



U.S. Small Business Administration

Report with Eight Deliverables for Project to Support Small Business Administration (SBA) to Identify the Total Addressable Market of Small Business Exporters

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1. Background

The SBA Office of International Trade (OIT) looks to understand its customer base of small business exporters and how to optimally service it, in order to promote exports from small businesses. In particular, the SBA OIT is looking to:

- Identify the total addressable market of American small businesses that are or can become exporters, by economic sectors;
- Identify the share and number of small businesses that are currently exporting goods and/or services, and their current export volumes in dollars;
- Define up to 20 industries to focus on in efforts to promote small business exporters;
- Determine the characteristics of successful small business exporters in order to detect and cultivate the next sets of small businesses that are poised to grow through exports, and to address the needs of businesses that may otherwise perform well but are struggling to enter export markets; and
- Understand the current and potential uses of export loans by American small businesses, and consider new financial instruments that can support today's exporters.

2. Research Approach

A. Summary of our methodologies to accomplish the objectives

Nextrade Group has been supporting SBA in this work, carrying out the quantitative and qualitative research (tasks 1 and 2) outlined in SBA's statement of work (SOW) through various methodologies, such as:

- Leveraging 6-digit industry-level trade data and Census Bureau data on American businesses to identify tradeable sectors and determine the number of small businesses in those sectors that could export (i.e. the total addressable market of export-eligible firms);
- Analyzing academic and existing survey data with small businesses in order to determine the share of employer and non-employer small business that currently export and their export volumes, and extrapolate from these estimates, by using Census data, the share and number of exporters and their export volumes;
- Using export data, an index on industry-level revealed comparative advantage, and foreign trade barrier data to identify the top industries SBA OIT should focus on in order to promote small business exporters;
- Leveraging SBA's own loan data, Export-Import Bank authorization data, state-level data where pertinent, and other external data (such as data compiled by the FDIC), as well as existing survey data to understand the share of export loans in the small business lending marketplace supported by SBA's export financing;
- Using existing survey data as well as structured interviews with SBA staff and selected firms to identify frictions in small businesses' customer journeys in learning about and becoming users of SBA's export services and export finance instruments, and to learn about

small businesses' changing needs for export finance products – to enable SBA to update, as needed, its go-to-market efforts and product portfolios;

- Carry out interviews with SBA staff and selected small businesses, to validate the findings and recommendations on how the SBA could improve its product and service offering and go-to-market strategies to service small businesses poised to export; and
- Use existing extensive academic literature, our own prior studies and findings, and existing survey data to identify the characteristics of successful small business exporters.

In this work, we take “small business” to mean businesses below 500 employees, and “sector” to mean NAICS 2-digit level sectors, and “industry” to mean 4-digit NAICS or more disaggregated.

B. Summary of deliverables

This draft report contains the following eight deliverables:

Number of small businesses that represent the TAM for SBA export services.

- Percentage of small businesses from tradeable sectors currently exporting.
- Top industries for SBA OIT to target for outreach and program support.
- Aggregate dollar value of current small business exports (including service exports).
- Percentage of export loans in the marketplace to small businesses that are supported by SBA export financing.
- Recommendations on marketing strategy for SBA export finance products, to include primary messaging and target audience.
- Insight on characteristics of successful exporters.
- Recommended program or policy updates to better support the U.S. small business exporter community.

3. TASK 1: Methodology for quantitative research

The primary purpose of this task is to determine the total addressable market (TAM) of U.S. small business export-eligible companies (number of firms) as well as the total exports generated by small businesses that are currently exporting, and the relevance of SBA's export finance products to small business exporters.

The deliverables per the SOW include:

- Number of small businesses that represent the total addressable market for SBA export services.
- Percentage of small businesses from tradeable sectors currently exporting.
- Top industries for SBA OIT to target for outreach and program support.
- Aggregate dollar value of current small business exports (including service exports).

- Percentage of export loans in the marketplace to small businesses that are supported by SBA export financing.

Deliverable 1: Establishing the total addressable market of exporters

To establish the total addressable market of small business exporters in the United States (i.e., the number of firms may or may not export but that are in tradable industries), there are two steps: (1) establishing the set of tradable industries; and (2) calculating the number of small businesses in these tradable industries.

A. Methodology

Figure 1-1 provides a visualization of the methodology used to arrive at the total addressable market of small business exporters at the 6-digit level.

Figure 1-1 - Methodology to arrive at the total addressable market of small business exporters

- **STEP 1: Identify “Tradable” Industries**
 - **Measures:**
 - Total Exports by Industry
 - Data Source: Goods: USA Trade 2019-2021
 - Data Source: Services: 2017 Economic Census
 - Exports / Employees by Industry
 - Data Source: Employees and shipments in employer firms: 2019 Statistics of US Businesses
 - Data Source: Number of non-employer firms by industry: 2019 Non-employer Statistics
 - Exports / Shipments by Industry
 - Data Source: Employees and shipments in employer firms: 2019 Statistics of US Businesses
 - Data Source: Number of non-employer firms by industry: 2019 Non-employer Statistics
 - **Initial Results:**
 - 3 rank orderings of tradable industries at 6-digits.
 - Add to list of tradeable sectors: wholesale and retail industries.
 - Compare resulting list to the Cluster Mapping project list and rank ordering; consider refining list as warranted.
 - **Results:** Rank-ordered list of tradable industries at 6-digits
- **STEP 2: Identify TAM of Small Businesses in Tradable Industries**
 - **Measures:**
 - Identify TAM of small businesses in tradable sectors at 6-digits, using various definitions of “tradable”. Illustrative measures include:
 - All industries making up 90% of total annual export volumes
 - All industries above industry median export volumes
 - All industries above median exports-to-employees ratio
 - **Results:** Report estimates of TAM at the 6-digit level with various definitions of tradable, by small business size categories

B. Tradeable industries

We use a number of steps to gauge the number of tradable industries:

- **Use trade data to identify tradeable industries.** We use two main methodologies to identify tradeable industries. The first is simplest: using USA Trade Online data, identify goods-producing industries that have consistent export volumes over the past three years (2019-2021) at 6-digit level of disaggregation; and, using the 2017 Economic Census Summary Statistics for Exported Services, identify services industries that export at the 6-digit level.¹ Second, we assess industries' tradability with two further measures: exports per employees and exports over total shipments in an industry.² These measures provide a keener sense than pure export data does of the relevance of exports in the various industries. We use the 2019 Statistics of U.S. Businesses to determine the total number of employees and shipments by industry.³ For non-employer firms, we use the 2019 Nonemployer Statistics.⁴

These three methods yield rank orderings of 6-digit industries by the importance of exports in them. Thus unlike some studies that define ex ante what sectors or industries are tradeable vs. non-tradeable based on intuition or on industries' geographical dispersion (with the idea that tradable sectors are geographically dispersed and non-tradable ones are localized), we deem an industry tradeable (and further as highly or somewhat tradeable) by letting trade data speak and tell us which industries currently export most and in which industries exports are highly relevant.

- **Include wholesale and retail sectors into “tradable” sectors.** Wholesale and retail sectors (NAICS 42, 44, 45) account, per Bernard et al. (2009, 2010), who have proprietary access to Census Bureau's Business Register data, for about a tenth of all U.S. exports and for some 45 percent of all known exporters, but they are not captured in export statistics (that report exports of goods and services, not on which types of firms export them).⁵ Also Census Bureau's 2019-20 data on identified exporting firms reveals a notable number of wholesale and retail firms that export.⁶ The share of wholesale and retail firms in intermediating export sales may be even higher today thanks to the explosive growth of B2B and B2C ecommerce marketplaces. We thus take here at face value that wholesale and retail industries are tradable.
- **Test the list of resulting tradable industries against the list generated by the U.S. Cluster Mapping project.** Still another way to define “tradable” is by the geography of an industry. This method is employed by the U.S. Cluster Mapping project that identifies tradable sectors by how concentrated (and in their definition tradeable) versus dispersed

¹ See <https://usatrade.census.gov/> and <https://www.census.gov/programs-surveys/economic-census/data/datasets.html>

² For tradable as a share of exports over production, see

<https://www.sciencedirect.com/science/article/abs/pii/S0014292194900701>. For tradable as a share of exports over employees, see https://amirsufi.net/miansufi_emtra_2014.pdf

³ <https://www.census.gov/data/tables/2019/econ/susb/2019-susb-annual.html>

⁴ <https://www.census.gov/programs-surveys/nonemployer-statistics.html>

⁵ This data is reported by Bernard et al. (2009) who had access to the Linked/Longitudinal Firm Trade Transaction Database (LFTTD), which matches individual U.S. trade transactions to U.S. firms in the Longitudinal Business Database (LBD). See Bernard et al. (2009) at https://www.princeton.edu/~reddings/papers/iust_short_108_inline.pdf. Also NBER paper at <https://faculty.tuck.dartmouth.edu/images/uploads/faculty/andrew-bernard/wrustlong.pdf>

⁶ See https://www.census.gov/foreign-trade/Press-Release/edb/profile_hist.html

(and local and non-tradeable) economic activity is. The Cluster Mapping project yields 778 tradable industries. Many of these industries are the same as industries with positive exports plus wholesale and retail industries and selected services sectors that do not have 6-digit exports.

While this is another way to think about tradability and while there exists a robust academic literature correlating industries' export activity and geospatial clustering, we still believe that letting actual trade data speak to define "tradable" is more meaningful than defining tradable by the industry's geography. This is especially the case today as ecommerce and the creator economy are transforming the geospatial patterns of exporters – eBay's data for example has shown that online retailers selling on eBay very consistently export and that these online-seller exporters are born in regions outside traditional centers of economic activity.⁷

The various lists of industries that are "tradable" using these definitions, with the corresponding export volumes and the number of small businesses, can be found [on this table of 'tradeable sectors and number of firms'](#) and also as an Excel attachment.

C. Total addressable market of small businesses in tradeable industries

The various definitions of "tradable" can in turn be used to estimate the total addressable market of small businesses in tradable sectors, by firm size categories (here, businesses with fewer than 5 employees, 5-9 employees, 10-19 employees, 20-49 employees, 50-99 employees, 100-299 employees, and 300-499 employees). This method, leveraging the number of firms at the 6-digit level in the Census Bureau's 2019 County Business Patterns database, yields a total addressable market of small business exporters depending on the number of industries that are covered – that is, how we determine "tradable." For example:

- When "tradable industries" are defined as industries with positive exports, there are altogether 1,645,303 small businesses across 499 tradable industries (table 1-1).
- Adding all retail and wholesale industries brings the total addressable market of export-eligible business exporters to 2,569,756, across 636 industries.
- If "tradable" industries are narrowed down to industries that have median or higher export values (about \$1 billion in manufacturing and \$150 million in services), an exercise that would still leave in place industries with more than 95 percent of export flows in goods and services, the total addressable market is 2,271,496 small businesses across 414 industries, including retail and wholesale industries.
- If tradable is defined as industries with the highest relevance of exports in them (for example, as industries with an exports-to-employees-ratio of more than \$3,000 in services and more than \$50,000 in goods, an exercise that would still leave in the calculation industries making up 90 percent of export volumes), the TAM is 1,808,056 small businesses across 415 industries (including retail and wholesale industries).
- When tradable industries are defined per the Cluster Mapping project, the TAM is 1,808,056 small businesses across 778 industries. However, for 191 industries listed in the Cluster

⁷ Richard Morrison, "Where Have All the Startups Gone? New Research from eBay and EIG," Competitive Enterprise Institute, January 19, 2017.

Mapping project there is no corresponding 6-digit code in the County Business Patterns database. Thus the set of small businesses in the tradable sectors per the Cluster Mapping methodology is most likely higher than the available data on small businesses at the 6-digit level might suggest.

Overall, these data suggest that the total addressable market of export-eligible small businesses –or small businesses in tradable industries – is over 2.5 million, or 42 percent of all small employer businesses. Even with a stricter definition of “tradable” industries where industries with low export volumes are excluded, the total addressable market of export-eligible small businesses is over 1.8 million small businesses.

Recognizing that not all firms in tradeable industries may ever want to export (the unwilling exporters are on the basis of our prior survey work typically 10-20 percent), the TAM can be adjusted downward; still, the TAM of small business exporters would be at least 1.5 million.

About two-thirds of these export-eligible firms are under any calculation businesses with fewer than five employees, and over 80 percent of them are small businesses with fewer than ten employees.

Table 1-1 - Total addressable market of small business exporters at 6-digit level

	Number of industries	< 5 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-299 employees	300-499 employees	Total
All industries	968	3,777,085	1,013,629	640,827	423,465	131,581	80,448	14,509	6,081,544
All industries with reported exports in 2019-21 at 6-digit levels	499	1,117,173	222,771	137,552	94,923	36,301	32,815	3,768	1,645,303
All industries with reported exports in 2019-21 at 6-digit levels and all wholesale and retail industries	636	1,662,968	399,491	239,553	156,210	58,036	48,493	5,005	2,569,756
If "tradable" 6-digit industries are industries with >\$1bn in exports and services with >\$150m in exports and all wholesale and retail industries	414	1,470,932	354,090	211,565	136,613	50,921	42,875	4,500	2,271,496
If "tradable" are industries are 6-digit industries with exports/employee-ratios of >\$3,000 for services and of >\$50,000 for manufacturing and all wholesale and retail industries	415	1,196,831	278,405	161,053	102,509	37,689	28,990	2,579	1,808,056
If "tradable" is defined per Cluster Mapping Project	778 industries / 586 matched	931,075	186,196	130,441	100,674	39,781	37,331	4,372	1,429,870

This analysis has so far focused on employer firms. In the Census Bureau’s 2019 Nonemployer Statistics, nonemployers are reported as nonemployer *establishments*. There were in 2018 over 27 million nonemployer establishments. Adding nonemployer establishments in the TAM adds, under most definitions of TAM, nearly 3 million nonemployer establishments in the dataset.⁸ However, a particular limitation with the nonemployer establishment data is that establishments’ NAICS code is often not reported at the 6-digit level, but at the 3- or 4-digit levels. Thus it can be expected that the number of nonemployer establishments in the tradable sectors is much higher than the data allows us to report.

D. Estimating total addressable market of small business exporters at 3-digit level

The exercise of identifying “tradable” sectors can also be done at the 3-digit level, where, unlike at the 6-digit level, there is more robust data on identified small business exporters, including in wholesale and retail sectors, as well as on non-employer firms. There is also an opportunity to take advantage of the existing Census data on the number of small business exporters at the 3-digit level in 2020, which reveals 264,366 *identified* small business exporters (firms that were successfully linked from the 2019 Census Business Register to export transaction records) in 122 sectors.⁹

These sectors can be further narrowed down to sectors with robust numbers of small business exporters and exports – for example, eliminating sectors with fewer than 1,000 small business exporters would still capture 60 sectors and 92 percent of small businesses’ *known export volumes* reported in the Census dataset, and eliminating sectors with less than \$1 billion in small business exports would still leave in 55 sectors and 89 percent of known small business export volumes and 84 percent of identified small business exporters.

These two methods would yield a TAM of 3,703,208 and 4,072,539 small businesses, respectively (table 1-2). Eliminating *both* sectors with fewer than 1,000 small business exporters and sectors with less than \$1 billion in exports would yield 46 sectors and TAM of 3,357,717 small businesses. Adding non-employer firms to this set would yield a TAM of almost 15 million small businesses.

⁸ <https://www.census.gov/programs-surveys/nonemployer-statistics.html>

⁹ See https://www.census.gov/foreign-trade/Press-Release/edb/profile_hist.html Note that some sectors are defined at 2-digit level in this source, and in some cases the number of exporters is suppressed to avoid disclosure of confidential information.

Table 1-2 - Total addressable market of small business exporters at 3-digit level

	# of sectors	< 5 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-299 employees	300-499 employees	Total	Nonemployer establishments
All sectors with known small business exporters	122	4,251,793	1,172,807	737,576	489,842	161,558	113,894	23,744	6,081,544	29,595,695
Sectors with >\$1bn in small business exports	55	2,664,749	628,342	376,357	244,261	84,520	61,016	11,390	4,070,635	14,926,198
Sectors with >1,000 small businesses that export	60	2,437,230	565,555	335,752	218,579	77,929	56,191	10,068	3,701,304	12,568,416
Sectors with >1,000 small businesses that export & >\$1bn in small business exports	46	2,204,800	515,781	307,225	198,505	70,403	50,336	8,763	3,355,813	11,511,477

TAM estimates at the 3-digit level are necessarily larger than estimates at the 6-digit level, as we will inherently account for *all* 6-digit industries within the selected 3-digit sectors, even if some of these 6-digit industries were eliminated from tradable industries at the 6-digit level. This is particularly the case in services. The Census Bureau’s data may count an exporter as a services business if and when the establishment that exported good either uses a service sector NAICS or is a subsidiary of a company that per its NAICS code is in a services sector. Census Bureau’s data of known exporters of goods include exporters in most 3-digit services sectors – this however does not mean that all 6-digit industries within each 3-digit sector are tradable or have trade, especially in services sectors.

The one benefit of working at the 3-digit level is that we can back into the tradable sectors by using data on *identified* small business exporters, and we can also better capture non-employer firms as they are reported in a comprehensive manner at the 3-digit level, while data on them is very limited at the 6-digit level.

E. How the total addressable market of small business exporters is changing with technology

This study is a snapshot in time. The total addressable market of exporters is evolving and likely growing on the back of technological change. For example:

- “Tradable” is transforming, as previously local industries are thanks to the Internet becoming increasingly tradeable. The U.S. Department of Commerce has pioneered a classification of services into traditional and “digitally deliverable” services, or the great many professional, business, engineering, computing, and other services that perhaps in the 1980s or 1990s were still quite local and domestic but can today be delivered online and are as a result increasingly traded across borders. Digitally deliverable services are among the

fastest-growing segments of world trade and the United States is unquestionably the leading exporter of these types of services.

- The space of digital services that can be traded is diversifying further. For example, real estate appears to be inherently non-tradeable but today, real estate such as rental buildings are sold online and globally – even in small tokens that enable people to purchase fractions of buildings online. Similarly, healthcare services are thanks to the expansion of telemedicine becoming increasingly tradable: it is entirely possible for an American doctor and her staff to attend to patients in real-time in remote parts of Africa even with simple SMS technologies and thereby export healthcare services, as it is fully possible for an Asian gym-goer to be trained live, via a smart phone and the Facetime app, by a personal trainer with a new LLC in Los Angeles.
- Goods and services are increasingly bundled into new types of tradable goods whose value arises mostly from the services embedded into them. Examples of these types of products might include warehouse robots, medical devices, smart home and smart city devices, autonomous vehicles, wearable devices, and green tech products whose value stems from the software, artificial intelligence, internet of things, and other technologies embedded in them. A smart home device may look like a product, but it is largely an embodiment of software and computing services, as well as R&D and design services.
- The face of the American small business exporter is changing thanks to ecommerce and the circular economy (where any shopper or small business can sell used goods online, including to export markets). In addition, millions of Americans have during Covid-19 become full- or part-time creators and now forming LLCs that sell software-powered marketing services and online content globally to their audiences, including on such platforms as YouTube, TikTok, Twitch, and Spotify.

What is tradable and who can engage in trade is transforming rapidly on the back of digitization and online platforms, opening new opportunities for the SBA to promote small business exporters. However, these changes are also creating a need for new types of export promotion and financing instruments, discussed in deliverable 6.

F. Results in sum

In sum, the main results of this deliverable are as follows:

- There are, depending on definitions used, 499-778 6-digit industries that can be considered “tradable.” The total addressable market of export-eligible small businesses – or small businesses in these tradable industries – would as a result be about 2.5 million, or up to 42 percent of all small employment-providing businesses.
- Even with a stricter definition of “tradable” where industries with low export volumes are excluded from the calculation, the total addressable market of export-eligible small businesses would be 1.8-2.2 million.
- Regardless of the methodology used to define “tradable”, America’s export-eligible small businesses are indeed very small. About two-thirds of them have fewer than five employees, and over 80 percent have fewer than ten employees.

Deliverables 2-3: Establish the percentage of small business from tradeable sectors that currently export, and their aggregate export volumes in dollar values, including services exports

The purpose of these deliverables is to gauge the share of small businesses that export, based on recent survey data, and to assess the export volumes these firms may be generating.

A. Methodology

Here, we summarize official data on known exporters and examine recent surveys gauging the share of small businesses that export, and extrapolate from their basis to calculate the number of exporters and their export volumes. Figure 2-1 provides a visualization of the methodology to arrive in the share of small business that export in the tradable sectors, and their total export sales.

Figure 2-1 - Methodology to arrive in the percentage of small business from tradeable sectors that currently export, and their aggregate export volumes in dollar values, including services exports

- **STEP 1: Baseline of Identified Small Business Exporters**
 - **Measures:** baseline from Census Bureau data
 - **Illustrative Data Sources:**
 - Profile of Importin and Exporting Companies 2019-2020
 - Services: 2017 Economic Census
 - ABS U.S. Exporting Firms by Demographics 2020
 - **Results:** Summary table with the identified share of small business exporters and their export volumes at 3-digit level
- **STEP 2: More Complete or Total Share and Number of Small Business Exporters and Their Total Export Volumes**
 - **Measures:** recent small business survey data and any additive academic work
 - **Illustrative Data Sources:**
 - NSBA and U.S. Export-Import Bank's 2022 Small Business Exporting Survey
 - Visa Economic Empowerment Institute 2021 survey
 - U.S. Chamber of Commerce-Google 2019 Survey
 - Summary table with results from surveys on the present of small business exporters and the share of their revenue stemming from exports, by size category
 - **Results:** Summary table with the share and number of small business exporters and their export revenue in dollar values

B. Official data on small business exporters and their export volumes

The percentage of small businesses that export and their export volumes can feasibly be established in two ways: (1) using existing official data on small business exporters; and (2) using representative firm-level surveys and extrapolating from them to the broader market of small businesses.

There have over the past several decades been multiple attempts to gauge the number of exporters and small business exporters in the United States. Some of these attempts are based on businesses

surveys, while others draw on the Census Bureau’s data on exporting firms and Longitudinal Firm Trade Transactions Database or bill of lading-level data.¹⁰

In general, the share of firms that export has been determined to be quite low. For example:

- The Census Bureau provides data on *identified* small business exporters at 3-digit NAICS sectors in 2020, determining that 264,366 small businesses, or about 4.6 percent of America’s employment-providing small businesses, exported that year.¹¹ The share varies widely across sectors – Census data suggests that 29 percent of U.S. small manufacturers and 14 percent of small wholesalers and retailers export goods, and in addition some 1.6 percent of firms that are in services industries export goods. The total known export value of these small businesses was \$413 billion.

This database was compiled using company identifiers or company names from export transactions. These identifiers were then linked to these companies’ characteristics (such as size and industry), as reported in the Business Register.¹² The data on U.S. goods exports to all countries, except Canada, is compiled from the Electronic Export Information (EEI) filed by the United States Principal Party in Interest (USPPI) or their agents through the Automated Export System (AES). Each EEI represents a shipment of one or more kinds of merchandise from one exporter to one foreign importer on a single carrier, *when the value of the shipment is over \$2,500*. For Canada, Census uses mirror data on Canadian imports to identify U.S. exporters selling goods to Canada.

- The Census Bureau also reports the number of exporters in the Annual Business Survey (ABS) U.S. Exporting Firms by Demographics 2020, which catalogues employer firms that export by various demographic characteristics (such as ethnicity and gender of the CEO). According to our calculations, there are 173,459 businesses that export in this dataset. This set of businesses is however a subset of the identified exporters – in other words, this set does not add to the number of 264,366 exporters.
- Census has also reported the number of *establishments* exporting services in the 2017 Economic Census. In particular, this source provides the number of exporter establishments at 6-digit level for NAICS sectors 51-56, 71, and 81 (information, finance and insurance, real estate, professional, management, and remediation services, as well as arts and entertainment and other services).¹³ These data are not reported by firm size or number of

¹⁰ Flaaen, Aaron, Flora Haberkorn, Logan Lewis, Anderson Monken, Justin Pierce, Rosemary Rhodes, and Madeleine Yi (2021). “Bill of Lading Data in International Trade Research with an Application to the COVID-19 Pandemic,” Finance and Economics Discussion Series 2021-066. Washington: Board of Governors of the Federal Reserve System, <https://doi.org/10.17016/FEDS.2021.066>; and Fariha Kamal and Wei Ouyang, “Identifying U.S. Merchandise Traders: Integrating Customs Transactions with Business Administrative Data,” September 2020 CES 20-28 and Bernard, A. B., Jensen, J. B., & Schott, P. K., 2009. A portrait of firms in the U.S. that trade goods. In T. Dunne, J. B. Jensen, and M. J. Roberts (Eds.), *Producer Dynamics: New Evidence from Micro Data*: 383-410. Chicago, IL: University of Chicago Press.
U.S. Census Bureau <https://www2.census.gov/ces/wp/2020/CES-WP-20-28.pdf>

¹¹ <https://www.census.gov/foreign-trade/Press-Release/edb/edbrel2020.pdf> “Identified companies “in this database are enterprise-level companies that were successfully linked from the 2020 Census Business Register to export transaction records.

¹² <https://www.census.gov/foreign-trade/Press-Release/edb/edbrel2020.pdf>

¹³ For data sources, see https://www.census.gov/foreign-trade/Press-Release/edb/profile_hist.html <https://www.census.gov/data/tables/2019/econ/abs/2019-abs-exporting-firms.html> (which is combined information of two Census Bureau data products, the 2019-2020 Profile of U.S. Importing and Exporting Companies (the Profile) and

employees. According to our calculations at 6-digit level, there are in this dataset 78,871 services establishments with export transactions in 2017, or 4.6 percent of all establishments in the covered sectors. This number of about 28,000 higher than one in the Census Bureau's 3-digit report of identified exporters in 2017 in the corresponding sectors, likely because the two sources largely report different sets of exporters as the latter focuses solely on exporters of goods, and in part because the former reports establishments and the latter firms (each of which can have a number of establishments - there are according 2019 County Business Patterns about 507,000 more small business establishments than small businesses).

- The Bureau of Economic Analysis (BEA) conducts surveys transport services as well as financial services, insurance services, and other selected services and intellectual property. However, the data are reported only by flows and by the number of export markets, with small businesses accounting for only 5 percent of U.S. services exports in the covered sectors. The share and number of firms that export is to our knowledge confidential.¹⁴

Table 2-1 summarizes the coverage and results of these various approaches.

However, there are a number of reasons, including ones discussed by the Census Bureau itself, to believe that these data may not account for the complete universe of America's small business exporters:

- Census Bureau's data of identified exporters does not account for firms that ship low-value shipments below \$2,500, even if they were to make shipments frequently. Census itself states that "the number of small companies and their associated known value are most likely understated."¹⁵ Our interview with the Census Bureau confirmed that the Bureau entirely overlooks exporters of transactions below \$2,500, regardless of how many shipments the firm makes annually – if every shipment the company makes during a year is below \$2,500, it is not counted as an "exporter". It is also not entirely clear how Census does or should account for exporters that ship their inventory overseas with a marketplace or a third-party service such as Fulfillment by Amazon (FBA).

the 2020 Annual Business Survey (ABS), covering reference year 2019) and <https://www.census.gov/programs-surveys/economic-census/data/datasets.html>.

¹⁴ For data, see <https://apps.bea.gov/scb/2019/12-december/1219-services-exporters-importers.htm#services-traders>. For surveys carried out by the BEA, see <https://www.bea.gov/system/files/2018-08/surveysu.pdf>. For most of its surveys, BEA sends notification to a sample of reporters that ensure data is collected from a substantial portion of the entire population of U.S. persons with international transactions in the services covered. For its surveys of financial services, insurance services, and other selected services and intellectual property, BEA uses benchmark, or census, surveys conducted every 5 years to reach the entire population (a 5-year interval is used to reduce the reporting burden in the interim years). BEA conducts quarterly surveys that are similar to the benchmark surveys but have higher mandatory reporting thresholds and are only required by respondents that have been notified by BEA about the survey. Affiliates of multinational companies are considered residents of the countries where they are located rather than residents of the countries of their owners. Thus, transactions between U.S. affiliates and their foreign parent companies and between U.S. parent companies and their foreign affiliates are U.S. international transactions. When a sale or purchase consists of both goods and services or of several services that cannot be unbundled because the goods or services are not separately valued, the sale or purchase is classified either on the basis of which part of the transaction accounts for most of the value or on the basis of the reporter's customary practice.

¹⁵<https://www.census.gov/foreign-trade/Press-Release/edb/edbrel2020.pdf> "Identified companies "in this database are enterprise-level companies that were successfully linked from the 2020 Census Business Register to export transaction records.

- Another reasons to believe that Census’s database of identified exporters underestimates the number of goods exporters is that it reports known trade transactions that can be matched to an exporter and covers only part of U.S. trade in goods – it identifies firms with collective exports of goods at \$1.27 trillion in 2020, when U.S. total exports of goods were \$1.43 trillion that year.
- Services providers that export services (i.e. that do not export products or whose subsidiaries do not export products) are not captured in Census’s data of know exporters. Granted, Census has surveyed subsets of services *establishments* in selected sectors in its Census in 2017, five years ago, identifying 78,871 exporter establishments. Nonetheless this data is likely largely additive to the 264,366 identified exporters (though it cannot be directly added as it is reported at establishment level – one might imagine that behind the 78,871 establishments may be some 50,000 firms, most of which are small businesses). However, these data also does not account for services exporters in 2018-22, services exporters in sectors not covered by the Census’s export-related questions, and small businesses that started to sell content and services online during Covid-19. For example, surveys suggest that there has been a surge of businesses that are “born digital” and “born global”, selling digital services and content online to export markets.¹⁶

In sum, the Census Bureau data largely misses:

- Exporters that do not ever export shipments above \$2,500;
- Exporters that exported goods in 2021-22;
- Possibly goods exporters whose inventory is exported to a foreign warehouse by a service like FBA;
- Services exporters that exported during 2018-22; and
- Services exporters that exported services in 2017 but whose sectors were not covered in the 2017 Economic Census surveys of exporter establishments.

¹⁶ See for example, <https://usa.visa.com/content/dam/VCOM/global/ms/documents/veei-us-small-business-in-the-digital-age.pdf> and <https://usa.visa.com/content/dam/VCOM/regional/na/us/sites/documents/veei-women-small-business-in-the-digital-age.pdf>

Table 2-1 – Number of small business exporters or export establishments exporting services, by source

3-Digit NAICS	Census Bureau: # of small business exporters in 2020	Census Bureau: small business exporters' known export value in 2020	Census Bureau economic census 2017: number of services establishments with export sales	Census Bureau economic census 2017: export volumes of services establishments	Census Bureau: Annual Business Survey (ABS) 2019: number of employer firms that export	Census Bureau: Annual Business Survey (ABS) 2019: exports of employer firms	Bureau of Economic Analysis survey coverage
All Industries	264,366	\$ 413,288,000,000	78,871	\$180,436,659,000	173,459	\$1,322,241,945	
111 - Crop Production	2,320	\$ 2,819,000,000					
112 - Animal Production and Aquaculture	412						
113 - Forestry and Logging	156	\$ 107,000,000					
114 - Fishing, Hunting and Trapping	100	\$ 340,000,000					
115 - Support Activities for Agriculture and Forestry	575						
11X - Agriculture, Forestry, Fishing, and Hunting	76	\$ 71,000,000					
211 - Oil and Gas Extraction	122						
212 - Mining (except Oil and Gas)	219	\$ 1,445,000,000					
213 - Support Activities for Mining	414	\$ 824,000,000					
21X - Mining, Quarrying, and Oil and Gas Extraction	17	\$ 7,000,000					
221 - Utilities	155	\$ 2,027,000,000					
236 - Construction of Buildings	1,711	\$ 510,000,000					
237 - Heavy and Civil Engineering Construction	528	\$ 456,000,000					
238 - Specialty Trade Contractors	4,052	\$ 1,183,000,000					
23X - Construction (3)	349	\$ 48,000,000					
311 - Food Manufacturing	2,678	\$ 8,611,000,000					
312 - Beverage and Tobacco Product Manufacturing	1,150	\$ 668,000,000					
313 - Textile Mills	698	\$ 1,104,000,000					
314 - Textile Product Mills	702	\$ 424,000,000					
315 - Apparel Manufacturing	891	\$ 454,000,000					
316 - Leather and Allied Product Manufacturing	304						
31X - Manufacturing (3)	1,138						
321 - Wood Product Manufacturing	1,286	\$ 1,955,000,000					
322 - Paper Manufacturing	980	\$ 1,695,000,000					
323 - Printing and Related Support Activities	1,779	\$ 774,000,000					
324 - Petroleum and Coal Products Manufacturing	257	\$ 7,795,000,000					
325 - Chemical Manufacturing	4,942	\$ 20,563,000,000					
326 - Plastics and Rubber Products Manufacturing	4,332	\$ 5,354,000,000					
327 - Nonmetallic Mineral Product Manufacturing	1,263	\$ 1,212,000,000					
32X - Manufacturing (3)	20	\$ 25,000,000					
331 - Primary Metal Manufacturing	1,424	\$ 17,236,000,000					
332 - Fabricated Metal Product Manufacturing	11,049	\$ 9,004,000,000					
333 - Machinery Manufacturing	10,224	\$ 13,190,000,000					
334 - Computer and Electronic Product Manufacturing	6,838	\$ 16,579,000,000					
335 - Electrical Equipment, Appliance, and Component Manufacturing	2,537	\$ 3,593,000,000					
336 - Transportation Equipment Manufacturing	3,896	\$ 12,208,000,000					
337 - Furniture and Related Product Manufacturing	1,271	\$ 453,000,000					
339 - Miscellaneous Manufacturing	5,421	\$ 7,178,000,000					
33X - Manufacturing (3)	150	\$ 300,000,000					
423 - Merchant Wholesalers, Durable Goods	54,739	\$ 89,144,000,000					
424 - Merchant Wholesalers, Nondurable Goods	22,663	\$ 79,103,000,000					
425 - Wholesale Electronic Markets and Agents and Brokers	6,509	\$ 7,037,000,000					
42X - Wholesale Trade (3)	2,682	\$ 2,628,000,000					
441 - Motor Vehicle and Parts Dealers	6,753	\$ 2,602,000,000					
442 - Furniture and Home Furnishings Stores	1,057	\$ 120,000,000					

443 - Electronics and Appliance Stores	846				
444 - Building Material and Garden Equipment and Supplies Dealers	1,631				
445 - Food and Beverage Stores	898	\$ 380,000,000			
446 - Health and Personal Care Stores	1,266	\$ 689,000,000			
447 - Gasoline Stations	325	\$ 147,000,000			
448 - Clothing & Clothing Accessories Stores	2,392	\$ 1,074,000,000			
44X - Retail Trade (3)	893	\$ 483,000,000			
451 - Sporting Goods, Hobby, Musical Instrument, and Book Stores	1,238	\$ 135,000,000			
452 - General Merchandise Stores	294				
453 - Miscellaneous Store Retailers	3,004	\$ 2,827,000,000			
454 - Nonstore Retailers	9,151	\$ 2,647,000,000			
45X - Retail Trade (3)	6	\$ -			
481 - Air Transportation	416	\$ 3,173,000,000			
482 - Rail Transportation	14				
483 - Water Transportation	445	\$ 208,000,000			
484 - Truck Transportation	2,570	\$ 2,078,000,000			
485 - Transit and Ground Passenger Transportation	292	\$ 67,000,000			
486 - Pipeline Transportation	22				
487 - Scenic and Sightseeing Transportation	(D)				
488 - Support Activities for Transportation	4,498	\$ 16,122,000,000			
48X - Transportation and Warehousing (3)	758	\$ 542,000,000			
491 - Postal Service	(D)				
492 - Couriers and Messengers	274	\$ 94,000,000			
493 - Warehousing and Storage	1,308	\$ 1,951,000,000			
511 - Publishing Industries (except Internet)	1,181	\$ 593,000,000	5,488	\$ 45,888,828,000	
512 - Motion Picture and Sound Recording Industries	464	\$ 90,000,000	499	\$ 5,253,917,000	
515 - Broadcasting (except Internet)	51	\$ 5,000,000	339	\$ 1,310,082,000	
517 - Telecommunications	664	\$ 956,000,000	338	\$ 3,646,879,000	
518 - Data Processing, Hosting, and Related Services	375	\$ 2,337,000,000	1,683	\$ 5,797,853,000	
519 - Other Information Services	215		1,319	\$ 6,216,015,000	
51X - Information (3)	49	\$ 4,000,000			
522 - Credit Intermediation and Related Activities	642	\$ 1,142,000,000			
523 - Securities, Commodity Contracts, and Other Financial Investments	1,077	\$ 7,393,000,000	3,225	\$ 24,087,028,000	
524 - Insurance Carriers and Related Activities	822	\$ 172,000,000			
525 - Funds, Trusts, and Other Financial Vehicles	(D)				
52X - Finance and Insurance (3)	553	\$ 648,000,000			
531 - Real Estate	4,354	\$ 2,161,000,000			
532 - Rental and Leasing Services	1,112	\$ 1,245,000,000			
533 - Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	112				
53X - Real Estate and Rental and Leasing (3)	54	\$ 7,000,000			
541 - Professional, Scientific, and Technical Services	18,669	\$ 16,261,000,000	47,910	\$ 67,213,645,000	
54X - Professional, Scientific, and Technical Services (3)	18	\$ 1,000,000			
551 - Management of Companies and Enterprises	(D)		566	\$ 10,487,671,000	
561 - Administrative and Support Services	4,289	\$ 2,361,000,000	12,703	\$ 6,899,099,000	
562 - Waste Management and Remediation Services	400	\$ 239,000,000	576	\$ 1,758,732,000	
56X - Administrative, Support, Waste Management & Remediation Services (3)	(D)				
611 - Educational Services	868	\$ 252,000,000			
61X - Educational Services (3)	(D)				
621 - Ambulatory Health Care Services	1,641	\$ 630,000,000			
622 - Hospitals	28	\$ 3,000,000			
623 - Nursing and Residential Care Facilities	186	\$ 28,000,000			
624 - Social Assistance	862	\$ 1,074,000,000			
62X - Health Care and Social Assistance (3)	170	\$ 86,000,000			
711 - Performing Arts, Spectator Sports, and Related Industries	1,063		2,375	\$ 1,024,850,000	
712 - Museums, Historical Sites, and Similar Institutions	237	\$ 428,000,000			
713 - Amusement, Gambling, and Recreation Industries	590	\$ 131,000,000			
71X - Arts, Entertainment, and Recreation (3)	117	\$ 27,000,000			
721 - Accommodation	273	\$ 72,000,000			

722 - Food Services and Drinking Places	2,273	\$	818,000,000				
72X - Accommodation and Food Services	17						
811 - Repair and Maintenance	4,193	\$	1,780,000,000	1,850	\$	852,060,000	
812 - Personal and Laundry Services	1,587	\$	697,000,000				
813 - Religious, Grantmaking, Civic, Professional, and Similar Organizations	2,405	\$	925,000,000				
814 - Private Households	1,095	\$	90,000,000				
81X - Other Services (except Public Administration) (3)	28	\$	3,000,000				
921 - Executive, Legislative, and Other General Government Support	38	\$	2,000,000				
922 - Justice, Public Order, and Safety Activities	12						
923 - Administration of Human Resource Programs	(D)						
924 - Administration of Environmental Quality Programs	9	\$	1,000,000				
925 - Administration of Housing Programs, Urban Planning, and Community Development	(D)						
926 - Administration of Economic Programs	8						
927 - Space Research and Technology	(D)						
928 - National Security and International Affairs	12						
92X - Public Administration (3)	(D)						
XXX - Unclassified (3)	6624	\$	5,577,000,000				

There are promising approaches to potentially further identify the number of exporters of goods based on official transactional data. These have however so far used to assess export volumes, rather than the number of exporters and do not escape the methodological challenges facing the census Bureau:

- Kamal and Ouyang (2020) identify non-farm firms exporting goods using Census Bureau Longitudinal Firm Trade Transactions Database (LFTTD), based on customs data.¹⁷ This enables the identification of merchandise exporters and importers in the non-farm, private sector in the Census Bureau’s Business Register.
- Flaaen et al. (2021) use shipment-level bill of lading-level data collected by U.S. ports. U.S. law restricts public access to bill of lading records to only those shipped via vessel.¹⁸ The shortcoming of this approach is that companies also have the right under U.S. law to redact their name from the records, which can hamper efforts to track supply chains comprehensively.

C. Survey data on small business exporters and their export volumes

Official datasets are somewhat out of date, and do not account for firms that ship low-value shipments below \$2,500, many services sellers, and firms that mushroomed during Covid that sell services, digital services or content online. There are however a number of recent surveys of small business exporters that can be drawn upon in efforts to establish the current number and percentage of small business exporters:

¹⁷ Fariha Kamal and Wei Ouyang, “Identifying U.S. Merchandise Traders: Integrating Customs Transactions with Business Administrative Data,” September 2020 <https://www2.census.gov/ces/wp/2020/CES-WP-20-28.pdf>

¹⁸ Flaaen, Aaron, Flora Haberkorn, Logan Lewis, Anderson Monken, Justin Pierce, Rosemary Rhodes, and Madeleine Yi (2021). “Bill of Lading Data in International Trade Research with an Application to the COVID-19 Pandemic,” Finance and Economics Discussion Series 2021-066. Washington: Board of Governors of the Federal Reserve System, <https://www.federalreserve.gov/econres/feds/files/2021066pap.pdf>

- In 2019, the U.S. Chamber’s Technology Engagement Center, Google, and Brunswick Insight and the Trade Partnership surveyed 3,818 nonfarm small businesses across every state, finding that altogether 9 percent of nonemployer and employer businesses reported exports in 2018. Overall, 14 percent of employer small businesses exported in that survey in 2018 – 12 percent of businesses with 1-4 employees reported exporting, as did 12 percent of businesses with 5-19 employees, 26 percent of businesses with 20-99 employees, 43 percent of businesses with 100-499 employees.¹⁹ Depending on the size category, on average 26-38 percent of these exporters’ total revenues stemmed from exports.
- Similarly, in 2021, the Visa Economic Empowerment Institute’s survey of 1,000 small businesses, executed by the Nextrade Group, revealed that some 39 percent of small businesses exported in 2020. Some 23 percent of businesses with 1-10 employees reported exporting in 2020, as did 41 percent of businesses with 11-50 employees, 57 percent of businesses with 51-250 employees, and 51 percent of businesses over 250 employees.²⁰ In this survey most micro and small business exporters derived 1-25 percent of their revenues from exports, while medium and large exporters derived typically 26-50 percent of their revenues from exports. In a further finding, it appears that businesses led by minority women are especially likely to export, compared to non-minority women-led firms.
- Extrapolating from the U.S. Chamber of Commerce-Google and the Visa-Nextrade surveys, both of which provide data on the share of firms that export in a given year and have robust samples of small businesses, suggests that the number of small business exporters is much higher than 264,366. For example, the former survey would suggest that there are over 850,000 (in our estimate, 852,633) small business exporters exporting some \$1.3 trillion per year, while the latter survey would suggest that there are over 1.3 million small business exporters (in our estimate, 1,346,448) exporting at least \$1.1 trillion per year.²¹

The two surveys yield a notably similar number of U.S. small businesses that export and particularly similar small business export volumes. The Visa survey furthermore suggests that the number of micro enterprises that export has grown since 2018 levels, consistent with the idea that Covid-19 has catalyzed exporting by newer and smaller online sellers.

Table 2-2 – Percentage of small business from tradeable sectors that currently export, and their aggregate export volumes in dollar values, including services export, by source

U.S. Chamber of Commerce-Google survey 2019 – 3,818 firms²²

	% of firms that export in 2018	Exports as % of exporters' revenue 2018	Number of firms that export	Total export volumes	Total number of firms	Total sales
1-4 employees	12%	26%	452,091	\$81,205,790,145	3,767,429	\$2,602,749,684,150

¹⁹ https://www.uschamber.com/assets/archived/images/ctec_googlereport_v7-digital-opt.pdf

²⁰ <https://usa.visa.com/content/dam/VCOM/global/ms/documents/veei-us-small-business-in-the-digital-age.pdf>

²¹ For BEA data, see <https://apps.bea.gov/iTable/iTable.cfm?reqid=150&step=2&isuri=1&categories=gdpkind>. The distribution roughly matches the 2012 distribution of income by firm size category as reported in the Census Bureau’s 2012 Selected Enterprise Statistics by Employment Size by Sector in the U.S.

²² https://www.uschamber.com/assets/archived/images/ctec_googlereport_v7-digital-opt.pdf

5-19 employees	12%	37%	199,183	\$183,248,450,619	1,659,860	\$4,127,217,356,295
20-99 employees	26%	35%	149,173	\$270,685,967,152	573,741	\$2,974,571,067,600
100-499 employees	43%	38%	52,186	\$759,445,175,697	121,362	\$4,647,767,293,125
All small employer businesses	14%		852,633	\$1,294,585,383,613		

Visa-Nextrade survey 2021 – 1,000 firms²³

	% of firms that export 2020	Exports as % of exporters' revenue 2020	Number of firms that export	Total export volumes	Total number of firms	Total sales
1-10 employees	17%	22%	805,152	\$194,685,676,374	4,782,600	\$ 5,205,499,368,300
11-50 employees	37%	20%	398,089	\$187,100,520,152	1,077,495	\$ 2,528,385,407,460
51-100 employees	61%	20%	86,168	\$240,419,706,539	140,935	\$ 1,970,653,332,285
101-500 employees	47%	22%	57,040	\$480,579,138,109	121,362	\$ 4,647,767,293,125
All small employer businesses	22%	29%	1,346,448	\$1,102,785,041,174		

There are a number of further studies that have similarly found considerable export activity among America's small businesses. In two surveys asking small businesses if they have ever exported, the National Small Business Association (NSBA) and U.S. Export-Import Bank's 2022 Small Business Exporting Survey with 530 small businesses finds that 40 percent have exported at least some point in their lifecycles, while the NSBA's 2016 survey with 530 small businesses found that 58 percent had exported at least at some point.²⁴ A 2022 Alibaba survey of American small business B2B sellers, likely many of which are manufacturers in this dataset, found that as many as 70 percent reported exporting.²⁵

In addition, the subset of American small business that sell on global online marketplaces such as eBay or Amazon are quite widely known to be export-driven – for example, over 96 percent of America's eBay sellers also export.²⁶ As more U.S. small businesses digitize and sell online, the

²³ <https://usa.visa.com/content/dam/VCOM/global/ms/documents/veei-us-small-business-in-the-digital-age.pdf>

²⁴ https://www.livingstonintl.com/livingston-content/uploads/2016/05/NSBA_Livingston-2016-Export-Survey.pdf

²⁵ <https://www.inddist.com/e-commerce/news/22093337/alibaba-survey-shows-digitization-strategies-are-paying-off>

²⁶ <https://www.ebayinc.com/stories/news/ebays-2020-u-s-small-online-business-report-how-were-creating-economic-opportunity/>

share of small businesses that export could also be expected to expand. The various recent business surveys suggest that this trend is already well on the way.

In short, the differences in the timing of survey and in defining “exporter” and “export” give rise to significant differences between Census data and recent survey data. Table 2-3 summarizes these various results and methodologies.

Census Bureau’s data is most verifiable and sets the bar high in terms of what qualifies as an export, by looking at transactional data – but it is also less likely than other methods to capture the full range of exporters and export transactions. Survey data meanwhile can be “noisy” and inherently have a margin of error as well as certain selection bias and subjectivity, as firms typically self-report their export activity and volumes. At the same time, there are not one but many surveys that suggest that the pool of American exporters is considerably larger than captured by Census Bureau’s methodologies. Census itself has established that its data understates the number of exporters.

Table 2-3 – Share of small businesses that export, by source

% of small employer businesses that export	Year of export	Source	Methodology and definition of exporter
4.4% of goods exporters; 264,366 small businesses in 2020; 29% of manufacturers, 14% of wholesalers and retailers, and 1.6% of services businesses	2020	U.S. Census Bureau	Identified exporters are businesses “that were successfully linked from the 2020 Census Business Register to export transaction records.” Compiled using company identifiers or company names from export transactions to electronically or manually link trade data to company characteristics in the Business Register. Users should make year-to-year comparisons with caution and be aware that the number of small companies and their associated known value are most likely understated. ²⁷ The trade data includes businesses that have filed the Electronic Export Information, applicable to shipments of goods over \$2,500. The export has to be a product, the exporter maybe in the manufacturing, wholesale, retail or services sectors.
3.1% of all businesses; 173,459 businesses (subset of Census’s identified exporters)	2019	Census Bureau, ABS U.S. Exporting Firms by Demographics 2020	The database combined information of two Census Bureau data products, the 2019-2020 Profile of U.S. Importing and Exporting Companies (the Profile) and the 2020 Annual Business Survey (ABS), covering reference year 2019. <i>Of these identified exporters, 115,913 were either out-of-scope to the ABS or were not able to be identified in the ABS.</i> ²⁸
4.6% or 78,871 of services <u>establishments</u> , with wide variation across sectors	2017	Census Bureau’s 2017 Economic Census dataset “Summary Statistics for Exported Services for the U.S.: 2017”	Number of exporter <u>establishments</u> sectors for services in NAICS 51-56, 71, and 81 at 6-digits that reported exporting in 2017.

²⁷ <https://www.census.gov/foreign-trade/Press-Release/edb/edbrel2020.pdf>

²⁸ These included firms without reported sales, payroll, and employment; nonemployer firms; firms operating primarily in out-of-scope industries, such as crop and animal production; and firms located in American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, Puerto Rico, and the U.S. Virgin Islands. Of the remaining identified exporters, 173,459 were selected into the ABS sample. All estimates in the tables are based on these sampled identified exporters.

35% of manufacturing firms, with wide variation across sectors	2007	Bernard et al. (2016). ²⁹	Based on the 2007 Census of Manufacturers.
3.1% (for exporters) and 0.5% if exports to related parties	2000	Bernard et al. (2009). ³⁰	Firms selling goods that exported in 2000. Done merging two newly available data sets. The first is a database of all U.S. trade transactions assembled by U.S. Customs (imports) and the U.S. Census Bureau (exports). These data cover all shipments of goods that crossed into or out of the United States between 1992 and 2000 inclusive. These data are merged with a longitudinal database of U.S. enterprises that tracks almost all private sector firms in the United States as well as their employment over time (Jarmin and Miranda 2002).
14%, wide variation across size categories	2018	U.S. Chamber of Commerce-Google ³¹	Firm that reported exports in 2018 Survey with 3,818 small businesses, carried out online and by phone; opt-in basis; random sample. ³²
39%; wide variation across size categories	2020	Visa Economic Empowerment Institute ³³	Survey with 1,000 small businesses carried out online; opt-in basis; random sample
40%	Any	National Small Business Association (NSBA) and U.S. Export-Import Bank study in 2022 ³⁴	Survey with 530 small businesses carried out online. ³⁵ Firms that reported exporting at some point in their lifecycles
96%	Several	eBay Mainstreet	Confidential transactional data from eBay that captures firms by their location, number of exports and items exported, and export volumes and destinations. ³⁶

Deliverable 4: Top industries (up to 20) for SBA OIT to target for outreach and support

The purpose of this deliverable is to establish the top industries that the SBA Office of International Trade should focus on in order to promote small business exporters.

A. Methodology

To accomplish this task and provide a targeted assessment of key industries, we work at the NAICS 4-digit level and carry out a number of steps (figure 4-1):

²⁹ Global Firms Andrew B. Bernard, J. Bradford Jensen, Stephen J. Redding, and Peter K. Schott NBER Working Paper No. 22727 October 2016.

³⁰ Bernard, A. B., Jensen, J. B., & Schott, P. K., 2009. A portrait of firms in the U.S. that trade goods. In T. Dunne, J. B. Jensen, and M. J. Roberts (Eds.), *Producer Dynamics: New Evidence from Micro Data*: 383-410. Chicago, IL: University of Chicago Press

³¹ https://www.uschamber.com/assets/archived/images/ctec_googlereport_v7-digital-opt.pdf

³² https://www.uschamber.com/assets/archived/images/ctec_googlereport_v7-digital-opt.pdf

³³ <https://usa.visa.com/content/dam/VCOM/global/ms/documents/veei-us-small-business-in-the-digital-age.pdf>

³⁴ https://www.livingstonintl.com/livingston-content/uploads/2016/05/NSBA_Livingston-2016-Export-Survey.pdf

³⁵ https://grow.exim.gov/blog/exim_nsba_small_business_exporting_survey_2022

³⁶ <https://www.ebayinc.com/stories/news/ebays-2020-u-s-small-online-business-report-how-were-creating-economic-opportunity/>

- Using USA Trade Online, take the top goods export sectors over the past three years at the 4-digit level; to prioritize top services export sectors, use Census Bureau's Economic Census data on services firms from 2017.
- Qualify the list further in goods industries by America's revealed comparative advantage (RCA), an exercise that requires to be done with trade data reported at 6-digit harmonized system and subsequently converted into NAICS using concordance for example from Pierce and Schott (2009) and aggregated to the 4-digit level.³⁷ The trade data for establishing RCA for goods industries can be accessed from the World Integrated Trade Solution (WITS) database.³⁸
- Rank the industries by the various measures – current export volumes, RCA, and the number of small firms and exporters where available at 4-digit levels – to arrive at a rank-ordering of industries SBA OIT can focus on.
- Further eliminate industries with the lowest export growth in 2019-22 and with the fewest numbers of small businesses (for example, industries with below 2,500 small businesses in services sectors and below 300 in manufacturing, at 4-digit levels).
- Arrive in a list of top-20 industries with high potential for small business exports.

Figure 4-1 - Methodology to arrive in the most promising industries for OIT outreach and support

- **STEP 1: Top Export Sectors**
 - **Measures:** Export volumes by 4-digit industries
 - **Data Sources:**
 - Goods: USA Trade 2019-2021
 - Services: 2017 Economic Census
- **STEP 2: Finetune Set of Top Export Sectors**
 - **Measures:** revealed comparative advantage (RCA) by 4-digit goods industry
 - **Data Sources:**
 - WITS trade database at 6-digit HS
 - Concordance tables HS-NAICS
- **STEP 3: Narrow List of Top Sectors for OIT to Focus On**
 - **Initial Results:**
 - Top 40 4-digit goods industries
 - Top-40 40digit services industries
 - Narrow list down by: industry's export growth 2019-2021 and number of small businesses in an industry
 - Include, as warranted, wholesale and retail industries that are substantially involved in exporting goods in the identified priority industries
 - **Final Results:** arrive in the top-20 industries

B. Top Industries to Focus On

³⁷ See <https://www2.census.gov/ces/wp/2009/CES-WP-09-41.pdf>

³⁸ <https://wits.worldbank.org/>

Estimates using these methods yield a list of dynamic industries with proven export volumes, a revealed comparative advantage, and substantial numbers of small businesses, and, in services, substantial numbers of identified small business exporters (tables 4-1 and 4-2). Such industries include:

- In goods, other miscellaneous manufacturing, plastics products, medical equipment, electric component manufacturing, industrial machinery manufacturing, and pharmaceutical manufacturing.
- In services, computer systems design, management consulting, architectural and engineering, legal, software, and other professional and scientific research services.

Table 4-1 - Top services industries for the SBA OIT to target for outreach and support

NAICS	Description	Number of exporter establishments	Number of small businesses	Exports in 2017 (in 000s USD)
5415	Computer Systems Design and Related Services	10,899	119,354	\$20,105,921
5416	Management, Scientific, and Technical Consulting Services	10,715	176,015	\$8,120,440
5413	Architectural, Engineering, and Related Services	7,718	93,606	\$14,117,057
5617	Services to Buildings and Dwellings	6,682	198,232	\$1,709,822
5411	Legal Services	5,491	171,634	\$7,525,390
5112	Software Publishers	3,850	10,793	\$42,988,094
5419	Other Professional, Scientific, and Technical Services	3,022	66,791	\$1,402,691
5417	Scientific Research and Development Services	2,566	15,526	\$12,670,920
5239	Other Financial Investment Activities	2,485	54,629	\$19,487,976
7115	Independent Artists, Writers, and Performers	1,830	32,197	\$629,184,000
5182	Data Processing, Hosting, and Related Services	1,683	10,010	\$5,797,853
5418	Advertising, Public Relations, and Related Services	1,559	33,295	\$1,620,015
5414	Specialized Design Services	1,473	33,394	\$700,501
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	2,645	114,270	\$950,710
5111	Newspaper, Periodical, Book, and Directory Publishers	1,431	10,876	\$2,802,061
5615	Travel Arrangement and Reservation Services	1,198	14,238	\$2,335,585
5191	Other Information Services	1,068	10,188	\$6,216,015
5611	Office Administrative Services	897	30,238	\$1,088,688
5613	Employment Services	746	26,941	\$987,829
5619	Other Support Services	650	18,051	\$623,931

5511	Management of Companies and Enterprises	566	18,441	\$1,794,591
7111	Performing Arts Companies	424	9,254	\$395,666
5616	Investigation and Security Services	268	20,299	\$631,125
8112	Electronic and Precision Equipment Repair and Maintenance	261	10,575	\$66,763,000
5614	Business Support Services	217	22,925	\$2,286,340
Total		70,344	1,321,772	\$852,306,221

Table 4-2 - Top manufacturing industries for the SBA OIT to target for outreach and support (light blue in NAICS columns:

NAICS	Description	Number of small businesses	Exports 2021 (in 000s USD)	Revealed comparative advantage >1
3399	Other Miscellaneous Manufacturing	14,416	\$40,484,196	√
3261	Plastics Product Manufacturing	7,279	\$16,522,303	√
3339	Other General Purpose Machinery Manufacturing	4,893	\$26,678,024	√
3344	Semiconductor and Other Electronic Component Manufacturing	3,134	\$77,257,685	√
3391	Medical Equipment and Supplies Manufacturing	2,552	\$37,346,897	√
3332	Industrial Machinery Manufacturing	2,778	\$31,178,602	√
3331	Agriculture, Construction, and Mining Machinery Manufacturing	2,367	\$33,987,068	√
3254	Pharmaceutical and Medicine Manufacturing	1,949	\$53,148,705	√
3353	Electrical Equipment Manufacturing	1,556	\$16,952,795	√
3359	Other Electrical Equipment and Component Manufacturing	1,113	\$26,275,140	√
3362	Motor Vehicle Body and Trailer Manufacturing	1,543	\$15,284,416	√
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	2,061	\$11,499,197	
3116	Animal Slaughtering and Processing	2,714	\$2,322,977	√
3259	Other Chemical Product and Preparation Manufacturing	1,620	\$12,401,793	√
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing	925	\$83,109,586	√
3342	Communications Equipment Manufacturing	891	\$61,914,825	√
3329	Other Fabricated Metal Product Manufacturing	5,465	\$17,327,734	
2111	Oil and Gas Extraction	4,812	\$445,214	
3363	Motor Vehicle Parts Manufacturing	3,393	\$34,730,862	
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	4,101	\$47,313,624	
3251	Basic Chemical Manufacturing	1,087	\$33,385,625	

3341	Computer and Peripheral Equipment Manufacturing	784	\$32,732,645	
3241	Petroleum and Coal Products Manufacturing	820	\$92,384,295	
3343	Audio and Video Equipment Manufacturing	433	\$652,137	√
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	669	\$12,225,453	√
	Total	73,355	\$ 817,561,799	

There are of course many industries and exporters in specific 6-digit or fine industries with products and services in growing demand in world markets. Some such industries might be green technology products and services which will see more than 20 percent annual growth in the global green tech and sustainability market during this decade; data science platform services that are expected to grow by some 34 percent per annum through 2030; and the cybersecurity industry that will grow at double digits through 2030.³⁹ Systematically assessing, comparing, and ranking such specific narrow industries is less feasible to accomplish than an analysis at the 4-digit level.

One important caveat in this exercise is the significance of wholesale and retail sectors in export activity.⁴⁰ Per Census data there are as many as 121,897 small business exporters in NAICS sectors 42 (wholesale) and 44 and 45 (retail trade). These are not reported in international trade data as trade data reports the volume of a good or service exported, not the type of exporter behind the export – but they are reported in Census Bureau’s data that links a trade flow to the exporter behind it. Thus the process of identifying priority industries needs to account for the importance of wholesale and retail sectors – after all, SBA OIT’s work could most readily be focused on small business wholesalers than on the producers of the goods these wholesalers sell.

To be sure, Bernard et al. (2009, 2010) also find that pure wholesalers tend to concentrate on agricultural sectors and textile and apparel sectors, while manufacturers that export directly tend to focus on more sophisticated and differentiated goods (which also per our assessment are also the top industries SBA should focus on). In other words, it can well be that wholesalers and retailers play a more limited role in the priority industries we identify that they might in other industries.

Deliverable 5: Export loans in the marketplace

The purpose of this deliverable is to identify the share of SBA’s export loans in the U.S. small business export lending marketplace, both in terms of dollar values and in terms of number of loans issued. We will also estimate the total addressable market for export finance.

A. Methodology

Here, we leverage the SBA’s own loan data and three loan guarantee categories for 2020-21 (Export Capital Loan, International Trade Loan, and Export Express Loan guarantees), Export-

³⁹ <https://www.globenewswire.com/en/news-release/2022/04/25/2428125/0/en/With-20-6-CAGR-Green-Technology-and-Sustainability-Market-Size-worth-USD-51-09-Billion-in-2029.html>; <https://www.alliedmarketresearch.com/data-science-platform-market> and <https://www.fortunebusinessinsights.com/industry-reports/cyber-security-market-101165>

⁴⁰ This data is reported by Bernard et al. (2009) who had access to the Linked/Longitudinal Firm Trade Transaction Database (LFTTD), which matches individual U.S. trade transactions to U.S. firms in the Longitudinal Business Database (LBD). See Bernard et al. (2009) at https://www.princeton.edu/~reddings/papers/iust_short_108_inline.pdf

Import Bank small business authorization data for 2020-21, and data on commercial and industrial loans issued to small business, as compiled by FDIC and Community Reinvestment Act reports.⁴¹

A particular challenge in establishing the SBA's share in the U.S. export finance marketplace is identifying the aggregate volume of export loans in the marketplace (in addition to those offered by ExIm Bank and SBA) as banks, other lenders, Fintechs, and other financial institutions may be lending to small businesses in general without identifying whether the loan proceeds are used for export-related purposes.

However, we can estimate SBA's export-related financing vis-à-vis ExIm authorizations for small businesses, and as a share of *all* small business commercial and industrial (C&I) loans, by loan size category.

B. SBA's current products and small business borrowers

SBA's three main export financing instruments – Export Express, Export Working Capital, and International Trade Loan guarantees – are aimed to support businesses in building international relationships and export capacities, and support working capital needed for processing export orders (table 5-1).

In 2021, the average Export Working Capital and International Trade loans guaranteed by SBA were over \$2 million and the median loans were \$1.6 million, while Export Express loans averaged about \$264,000 while the median loan was \$250,000 (figure 5-1).⁴² Florida, California, and Texas lead in the number of authorizations (figure 5-2). In terms of sectors, the largest numbers of loans have been made in the manufacturing sectors (31-33) and wholesale sector (42) (figure 5-3).

Byline, FinnWise, Regions, and GBC International are among the leading banks issuing these loans, by the number of loans in 2019-21 (table 5-2).

Table 5-1 - SBA's Export finance instruments

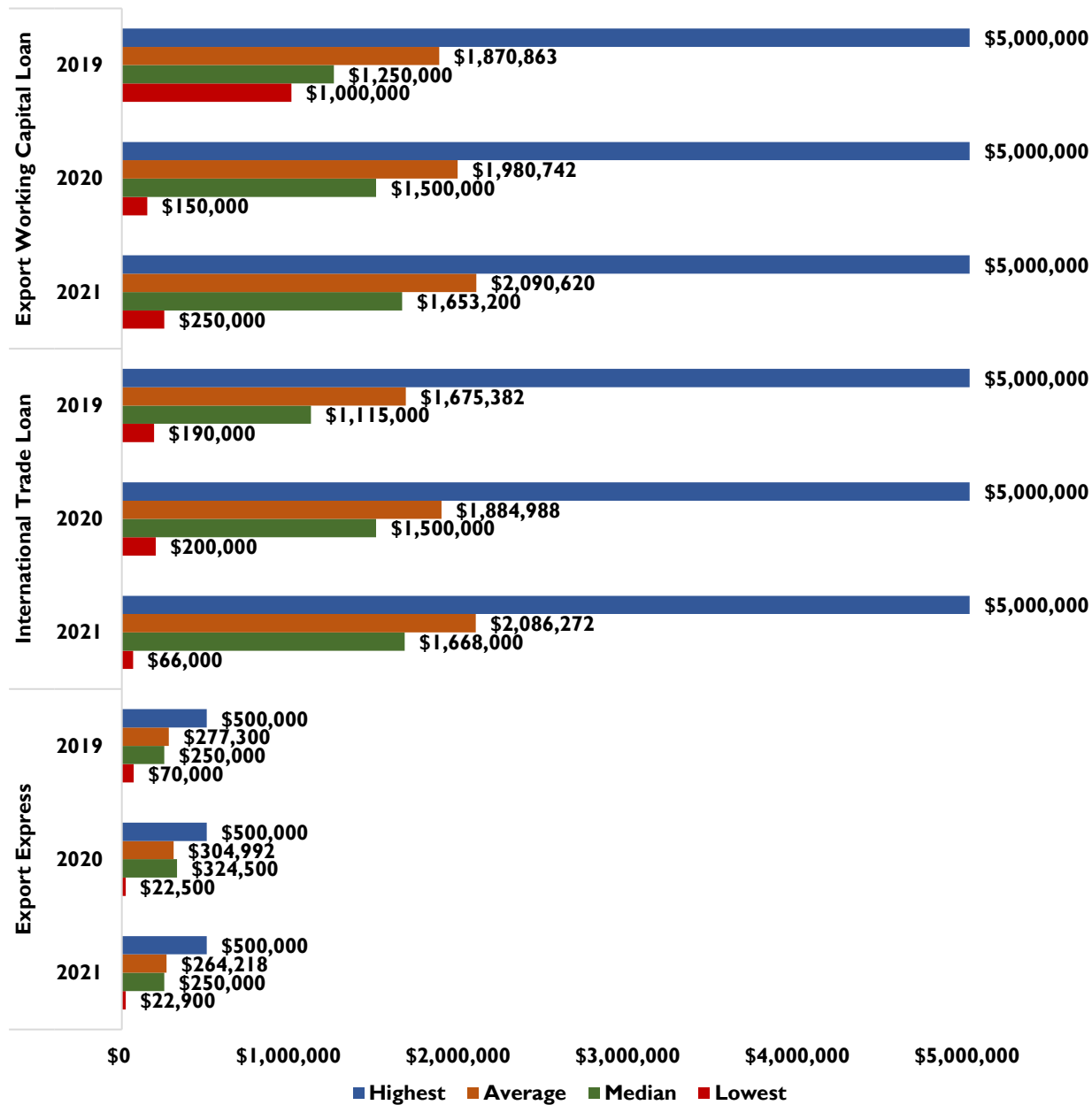
Name	Purpose	Guarantee	Collateral	Revolving line of credit or maturity	Maximum amount
Export Express	To buy or produce goods, and/or to provide services, for export; includes transaction-specific financing associated with completing actual export orders; an Also includes technical assistance such as for	90% for loans of \$350,000 or less 75% for loans more than \$350,000	Lenders follow collateral policies established for non-SBA-guaranteed loans.	7 years	\$500,000

⁴¹ <https://data.sba.gov/dataset/7-a-504-foia> and <https://data.exim.gov/dataset/Authorizations-From-10-01-2006-Thru-3-31-2022/vbhv-d8am> and FDIC data at <https://www.fdic.gov/analysis/quarterly-banking-profile/qbp/timeseries/small-business-farm-loans.xlsx>, also summarized by <https://cdn.advocacy.sba.gov/wp-content/uploads/2022/07/12095600/2020-Small-Business-Lending-Report-508c.pdf>

⁴² <https://data.sba.gov/dataset/7-a-504-foia>

	marketing, management and planning assistance				
Export Working Capital	<p>For businesses to generate export sales and access additional working capital to support these sales.</p> <p>Must be used to finance the working capital needs associated with a single or multiple transactions of the exporter.</p>	90%	Export-related inventory and receivable generated by export sales financed with EWCP funds.	12 months or less	\$5,000,000
International Trade Loan	Long-term financing to acquire, construct, renovate, modernize, improve or expand facilities and equipment to be used in the United States to produce goods or services involved in international trade.	90%	Maturity: 10 years for permanent working capital, up to 10 years for machinery and equipment or the useful life of the equipment (not to exceed 15 years), and up to 25 years for real estate.	N/A	\$5,000,000

Figure 5-1 – Summary of SBA Export Loans in 2019-21



Source: Author based on SBA's data.

Figure 5-2 – Summary of authorizations of loans for export purposes in 2021, by state

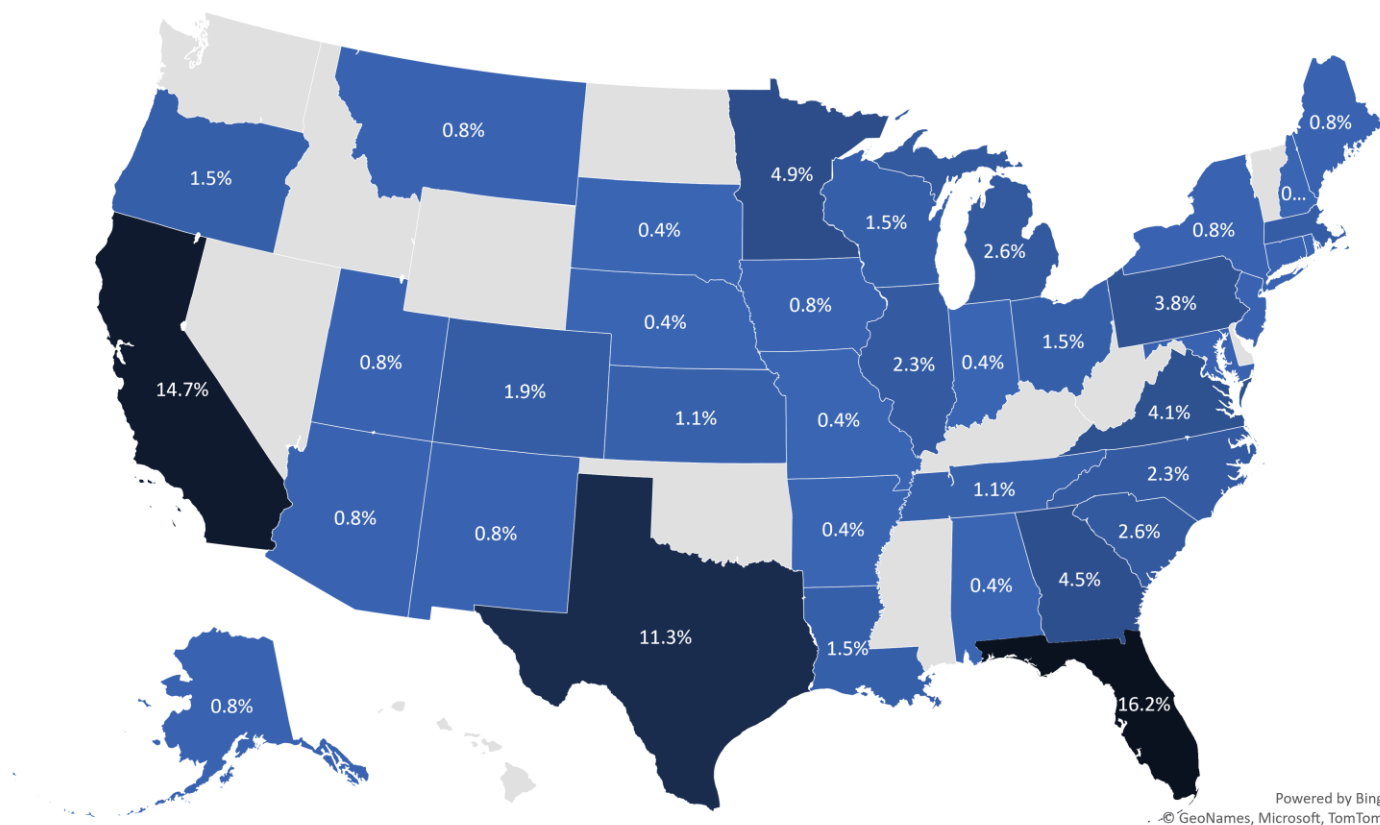
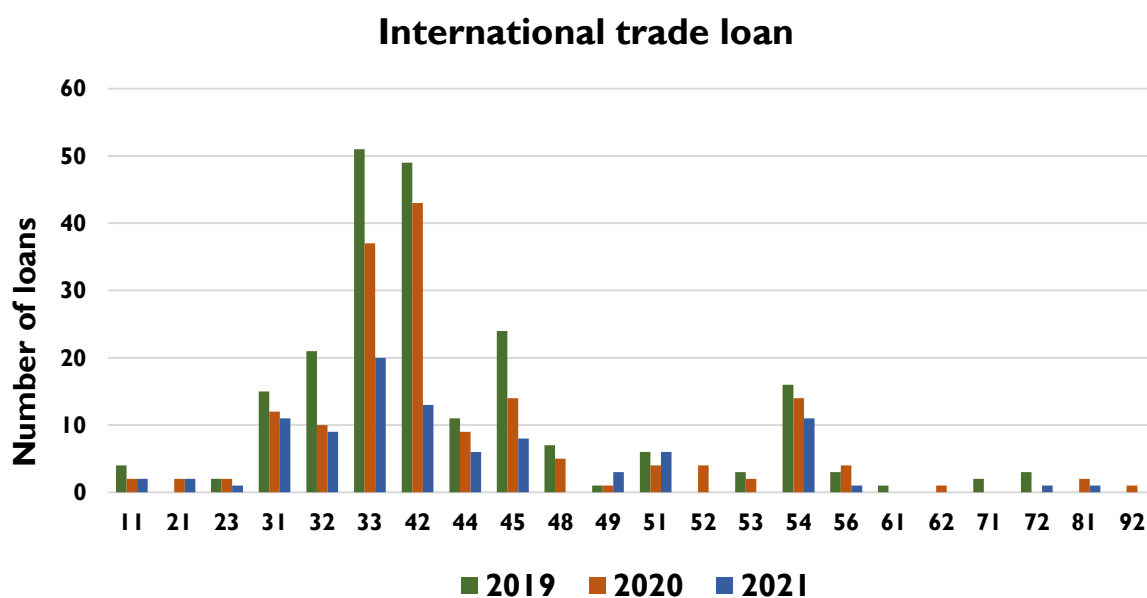
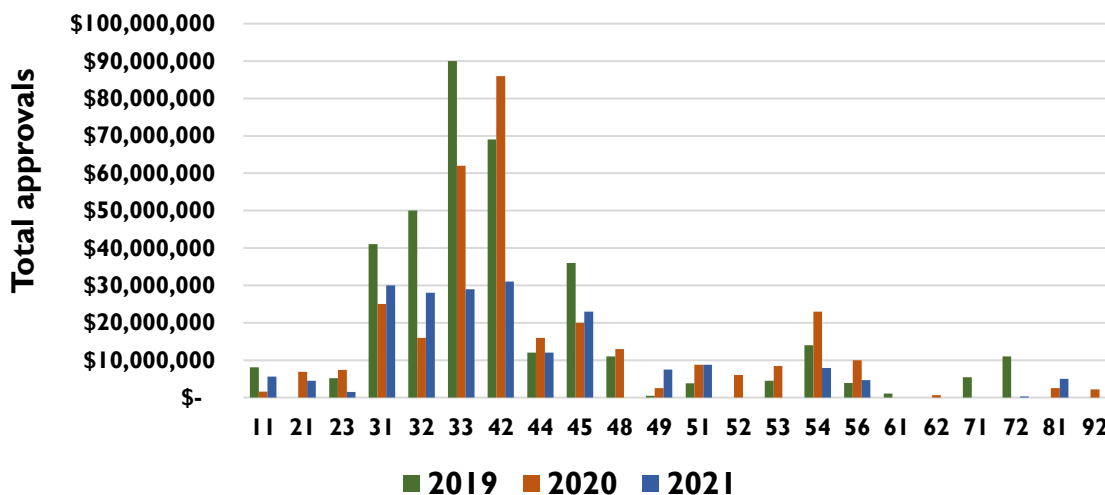


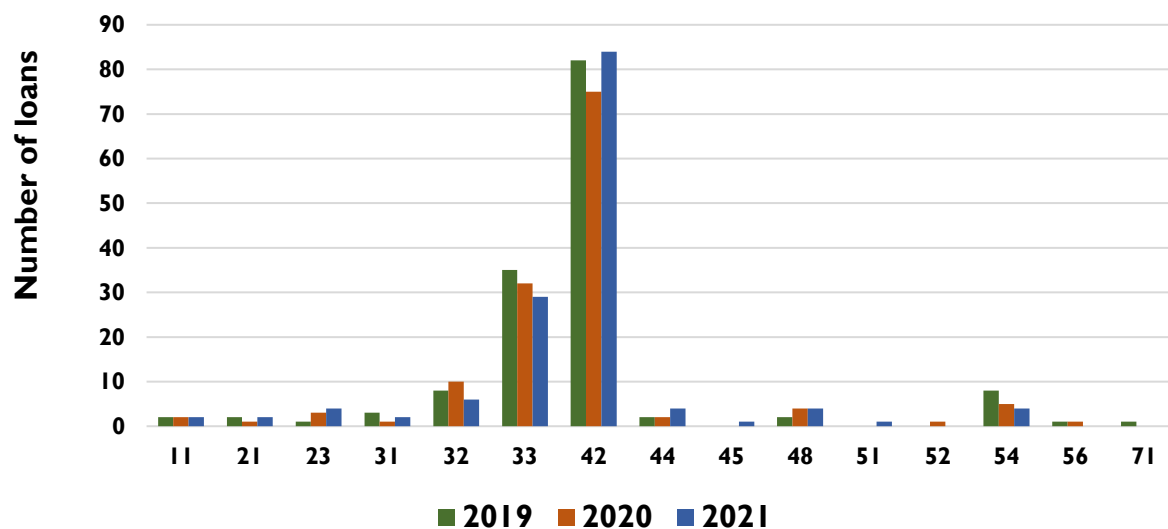
Figure 5-3 – Summary of SBA export loans in 2019-21, by type and NAICS sector



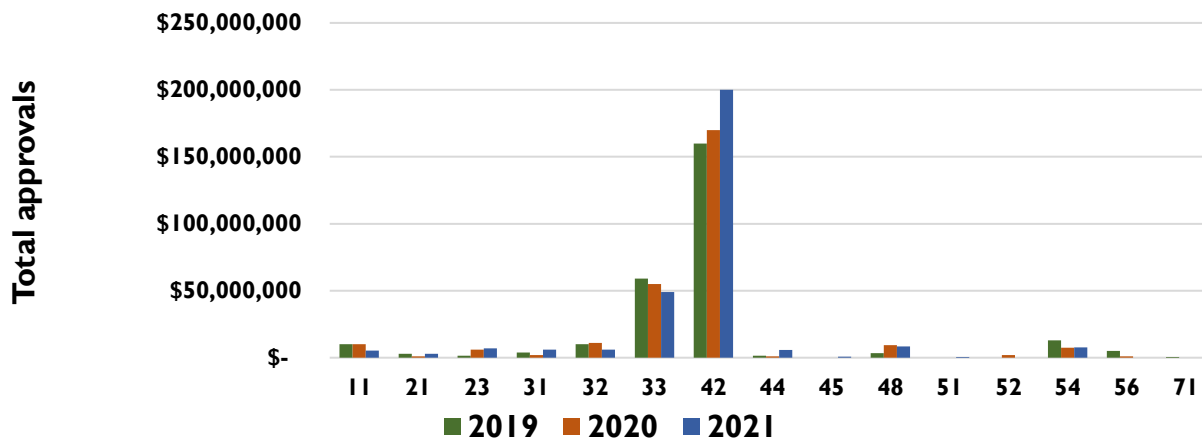
International trade loan



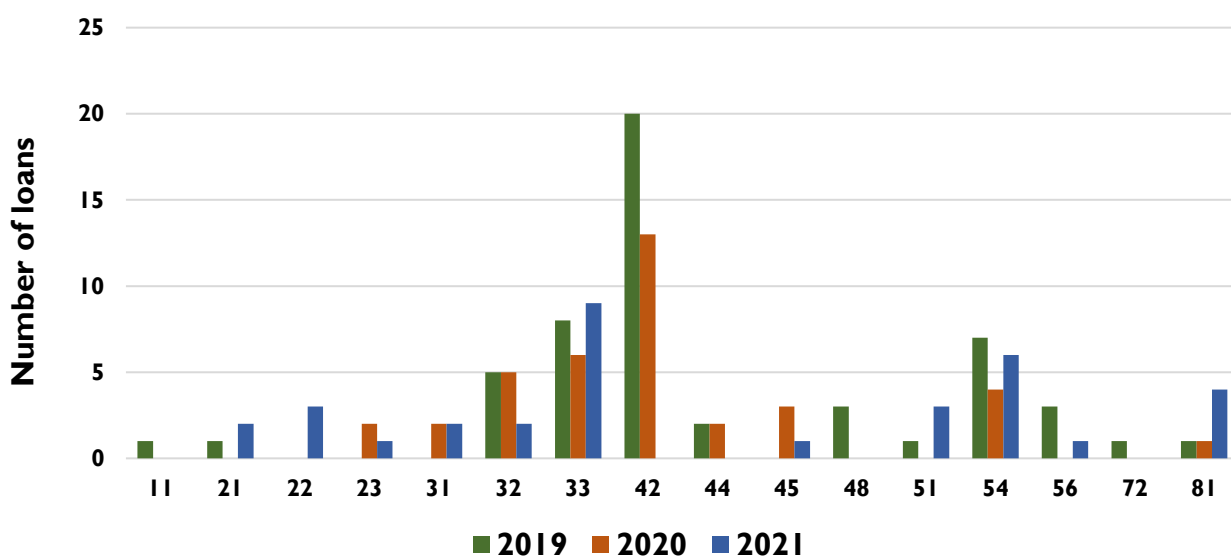
Export Working Capital



Export Working Capital



Export Express



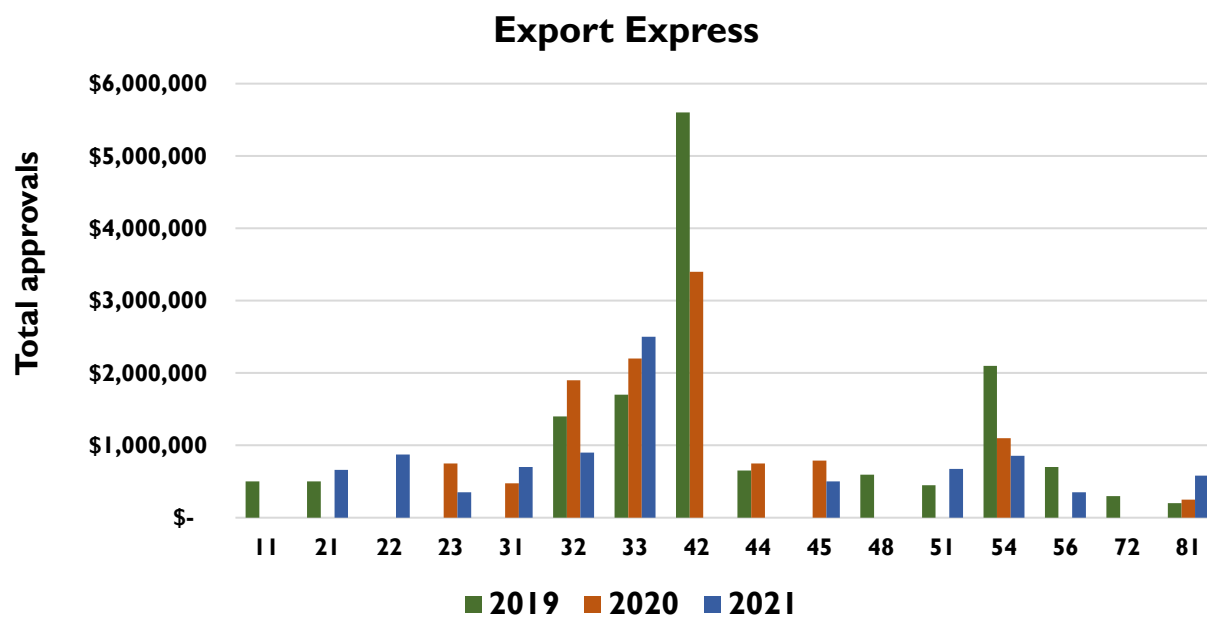


Table 5-2 – Number and value of export loans guaranteed by SBA in 2019-2021, by lender**International Trade Loan**

Lender	Number of approvals	Total approvals	Average approval
Alaska Growth Capital BIDCO, Inc.	6	\$13,853,000	\$2,308,833
Alma Bank	1	\$825,000	\$825,000
Amerant Bank, National Association	1	\$863,000	\$863,000
American Bank of Commerce	2	\$275,000	\$137,500
American Business Bank	4	\$4,382,100	\$1,095,525
American Momentum Bank	3	\$6,652,000	\$2,217,333
Ameris Bank	6	\$12,017,200	\$2,002,867
Arizona FCU	1	\$450,000	\$450,000
Bank OZK	1	\$1,400,300	\$1,400,300
Bank of George	4	\$3,902,000	\$975,500
BankPlus	2	\$3,392,100	\$1,696,050
Banner Bank	1	\$730,000	\$730,000
BayFirst National Bank	6	\$4,720,000	\$786,667
Berkshire Bank	8	\$6,400,000	\$800,000
BizCapital BIDCO I, LLC	13	\$26,458,000	\$2,035,231
Blue Ridge Bank, National Association	1	\$1,000,000	\$1,000,000
Brighton Bank	1	\$5,000,000	\$5,000,000
Broadway National Bank	2	\$1,277,600	\$638,800
Byline Bank	46	\$107,140,500	\$2,329,141
CalPrivate Bank	4	\$4,152,000	\$1,038,000
California International Bank, A National Banking Association	4	\$10,750,000	\$2,687,500
CapStar Bank	1	\$3,348,000	\$3,348,000
Cedar Rapids Bank and Trust Company	2	\$646,600	\$323,300
Celtic Bank Corporation	3	\$6,189,900	\$2,063,300
Centerstone SBA Lending, Inc.	8	\$18,410,000	\$2,301,250
Central Bank	4	\$8,800,000	\$2,200,000
Choice Financial Group	1	\$1,000,000	\$1,000,000
Citizens Bank	2	\$1,355,000	\$677,500
City National Bank	1	\$3,700,000	\$3,700,000
Colony Bank	4	\$16,904,000	\$4,226,000
Conway Bank	1	\$3,650,000	\$3,650,000
Core Bank	1	\$1,000,000	\$1,000,000
East West Bank	1	\$1,000,000	\$1,000,000
Enterprise Bank & Trust	26	\$50,600,500	\$1,946,173
Evolve Bank & Trust	1	\$4,470,000	\$4,470,000
FinWise Bank	43	\$57,709,300	\$1,342,077
First American Bank	1	\$780,100	\$780,100
First Bank	9	\$13,722,000	\$1,524,667
First Bank of the Lake	12	\$34,440,000	\$2,870,000
First Business Bank	1	\$3,674,000	\$3,674,000
First Commonwealth Bank	2	\$4,870,000	\$2,435,000
First Federal Bank	1	\$5,000,000	\$5,000,000
First Federal Savings Bank	2	\$3,915,500	\$1,957,750
First Home Bank	1	\$2,500,000	\$2,500,000
First Internet Bank of Indiana	3	\$7,013,000	\$2,337,667
First National Bank Texas	4	\$2,241,100	\$560,275
First Port City Bank	1	\$1,337,600	\$1,337,600
First Savings Bank	14	\$26,137,000	\$1,866,929
First Southern Bank	1	\$2,057,000	\$2,057,000
Firsttrust Savings Bank	2	\$1,650,000	\$825,000
Five Star Bank	1	\$250,000	\$250,000
Fountainhead SBF LLC	4	\$13,260,600	\$3,315,150
Fresno First Bank	1	\$375,000	\$375,000

GBC International Bank	8	\$10,748,700	\$1,343,588
Georgia Banking Company	1	\$446,000	\$446,000
Georgia Primary Bank	3	\$4,533,000	\$1,511,000
Glacier Bank	1	\$1,450,000	\$1,450,000
Great Southern Bank	1	\$670,500	\$670,500
Greater Nevada CU	3	\$8,000,000	\$2,666,667
Guaranty Bank	1	\$2,250,000	\$2,250,000
Harvest Small Business Finance, LLC	3	\$4,776,200	\$1,592,067
Heritage Bank of Commerce	2	\$3,900,000	\$1,950,000
HomeTrust Bank	3	\$4,665,000	\$1,555,000
INTRUST Bank, National Association	2	\$850,000	\$425,000
IncredibleBank	1	\$840,000	\$840,000
KeyPoint CU	1	\$413,000	\$413,000
Lake Michigan CU	20	\$44,580,800	\$2,229,040
LendingClub Bank, National Association	2	\$5,488,000	\$2,744,000
Lincoln Savings Bank	7	\$6,101,500	\$871,643
Live Oak Banking Company	4	\$9,115,000	\$2,278,750
MUFG Union Bank, National Association	1	\$1,515,000	\$1,515,000
Manufacturers Bank	2	\$2,900,000	\$1,450,000
Manufacturers and Traders Trust Company	3	\$2,650,000	\$883,333
Meadows Bank	1	\$3,174,000	\$3,174,000
Meridian Bank	5	\$11,628,000	\$2,325,600
Metro City Bank	1	\$1,000,000	\$1,000,000
Midland States Bank	2	\$4,856,000	\$2,428,000
Midwest Regional Bank	3	\$6,330,000	\$2,110,000
New Omni Bank, National Association	1	\$5,000,000	\$5,000,000
New York Business Development Corporation	1	\$1,100,000	\$1,100,000
Newtek Small Business Finance, Inc.	10	\$14,047,300	\$1,404,730
North State Bank	1	\$1,056,000	\$1,056,000
Northrim Bank	1	\$300,000	\$300,000
OakStar Bank	5	\$4,902,000	\$980,400
One World Bank	3	\$3,875,400	\$1,291,800
Pacific Premier Bank	1	\$978,800	\$978,800
Patriot Bank, National Association	2	\$5,793,100	\$2,896,550
Peoples Bank	2	\$5,295,000	\$2,647,500
Plains State Bank	7	\$19,760,600	\$2,822,943
Poppy Bank	1	\$5,000,000	\$5,000,000
Readycap Lending, LLC	10	\$27,537,000	\$2,753,700
Regions Bank	2	\$3,868,800	\$1,934,400
Rock Canyon Bank	1	\$620,000	\$620,000
Signature Bank of Georgia	1	\$3,130,000	\$3,130,000
SouthState Bank, National Association	4	\$3,584,000	\$896,000
Southern Bank	2	\$952,100	\$476,050
Spectra Bank	1	\$3,001,500	\$3,001,500
SpiritBank	1	\$520,000	\$520,000
St. Louis Bank	2	\$3,600,000	\$1,800,000
Stearns Bank National Association	1	\$2,100,000	\$2,100,000
Stone Bank	4	\$3,662,600	\$915,650
Summit State Bank	1	\$250,000	\$250,000
Sunflower Bank, National Association	1	\$534,000	\$534,000
Sunwest Bank	1	\$4,554,000	\$4,554,000
T Bank, National Association	1	\$695,000	\$695,000
Teachers CU	1	\$5,000,000	\$5,000,000
Telhio CU Inc	1	\$2,500,000	\$2,500,000
Texas Bank	2	\$2,200,000	\$1,100,000
Texas First Bank	1	\$400,000	\$400,000
Texas Gulf Bank, National Association	1	\$5,000,000	\$5,000,000
The Farmers National Bank of Canfield	1	\$560,000	\$560,000
The First Bank and Trust Company	3	\$3,031,000	\$1,010,333
Third Coast Bank SSB	1	\$2,000,000	\$2,000,000

Timberline Bank	1	\$342,000	\$342,000
Touchmark National Bank	4	\$7,344,000	\$1,836,000
U.S. Bank, National Association	1	\$4,769,500	\$4,769,500
US Eagle FCU	6	\$15,030,000	\$2,505,000
United Business Bank	2	\$6,500,000	\$3,250,000
United Fidelity Bank, FSB	1	\$4,600,000	\$4,600,000
United Pacific Bank	2	\$3,503,500	\$1,751,750
VelocitySBA, LLC	6	\$8,062,000	\$1,343,667
Veritex Community Bank	5	\$4,370,000	\$874,000
Vinings Bank	1	\$200,000	\$200,000
Washington Trust Bank	1	\$2,750,000	\$2,750,000
West Town Bank & Trust	12	\$9,517,600	\$793,133
Western Alliance Bank	2	\$6,359,000	\$3,179,500
immito, LLC	3	\$3,385,000	\$1,128,333

Export Express Loans

Lender	Number of approvals	Total approvals	Average approval
Amerant Bank, National Association	1	\$250,000	\$250,000
AmeriState Bank	1	\$350,000	\$350,000
American Bank of Commerce	1	\$22,500	\$22,500
American Business Bank	1	\$350,000	\$350,000
Arvest Bank	1	\$350,000	\$350,000
Banco Popular de Puerto Rico	1	\$350,000	\$350,000
Banesco USA	2	\$1,000,000	\$500,000
Bank of Ann Arbor	1	\$100,000	\$100,000
Bank of Hays	2	\$220,000	\$110,000
Banner Bank	8	\$2,351,700	\$293,963
Berkshire Bank	2	\$1,000,000	\$500,000
Beverly Bank & Trust Company, National Association	1	\$275,000	\$275,000
Blue Ridge Bank, National Association	2	\$600,000	\$300,000
Byline Bank	1	\$500,000	\$500,000
Cache Valley Bank	1	\$350,000	\$350,000
Camden National Bank	2	\$175,000	\$87,500
Cedar Rapids Bank and Trust Company	1	\$250,000	\$250,000
Celtic Bank Corporation	1	\$250,000	\$250,000
Central Bank	2	\$292,200	\$146,100
Columbia State Bank	3	\$1,250,000	\$416,667
Comerica Bank	1	\$500,000	\$500,000
Community 1st CU	1	\$500,000	\$500,000
Community First National Bank	1	\$250,000	\$250,000
Eastern Bank	3	\$960,000	\$320,000
Evans Bank, National Association	1	\$500,000	\$500,000
First American Bank	4	\$1,050,000	\$262,500
First Commonwealth Bank	1	\$350,000	\$350,000
First Federal Savings Bank	1	\$500,000	\$500,000
First Financial Bank	1	\$400,000	\$400,000
First General Bank	1	\$400,000	\$400,000
First Merchants Bank	2	\$617,000	\$308,500
First National Bank Texas	9	\$1,598,000	\$177,556
First Nebraska Bank	1	\$200,000	\$200,000
First Priority Bank	1	\$500,000	\$500,000
First State Bank	1	\$450,000	\$450,000
First Utah Bank	1	\$300,000	\$300,000
Fulton Bank, National Association	4	\$1,064,100	\$266,025
GBC International Bank	10	\$2,787,500	\$278,750
Gorham Savings Bank	1	\$460,000	\$460,000
Horizon Bank	1	\$200,000	\$200,000

INTRUST Bank, National Association	1	\$250,000	\$250,000
KeyBank National Association	2	\$350,000	\$175,000
Manufacturers and Traders Trust Company	1	\$253,000	\$253,000
Minnwest Bank	4	\$900,000	\$225,000
Mission Bank	1	\$75,000	\$75,000
Needham Bank	1	\$500,000	\$500,000
Newtown Savings Bank	2	\$270,000	\$135,000
PNC Bank, National Association	1	\$300,000	\$300,000
PS Bank	1	\$500,000	\$500,000
PriorityOne Bank	1	\$349,000	\$349,000
Santander Bank, National Association	1	\$500,000	\$500,000
Savings Bank of Danbury	1	\$25,000	\$25,000
Seacoast National Bank	1	\$250,000	\$250,000
Skyline National Bank	1	\$200,000	\$200,000
SpiritBank	2	\$700,000	\$350,000
State Bank of Southern Utah	1	\$95,000	\$95,000
State Bank of Table Rock	1	\$350,000	\$350,000
Stryv Bank	1	\$500,000	\$500,000
Sunflower Bank, National Association	3	\$1,050,000	\$350,000
Synovus Bank	1	\$350,000	\$350,000
Telhio CU Inc	2	\$350,000	\$175,000
Texas Bank	1	\$120,000	\$120,000
The Bank of Missouri	2	\$250,000	\$125,000
The Provident Bank	2	\$350,000	\$175,000
U.S. Bank, National Association	5	\$2,000,000	\$400,000
Village Bank	1	\$300,000	\$300,000
Washington Trust Bank	1	\$125,000	\$125,000
Webster Bank, National Association	2	\$135,000	\$67,500

Export Working Capital Program

Lender	Number of approvals	Total approvals	Average approval
Amerant Bank, National Association	5	\$6,200,000	\$1,240,000
Atlantic Union Bank	3	\$10,500,000	\$3,500,000
BMO Harris Bank National Association	3	\$6,300,000	\$2,100,000
BancFirst	1	\$750,000	\$750,000
Banesco USA	27	\$44,000,000	\$1,629,630
Bank Forward	2	\$2,500,000	\$1,250,000
Bank of Franklin County	1	\$1,500,000	\$1,500,000
Bank of Hope	5	\$7,400,000	\$1,480,000
Bank of Southern California, National Association	1	\$720,000	\$720,000
Bank of the Southwest	3	\$2,000,000	\$666,667
Bankers Trust Company	3	\$1,800,000	\$600,000
Busey Bank	3	\$900,000	\$300,000
Byline Bank	3	\$7,100,000	\$2,366,667
Cadence Bank	6	\$9,800,000	\$1,633,333
Capitol National Bank	1	\$3,000,000	\$3,000,000
Carrollton Bank	2	\$8,500,000	\$4,250,000
Cass Commercial Bank	2	\$3,000,000	\$1,500,000
Central National Bank	2	\$1,000,000	\$500,000
Choice Financial Group	1	\$1,000,000	\$1,000,000
Citibank, N.A.	22	\$59,500,000	\$2,704,545
Citizens Bank Minnesota	3	\$6,000,000	\$2,000,000
City National Bank of Florida	1	\$3,500,000	\$3,500,000
Coastal Community Bank	2	\$2,695,000	\$1,347,500
Comerica Bank	13	\$15,400,000	\$1,184,615
Commerce Bank	12	\$23,100,000	\$1,925,000
Coulee Bank	1	\$1,000,000	\$1,000,000

Dacotah Bank	1	\$1,500,000	\$1,500,000
East West Bank	4	\$7,000,000	\$1,750,000
Enterprise Bank	3	\$3,800,000	\$1,266,667
Enterprise Bank & Trust	18	\$12,467,300	\$692,628
Equity Bank	2	\$1,961,100	\$980,550
Evans Bank, National Association	1	\$500,000	\$500,000
Fidelity Bank, National Association	2	\$1,000,000	\$500,000
First American Bank	22	\$16,200,000	\$736,364
First Financial Bank	3	\$8,000,000	\$2,666,667
First General Bank	1	\$1,000,000	\$1,000,000
Fortress Bank	2	\$5,920,000	\$2,960,000
Fulton Bank, National Association	6	\$8,500,500	\$1,416,750
Fusion Bank	2	\$1,500,000	\$750,000
GBC International Bank	30	\$52,950,000	\$1,765,000
Golden Bank, National Association	1	\$1,120,000	\$1,120,000
Granite Bank	2	\$2,757,600	\$1,378,800
Guaranty Bank & Trust, National Association	3	\$2,400,000	\$800,000
HSBC Bank USA, National Association	9	\$17,550,000	\$1,950,000
Hancock Whitney Bank	2	\$10,000,000	\$5,000,000
Manufacturers and Traders Trust Company	7	\$19,500,000	\$2,785,714
Midwest BankCentre	3	\$15,000,000	\$5,000,000
Minnesota Bank & Trust	2	\$1,500,000	\$750,000
Minnwest Bank	1	\$800,000	\$800,000
NewBank	2	\$1,600,000	\$800,000
OakStar Bank	3	\$7,000,000	\$2,333,333
Open Bank	5	\$17,250,000	\$3,450,000
Pacific Premier Bank	1	\$250,000	\$250,000
Plains State Bank	1	\$1,500,000	\$1,500,000
Platinum Bank	10	\$28,000,000	\$2,800,000
Regions Bank	40	\$91,400,000	\$2,285,000
Rockland Trust Company	3	\$8,500,000	\$2,833,333
Security Financial Bank	3	\$3,000,000	\$1,000,000
SouthState Bank, National Association	3	\$15,000,000	\$5,000,000
Sunflower Bank, National Association	1	\$1,000,000	\$1,000,000
Synovus Bank	8	\$18,355,800	\$2,294,475
TD Bank, National Association	21	\$55,640,000	\$2,649,524
The Commercial and Savings Bank of Millersburg, Ohio	6	\$4,250,000	\$708,333
The First Bank and Trust Company	6	\$15,750,000	\$2,625,000
The First National Bank of McGregor d/b/a TFNB Your Bank	1	\$300,000	\$300,000
The Huntington National Bank	2	\$8,000,000	\$4,000,000
The Middlefield Banking Company	1	\$3,000,000	\$3,000,000
Truist Bank	23	\$77,250,000	\$3,358,696
U.S. Bank, National Association	2	\$1,500,000	\$750,000
Umpqua Bank	2	\$9,000,000	\$4,500,000
Wallis Bank	1	\$2,000,000	\$2,000,000
Waterford Bank, National Association	1	\$5,000,000	\$5,000,000
Waukesha State Bank	1	\$200,000	\$200,000
Webster Bank, National Association	3	\$8,000,000	\$2,666,667
WesBanco Bank, Inc.	1	\$1,000,000	\$1,000,000
World Trade Finance, Inc.	17	\$35,800,000	\$2,105,882
Zions Bank, A Division of	4	\$3,700,000	\$925,000

C. SBA's export loans in the marketplace

One way to estimate SBA's share of the U.S. export loan marketplace is to compare the SBA's export loan authorizations to those of the Export-Import Bank.

SBA-backed small business export loans totaled \$602 million in 2020 and \$506 million in 2021. Taking a broader view of SBA's export lending and including some 7(a) and 504 loans as done in a

recent Congressional Research Service report would raise the volume of SBA's annual export loans over \$958 million in 2020 and \$857 million in 2021; however, here we use the three core products as the baseline.⁴³

By volume, SBA's export loans are 29 percent of ExIm Bank's small business authorizations in 2020 and 31 percent in 2021, and 19 percent in 2020 and 15 percent in 2021 of the total *number* of small business authorizations made by the ExIm Bank (tables 5-3 and 5-4).

If however ExIm Bank's trade credit insurance authorizations are not included in the calculation, SBA's authorizations are in dollar terms are slightly higher than ExIm's, and about double the number of ExIm's small business authorizations in 2020 and 1.7 times more numerous in 2021.

SBA also leads in all loan size categories in terms of dollar value of authorizations and in most size categories in terms of the number of authorizations, in 2021 (tables 5-5 and 5-6).

The SBA's authorizations of export loans are about 0.025 percent of all U.S. C&I loans to small businesses. According to S&P estimates, Fintech lending to small businesses was in 2021 some \$23.9 billion – thus the SBA-guaranteed export loans would be equivalent to 2.1 percent of all U.S. digital lending to small businesses.⁴⁴

⁴³ <https://crsreports.congress.gov/product/pdf/R/R43846>

⁴⁴ <https://www.spglobal.com/marketintelligence/en/news-insights/research/doubldigit-growth-complex-bank-relationships-lie-ahead-for-us-digital-lenders>

Table 5-3 – Assessment of the share of SBA loans in the small business export loan and small business loan marketplace in 2019-21, by dollar volume

SBA Authorizations				
	2019	2020	2021	2022
Export Working Capital	\$280,000,000	\$271,361,700	\$298,958,660	\$80,150,016
Export Express	\$14,696,900	\$11,589,700	\$8,983,398	\$5,709,299
International Trade Loan	\$370,000,000	\$318,562,972	\$198,195,840	\$89,863,718
Total	\$664,696,900	\$601,514,372	\$506,137,898	\$175,723,033
7(a) ExportRelated Loans	\$298,000,000	\$250,900,000	196,800,000	
504/CDC ExportRelated Loans	\$68,200,000	\$105,400,000	\$154,000,000	
Grand total	<u>\$1,030,896,900</u>	<u>\$957,814,372</u>	<u>\$856,937,898</u>	-

ExIm small business authorizations				
	2019	2020	2021	2022
Guarantee	\$35,635,340	\$137,608,678	\$84,277,932	\$56,077,545
Insurance	\$1,605,381,788	\$1,552,912,111	\$1,194,136,309	\$310,345,289
Loan	\$70,650,000	\$0	\$4,225,228	\$0
Working Capital	\$547,058,699	\$391,491,433	\$345,100,000	\$54,193,709
Grand total	<u>\$2,258,725,827</u>	<u>\$2,082,012,222</u>	<u>\$1,627,739,469</u>	<u>\$420,616,543</u>

All C&I loans in U.S.				
	2019	2020	2021	
C&I Loans < \$1MM	\$ 1,476,461,034,000	\$ 2,382,378,246,000	\$ 1,900,338,846,000	
All C&I loans	\$ 7,647,488,785,000	\$ 9,018,187,691,000	\$ 8,187,300,720,000	

	2019	2020	2021	2022
SBA vs. ExIm	29%	29%	31%	42%
SBA vs. ExIm without ExIm insurance	102%	114%	117%	159%
SBA with all export-related loans vs. ExIm without insurance	158%	181%	198%	
SBA vs. all Small C&I	0.045%	0.025%	0.0266%	
SBA vs. all C&I	0.009%	0.007%	0.124%	

Table 5-4 – Assessment of the share of SBA loans in the small business export loan and small business loan marketplace in 2019-21, by number of transactions

SBA Authorizations	2019	2020	2021	2022
Export Working Capital	147	137	143	32
Export Express	53	38	34	22
International Trade Loan	219	169	95	47
	419	344	272	101

ExIm Small Business Authorizations	2019	2020	2021	2022
Guarantee	20	47	59	30
Insurance	1,923	1,681	1,646	325
Loan	3	-	2	-
Working Capital	153	118	102	19
	2,099	1,846	1,809	374

SBA vs. ExIm	20%	19%	15%	27%
SBA vs. ExIm without ExIm insurance	238%	208%	167%	206%

Table 5-5 – Share of the volume of SBA loans in the small business export loan and small business loan marketplace in 2021, by loan size category

Loan size category	SBA	ExIm Bank	ExIm Bank without insurance	C&I Loans	SBA vs. ExIm
< \$100,000	\$355,959	\$14,254,755	\$31,110	\$817,123,900,000	1144%
\$100,00-\$250,000	\$1,869,624	\$57,060,331	\$730,980	\$361,532,332,000	256%
\$250,000-\$499,999	\$117,168,711	\$120,405,654	\$7,034,636	\$721,682,614,000	1666%
\$500,000-\$999,999	\$34,992,650	\$274,575,210	\$59,150,876		59%
\$1m-\$1.99m	\$78,948,306	\$260,061,155	\$35,515,013	\$6,286,961,874,000	222%
\$2m-\$2.99m	\$98,521,114	\$121,998,096	\$37,691,355		261%
\$3-\$3.99m	\$85,765,575	\$102,392,504	\$34,388,600		249%
\$4-\$4.99m	\$75,270,696	\$82,208,611	\$40,744,620		185%

Table 5-6 – Share of the number of SBA loans in the small business export loan and small business loan marketplace in 2019-21, by loan size category

Loan size category	SBA	ExIm Bank	ExIm Bank without insurance	C&I Loans	SBA / ExIm
< \$100,000	9	270	2	97,733,768	450%
\$100,00-\$250,000	12	376	4	3,707,440	300%
\$250,000-\$499,999	33	367	17	2,513,672	194%
\$500,000-\$999,999	50	430	77		65%
\$1m-\$1.99m	57	205	23	NA	248%
\$2m-\$2.99m	41	54	15		273%
\$3-\$3.99m	25	31	10		250%
\$4-\$4.99m	17	19	9		189%

D. Total addressable market for export finance

The total need for export finance among America’s small businesses is much larger than addressed by the SBA. One way to estimate the total need for export finance is on the basis of business surveys. For example, in the 2022 NSBA-ExIm survey with 530 small businesses, 14 percent cited access to finance as a key barrier for exporting.⁴⁵ In the 2021 Visa survey, 16 percent of U.S. businesses stated that access to working capital is a major constraint for them to expand their *ecommerce* exports. What then is the total addressable market for export finance – here, the pent-up demand not met by the private sector?

There are a number of methods to address this question:

- If we assume that 14 percent of the identified 264,366 American small businesses require export financing once a year and the average loan needed is \$1 million, the pent-up export loan need would be \$37 billion, much higher than SBA’s 2021 authorizations.
- If however we use as the base the survey finding that over 1.3 million of small businesses might have export activity, the pent-up need among 14 percent of these firms for export financing would rise to \$182 billion.
- If we furthermore consider the *total addressable market of exporters of about 2.56 million firms* and assume that *all* businesses in this total addressable market need an export loan of \$500,000 once a year, the TAM for small business export loans would be \$1.28 trillion.

⁴⁵ https://grow.exim.gov/blog/exim_nsba_small_business_exporting_survey_2022 - granted, in this case 14% stated as a barrier getting financing for foreign customers. In the 2022 Visa survey executed by Nextrade, a similar share or 16 percent of U.S. businesses that getting working capital was a major constraint for them to expand ecommerce exports.

4. TASK 2: Methodology for qualitative research

The purpose of the research in this task is to make recommendations for the SBA OIT to optimize its marketing and communications with current and prospective small business exporters. The research also aims to enable the SBA OIT to tell an effective story about the role of SBA financing in supporting small business exports.

The deliverables per the SOW under this task include:

- Recommendations on a marketing strategy for SBA export finance products, including primary messaging and target audience.
- Recommendations on any changes to the current suite of term loans and working capital lines backed by the SBA Office of International Trade.
- Insights on the characteristics of successful exporters.
- Recommended program or policy updates to better support the U.S. small business exporter community, including through trade finance instruments.

Deliverable 6: Recommendations on marketing strategy for SBA export finance products and any changes to the current suite of term loans and working capital lines backed by the SBA Office of International Trade

This deliverable seeks to establish (1) how SBA can optimize its awareness-building and marketing of its export finance instruments and services for America’s small businesses; and (2) whether and how the existing suite of services and instruments should be modified to meet small businesses’ changing needs and the changes in the types of small businesses that export.

This deliverable develops recommendations for SBA to reach and service businesses that are readily eligible for SBA’s export finance instruments, and businesses that export or are about to export but that do not readily qualify.

A. Methodology

We will here seek to develop recommendations for SBA to service businesses at any stage of their export journeys – enable small businesses to successfully journey from a non-exporter to a first-time exporter to an occasional and further to a regular and diversified exporter (figure 6-1). This characterization is of course stylized – many companies that start exporting cease export activity quickly thereafter, while others may set up stores on global marketplaces and use apps such as YouTube and quickly become multimarket sellers with customers around the world. Nonetheless figure 6-1 quite characterizes the ideal pathway of a nascent exporter the SBA can support.

Figure 6-1 – Characterization of a Small Businesses’ Export Journey

- **Level 1: Non-Exporters**
 - Firms that sell in the US
- **Level 2: Sporadic Exporters**
 - Firms that export occasionally, <10% of revenue from exports
- **Level 3: Regular “Narrow” Exporter**
 - Firms that sell to 1-2 markets more regularly. 10-25% of revenue from exports or imports
- **Level 4: Diversified Exporter**
 - Firms that sell to 3-5 markets, 25-50% of revenue from exports, import regularly
- **Level 5: Global Seller**
 - Firms that sell globally and derive bulk of revenue from exports, two-way traders
- **Note:** as firms progress from Level 1 towards Level 5, it marks a growth of sales, customer bases, market access, and diversification. It also marks a positive correlation between the trends of a small business’ export capabilities as well as the enabling environment for small business trade.

This deliverable has benefited from interviews with three leading lenders that use SBA’s export loan guarantees as well as focus groups with SBA’s Export Finance Specialists and SBA’s Small Business Development Center (SBDC) directors and staff on their current prospecting, marketing and service delivery models, and the challenges facing them in reaching and serving small businesses, such as:

- Targeting the *right* small businesses poised to seek export financing,
- Delivering relevant products to meet exporters’ financing needs;
- Servicing the emerging needs encountered in the marketplace; and
- Learning about the best practices to scale, to better service small businesses.

The following sections will analyze the financing needs and pain points facing different types of small businesses and SBA in serving them: (1) small business exporters that qualify for SBA-backed loans, and (2) small businesses exporters that do not.

B. Exporters that qualify for SBA export loan guarantees

The SBA's export loan guarantees are used by companies that borrow substantial amounts (typically over \$1 million) and that are wholesalers or manufacturers. Exporters that have used SBA’s export loan guarantees quite seldom use those products again. In our analysis, in 2010-2021, 75 percent of borrowers borrowed only once using SBA export loan guarantee during the entire 12-year period, and only a tenth borrowed three times or more – and only 0.5 percent used SBA products 10 or more times (table 6-1). Even if it is possible that some of the one-time borrowers have graduated to using ExIm Bank products while others have closed or merged with another company, the data suggests that repeat borrowers are rare. Yet it is these businesses that are the best prospects for the SBA: they have clearly at some point exported, and found the right bank and instruments and qualified for them; SBA staff also knows who these businesses are, so that reaching them should be uncomplicated.

Table 6-1 – Number of SBA-guaranteed export loans in 2010-22, by number of unique small business borrowers

Number of Exporters	Number of Times Borrowed Using SBA Guarantees in 2010-2022	Share of All Borrowers	Cumulative
2	17	0.06%	0.06%
1	15	0.03%	0.09%
1	14	0.03%	0.11%
1	13	0.03%	0.14%
7	11	0.20%	0.34%
5	10	0.14%	0.49%
10	9	0.29%	0.78%
12	8	0.34%	1.12%
17	7	0.49%	1.61%
38	6	1.09%	2.70%
40	5	1.15%	3.85%
82	4	2.35%	6.20%
157	3	4.51%	10.71%
482	2	13.84%	24.55%
2627	1	75.45%	100.00%

However, in our interviews, banks and export finance specialists highlighted a number of challenges and solutions for better serving small businesses that could readily qualify for SBA-guaranteed loans:

- SBA’s SOP should be simplified and be more precise, in order to give banks greater certainty that they will be able to rely on the SBA’s guarantee. Banks are quite wary of using the SBA’s export loan guarantees because the SBA’s guidelines (or “SOP”) are challenging to meet as well as ambiguous, leaving banks concerned that they cannot rely on the guarantee in the event of a claim. Or, banks develop onerous loan terms to ensure they are shielded against a default. Banks mentioned that ExIm’s SOP is much clearer. Some banks suggested that the paperwork and due diligence required for a guarantee are too costly for them to issue loans below \$300,000. SBA should simplify the SOP and remove ambiguities working together with banks (for example in a public-private “E-Finance Lab” discussed below), in order to provide banks certainty.
- Small businesses should have access to loans whose proceeds can be used both for domestic and export-related purposes.⁴⁶ Banks find it challenging to offer loans for purely export-related purposes. Most American exporters derive a relatively small part of their annual revenue from exports, typically about 10-20 percent. Banks would find it much more useful to offer a loan that companies could use for growing their export and domestic business. This idea is widely and enthusiastically supported by banks as well as the SBA’s export finance specialists as enabling a larger number of small businesses with incipient export

⁴⁶ We thank Dan Pische for this idea.

sales to cultivate their business and gradually grow their exports. The point of contact for this loan could still be the bank's trade department; for small businesses, the loan would be more flexible and applicable to how they do business. The type of blended domestic/export loan could be branded "Global Growth Guarantee" or "Globalization Guarantee".

- Banks cannot offer exporters SBA-guaranteed loans above \$5 million, which precludes growing exporters from working with the SBA. Yet banks also note that small businesses that need more than \$5 million for export purposes and resort to ExIm Bank guarantees find the associated fees to be much higher than those involved with SBA products – so that a small business that starts with the SBA might prefer to continue growing with the SBA rather than switching to ExIm-backed loans, if SBA had loans up to \$10 million. The SBA could propose raising the cap on current loans covered by its export loan guarantees to \$10 million.

There are also likely numerous exporters that would readily qualify for the SBA's products but that have yet to try them or do not know about them – indeed, only 5 percent of small business exporters according to a 2016 survey have used SBA's export products.⁴⁷ One likely reason involves marketing and outreach to small businesses.

Businesses that learn about SBA's products typically learn about them from their bank, possibly from their peers and customers, and at times from SBA's export finance specialists and SBDCs. Much of SBA export finance specialists' time is spent on bringing opportunities into the "funnel" via outbound marketing, which is largely carried out at a retail level, for example via in-person events, and by cultivating and following up on referrals from other public and private sector service providers to exporters. Meanwhile SBDC staff tend to spend much of their time filtering small businesses referred to them, most of them not firms that would be eligible for SBA-backed export loans.

This marketing and outreach process has its advantages, but it is also analogue, relationship-driven, time-consuming, and unscalable. The process also according to banks seldom generates qualified leads to them. Meanwhile, banks themselves have relatively small trade departments and relatively limited marketing budgets to reach small exporters.

Targeting marketing and messaging

The SBA could pursue a number of solutions to better market to and engage eligible exporters:

- Enable more targeted and scalable sourcing of small business exporters, for example through providing frontline staff access to such databases of goods exporters as Panjiva, ImportGenius, and PIERS. These provide shipment-level data on exporters of goods, their contact information, and their customers, export markets sales volumes, and frequency of exporting. These sources would instantly uplevel SBA staff's ability to identify and filter current exporters at scale. These data could be further analyzed by SBA staff and predictive analytics tools to identify the likeliest companies to use SBAs' products, to even more quickly target qualified leads.
- Consider systematic use of social media, email campaigns, and other online channels, including those of the partners in the Small Business Digital Alliance (SBDA), to target and

⁴⁷ https://www.livingstonintl.com/livingston-content/uploads/2016/05/NSBA_Livingston-2016-Export-Survey.pdf

engage eligible exporters at scale, promote repeat customers, and “mass-customize” marketing – i.e., personalize and automate engagement with small businesses at scale. This type of scalable marketing and outreach will also help generate data on how different channels work to engage small businesses. Engaging the SBDA members will also help the SBA to reach services exporters that do not appear in the databases such as PIERS. The SBA already uses omnichannel approaches used widely by B2C and B2B marketers to build customer awareness and engagement; however, these could be used in a more targeted and dynamic fashion to engage exporters and deliver engaging content (such as short videos on exporters that have succeeded with the SBA). This type of marketing effort could be tested with a digital marketing agency specializing in engaging small businesses.

- Partner with express shippers and freight forwarders such as UPS, FedEx, and DHL to promote SBA’s export finance products to their small business customers, including ones that ship by air and may not be included in databases like PIERS that tracks maritime trade.
- Automate and scale the process of filtering and segmenting leads to reduce the need for the SBDC staff to filter and vet companies manually, a time-consuming and frustrating process with few qualified leads. One estimate emerging from our interviews was that only five percent of inbound leads qualify for SBDCs’ services, even fewer for export finance opportunities. More rigorous and automated filtering is needed also for SBA export finance specialists to refer qualified leads to banks – currently banks feel the opportunities coming via SBA are not vetted thoroughly enough. While there is great value to in-person communications and outreach, the use of technology and automation could be enhanced in marketing and segmentation to free up SBDC and SBA export finance specialists time to find and work with the most suitable prospects.
- Share exporter databases and CRM systems with other federal agencies, in the spirit of a “360 degree” whole-of-government approach to servicing exporters with each agency’s respective capabilities. Many federal agencies such as the Commerce Department’s Commercial Service, ExIm Bank, U.S. Department of Agriculture, and U.S. Trade and Development Agency (USDTA) have data on current and aspiring American small business exporters. Yet these databases are siloed and agencies to an extent compete for qualifying leads. SBA could propose a pilot where for example the SBA, Commercial Service and ExIm Bank share their databases. This could be taken further to a pilot where the three agencies work together to enable the exports of a segment that all three agencies are seeking to support better, such as minority- and women-led small businesses, for example with the Commercial Service providing data on and vetting prospective customers, the SBA supporting with the export process and small loan, and ExIm Bank providing trade credit insurance or buyer finance.
- Where pertinent and additive to ongoing work, the SBA could also further leverage state-level entities for outreach.⁴⁸ One strong example is the State of Washington’s Export Finance Assistance Center.
- Better brand SBA as small exporters’ champion. There is a sense among SBDCs that small businesses do not know enough about SBA’s trade-related work or understand SBA’s unique value propositions to exporters vis-à-vis other federal or private sector entities. This calls for better branding and messaging, centering for example on SBA staff’s deep and

⁴⁸ https://www.brookings.edu/wp-content/uploads/2016/06/RF_ExportFinance_May15.pdf

broad trade expertise and “being on top of small business trade” (such as expertise in freight forwarding, logistics, customs procedures and trade compliance, and ability to navigate federal agencies and trade support institutions); championing new-to-export small businesses at no cost; being a welcoming home to new-to-export minority and women-led businesses; and being a technology-forward agency that understands how businesses are engaging in ecommerce and leveraging online channels to market and sell. The branding could also leverage the goodwill and visibility generated due to the Paycheck Protection Program that SBDCs felt has improved small businesses’ awareness of and appreciation for the SBA.

C. Exporters and to-be exporters that do not qualify for SBA’ export loan guarantees

In addition to current exporters that could readily qualify for the SBA’s export finance instruments, there are several segments of exporters that could benefit from the SBA’s support but that do not qualify for SBA’s export finance instruments. At least five archetypes can be identified (table 6-1):

Small, emerging exporters of goods and services:

These businesses are too small and incipient to qualify for banks’ export loans but have purchase orders from overseas markets. These typically businesses with less than \$2-3 million in revenue and foreign purchase orders in five or low six figures, and often face cash flow challenges as their customers may take months to pay for the product or service. For this segment, trade credit insurance from the ExIm could be an option but access can be limited, for example due to local content rules. Companies in this segment could use purchase order financing or factoring companies, but these have their own requirements and vetting process that are not easy to meet.

The SBA’s Export Express should benefit these types of businesses but it is very underused. The reasons cited by the export finance community are banks’ protocols (that the SBA requires the banks to use for a commercial loan) that require 3-to-1 asset for collateral and other strict requirements that small businesses will not be able to meet.

Meanwhile, CDFIs and Community Lenders have access to 7(a) SBA loan guarantees, and some have access to the SBA International Trade Loan guarantee, but often these institutions do not have an international trade department and the trade expertise needed to understand how to manage trade transactions.

Yet the business case for the SBA is strong in this segment: this segment consists of quintessential American new-to-export businesses for which purely private sector financing options are still limited, and which could also be the future users of SBA’s export loan guarantee products.

This segment could benefit from:

- The prospective SBA Global Growth Guarantee, a blended domestic and export loan product; and
- Small transactional financing to be able to fulfill foreign purchase orders and/or low-cost post-shipment accounts receivable financing, so as to be able to quickly move to process the next order.

Even more ambitious, the SBA could also pilot a program with a state government that wanted to support local exporters' first inroads into export markets and offer financial instruments suitable to this segment. One excellent blueprint is the California Export Finance Office (CEFO) built in the 1990s (case 1). CEFO provided pre-shipment working capital guarantees of up to \$750,000 and was widely embraced by banks and exporters, and there have been attempts to revive it. This type of facility could be operationalized as follows:

- The state government co-invests in the facility, as California did in CEFO.
- The applicant exporters' foreign buyer could be diligence sing the Commercial Service's "International Company Profile" service that provides against a fee a background check on a foreign buyer and its creditworthiness and reputational information at \$700-\$2,000, depending on the size of the buyer.⁴⁹
- To further reduce risk, eligible exporters could access ExIm Bank's trade credit insurance.
- The applicant would need to structure and manage the transaction and purchase order in a standardized fashion using for example the eDTT Platform, an open-source platform pioneered in the past two years by the San Diego District Export Council to help small exporters negotiate the terms and structure their export transactions, and easily populate some 30 documents required for an export transaction, in a standardized fashion. The eDTT is based on the International Chamber of Commerce's new Uniform Rules for Digital Trade Transactions.⁵⁰ This is an excellent new mechanism that the SBA could also scale via SBDCs, to assist small businesses at scale to manage and structure their trade transactions and also enhance trade compliance.

⁴⁹ <https://www.trade.gov/international-company-profile-0>

⁵⁰ For the work workspace, see https://docs.google.com/document/d/e/2PACX-1vT1799fyjvSolDwe9NCdEa3_nyVrG8oIqhXdI96M9n2df6lpN712IWQ5z-5OofSPfKjqYYpSIHeVrHg/pub?urp=gmail_link

The California Export Finance Office (CEFO)⁵¹

From 1985 to 2003, California operated a state program called the California Export Development Office (CEFO), which assisted California-based SME exporters with loan guarantees. Initially funded with a mere \$2 million from the state's general fund, the program consistently performed well and grew to \$10 million before succumbing to budget cuts in 2003.

CEFO offered both pre-shipment working capital guarantees at more flexible terms than those offered by the ExIm Bank, and post-shipment account receivable guarantees that covered post-shipment risks pertaining to exporter performance not normally covered by the ExIm Bank or private insurers.

CEFO also issued combination guarantees when pre-shipment financing was required and the transaction included post-shipment exposure. CEFO's guarantees covered 90 percent of an export loan. The transactions were tailored for small companies: The maximum guarantee was \$750,000 (and thus the maximum loan was \$833,000). Guarantees supported short-term (up to 18 months), transaction-specific working capital loans; single or multiple transactions; and cash loans or the issuance of standby letters of credit.

In addition, CEFO also helped raise awareness among new-to-export SMEs about the additional expenses involved in foreign trade so that the firms could plan accordingly. CEFO was widely seen as successful in working with lenders and serving exporters. The program was solvent and served as inspiration for the SBA's trade finance programs. In recent years, there have been calls to revive it in order to support the many California metropolitan areas seeking growth through SME exports.

Source: Suominen and Lee (2015).

Tech-enabled “smart” product exporters:

The United States has tens of thousands and likely hundreds of thousands of competitive businesses with products whose value stems from the services and software they embody – such as medical devices, green tech devices and products, and smart home devices. The demand for these types of companies' goods and services will only intensify in international markets over the next decade. Exporters of products of this kind are not necessarily startups; they can also be established small businesses that are incorporating improved technologies into their suites of products and services. Banks that encounter companies in this segment are highly enthusiastic about these companies' potential, but believe that the SBA's loan guarantee conditions should be modified to better account for the value of the embodied services and to service these firms.

The SBA could explore with key banks as well as selected members of associations such as the Consumer Technology Association (CTA) the ideal financing instruments and underwriting standards for this segment of companies and possibly pilot a “Techxporters” program to test new financing instruments for this segment.

Marketplace sellers:

The segment of companies selling on marketplaces is vast – there are small online sellers exporting frequent but small volumes of goods (so-called “*de minimis* exporters”) and facing constant cash flow needs; and small and mid-size firms that outsource fulfillment with services such as Shopify

⁵¹ https://www.brookings.edu/wp-content/uploads/2016/06/RF_ExportFinance_May15.pdf

Fulfillment and Fulfillment by Amazon (FBA) that takes sellers' inventory even to overseas markets and pays the seller when a product sells and has been shipped.

The SBA could pilot an “E-exporter” program working with large global marketplaces such as Amazon, eBay, and Etsy to define the financing pain points their export-driven sellers encounter, both firms that export small packages and parcels they sold using eBay, Etsy and similar platforms, and sellers that use FBA and need larger financing to build up and replenish their inventory. After this analysis, the SBA could review the current financial providers to these marketplace sellers (there are a number of them such as Amazon Lending, PayPal Working Capital, merchant cash advance programs and so on), to develop use cases and a proof of concept for a potential SBA-backed financial products for 2-3 segments of dynamic online sellers.

As one example, there is empirical evidence that the *de minimis* exporters benefit from fast-disbursing working capital to service customers – surveys in Mexico and the U.S. indicate these types of small firms and online sellers like to access this type of fast financing from Fintechs.⁵² There could be an opportunity to guarantee these types of loans with Fintechs like PayPal Working Capital and OnDeck.

The financing needs and pain points in this segment require further analysis, but the business case for the SBA is growing in this segment. Working with the large American marketplaces and players like PayPal would enable the SBA to quickly scale its outreach and products to eligible exporters and to a segment that is expanding on the back of international ecommerce.

In addition, to promote its visibility and prospects in the online seller segment, the SBA could build SBDC staff's knowledge about ecommerce and the financing and export assistance needs of online sellers. Moreover, the SBDC staff could be trained to *enable U.S. companies to use ecommerce tools and marketplaces to export*. This capability appears to be still quite limited among SBDC. A deep expertise in ecommerce would create for the SBA new opportunities with small businesses poised to scale globally using their online stores and marketplaces.

“Born global” technology companies:

There are in the United States countless of digital services and tech companies (such as software as a service, cloud computing services, cybersecurity companies and a wide range of -techs such as agtech, logtech, insuretech, and so on). These companies, like marketplace sellers, can internationalize “accidentally”, by receiving inbound queries from foreign buyers that find them online, or even just having a subscription service a foreign customers start to use. These companies may be self-funded or backed by an angel or venture capital fund, and they typically look for long-term debt or equity financing to build their capabilities to service foreign customers, customize their services and technologies, improve their after-sale processes, and so on. Their funding needs and payback periods tend to be beyond those available from banks.

These businesses might rather access equity- and mezzanine-type financing than working capital loans provided by banks, when seeking to scale their global sales and diversify their export

⁵² https://www.allianceforetradedevelopment.org/_files/ugd/478c1a_d39e70f5d4af4e6f88efc128d0efdd34.pdf; see also evidence of how U.S. small businesses use Fintechs <https://www.federalreserve.gov/publications/files/2018-small-business-lending.pdf>

markets.⁵³ For this segment, the SBA might want to consider a program like the EDC Investment Matching Program developed by Canada’s export finance agency Export Development Canada.⁵⁴ EDC offers companies with at least C\$500,000 in revenue and backed by (and thus also diligenced by) venture capital or private equity investors matching investments of up to C\$5 million under the investor’s commercial terms. The program focuses especially on cleantech and inclusive technology businesses. The EDC reviews the investment memorandum and due diligence prepared by the investor.

In the spirit of “One SBA”, the SBA could consider a similar matching or co-financing mechanisms in partnership with equity funds, for example some that from part of the SBA’s Small Business Investment Company (SBIC) program.

The SBA could also explore a program like the EDC Inclusive Trade Investments Program (ITIP), a C\$200 million facility that invests in companies led or founded by women and/or other diverse management teams who are raising, or have recently raised, equity funding, and seek international growth.⁵⁵ The companies need to have revenue growth “accelerating towards C\$500,000” and “significant export growth potential.” The financing can be for Seed to Series B funding rounds; EDC can participate as a co-investor or syndicate partner alongside other venture funds. Perhaps the SBIR program could have this type of a sub-program, for globalizing minority-led companies.

The business case for the SBA in this segment is strong in that these companies are numerous and they can be highly scalable across markets – and they are possibly likelier than manufacturers to set up a presence overseas that will further fuel their exports of digital services to foreign markets from the United States.

Creators and small digital services exporters:

Still another emerging segment of exporters consists of small digital service providers freelancers and creators that export services and content on platforms like YouTube, TikTok, Twitch, Patreon, Spotify, Meta, and many others. The number of small businesses (as opposed to individuals) and their financing needs requires further analysis and could be accomplished with companies such as Meta, Snap, and Google/YouTube that have worked to create rewards and incentives to fund creators.⁵⁶ Just as for Amazon sellers, these content creators have given rise to various types of online banks and lenders that the SBA could also interview, to understand financing challenges in this segment.⁵⁷ For the SBA, this is a rapidly growing segment with low barriers to entry not global markets – with businesses that can quickly scale globally riding on American content platforms.

⁵³ We have had numerous discussions with American technology and software businesses with \$1-2 million in revenue that gain interest through the Internet from international customers and would like to internationalize further – scale their digital marketing, upgrade their technologies, and provide after-sales services at scale to global customers – but that are not able to meet their financing needs through bank loans but would require equity financing and growth capital.

⁵⁴ <https://www.edc.ca/en/solutions/financing/investment-matching-program.html>

⁵⁵ <https://www.edc.ca/en/solutions/financing/inclusive-trade-investments-program.html>

⁵⁶ For incentive funds, see <https://www.shopify.com/blog/creator-fund>

⁵⁷ <https://www.cardrates.com/news/creative-juice-provides-finance-solutions-for-creators/>

Table 6-I – Small businesses’ financing needs, and solutions, by segment

	Current customer; typically wholesaler or manufacturer borrowing >\$1m	Eligible exporters that is unaware of SBA’s products or have yet to try	Small exporters with viable purchase orders that are ineligible for bank export loans	Product sellers with technology-enabled products (Greentech, medical devices, etc.)	Online sellers – sells on marketplaces, possibly using FBA	Globalizing tech company (Saas, cloud, agtech, commerce, etc.)	Small digital services exporters and creators
Pain points facing businesses	<ul style="list-style-type: none"> • Rigid loan structures • Cap at \$5m after which exporter faces ExIm Bank’s fees and less diversified instruments 	<ul style="list-style-type: none"> • Sell on open account, cash flow challenges • Pay for costly trade credit insurance 	<ul style="list-style-type: none"> • Managing paperwork and structuring trade transactions and managing risks • Sell on open account, perennial cash flow challenges impeding fulfilling concurrent export orders • Reliance on factoring to be able to fulfill next order 	<ul style="list-style-type: none"> • Need financing to fulfill orders, build export business 	<ul style="list-style-type: none"> • For de minimis sellers, urgent needs to fulfill frequent orders • For FBA sellers, financing to build inventory to send to FBA (get paid only when product sells) • Longer-term financing needs for digital transformation 	<ul style="list-style-type: none"> • Funding to hire talent to grow international business, upgrade technology and aftersales capabilities for international customers • Need long-term equity or mezzanine financing to systematically develop international business 	<ul style="list-style-type: none"> • Possibly urgent needs to fulfill frequent orders • Possibly low initial cash conversion
Pain points for SBA and banks to serve	<ul style="list-style-type: none"> • SOP leaves too much for interpretation for banks to rely on • Rigid division of loans into export vs. domestic disqualifies small exporters • Cap at \$5m too low 	<ul style="list-style-type: none"> • Limited lists of current exporters for lead generation • Retail, unscalable marketing and engagement 	<ul style="list-style-type: none"> • Companies have too few assets for banks, too incipient in exporting 	<ul style="list-style-type: none"> • Underwriting criteria makes difficult to qualify for SBA guarantee 	<ul style="list-style-type: none"> • Lack of instruments • Limited understanding of different marketplace seller segments and their financing needs 	<ul style="list-style-type: none"> • Lack of instruments to service 	<ul style="list-style-type: none"> • Too small, lack of instruments

Potential for SBA to readily serve	• High	• High	• Low	• Low	• Medium	• Low	• Low
Likely business case for SBA: new borrowers/volumes	• Low/high	• High/high	• High/medium	• Medium/high	• Medium/High	• Medium/high	• High/low
Ideal instruments and processes	<ul style="list-style-type: none"> Combine domestic and export loan into a blended Global Growth Guarantee Raise loan cap to \$10m <p>Simplify and specify SBA's SOP with banks</p> <p>Promote partnerships with banks inexperienced in trade and seasoned trade banks</p>	<ul style="list-style-type: none"> Combined domestic and international working capital Expand current instruments, expanded to \$10m Simplify and specific SOP to provide banks certainty 	<ul style="list-style-type: none"> Transactional financing for purchase orders to build international customer relationship and fulfill several P.O.s Reduce risk with ExIm trade credit insurance and Commercial Service's buyer vetting California Export Finance Office model working with states 	<ul style="list-style-type: none"> Existing instruments but with different/ redefined way to calculate local content Transactional financing for purchase orders 	<ul style="list-style-type: none"> Escrow to draw down financing as orders are made 	<ul style="list-style-type: none"> Equity or mezzanine financing of \$500,000-\$2m for building international relationships, perfect technology and after-sale capabilities 	<ul style="list-style-type: none"> Fast-disbursing microloans <\$20,000; revolving facilities Fintech loan guaranteed by SBA – highly scalable
Marketing strategy	<ul style="list-style-type: none"> Lead generation using databases of current exporters Coordinate marketing with banks Create E-Finance Lab with banks and lenders to develop practical solutions 	<ul style="list-style-type: none"> Outbound lead generation using databases of current exporters Scalable AI-driven “mass-customized” engagement Clearer branding 	[Revive California Export Finance Office model working with states]	[Pilot Techexporters program to define financing needs and required underwriting standards with banks, members of the Consumer Technology Association (CTA).]	[Pilot an “ E-exporter ” program working with large global marketplaces such as Amazon, eBay, and Etsy to identify financing pain points; Pilot Fintech e-Loan Guarantee with PayPal]	[Consider EDC-type investor matching program , working with SBICs]	[Pilot a Global Creator initiative with companies such as Meta, Snap, and Google that have worked to create rewards and incentives to fund creators]

Table 3 – Pain points and solutions in SBA’s export services and financing instruments

Area	Pain Points	Reasons	Operationalization
Reaching and identifying companies to work with	Developing a pipeline	<ul style="list-style-type: none"> Limited access to databases to identify suitable companies and carry out targeted outbound marketing High reliance on external referral partners Some referral partners are not incentivized to send the best opportunities to SBA 	<ul style="list-style-type: none"> Education of SBDCs’ referral sources about the criteria SBDCs use; online platforms to which referral sources can refer companies and businesses can be pre-screened Promote access to databases on exporters (such as PIERS) and on suppliers in supply chains (such as ImportGenius and Panjiva) for generating leads to suitable small businesses Leveraging data, promote targeted outbound digital marketing for small businesses and AI-driven techniques to engage firms, prevent abandonment Leverage partners in the Small Business Digital Alliance to communicate with and target different types of firms – and “mass-customize” marketing and engagement Build up staff expertise in enabling businesses to use ecommerce (platforms like Shopify and marketplaces like eBay and Amazon), for savvy marketing and discussions with online sellers Engage in peer learning, incentivize companies that have succeeded to discuss and train others about SBA’s offerings
	Branding	<ul style="list-style-type: none"> Businesses cannot easily differentiate SBA from other providers, for SB to stand out as partner of choice for qualifying small businesses 	Branding tenets can include: <ul style="list-style-type: none"> Enabling American small businesses to export, throughout its export journey Experts in trade: freight forwarding, logistics, lead generation, customs procedures Continuing to fuel access to finance, post-PPPs Championing online sellers and digital services led by private sector, supported by SBA Home to nascent and new-to-export minority and women-led businesses
	Filtering and vetting companies in the pipeline	<ul style="list-style-type: none"> Referral sources send wide variety of opportunities Large volume of manual and retail work to identify suitable companies SBDCs’ use of technologies is limited to identify right opportunities 	<ul style="list-style-type: none"> Automate filtering to narrow funnel further, give small business a self-assessment- this will also yield valuable data to SBA Use data and predictive analytics on small business to prioritize small business targets for marketing and support
Working with banks to	Referring companies to banks	<ul style="list-style-type: none"> Lack of knowledge across SBDC staff on financing opportunities attractive to banks 	<ul style="list-style-type: none"> Train SBDC staff to vet opportunities more rigorously, including by using technology to help screen opportunities

<p>serve a larger set of firms</p>	<p>Processes for banks to access a guarantee</p>	<ul style="list-style-type: none"> • For banks, paperwork and vetting processes to access a guarantee are too onerous to make loans below \$300,000 • Limited digitization of paperwork with businesses • Loans capped at \$5m, making banks to work with Exlm on larger opportunities even of small business would prefer SBA • Lack of experience with small banks to follow SBA's guidelines and hedge against international risk 	<ul style="list-style-type: none"> • Combine export and domestic working capital loans into a blended Global Growth loan guarantee • Raise the limit on export loans to \$10m while retaining the same requirements and fees as with smaller loans • Work with banks to simplify and digitize paperwork and process to issues a guarantee – and thereby also better work with smaller deals • Make loans more adjustable over time - enable addition financing • Consider consolidating network of banks that work with SBA export loan guarantees
<p>Working with other ecosystem players</p>	<p>Working with other ecosystem players</p>	<ul style="list-style-type: none"> • Unmet need for fast-disbursing export working capital loans - small working capital loans • Emerging exporters have no time to wait for banks or are too nascent for them 	<ul style="list-style-type: none"> • Working with other ecosystem players; create pilot with Fintechs for fast-disbursing working capital loans; work via the SBDA to identify pilot opportunities, for example with PayPal • Work with marketplaces to identify financing pains points facing, and financial services available to, marketplace sellers • Consider a pilot with a state tailored after California's CEFO • Work with equity funds and mezzanine lenders to support the global growth of technology companies with verifiable international growth opportunities, following Canada's example.
<p>Service new to export companies</p>	<p>Services new to export companies</p>	<ul style="list-style-type: none"> • Repetitive workloads facing SDC staff with each new company 	<ul style="list-style-type: none"> • Use of scalable platforms to enable small businesses to access basic information and necessary documentation export processes, and be guided to perform standardized processes on this own
<p>Measure impact and evaluate progress, improve products</p>	<p>Measure impact to improve and articulate outcomes</p>	<ul style="list-style-type: none"> • Limited time series data on impacts of SBA products on businesses (export journeys, growth) of companies touched by SBA 	<ul style="list-style-type: none"> • Use digital data and surveys to gauge baseline and impacts on businesses that use SBA products
<p>New product development, innovation</p>	<p>Evaluate progress, iterate</p>	<ul style="list-style-type: none"> • Limited sharing of best practices or impacts 	<ul style="list-style-type: none"> • Iterate regularly in dialogue with banks and ecosystem players • Create an E-Finance Lab to explore new financing solutions that optimize services for small businesses and emerging exporters

Deliverable 7: Characteristics of successful exporters

In this research, we identify characteristics of successful exporters. Identifying these characteristics will enable SBA to more quickly identify firms poised to export and move up the export journey discussed earlier.

A. Methodology

The typical way to gauge the characteristics of successful exporters is simply to compare current successful exporters to comparable firms that do not export. This deliverable will primarily review survey- and econometrics-based literature on the characteristics of successful exporters.

B. Characteristics of exporters

There is a well-established literature that gauges the characteristics of exporters, with consistent results. For example, in a robust finding across studies globally, exporters outperform the broader market: they are more productive than non-exporters, and they tend to pay higher wages, have more skilled staff, and be more capital intensive, *controlling for variables that also critically shape firms' export success, such as firm size and geography*.⁵⁸

The literature on exporters has also extensively dealt with endogeneity problems – namely with the question whether exporters are better companies because they export, or because they were better to begin with and then self-selected into exporting. Empirical research, pioneered by Bernard and Jensen (1995, 1999), largely confirms the latter hypothesis – that it is the more productive firms that become exporters, and this is why exporters appear to perform better. In a seminal study, Melitz (2003) provided a theoretical basis for this finding, showing that the fixed costs associated with starting to export – such as finding foreign customers, locking in contracts, adjusting products to meet foreign product standards, dealing with trade compliance, and so on – implies that only the more productive firms are able to foot the costs entailed with export entry. This also explains why larger firms are much likelier to export than small ones – large firms are more productive and inherently able to meet the fixed costs of exporting more easily than small firms confronting the same fixed cost.

However, there is also extensive literature on showing that exporting makes firms better over time, as exporters discover new customer needs and innovate once they export, as they form relationships in international markets, and as they gain new scale economies and thus grow more productive. There are also studies that exporters are likelier than non-exporters to be able to access to credit, possibly because exporting is a signal for lender of productivity and outperformance.⁵⁹

⁵⁸ See for example, Bernard, Andrew B., J. Bradford Jensen, Stephen J. Redding, and Peter K. Schott. 2018. "Global Firms." *Journal of Economic Literature*, 56 (2): 565-619. <https://pubs.aeaweb.org/doi/pdfplus/10.1257/jel.20160792> See for a meta-analysis of 56 studies Wagner, Joachim. 2007. *Exports and Productivity: A Survey of the Evidence from Firm-level Data* World economy, Volume 30, Issue, January, pp. 60-82; <https://www.econstor.eu/bitstream/10419/19291/1/319.pdf> See also Mayer, T., and G. Ottaviano (2007): *The Happy Few: New Facts on the Internationalization of European Firms*. Bruegel-CEPR EFIM2007 Report, Bruegel Blueprint Series.

⁵⁹ See, for example, Veselin Kuntchev, Rita Ramalho, Jorge Rodríguez-Meza, Judy S. Yang. 2012. "What have we learned from the Enterprise Surveys regarding access to finance by SMEs?" (February 14). For exporting and access to credit, see Greenaway D., Guariglia A., Kneller R. (2007): *Financial factors and exporting decisions*, *Journal of International Economics*, vol.73(2): 377–395.

To summarize extensive literature on the characteristics of exporters (table 7-1):

- Exporters are more productive, generate greater value added, pay higher wages, employ more capital per worker, and have more skilled workers.⁶⁰ For example, Bernard et al. (2016) use data on U.S. manufacturers to find that exporters have 127 percent higher shipments, 33 percent higher value-added per worker, and 3 percent higher total factor productivity (TFP) than non-exporters, controlling for firm size.⁶¹ These findings are echoed in studies around the world.⁶²
- Exporters are also likelier than non-exporters to be importers – partly because firms that import use these imports (for example, parts and components that cost less than in domestic market or services and components that are particularly value-adding) in order to grow more competitive and become more productive.
- Firms that have foreign ownership or foreign investors tend to be more export-driven than firms with only domestic shareholders.⁶³ This may be because its international investors introduce a company to opportunities in international market and thus enable a company to export – but also because companies may be likelier to find foreign investors after internationalizing and starting to export.
- Businesses that are indirect exporters and supply large global companies that export are also, studies suggest, poised to become direct exporters, possibly because they meet the exacting standards of large corporations that make them become more agile, productive and thus more poised to export.⁶⁴
- Exporters in the United States are likelier to be found in high-skill and capital-intensive sectors than in low-skill ones, in line with the notion that the United States has a comparative advantage in these sectors.
- Traditionally and also in line with Census data, older firms and firms in manufacturing sectors export more than younger firms or firms that sell services. This however is changing with Internet and expansion of services that can be traded digitally.
- Also successful *ecommerce exporters*, or firms that secure export orders primarily via online stores and marketplaces, share certain characteristics. In addition to sharing the characteristics of successful exporters, successful ecommerce exporters tend to have a high share of online sales of all revenues; have particularly diversified product and service portfolios, and use numerous online channels (such a social media, online stores, and online marketplaces). Indeed, survey data time and again reveals a correlation between ecommerce use, digitization and exporting. Exporters are typically more digitized and technology-intensive than non-exporters, and that omnichannel sellers –

⁶⁰ See also Mayer, T., and G. Ottaviano (2007): The Happy Few: New Facts on the Internationalization of European Firms. Bruegel-CEPR EFIM2007 Report, Bruegel Blueprint Series. BERNARD, A.B. and J.B. JENSEN. 1999. Exceptional Exporter performance: Cause, Effect or Both? *Journal of International Economics*, 47(1), pp. 1-25.; Girma, S., D. Greenaway and R. Kneller. 2004. Does Exporting Lead to Better Performance: A Microeconomic Analysis of Matched Firms. *Review of International Economics*, 12(5), pp. 855-866.

⁶¹ https://www.nber.org/system/files/working_papers/w22727/w22727.pdf

⁶² Mayer, T., and G. Ottaviano (2007) for European firms; Suominen and Gordon (2014) for Latin American firms.

⁶³ <https://publications.iadb.org/publications/english/document/Going-Global-Promoting-the-Internationalization-of-Small-and-Mid-Size-Enterprises-in-Latin-America-and-the-Caribbean.pdf>

⁶⁴ Javorcik, B.S., and M. Spatareanu, 2009, “Tough Love: Do Czech Suppliers Learn from their Relationships with Multinationals?” *Scandinavian Journal of Economics* vol. 111 no. 4.

firms that employ various sales channels – are likelier to export than firms that employ one or a few sales channels. In some cases, companies that exported that then digitized first – in other cases, companies use ecommerce and digital tools to start to export.

In sum, academic literature and surveys reveal significant correlation between such characteristics as firm productivity, age, foreign ownership, and technology and ecommerce use on the one hand, and exporting, on the other. There appears to be a virtuous cycle where outperforming firms self-select into exporting and then grow better by way of exporting. However, the gains from exporting can take several years to harness fully, and most export entrants drop out prior to achieving these gains.

How would SBA then quickly identify where these types of high-performing, export-driven firms or firms poised to export are, in terms of sectors, industries, and geographies?

Many of these key data are readily observable in Census data, enabling the SBA to quickly assess the total *number of firms poised to succeed as exporters by industry and geography*.⁶⁵ For example, the Census Bureau captures at NAICS 6-digits by state the total number of firms and various firm characteristics that are correlated with export activity, such as size, profitability, labor productivity (revenue per employees), and value added.

In exercises to identify the characteristics of exporters, care must be taken to separate correlation from causality, and to control for variables that are systematically associated with exporting such as firm size and productivity. For example, women-led firms may appear less likely than men-led firms to export, but this is not because of the gender of the CEO, but because women-led firms are on average smaller and thus less productive, and thus less likely to export than men-led firms.

Table 7-1 – Key characteristics of successful exporters (in the U.S. and globally)

Exporters' characteristics	Hypotheses and explanations	Selected studies
Outperforming: More productive, profitable, capital-intensive, pay higher wages, and employ more skilled workers than non-exporters	<ul style="list-style-type: none"> • More productive firms are able to cover the fixed and variable costs of exporting and thus better performing firms are likelier to become exporters. • Firms that export tend to grow more productive and innovate, as they scale and learn about foreign customer needs 	Numerous globally, for example Bernard (2007) and Wagner (2007). ⁶⁶ See also Helpman et al. (2004). ⁶⁷

⁶⁵ 2018 Annual Business Survey (ABS) – Characteristics of Businesses at

<https://data.census.gov/table?q=CBP2020.CB2000CBP&tid=CBP2020.CB2000CBP&hidePreview=true>

⁶⁶ Andrew Bernard, “Firms in International Trade,” *Journal of Economic Perspectives* (April 2007): 105–130.

Bernard, A.B. And J.B. Jensen. 1999. Exceptional Exporter performance: Cause, Effect or Both? *Journal of International Economics*, 47(1), pp. 1-25.

Girma, S., D. Greenaway and R. Kneller. 2004. “Does Exporting Lead to Better Performance: A Microeconomic Analysis of Matched Firms,” *Review of International Economics*, 12(5), pp. 855-866.

Wagner, Joachim. 2007. “Exports and Productivity: A Survey of the Evidence from Firm-level Data,” *World Economy*, Volume 30, Issue, January, pp. 60-82;⁶⁶

Mayer, T., and G. Ottaviano (2007): The Happy Few: New Facts on the Internationalization of European Firms. Bruegel-CEPR EFIM2007 Report, Bruegel Blueprint Series

⁶⁷ Elhanan Helpman, Marc J. Melitz, and Stephen R. Yeaple, “Export Versus FDI with Heterogeneous Firms,” *The American Economic Review* 94 (March 2004).

Exporters are more innovative and diversified in terms of their products and services	<ul style="list-style-type: none"> Firms that export tend to innovate and diversify, as they learn about foreign customer needs 	For example, Kuncoro (2012) and Hahn et al. (2012). ⁶⁸
Have foreign ownership or foreign investors	<ul style="list-style-type: none"> May be more internationalized to begin with and gain an investor from overseas that way; or a foreign investor helps the business to secure foreign customers 	See for example Suominen and Gordon (2014), ⁶⁹
Have invested overseas	<ul style="list-style-type: none"> May export parts, component and services to foreign affiliate Exporters are likelier to invest in foreign markets than non-exporters 	For example, Marchant et al. (2002); Conconi et al. (2011) ⁷⁰
Import goods and/or services (are two-way traders)	<ul style="list-style-type: none"> Importing exposes firms to foreign markets, and imports makes firms' goods and services more competitive 	Numerous studies, such as Bernard et al. (2009). ⁷¹
Suppliers to large corporations	<ul style="list-style-type: none"> Global companies are demanding clients; they exert pressure on suppliers to improve quality, drive down costs, specialize, and constantly adapt and innovate By supplying a large and demanding multinational, a small business grows more productive well-positioned to enter export markets. 	Javorcik et al. (2009). ⁷²
Are more proximate to ports and borders	<ul style="list-style-type: none"> Firms in certain geographies have better access to markets and trade lanes, and to talent Firms close to ports are surrounded by exporters and importers and wholesalers exposed to international opportunities 	Numerous for example Mesquita et al. (2013). ⁷³
Use global ecommerce marketplaces; omnichannel sellers that use many channels to interact with the customer; have a high share of online sales of all revenue	<ul style="list-style-type: none"> Ecommerce enables firms to become more visible to foreign customers and gain inbound sales opportunities Online payments and other digital services enable them to transact more easily with foreign customers Export-driven firms are likelier to start to use ecommerce than non-exporters Online selling is proxy for dynamic, digitized and productive firms Firms with high online sales are likelier to leverage marketplaces that enable them to scale 	Numerous firm-level surveys and eBay data ⁷⁴

⁶⁸ Kuncoro, A. 2012. "Globalization and Innovation in Indonesia: Evidence from micro-data on Medium and Large Manufacturing Establishments." ERIA Discussion Paper 2012-09. Jakarta, Indonesia: ERIA; Hahn, C.H., C.G. Park. 2012. "Direction of Causality in Innovation-exporting Linkage: Evidence on Korean Manufacturing." ERIA Discussion Paper 2012-07

⁶⁹ <https://publications.iadb.org/publications/english/document/Going-Global-Promoting-the-Internationalization-of-Small-and-Mid-Size-Enterprises-in-Latin-America-and-the-Caribbean.pdf>

⁷⁰ The Internationalization Process of Firms: from Exports to FDI

https://www.ecb.europa.eu/home/pdf/research/compnet/Conconi&A1_2012.pdf?b29d34b8d4f2082b3c137b2ef0aec800

⁷¹ Bernard, A. B., Jensen, J. B., & Schott, P. K., 2009. A portrait of firms in the U.S. that trade goods.

⁷² Javorcik, B.S., and M. Spatareanu, 2009, "Tough Love: Do Czech Suppliers Learn from their Relationships with Multinationals?" Scandinavian Journal of Economics vol. 111 no. 4.

⁷³ <https://publications.iadb.org/en/publication/17434/too-far-export-domestic-transport-costs-and-regional-export-disparities-latin>

⁷⁴ See for example <https://www.nextradegroupllc.com/nextrade-ecommerce-diagnostics>; and

<https://www.worldbank.org/en/publication/wdr2016>

<https://openknowledge.worldbank.org/bitstream/handle/10986/32718/9781464815195.pdf?sequence=4&isAllowed=y>

Deliverable 8: Recommended program or policy updates for SBA OIT to better support the U.S. small business exporter community, including through trade finance instruments

In this deliverable, we offer recommendations for the SBA OIT to better service small businesses in general and businesses at distinct stages of their export journeys and with different needs, in particular.

There are a number of ways for the OIT to measure success in powering America's small business exporters:

- Growth on the intensive margin, or growth of existing exporters' volumes;
- Growth on the extensive margin, or expansion in the number of small businesses that export; and
- Diversification of current and new exporters' export products and services and export markets.

Growth on the intensive margin tends to be critical because it supports export survival and the benefits firms reap from exporting, such as product innovation and diversification, firm growth, and creation of new jobs.

Further objectives the SBA OIT pursues include:

- Greater diversity among the ranks of American exporters, such as entry of minority and women-led firms into exporting.
- Repeat customers: enabling a small business to move up and mature on its export journey with the SBA, starting from STEP grants and growing from there with export Express Loans, Export Working Capital Loans, and onto Export-Import Bank pipeline.

A number of policy and programmatic recommendations to promote growth on the intensive and extensive margins of trade in particular, most already mentioned in this document, include:

Promote marketing through techniques used in B2B markets:

- **Cultivate repeat customers and develop and cultivate pipeline through mass-customized strategies:** Modernize SBA's marketing and outreach to small businesses, complementing current high-touch retail work with scalable strategies and targeting the right prospects that can readily benefit from SBA's products, including companies that have used SBA's products in the past. This can be done by using databases on exporters, predictive analytics, and AI-driven engagement. Focus resources also on inbound marketing, attracting qualified leads through valuable content and experiences such as short videos with peer testimonies.
- **Build SBA's brand as the small exporter's champion and partner throughout its export journey:** Highlight in SBA's branding broad and deep trade and ecommerce expertise, ability to both advise and finance exporters (unlike any other agency), and offer a welcoming home to nascent and new-to-export minority and women-led businesses.

- **Provide an even more “360-degree” support to exporters:** Take an even more robust **One-SBA and whole-of government approach** to supporting exporters, working with Commerce Department, ExIm Bank, USDA, and USTDA, for example creating a joint pilot to support a group or a dozen minority- and women-led firms with each agency’s respective capabilities *in a coordinated manner*, and by testing shared CRM systems and databases.

Revise processes and instruments for current borrowers:

- **Offer a blended domestic/export loan guarantee (Global Growth Guarantee)** to enable a business to use loan proceeds for both domestic and export-related purposes. Most American exporters derive a relatively small part of their annual revenue from exports, typically about 10-20 percent, and banks would find it much more useful to offer a loan that these types of small businesses could use for growing their export and domestic business.
- **Engage banks and other lenders and funders in an “E-Finance Lab” task force and workshops to modernize and improve SBA’s export finance offering**, for example to streamline and specific SBA’s SOP, develop the blended domestic/export loan guarantee (Global Growth Guarantee), create a pilot to engage technology-enabled firms, and learn together from the experience of other countries in promoting small business exporters. This can be a national committee that meets virtually and centers each meeting on a practical task with a concrete end goal in mind. The first task the group could undertake is redesigning and simplifying the SBA’s SOP. In interviews, banks very much endorsed this idea. The subsequent sessions could focus for example on co-designing the Global Growth Guarantee, and on reviewing and discussing the usefulness of various small business export finance programs supported by other governments and how applicable they could be for American small businesses.
- **Develop a mentorship program between established trade banks and SBA lender banks that are newer to trade finance**, to help the latter with export loans and buildout of capabilities to manage them. There is both a learning curve to becoming an expert in issuing export loans, and scale economies in handling export loan business. Larger established export lenders highlighted a number of times that local and smaller banks with more limited experience with international trade and market risks may not be equipped to issue compliant, SBA-backed export loans. The SBA could promote partnerships between established export lenders and banks that are newer to trade, for example via a mentorship model where a larger bank is incentivized to mentor smaller banks to learn about export-related activities, and/or a partnership where a larger bank manages export loan requests received by a smaller bank, perhaps with some profit sharing.

Consider new instruments and partners to support Americas emerging exporters:

- **Develop and test new instruments in new segments of small businesses, and with new lenders and funders:** Explore with lenders and venture funds financing models and options to support technology-enabled companies, such as businesses that sell products with a heavy technology content; marketplace sellers; and venture-backed startups seeking to grow their global footprint. Consider expanding the lender pool beyond banks

that can accommodate only a subset of America's emerging exporters, including to Fintech and venture funds.

- **Pilot an export loan guarantee to small, new to export businesses with overseas purchase orders with a state government,** following the example of California's CEFO, to complement SBA's resources with state resources, Commercial Service's buyer verification program, and ExIm Banks credit insurance, and eDTT's digitized and standardized export transaction documents.
- **Engage marketplaces in an E-Exporters' task force to identify financing pains points and solutions for online sellers.** The SBA could create to work with large global marketplaces such as Amazon, eBay, and Etsy to define the types of financing pain points their export-driven sellers encounter; develop use cases and a proof of concept for a potential SBA-backed financial product for these marketplace sellers; and test the product with one marketplace.
- **Consider a Techxporters' pilot program with selected banks to promote technology-intensive goods sellers.** The United States has hundreds of thousands of competitive businesses with products whose value stems from the services and software they embody. The demand for these types of companies' goods and services will only intensify in international markets. The SBA OIT could better define the financing needs and prospects and financing needs of this set of companies, with banks that see these types of businesses.
- **Measure impact to improve,** using digital data, pulse surveys, Census data, and state-level datasets and econometrics to gauge SBA's impacts on businesses that use SBA products, including vis-à-vis control groups that do not. The SBA could benefit from tracking small businesses' journeys over time, for example as they use STEP programs and how they "graduate" to other export financing programs, and the effects from SBA loans on different types of small businesses, their job creation, and their growth export entry and export diversification. This type of monitoring and tracking is key to measuring the impact of SBA's export instruments and how these instruments could better promote small businesses' export survival and diversification, growth, productivity, and job creation.