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)

	SUSB			SEXTANT			
				Small		Large	
Firm Receipts ($1,000)	Firms	Receipts ($1,000)	Small %	Firms	Receipts ($1,000)	Firms	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	5,905	172,857,094	98.5%	55,075	63,583,266	830	109,273,828