

SEXTANT Explanation

The Statistics of U.S. Businesses (SUSB) program, managed by the U.S. Census Bureau, is limited in scope to employer businesses.¹ It does not include self-employed individuals without paid employees, which are tracked separately in the Nonemployer Statistics series. In most industries where both private and government entities operate, such as utilities and hospitals, SUSB includes both types of establishments, the primary exception being the education sector. Farm businesses, Railroads, and certain Trusts are also not covered by SUSB.

Using the most detailed data available from the 2022 version of SUSB, the code categories all businesses as small or large using the SBA size standards, managed by the SBA Office of Size Standards.² SBA Size standards are defined using 2022 NAICS codes, while SUSB classifies industries based on 2017 NAICS codes. The Census Bureau's concordance is used to convert 2017 NAICS codes to their 2022 counterparts.³ When a size standard is defined by employee count the "detailed employment" dataset from SUBS is used. When a size standard is defined by revenue the dataset by "enterprise receipts size" is used. All SBA size standard exemptions are ignored as they primarily deal with federal contracting. One of these exceptions is for depository institutions (banks and credit unions) which have their size standard defined by assets and thus the number of small businesses in these industries cannot be found using the tool. When a SUSB bin is wholly above or below the size standard classification is straight forward. When a size standard (by employees or receipts) cuts through a SUSB size bin, the code proportionally "splits" that bin. It assumes firms are uniformly distributed within the bin, treats the bottom bound as inclusive and the top as exclusive, and computes the fraction of the bin that lies on the kept side of the cutoff. This is done according to the following formula:

¹ [Statistics of U.S. Businesses - U.S. Census Bureau](#)

² [Table of size standards - U.S. Small Business Administration](#)

³ The sector with the most changes is retail sales due to 2022 NAICS codes no longer having a specific industry for internet retail and instead defining internet retailer by the products they sell rather than where they are sold.

$$Small\% = \frac{(Size_{SBA} - Bin_{min})}{(Bin_{max} - Bin_{min})} \times 100\%$$

Where $Size_{SBA}$ is the SBA size Standard, and Bin_{min} and Bin_{max} are the SUSB bin's minimum and maximum, respectively. It then scales firms and receipts by that percentage. An example, using the Truckload Long-Distance General Freight Trucking industry (NAICS 48121) is shown in the table below. The industry has an SBA size standard of \$34 million.

General Freight Trucking, Long-Distance, Truckload
(NAICS 484121 Size Standard \$34 million)

Firm Receipts (\$1,000)	SUSB			SEXTANT			
	Firms	Receipts (\$1,000)	Small %	Firms	Receipts (\$1,000)	Firms	Large Receipts (\$1,000)
<100	11,359	541,420	100%	11,359	541,420	-	-
100-499	26,454	6,421,130	100%	26,454	6,421,130	-	-
500-999	6,007	4,208,966	100%	6,007	4,208,966	-	-
1,000-2,499	5,395	8,472,228	100%	5,395	8,472,228	-	-
2,500-4,999	2,771	9,638,103	100%	2,771	9,638,103	-	-
5,000-7,499	1,111	6,665,826	100%	1,111	6,665,826	-	-
7,500-9,999	599	5,057,950	100%	599	5,057,950	-	-
10,000-14,999	652	7,773,552	100%	652	7,773,552	-	-
15,000-19,999	348	5,760,434	100%	348	5,760,434	-	-
20,000-24,999	188	3,978,538	100%	188	3,978,538	-	-
25,000-29,999	125	3,130,771	100%	125	3,130,771	-	-
30,000-34,999	82	2,417,935	80%	66	1,934,348	16	483,587
35,000-39,999	62	2,109,851	0%	-	-	62	2,109,851
40,000-49,999	117	4,477,244	0%	-	-	117	4,477,244
50,000-74,999	144	7,369,965	0%	-	-	144	7,369,965
75,000-99,999	67	4,364,982	0%	-	-	67	4,364,982
100,000+	424	90,468,199	0%	-	-	424	90,468,199
Total	55,905	172,857,094	98.5%	55,075	63,583,266	830	109,273,828

Since there is not a one-to-one correspondence between 2017 and 2022 NAICS codes a determination was required to link SBA size standards to 2022 SUSB for all industries. Of the 1,028 6-digit NAICS codes in 2017, all but 9 are linked to a single 2022 NAICS code. For the remaining 9 the following rules are followed:

- Anthracite Mining (NAICS 212113) – In 2017 NAICS, coal mining is subdivided by type of coal mined, while in 2022 NAICS it is subdivided by method of extraction. As surface mining (NAICS 212114) has a lower size standard than underground mining (NAICS 211130), all Anthracite mining is treated as surface mining.
- Fertilizer Manufacturing (NAICS 325314) – In 2022 NAICS, compost manufacturing was separated from fertilizer manufacturing as a new industry (NAICS 325315). Both industries have the same size standard and are combined.
- All Other Miscellaneous Store Retailers (NAICS 453998) – In 2022 NAICS, retailers selling primarily electronic cigarettes were reclassified to Tobacco Retailers (NAICS 459991) and General Merchandise Auction Houses were reclassified to all other General Merchandise Retailers (NAICS 455219). All Miscellaneous Store Retailers in 2017 continue to be treated as such in 2022.
- Electronic Shopping and Mail-order Houses (NAICS 454110) – In 2022 NAICS, this industry was discontinued, and retailers were redistributed to other industries based on their primary good sold. Since the industry points to 42 2022 industries, no industry has a majority of the old industry and as such the firm in this industry are not represented in SUSB.
- Other Direct Selling Establishments (NAICS 454390) – Similar to Electronic Shopping and Mail-order Houses, this industry was discontinued, and retailers were redistributed to other industries based on their primary good sold. Since the industry points to 39 2022 industries, no industry has a majority of the old industry and as such the firm in this industry are not represented in SUSB.
- Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers (NAICS 516210) – In 2022 NAICS this industry was established by taking parts of Television Broadcasting (NAICS 515120) and Internet Publishing, Broadcasting and Web Search Portals (NAICS 519130). As the redistributed firms likely constitute a minority of both industries no firms are classified in this industry.

- Agents for Wireless Telecommunications Services (NAICS 517122) – In 2022 NAICS, this industry was established by taking parts of Wireless Telecommunications Carriers (except Satellite) (NAICS 517312) and Telecommunications Resellers (NAICS 517911). As the redistributed firms likely constitute a minority of both industries no firms are classified in this industry.
- Internet Publishing and Broadcasting and Web Search Portals (NAICS 519130) – In 2022 NAICS, several types of firms were reclassified from this industry into other information sector industries, regrouping them so they are classified by the type of information product produced rather than their distribution mechanism (i.e. an online newspaper would now be classified as NAICS 513110 Newspaper Publisher). Since the industry points to 8 2022 industries, all firms in this industry are assumed to be classified as Web Search Portals and All Other Information Services (NAICS 519290).