groves, L.E. Lyberg, N.A. Mathiowitz, S. Sudman (eds). New York: John Wiley & Sons, Inc.

² Tourangeau, R. (1984). 'Cognitive Sciences and Survey Methods.' In <u>Cognitive Aspects of Survey Methodology</u>, T.B. Jabine, M.L. Straf, J.M. Tanur, and R. Tourangeau (eds). Washington, DC: National Academy Press.

³ Sudman, S., Willimack, D.K., Nichols, E., and Mesenbourg, T.L. (2000). 'Exploratory Research at the U.S. Census Bureau on the Survey Response Process in Large Companies.' Paper prepared for presentation at the Second International Conference on Establishment Surveys, Buffalo, NY.

Participants

Participants included sample members from the 2018 ABS who have previously reported having intellectual property, are foreign owned, have purchased foreign R&D services, or have foreign customers. Businesses were recruited from across the nation and include a range of sizes based on employee count (in particular small and medium) and covered a variety of industries. There were 21 participants in round one and 18 participants in round two.

Table 1. Count of businesses by employee count.

Employee Count	Total
< 50	22
50 – 499	10
500+	7
Total	39

Findings and Recommendations

General Findings and Recommendations

Finding #1: Estimated time to complete averaged approximately one to two hours.

After reviewing the draft module, most respondents gave a time estimate to complete the module between 15 minutes and 3 hours. A few respondents gave an estimate that exceeded 3 hours, up to one day. Respondents that gave the 15 minute estimates believed that the module did not apply to them, and thus would skip most of the questions. Those that gave higher estimates cited obtaining the financial data as the main burden.

Recommendation(s):

No recommendations needed.

Finding #2: Module is inconsistent with the rest of the ABS.

Many respondents were unsure of the correct reporting unit while going through this module. This may be an artifact of the testing environment in which respondents only received the module, rather than the entire form, which does contain an explanation of the proper reporting unit. While the formatting of the answer fields suggested the proper way in which to report dollar amounts, i.e. thousands of dollars, some respondents were still unsure. A check of the ABS worksheet revealed that there were no instructions or examples of how to report in thousands of dollars as is seen in other Census Bureau surveys. Some respondents pointed out that their answers would round to less than one thousand and were unsure how they would answer. In addition, many respondents questioned the purpose of these questions and how the data would be used. There was also some confusion over the reference period cited in the questions.

Recommendation(s):

- Move reference year to the beginning of all questions where possible
- Add a short explanation of how this data is used to the opening instructions.
- Reiterate that estimates are acceptable for questions requiring dollar amounts.
- Include instructions on how to report dollar amounts (i.e. as thousands of dollars).
- Consider adding an option for amounts that would not round up to \$1000 (such as a check box).
- Instructions regarding the reporting unit and the use of estimates should be at the beginning of the ABS worksheet.

Question Specific Findings and Recommendations

Finding #3: Introduction and Definitions

Upon initially reading the introduction, most respondents stated that they would be the appropriate person to answer this module based on the instructions. As they progressed through the module, some respondents did refer back to the definitions, however, many of those respondents found the definitions lacking or confusing. Especially the definitions used to explain company relationships.

- Definitions explaining company relationships should be grouped together and terminology simplified. For example:
 - Affiliate Company: An entity that is owned at least 10% (based on voting interest) directly or indirectly by your business. A foreign affiliate is an entity domiciled in a foreign country that is owned at least 10% (based on voting interest) directly or indirectly by your business.
 - Parent Company: The first entity in your business's ownership chain that has direct investment in your business. A foreign parent (of your U.S.-located business) is the first entity outside the United States in your business's ownership chain that has a direct investment interest in your business.
 - Subsidiary Company: A majority-owned affiliate in which the combined ownership of all its U.S. parents exceeds 50% (based on voting interest). A foreign subsidiary is a majority-owned foreign affiliate in which the combined ownership of all its U.S. parents exceeds 50 percent (based on voting interest).
 - Unaffiliated Company: An entity that is owned less than 10% (based on voting interest) directly or indirectly by your business. Unaffiliated companies can be foreign- or domestic-based. Examples: independent contractors and suppliers.
- Consider using a graphic to demonstrate these relationships, such as those used in the Bureau of Economic Analysis's surveys.

Finding #4: Questions A1 and A2

Most respondents were able to answer these questions. A few respondents were unsure about the meaning of the word export and what actually constituted an export. Some respondents would not have included intercompany transactions when answering these questions. Some respondents felt that the word 'goods' implied that only finished goods should be reported and that parts or unfinished goods being sold for further processing should be excluded.

Recommendation(s):

- Add 'components' to parenthetical.
- Specify that exporting involves payments from foreign entities.
- Specify that intercompany transactions should be included.
- Example of revised question A1 text:
 - In 2018, did your business receive payments from foreign entities for exported good or components (including equipment, supplies, materials, etc.)? Include transactions between your business and any foreign parent, affiliate, or subsidiary company.
- If A1 is altered, A2 should be altered to match. For example:
 - o In 2018, what was the dollar amount of payments received from foreign entities for the export of goods or components from your business' domestic operations? *Include transactions between your business and any foreign parent, affiliate, or subsidiary company.*

Finding #5: Question A3

Some respondents had difficulty with this question. A few respondents pointed out that the word value was somewhat subjective. Some respondents had difficulty defining the difference between items 'B' and 'C.' It was not clear to these respondents who would be conducting the 'further processing' or 'reselling.' A few respondents felt that adding examples to item B such as 'parts' or 'raw materials' would also help to clarify. Respondents whose companies dealt in software found it difficult to choose which item they would place software.

- Consider changing the word 'value' to 'payments received,' 'revenue,' or 'sales.'
- Typo in A; Insert the word 'to' after 'goods used...'
- Consider adding examples to B such as 'parts' or 'raw materials'
- Specify who would be conducting the 'further processing' or 'reselling' in B and C.
- Specify which category software belongs in.
- Example of revised text:
 - In 2018, what was the dollar amount of payments received for the exported goods from domestic operations by type of good? Details must sum to total dollar amount of exported goods.
 - Capital goods (include equipment such as computers and other machinery and durable goods used to produce other goods or services for sale; exclude parts and accessories, and transportation equipment)
 - Goods intended for further processing in the production of goods or services by the recipient (e.g. parts and raw materials)

- Goods intended for resale without further processing by the recipient
- Total value of exported goods

Finding #6: Questions A4 and A5

Most respondents were able to answer these questions. A few respondents were unsure about the mechanics of exporting a service. These respondents believed that if the person providing the service traveled to the foreign country to provide the service, it was considered exporting. However, this is not the case, and these instances should be excluded from their answers. Some respondents would not have included intercompany transactions when answering these questions.

Recommendation(s):

- Specify that exporting involves payments from foreign entities. The word 'export' may not be necessary.
- Consider specifying that traveling to a foreign location to provide services should be excluded.
- Example revised text:
 - In 2018, did your business receive payments from foreign entities for services provided by your business' domestic operations? Include transactions between your business and any foreign parent, affiliate, or subsidiary company. Y/N
- If A4 is altered A5 could be revised as follows:
 - o In 2018, what was the dollar amount of payments received from foreign entities for the services provided by your business' domestic operations? Include transactions between your business and any foreign parent, affiliate, or subsidiary company.

Finding #7: Questions B1 and B2

Most respondents were able to answer these questions. A few respondents were unsure about the meaning of the word import and what actually constituted an import. Some respondents would not have included intercompany transactions when answering these questions. Some respondents felt that the word 'goods' implied that only finished goods should be reported and that parts or unfinished goods being purchased for further processing should be excluded.

- Add 'components.'
- Specify that importing involves payments from foreign entities
- Specify that intercompany transactions should be included
- Example B1 revision:
 - In 2018, did your business pay any foreign entities for imported good or components (including equipment, supplies, materials, etc.)? Include transactions between your business and any foreign parent, affiliate, or subsidiary company.
- If B1 is altered, B2 should be altered to match. For example:
 - In 2018, what was the dollar amount of payments your business' domestic operations made to foreign entities for the import of goods or components? Include transactions between your business and any foreign parent, affiliate, or subsidiary company.

Finding #8: Question B3

Some respondents had difficulty with this question. A few respondents pointed out that the word value was somewhat subjective. Some respondents had difficulty defining the difference between items 'B' and 'C.' It was not clear to these respondents who would be conducting the 'further processing' or 'reselling.' A few respondents felt that adding examples to item B such as 'parts' or 'raw materials' would also help to clarify. Respondents whose companies dealt in software found it difficult to choose which item they would place software.

Recommendation(s):

- Consider changing the word 'value' to 'payments received,' 'revenue,' or 'sales.'
- Typo in A; Insert the word 'to' after 'goods used...'
- Consider adding examples to B such as 'parts' or 'raw materials'
- Specify who would be conducting the 'further processing' or 'reselling' in B and C.
- Specify which category software belongs in.
- Example of revised text:
 - In 2018, what was the dollar amount of payments made by domestic operations for the imported goods by type of good? Details must sum to total dollar amount of exported goods.
 - Capital goods (include equipment such as computers and other machinery and durable goods used to produce other goods or services for sale; exclude parts and accessories, and transportation equipment)
 - Goods intended for further processing in the production of goods or services by your business (e.g. parts and raw materials)
 - Goods intended for resale without further processing by your business
 - Total value of exported goods

Finding #9: Questions B4 and B5

Most respondents were able to answer these questions. A few respondents were unsure about the mechanics of importing a service. These respondents believed that if the person providing the service traveled to the foreign country to provide the service, it was considered importing. However, this is not the case, and these instances should be excluded from their answers. Some respondents would not have included intercompany transactions when answering these questions.

- Specify that importing involves payments to foreign entities. The word 'import' is not necessary.
- Consider specifying that a foreign person traveling to the US to provide services should be excluded.
- Example revised B4 text:
 - In 2018, did your business' domestic operations make payments to foreign entities for services received? Include transactions between your business and any foreign parent, affiliate, or subsidiary company. Y/N
- If B4 is altered B5 could be revised as follows:

o In 2018, what was the dollar amount of payments your business' domestic operations made to foreign entities for the services received? Include transactions between your business and any foreign parent, affiliate, or subsidiary company.

Finding #10: Question C1

Most respondents could answer this question, or felt that the data was available to them. Some respondents noted that the included and excluded categories matched to what they considered to be expenses. Most notably, many respondents pointed out that 'rent' and/or 'property tax' was missing from the includes. In addition, many respondents felt that 'bad debt' should be included.

Recommendation(s):

- Other includes to consider:
 - o Rent
 - Property tax
 - Insurance
 - o Benefits
 - Gross salaries (as a clarification to 'personnel costs')
 - Depreciation
 - Legal services, marketing, IT (as examples for 'expenses purchased services')
- Consider moving bad debt to the includes

Finding #11: Question C2

Most respondents could not answer this question, or felt that the data be too difficult and time consuming to obtain. Some respondents believed that labor cost should be included in these categories. However, as none of the items specified labor costs, some respondents would omit it. These respondents also pointed out that obtaining the labor cost would be difficult, as it was not delineated in their records. In some cases, respondents would be forced to estimate percentages of individual salaries when formulating their answers.

Some respondents were initially confused by the term 'core production.' Many of these respondents suggested the phrase 'costs of goods or services sold.' Other Census Bureau surveys use the phrase 'primary business activity.' This issue was particularly problematic for service companies that primarily provide the services described in items 'b' through 'h.' Respondents from these companies were unsure whether to put the cost of providing these services as their primary business activity into item 'a,' or the corresponding item in 'b' through 'h.'

- Specify that salaries/labor costs should be included in amounts
- Drop term 'core production.' Consider using 'costs of goods or services sold' or 'primary business activity.'
- Rephrase item 'g' to 'Communication, information technology, and web services.'
- Add instructions for service industries that provide items 'b' through 'h'
- Example revised text:
 - How much of this business' domestic operating expenses or costs (item C.1) were associated with the following activities? *Include labor costs. Details must sum to total* dollar amount of operating expenses or costs.

- Cost of goods or services sold (production of goods and services to be sold in the market, thus generating income for this business; primary business activity)
- Distribution and logistics
- Marketing, sales/after sales services
- Administrative or management functions
- Research and development (R&D; includes creative and systematic work undertaken in order to increase the stock of knowledge and to devise new applications of available knowledge)
- Engineering and other technical services (includes testing and design other than R&D)
- Communication, information technology, and web services
- Other
- Total Domestic Operating Expenses or Costs

Finding #12: Question C3 and C4

Most respondents could answer this question, or felt that the data was available in their records. Question C3 asks specifically about unaffiliated domestic firms, while C4 asks specifically about foreign affiliated and unaffiliated firms. Most respondents did not notice this difference. Some respondents were also confused by the term 'firm.' These respondents seemed to believe that the term 'firm' excluded individuals performing work outside of a larger company.

Recommendation(s):

- Consider mentioning 1099s in the examples given.
- If C2 is altered, update categories to reflect changes.
- Change 'firms' to 'entities'
- Specify if you want only work done for payment (i.e. 'did you pay anyone to...?')
- Example revised text for C3:
 - o Did any unaffiliated entities located in the U.S. conduct any of the following activities for your business? *Unaffiliated firms include independent contractors and suppliers*.
- Move instructions about company relationships to the guestion itself
- If C2 is altered, update categories to reflect changes.
- Change 'firms' to 'entities'
- Consider putting items C3 and C4 on the same screen for easier comparison.
- Example revised text for C4:
 - Did any affiliated or unaffiliated foreign entities conduct any of the following activities for your business? Entities located outside the U.S. may be either independent contractors/suppliers or entities related to your business such as your foreign affiliates, foreign parent company, or companies owned by your foreign parent.

Finding #13: Section E. Transactions Involving Manufacturing Activities

Most respondents could answer this section. Some respondents from companies that created software believed that creating software was a form of manufacturing. However, these respondents were unsure whether they should include software when answering these questions. A few respondents were unsure if they should report items that were partially manufactured elsewhere in question E2, or if they should

only report when the entire item was manufactured by another entity. Some respondents were also unsure if goods referred to only finished products or if components were to be included in their answers. A few respondents were confused about how to report on question E3 when they themselves did not create the designs for a product. For example, a company may purchase a design from one entity and have it manufactured by another company.

- Based on this definition, and the phrase '...on materials and physical components' we do not recommend including any form of software in these questions.
- Add 'any' after the phrase 'contract out' in question E2:
 - In 2018, did your business contract out any manufacturing tasks or otherwise purchase manufacturing services (processing, assembly, labeling, packing or related services on materials and physical components) from other entities?
- In question E3, 'components' should be included along with goods.
- In question E3, move 'provide' next to 'determine.' For example:
 - o In 2018, did your business determine or provide the designs or specifications for the goods or components manufactured for your business by other entities?
- Since E4 directly references E2, we recommend swapping E3 and E4.
- In question E5, add 'any' after the word 'perform:'
 - o In 2018, did your business perform any manufacturing tasks for other entities?
- In question E6, 'components' should be included along with goods.
- In question E6, move 'provide' next to 'determine.' For example:
 - o In 2018, did your business determine or provide the designs or specifications for any of the goods manufactured by your business for other entities?
- Since E7 directly references E5, we recommend swapping E6 & E7.

Appendix A: Draft Questions, Round 1

SECTION X: DOMESTIC AND GLOBAL TRANSACTIONS

This section collects information on the business's domestic and global transactions. The section includes trade, business costs, IP, and transactions involving manufacturing activities.

Capital goods: Manufacturing equipment such as machinery, electrical generators, and computers and other durable goods used produce other goods for sale, except transportation equipment. Exclude parts and accessories.

Core production activities: Production of goods and services to be sold in the market, thus generating income for your company. For manufacturing companies, core production typically involves production of physical goods, including digital goods such as downloadable software, music and film. Core activities for service companies include the main service provided by your business such as ICT services, R&D, engineering services, retailing, insurance, consulting, or digital services.

Domestic (or U.S.-located): refers to any of the U.S. 50 states or Washington DC

Exported goods: Value of goods including the value of equipment, supplies, materials, etc. This should equal the amounts reported in the Electronic Export Information (EEI) filed with U.S. Customs and Border Protection plus the cost of transporting the goods to customers located in foreign destinations (i.e., outside the 50 States, District of Columbia, U.S. Commonwealth Territories, or U.S. possessions).

Exported services: An exported service is a service-related product (e.g., service performed, including digital service, license agreement) that is sold or transferred to, or performed for customers (individual, government, business establishment, etc.) located in foreign destinations (i.e., outside the 50 States, District of Columbia, U.S. Commonwealth Territories, or U.S. possessions).

Foreign affiliate: a foreign affiliate is an entity domiciled in a foreign country that is owned at least 10% (based on voting interest) directly or indirectly by the U.S. reporter.

Foreign parent (of U.S.-located business): The first entity outside the United States in an. affiliate's ownership chain that has a direct investment interest in the affiliate.

Goods. Physical, produced objects for which a demand exists, over which ownership rights can be established and whose ownership can be transferred from one institutional unit to another by engaging in transactions on markets

Imported goods: The value of goods purchased from customers located in foreign destinations (i.e., outside the 50 States, District of Columbia, U.S. Commonwealth Territories, or U.S. possessions) as indicated in import declarations filed with the U.S. Customs and Border Protection.

Imported services: An imported service is a service-related product (e.g., service performed, including digital service, license agreement) that is purchased from customers located in foreign destinations (i.e., outside the 50 States, District of Columbia, U.S. Commonwealth Territories, or U.S. possessions).

Intellectual property (IP): includes (i) patents, processes, trade secrets; (ii) books, music; (iii) trademarks; (iv) recorded performances and events such as radio and television programs and motion pictures; (v) broadcast and record live performances and events; (vi) general use computer software; (vii) franchise fees; (viii) other.

Majority-owned foreign affiliate or subsidiary: A foreign affiliate in which the combined ownership of all its U.S. parents exceeds 50 percent.

Manufacturing: processing, assembly, labeling, packing and related services on materials and physical components

Operating expenses or costs: Include personnel costs, expensed equipment and materials (parts and supplies not for resale), expensed purchased services, and other operating expenses. EXCLUDE capitalized expenses, interest, income taxes, dad debt, and impairment.

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

Services: Services are the result of a production activity that changes the conditions of the consuming units or facilitates the exchange of products or financial assets. They cannot be traded separately from their production. Services can also include some knowledge-capturing products.

Support business functions: Activities that permit or facilitate core activities and are associated with your costs of production. Support business functions may be performed internally or purchased from third parties. These activities include:

- Distribution and logistics
- Marketing, sales/after-sales services (help desks, call centers)
- Administrative and management functions
- Research and development (R&D)
- Information and Communication Technology (ICT) services
- Engineering, design, testing and related technical services

Unaffiliated company or business: entity that is owned less than 10% (based on voting interest) directly or indirectly by your company. Examples: independent contractors and suppliers.

Utility patents: Patents for inventions. Exclude design patents and plant patents. Exclude provisional patent applications.

A. Type of Exporting Activity	
Did this business export goods or services in 2018?	Yes No
If A.1 equals NO, go to Question A.4.	
 What was the dollar amount of this business' export of goods and 2018? \$Bil. Mil. Thou. 	from domestic operations in
3. What was the dollar value of the exported goods from domest in 2018? <i>Details must sum to total dollar amount of exported good</i>	
	\$Bil. Mil. Thou.
 A. Capital goods B. Non-capital goods intended for further processing, assembly or manufacturing C. Non-capital goods intended for resale without further processing, assembly or manufacturing Total value of exported goods 	,000 ,000 ,000
4. Did this business export any services in 2018? If A.4 equals NO, go to Section B.	Yes No
ij A.4 equals NO, go to section B.	
5. What was the dollar amount of this business' export of service : 2018?	s from domestic operations in
\$Bil. Mil. Thou. ,000	

B. Type of Importing Activity	
1. Did this business import goods or services in 20	Yes No
If B.1 equals NO, go to Question B.4.	
What was the dollar amount of this business' in 2018?	nport of goods by domestic operations in
	/lil. Thou. ,000
3. What was the dollar value of the imported good 2018? <i>Details must sum to total dollar amount of the imported good and the imported good and the imported good good good good good good good go</i>	
	\$Bil. Mil. Thou.
 A. Capital goods B. Non-capital goods intended for further processing, assembly or manufacturing C. Non-capital goods intended for resal without further processing, assembly of manufacturing Total value of imported good 	e,000 or
rotal value of imported good	,,000
4. Did this business import any services in 2018?	Yes No
If B.4 equals NO, go to Section C.	
5. What was the dollar amount of this business' in 2018?	nported services by domestic operations in
\$Bil. N	/lil. Thou. ,000

C. Type and Sources of Business Costs

1. Wha	at was the dollar amount of this busin	ess' domestic operating costs	or expe	enses in 2018?
		\$Bil. Mil. Thou.		
		,000		
	nuch of this business' domestic ope ing activities? <i>Details must sum to tot</i>	- · · · · · · · · · · · · · · · · · · ·		
			\$Bil. Mi	il. Thou.
ā	a. Core production			,000
9	Support business functions:			
k	o. Distribution and logistics			000
C	c. Marketing, sales/after sales servic	es		,000
C	d. Administrative or management fu	nctions		,000
6	e. Research and development (R&D)			,000
f	f. Information and Communication	Technology (ICT) services		,000
٤	g. Engineering and other technical se	ervices (includes testing		
	and design)			,000
ł	n. Other			,000
	Total Domestic Op	perating Costs or Expenses:		,000
	any unaffiliated firms located <u>in the L</u> ss? <i>Unaffiliated firms include indeper</i>			ities for your
ć	a. Core production		Yes	No
9	Support business functions:			
	o. Distribution and logistics		Ш	\sqsubseteq
(c. Marketing, sales/after sales servic	es	Ш	
C	d. Administrative or management fu	nctions		
6	e. Research and development (R&D)			
f	f. Information and Communication	Technology (ICT) services	Ħ	Ħ
8	Engineering and other technical so and design)	ervices (includes testing		

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4. Did any firms located <u>outside the U.S.</u> conduct any of the following activities for your business? Firms located outside the U.S. may be either independent contractors/suppliers or firms related to your business such as your foreign affiliates, foreign parent company, or companies owned by your foreign parent.

a.	Core production	Yes	No
Su	pport business functions:		\Box
b.	Distribution and logistics	닏	\vdash
c.	Marketing, sales/after sales services	Ш	\sqsubseteq
d.	Administrative or management functions		
e.	Research and development (R&D)		
f.	Information and Communication Technology (ICT) services	同	\sqcap
g.	Engineering and other technical services (includes testing	Ħ	Ħ
	and design)	ш	Ш

D. Intellectual Property Transactions			
 Did this business sell or license intellectual property in 2018? If D.1 equals NO, go to D.4. Did this business sell or license intellectual property to a firm in a foreign location? 	Yes Yes	No No	
If D.2 equals NO, go to D.4.			
3. Which types of intellectual property were sold or licensed to firms	to foreign	locatio	ns?
 a. Utility Patents b. Design Patents c. Trademarks d. Copyrights e. Other (Broadcasts, Performances, Trade Secrets) 	Yes	No	
 Did this business purchase or pay licensing fees for intellectual property in 2018? If D.4 equals NO, go to Section E. 	Yes	No	
 Did this business purchase or pay licensing fees for intellectual proto a firm in a foreign location in 2018? If D.5 equals NO, go to Section E. 	operty	Yes	No
ij D.J equuis NO, go to section L.			

	eign locations?	i iirms	
b. c. d.		Yes	No
-			ш

E. Transactions Involving Manufacturing Activities		
1. Did this business manufacture any goods in the U.S. in 2018?	Yes	No
	Yes	No
2. Did this business have any manufacturing tasks (processing, assembly, labeling, packing or related services on materials and physical components) done on its behalf in 2018?		
3. If 'Yes' to question 2, did this business determine the design or provide the specifications for any of the goods that were manufactured on its behalf?	Yes	No
4. If 'Yes' to question 2, who performed the manufacturing for this business' U.S or establishments? Select all that apply.	locate	d units
 Performed by U.Slocated unaffiliated companies Performed by foreign affiliated companies Performed by foreign unaffiliated companies 		
5. Did this business perform any manufacturing on behalf of others in 2018?	Yes	No
6. If 'Yes' to question 5, did this business determine the design or specifications for any of the goods that were manufactured on others behalf?	Yes	No
7. If 'Yes' to question 5, please indicate the type of company for whom this busir located units or establishments performed manufacturing activities. Select all the		
Performed by U.Slocated unaffiliated companies		
Performed by foreign affiliated companiesPerformed by foreign unaffiliated companies		

Appendix B: Interview Protocol, Round 1

Cognitive Interviewing Guide: GLOBALIZATION MODULE for ABS (3rd Year)

Interviewer notes are in red.

Introduction:

- Explain purpose of meeting: to obtain feedback on reporting to the ABS, to understand the process of answering questions, and to evaluate how new questions work or don't work.
- Some questions may seem odd and/or obvious, but we don't want to assume we know what you are thinking.
- Explain that we are not testing the respondent we only want to evaluate the questionnaire
- Structure of meeting: Understand your business and your role in it, then review the questionnaire and ask you questions as you complete it.
- Permission to record discussion for note taking purposes? This study is being conducted under the authority of Title 13 USC. We plan to use your feedback to improve the design and layout of the form for future data collections. Only staff involved in this product design research will have access to the recording. Have R sign consent form.

Research Questions to Address:

- Are respondents able to answer the questions as intended?
- Are there any items that cause the respondents problems?
 - o What can be done to fix those problems?
- Are there any order/context effects?

Before the Questionnaire:

- What types of goods or services does this business provide?
- What is your role in the company? What kind of responsibilities do you have?
- Are you one of the owners of the business?
- Have you completed other surveys from the Census Bureau or other agencies? If so, which ones?
- What was your role in the process for responding to this questionnaire? (Gather data? Enter data? Consult with data providers? Etc.)

REVISED GLOBALIZATION MODULE for 2020 ABS (3rd Year)

Provide 'Globalization Handout' to participant.

SECTION X: GLOBALIZATION

Ask participant to read over instructions and let interviewer know when they are finished.

A. Type of Exporting Activity

- For each question:
 - o How would you answer this question?
 - Probe on terms: goods, services, capital goods,. How do you define these terms?
 Note if participant refers back to the definitions.
 - o Is this information in your records? Is it easily obtainable? What records would be useful for you when answering this question? Would you have to reach out to others to obtain this information?
 - O Are you able to distinguish between A., B., and C. in your records? Do you break these amounts out in your records? If your records don't report a break out, how would you respond to this question?
 - o Probe on terms: capital goods, non-capital goods. How do you define these terms?
 - In this section we asked about goods and services does the respondent make that distinction easily? Question A.2 plus Question A.4 should equal A.1 – does it?

B. Type of Importing Activity

- For each question:
 - o How would you answer this question?
 - o Is this information in your records? Is it easily obtainable? What records would be useful for you when answering this question? Would you have to reach out to others to obtain this information?
 - Are you able to distinguish between A., B., and C. in your records? Do you break these amounts out in your records? If your records don't report a break out, how would you respond to this question?
 - In this section we asked about goods and services, note whether respondent makes that distinction easily.
 - Question B.2 plus Question B.4 should equal B.1, note whether respondents realize this, probe if not.

C. Type and Sources of Business Costs

- Note whether or not respondent refers back to definitions at the beginning.
- C1:
- o How easy or difficult is to provide this amount?
- o What records, if any, would you use to come up with this figure?
- o What people, if any, would you need to consult?
- o What does "consolidated US-located units or establishments" mean to you?
- C2:
- How difficult or easy is it for respondent to provide dollar amounts for each support function?
- o Please describe what each of the following means to you:
 - Distribution and Logistics
 - Marketing, Sales/after-sales Services
 - Administrative or Management functions
 - Research and Development (R&D)
 - Information and Communication Technology (ICT) services
 - Engineering and other related technical services (includes testing and design)
- C3 and C4:
 - o How do you define the term "unaffiliated firms"?
 - Tell me in your own words what C3 is asking
 - Tell me in your own words what C4 is asking.
- For each question:
 - o How would you answer this question?
 - o Is this information in your records? Is it easily obtainable? Where are the numbers coming from? Would you have to reach out to others to obtain this information?

D. Intellectual Property Transactions

- For each question:
 - o How would you answer this question?
 - o How would you define intellectual property? Can you give me some examples?
 - Note if participant refers back to the definitions.
 - o Is this information in your records? Is it easily obtainable? What records would be useful for you when answering this question? Would you have to reach out to others to obtain this information?

E. Transactions Involving Manufacturing Activities

Interviewer note: If E1 and E2 both equal NO, skip this section

- E4 or E7— Can you give me an example of a U.S. located unaffiliated company? How is that company related to your company?
 - o Of a foreign affiliated company? How is that company related to your company?
 - o Of a foreign unaffiliated company? How is that company related to your company?
- For each question:
 - o How would you answer this question?
 - o Probe on terms: manufacturing, unaffiliated, and foreign affiliate terms.
 - What manufacturing tasks does your company perform?
 - o *If respondent's company does manufacture goods:* Can you give me some examples of the goods you manufacture?
 - o Is this information in your records? Is it easily obtainable? Do you have to reach out to others to obtain this information?

WRAP UP

- Thinking about the questions we have gone over, is it easy or difficult to provide dollar amounts? Would providing percentages make the questions easier to answer or more difficult?
- Thinking about this section as a whole, how long do you think it would take to answer all of these questions?
- Do you have any other comments of suggestions about anything we have discussed today?

THANK YOU FOR YOUR TIME!

Appendix C: Draft Questions, Round 2

SECTION X: DOMESTIC AND GLOBAL TRANSACTIONS

This section collects information on the business's domestic and global transactions. The section includes trade, business costs, IP, and transactions involving manufacturing activities.

Domestic (or U.S.-located): refers to any of the U.S. 50 states or the District of Columbia.

Exported goods: Value of goods including the value of equipment, supplies, materials, etc. This should equal the amounts reported in the Electronic Export Information (EEI) filed with U.S. Customs and Border Protection plus the cost of transporting the goods to customers located in foreign destinations (i.e., outside the 50 States, District of Columbia, U.S. Commonwealth Territories, or U.S. possessions).

Exported services: An exported service is a service-related product (e.g., service performed, including digital service, license agreement) that is sold or transferred to, or performed for customers (individual, government, business establishment, etc.) located in foreign destinations (i.e., outside the 50 States, District of Columbia, U.S. Commonwealth Territories, or U.S. possessions).

Foreign affiliate: a foreign affiliate is an entity domiciled in a foreign country that is owned at least 10% (based on voting interest) directly or indirectly by the U.S. reporter.

Foreign parent (of U.S.-located business): The first entity outside the United States in an. affiliate's ownership chain that has a direct investment interest in the affiliate.

Imported goods: The value of goods purchased from customers located in foreign destinations (i.e., outside the 50 States, District of Columbia, U.S. Commonwealth Territories, or U.S. possessions) as indicated in import declarations filed with the U.S. Customs and Border Protection.

Imported services: An imported service is a service-related product (e.g., service performed, including digital service, license agreement) that is purchased from customers located in foreign destinations (i.e., outside the 50 States, District of Columbia, U.S. Commonwealth Territories, or U.S. possessions).

Majority-owned foreign affiliate or subsidiary: A foreign affiliate in which the combined ownership of all its U.S. parents exceeds 50 percent (based on voting interest).

Services: A service is usually intangible, such as retailing, insurance, educational courses, air travel, consulting, etc., and also includes digital services.

Unaffiliated company or business: entity that is owned less than 10% (based on voting interest) directly or indirectly by your company. Examples: independent contractors and suppliers.

Α.	Type of Exporting Activity		
2.	Did this business export goods (including equipment, supplies, materials, etc) in 2018?	Yes	No 🔲
If.	A.1 equals NO, go to Question A.4.		
2.	What was the dollar amount of this business' export of goods from do 2018? \$Bil. Mil. Thou	omesti	c operations in
3.	What was the dollar value of the exported goods from domestic oper in 2018? Details must sum to total dollar amount of exported goods.		oy type of goods Mil. Thou.
	D. Capital goods (include equipment such as computers and other machinery and durable goods used produce other goods or services for sale; exclude parts and accessories, and transportation		,000
	equipment) E. Goods intended for further processing in the production of goods or services		,000
	F. Goods intended for resale without further processing		,000
	Total value of exported goods		,000
4.	Did this business export any services (e.g., service performed, including digital service, license agreement) in 2018?	Yes	No

If A.4 equals NO, go to Section B.

5.	5. What was the dollar amount of this business' export 2018?	of services from d	lomest	tic operations in
	\$Bil. Mil. T			
В.	3. Type of Importing Activity	,000		
			Yes	No
7.	7. Did this business import goods in 2018?			
If I	f B.1 equals NO, go to Question B.4.			
2.	What was the dollar amount of this business' impor 2018?	t of goods by dom	estic o	perations in
	\$Bil. Mil. T	hou. ,000		
3.	3. What was the dollar value of the imported goods by 2018? Details must sum to total dollar amount of im	-	ons by	type of goods in
			\$Bil. N	Mil. Thou.
	 D. Capital goods (include equipment such as computers and other machinery and durable goods used produce other goods or services for sale; exclude parts and accessories, and transportation equipment) 	_		,000
	E. Goods intended for further processing in	_		,000
	the production of goods or services F. Goods intended for resale without further	_		,000
	processing Total value of imported goods	_		,000
ind	I. Did this business import any services (e.g., service p ncluding digital service, license agreement) in 2018?	erformed,	Yes	No
If I	f B.4 equals NO, go to Section C.			
5.	5. What was the dollar amount of this business' impore 2018? \$Bil. Mil. T	•	nestic	operations in

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		,000	
C. Type and So	ources of Business Costs		
	he dollar amount of this business' do	omestic operating exp	penses or costs in 2018?
• INCLUI			
	personnel costs		
	expensed equipment		
0	materials (parts and supplies not fo	r resale)	
0	expensed purchased services		
• EXCLU	o and o a post and o and o and o		
0	capitalized expenses interest		
0	income taxes		
0	bad debt		
0	impairment		
O	-	Mil. Thou.	
	יווטל. וי	,000	
	of this business' domestic operating lowing activities? <i>Details must sum</i>	•	
			\$Bil. Mil. Thou.
i. Cor	e production (production of goods a	nd services to be	·
sold	in the market, thus generating incom	me for this business)	,000
•	ibution and logistics		,000
	keting, sales/after sales services		,000
	inistrative or management function		,000
syste	earch and development (R&D includ ematic work undertaken in order to wledge and to devise new application	increase the stock of	
knov	wledge) neering and other technical services		,000

,000

_,000

_,000

o. Information and Communication Technology (ICT) services

and design other than R&D)

p. Other

	Total Domestic Operating Expenses or Costs:		,C	000
	y unaffiliated firms located <u>in the U.S.</u> conduct any of the followess? Unaffiliated firms include independent contractors and supp		vities for y	your
a. b. c. d. e.	Core production (production of goods and services to be sold in the market, thus generating income for this business) Distribution and logistics Marketing, sales/after sales services Administrative or management functions Research and development (R&D includes creative and systematic work undertaken in order to increase the stock of knowledge and to devise new applications of available	Yes	No	
f. g. h.	knowledge) Engineering and other technical services (includes testing and design other than R&D) Information and Communication Technology (ICT) services Other			
busine firms i	y firms located <u>outside the U.S.</u> conduct any of the following actess? Firms located outside the U.S. may be either independent corelated to your business such as your foreign affiliates, foreign panies owned by your foreign parent.	ontracto	rs/supplie	
b. c. d.	Core production (production of goods and services to be sold in the market, thus generating income for this business) Distribution and logistics Marketing, sales/after sales services Administrative or management functions Research and development (R&D includes creative and systematic work undertaken in order to increase the stock of knowledge and to devise new applications of available	Yes	No	
f. g. h.	knowledge) Engineering and other technical services (includes testing and design other than R&D) Information and Communication Technology (ICT) services Other			

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D. Intellectual Property Transactions

	Intellectual	property	includes:
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- patents, processes, and trade secrets
- books and music
- trademarks
- recorded performances and events such as radio and television programs and motion pictures
- broadcast and recorded live performances and events
- general use computer software
- franchise fees
- other

1.		nis business sell or license intellectual property to any n 2018?	Yes	No
If E	D.1 equ	uals NO, go to D.4.	Yes	No
8.		nis business sell or license intellectual property to any n a foreign location in 2018?		
If D.2 equals NO, go to D.4.				
9. Which types of intellectual property were sold or licensed to firms in foreign locations in 2018?				
	f.	Utility Patents (include inventions and patented software; exclude plant patents and provisional patent applications)	Yes	No 🔲
	g.	Design Patents	\square	\square
	h.	Trademarks	\vdash	\vdash
	i.	Copyrights (include software)	\sqcup	
	j.	Other (broadcasts, performances, trade secrets)	Ш	

10. Did this business pay licensing fees or purchase intellectual property from any firm in 2018?	Yes	No	
If D.4 equals NO, go to Section E.			
11. Did this business pay licensing fees or purchase intellectual property from any firm in a foreign location in 2018?		Yes	No
If D.5 equals NO, go to Section E.			
12. Which types of intellectual property were purchased or licensed from any firm in a foreign location?			
 a. Utility Patents (include inventions and patented software; exclude plant patents and provisional patent applications) b. Design Patents c. Trademarks d. Copyrights (include software) e. Other (broadcasts, performances, trade secrets) 	Yes	No 	

E. Transactions Involving Manufacturing Activities				
1. Did this business manufacture any goods in the U.S. in 2018? Includes processing, assembly, labeling, packing and related services on materials and physical components.	Yes	No		
 Did this business contract out manufacturing tasks or otherwise purchase manufacturing services (processing, assembly, labeling, packing or related services on materials and physical components) from other firms in 2018? If E.2 equals NO, go to E.5. 	Yes	No 🔲		
3. Did this business determine the design or provide the specifications for goods manufactured for your company by other firms in 2018?	Yes	No		
4. Who performed the manufacturing for this business' U.Slocated units or esta 2018? <i>Select all that apply.</i>	ablishm	ents in		
U.Slocated unaffiliated companiesForeign affiliated companiesForeign unaffiliated companies				
5. Did this business perform manufacturing tasks for other firms in 2018? If E.5 equals NO, go to next section.	Yes	No		
6. Did this business determine the design or specifications for any of the goods that were manufactured by your business for other firms?	Yes	No		
7. What types of companies did this business' U.Slocated units or establishmen manufacturing activities on behalf of? <i>Select all that apply.</i>	ts perfo	orm		
U.Slocated unaffiliated companiesForeign affiliated companiesForeign unaffiliated companies				

Appendix D: Interview Protocol, Round 2

Cognitive Interviewing Guide: GLOBALIZATION MODULE for 2020 ABS (3rd Year)

Interviewer notes are in red.

Introduction:

- Explain purpose of meeting: to obtain feedback on reporting to the ABS, to understand the process of answering questions, and to evaluate how new questions work or don't work.
- Some questions may seem odd and/or obvious, but we don't want to assume we know what you are thinking.
- Explain that we are *not* testing the respondent we only want to evaluate the questionnaire
- Structure of meeting: Understand your business and your role in it, then review the questionnaire and ask you questions as you complete it.
- Permission to record discussion for note taking purposes? This study is being conducted under the authority of Title 13 USC. We plan to use your feedback to improve the design and layout of the form for future data collections. Only staff involved in this product design research will have access to the recording. Have R sign consent form.

Research Questions to Address:

- Are respondents able to answer the questions as intended?
- Are there any items that cause the respondents problems?
 - o What can be done to fix those problems?
- Are there any order/context effects?

Before the Questionnaire:

- What types of goods or services does this business provide?
- What is your role in the company? What kind of responsibilities do you have?
- Are you one of the owners of the business?
- Have you completed other surveys from the Census Bureau or other agencies? If so, which ones?
- What was your role in the process for responding to this questionnaire? (Gather data? Enter data? Consult with data providers? Etc.)

REVISED GLOBALIZATION MODULE for ABS (3rd Year)

Provide 'Globalization Handout' to participant.

SECTION X: GLOBALIZATION

Ask participant to read over instructions and let interviewer know when they are finished.

F. Type of Exporting Activity

- How would you answer this question?
 - o If yes: Can you give me some examples of this business's exported goods?
- How would you answer this question?
 - Note if participant refers back to the definitions.
 - o What records would you consult to answer this question?
 - When answering this question, did you think about the Electronic Export
 Information report filed with the U.S. Customs and Border Protection?
 - Do you think your answer to this question and what was filed on those forms would match? Why or why not?
 - Did you include the costs of transporting the goods to customers when answering this question?
- How would you answer this question?
 - Are items A, B, and C separated in your records?
 - *If no:* How would you calculate your answer to this question?
- How would you answer this question?
 - o If yes: Can you give me some examples of this business's exported services?
- How would you answer this question?
 - o What records would you consult to answer this question?

G. Type of Importing Activity

- 1. How would you answer this question?
 - If yes: Can you give me some examples of this business's imported goods?
- 2. How would you answer this question?
 - What records would you consult to answer this question?
 - When answering this question, did you think about the Import declarations filed with the U.S. Customs and Border Protection?
 - Do you think your answer to this question and what was filed on those forms would match? Why or why not?

- 3. How would you answer this question?
 - Are items A, B, and C separated in your records?
 - If no: How would you calculate your answer to this question?
- 4. How would you answer this question?
 - If yes: Can you give me some examples of this business's imported services?
- 5. How would you answer this question?
 - What records would you consult to answer this question?

H. Type and Sources of Business Costs

- 1. How would you answer this question?
 - How easy or difficult is to provide this amount?
 - What records, if any, would you use to come up with this figure?
 - What people, if any, would you need to consult?
 - Are the includes and excludes helpful or unhelpful?
 - Can you think of any other expenses that you would include that are not listed here?
- 2. How would you answer this question?
 - How difficult or easy is it for you to provide dollar amounts for each item?
 - If difficult: Would you be able to provide an estimate?
 - Would it be easier or more difficult to provide a percentage?
 - What records would you consult?
 - Would you need to reach out to others in the company to answer this? If so, which departments?
 - Do the expenses in you records match up to these categories?
 - Are these categories clear or unclear?
 - *If unclear:* What do you think the category includes? How can we make that more clear?
 - *Probe is necessary:* Do you have engineering services outside of R&D?
 - Are these separated in your records?
 - *If not:* how would you report for items e and f?
- 3. How would you answer this question?
 - Can you give me an example of an unaffiliated company? (possible answers: external contractor or supplier or customer)
- 4. How would you answer this question?
- Note whether or not respondent refers back to definitions at the beginning.

I. Intellectual Property Transactions

- How would you define intellectual property?
 - o Can you think of any examples not listed here?
 - 1. How would you answer this question?
 - If yes: Can you give me some examples of this business's IP?
 - 2. How would you answer this question?
 - Note if respondent notices the difference between questions D.1 and D.2.
 - 3. How would you answer this question?
 - Are the categories clear or unclear?
 - 4. How would you answer this question?
 - 5. How would you answer this question?
 - 6. How would you answer this question?
 - What records or people would you consult to answer these questions?

J. Transactions Involving Manufacturing Activities

- 1. How would you answer this question?
 - If yes: Can you give me some examples of this business's manufactured goods?
 - Was the definition helpful or unhelpful?
- 2. How would you answer this question?
 - If yes: Can you give me some examples of this business's contracting out manufacturing tasks (processing, assembly, etc.)?
 - Was the definition or manufacturing tasks or manufacturing services helpful or unhelpful (processing, assembly, labeling, packing or related services on materials and physical components)?
- 3. How would you answer this question?
- 4. How would you answer this question?
 - Can you give me an example of an unaffiliated company? (possible answers: external contractor or supplier or customer)
 - Can you give me an example of an affiliated company? How is that company related to your company?
 - If you have foreign affiliate companies, can you answer this question? Which records would you use to answer?
- 5. How would you answer this question?
- 6. How would you answer this question?
- 7. How would you answer this question?

- If you have foreign affiliate companies, can you answer this question?
- What records or people (staff) would you consult to answer this question?

WRAP UP

- Thinking about the questions we have gone over, is it easy or difficult to provide dollar amounts?
- Thinking about this section as a whole, how long do you think it would take to answer all of these questions?
- Do you have any other comments of suggestions about anything we have discussed today?

THANK YOU FOR YOUR TIME!