## Table 3.4 Number of establishments by fuel consumption, 2022

Level: National data Row: NAICS codes Column: Energy sources Unit: Establishment counts

		Any energy		Residual fuel	Distillate fuel	Natural	HGL (excluding		Coke and	
NAICS code <sup>a</sup>	Subsector and industry	source <sup>b</sup>	Net electricity		oil <sup>d</sup>	gas <sup>e</sup>	natural gasoline) <sup>f</sup>	Coal	breeze	Other <sup>g</sup>
		Total United State								
311	Food	18,377	18,283		1,499	13,918	2,670	20	11	912
3112	Grain and Oilseed Milling	661	661		117	569	107	6	0	65
311221	Wet Corn Milling and Starch Manufacturing	55 64	55 64		30 15	48 58	31 19	D 14	0 11	33 22
31131	Sugar Manufacturing	1,109	1,109		103	981	214	14 0	0	58
3114 3115	Fruit and Vegetable Preserving and Specialty Food	1,109				981	214	0	0	58
3116	Dairy Product Manufacturing	2,020	1,087 2,022		112 224	1,476	503	0	0	145
312	Animal Slaughtering and Processing	5,943	5,990		612	3,246	1,971	3	0	439
3121	Beverage and Tobacco Products	5,859	5,990		594	3,246	1,971	3	0	439
3122	Beverages Tobacco	5,839	3,900		18	56	27	0	0	7
313	Textile Mills	1,096	1,089		Q	641	231	6	0	33
314	Textile Product Mills	3,638	3,638		<u>Q</u> 5	1,929	Q	0	0	0
315	Apparel	3,236	3,236		Q	765	25	0	0	D
316	Leather and Allied Products	636	636		12	224	52	0	0	D
321	Wood Products	9,930	9,803		2,057	4,628	3,152	Q	0	1,832
321113	Sawmills	1.949	1,925		957	367	399	0	0	411
321113	Veneer, Plywood, and Engineered Wood Product Manufacturing	1,173	1,173		295	646	502	0	0	221
321219	Reconstituted Wood Products	119	119		25	79	63	0		41
3219	Other Wood Products	6,531	6,428		676	3,501	2,133	Q		1,134
322	Paper	3,057	3,057		219	2,668	1,216	23		182
322110	Pulp Mills	33	33		10	31	9	D	0	23
322120	Paper Mills	138	138	9	40	128	50	8	0	42
322130	Paperboard Mills	164	164	17	72	153	83	10	0	77
323	Printing and Related Support	12,389	12,389	Q	Q	7,082	1,165	0	0	Q
324	Petroleum and Coal Products	1,813	1,810		575	1,316	358	D	D	295
324110	Petroleum Refineries	131	131	D	69	129	52	0	0	128
324121	Asphalt Paving Mixture and Block	1,276	1,273	D	427	861	111	0	0	128
324122	Asphalt Shingle and Coating Materials	142	142	0	25	139	100	0	0	9
324191	Petroleum Lubricating Oil and Grease Manufacturing	214	214	0	25	142	80	0	0	17
324199	All Other Petroleum and Coal Products Manufacturing	50	50	0	29	45	15	D	D	14
325	Chemicals	10,044	10,043	D	1,422	7,662	3,739	Q	0	842
325110	Petrochemicals	60	60	0	27	30	40	0	0	25
325120	Industrial Gases	612	612	0	8	225	62	0	0	Q
325180	Other Basic Inorganic Chemical Manufacturing	587	586	0	176	436	274	4	0	128
325193	Ethyl Alcohol	207	207		85	203	43	D	0	47
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	62	62		25	46	37	0	0	27
325199	All Other Basic Organic Chemical Manufacturing	590	590		135	523	219	3	0	121
325211	Plastics Materials and Resins	1,037	1,037		210	914	636	0	0	149
325212	Synthetic Rubber	98	98		11	89	30	D	0	14
325220	Artificial and Synthetic Fibers and Filaments	88	88		11	77	43	0	0	6
325311	Nitrogenous Fertilizers	161	161		43	92	73	0	0	41
325312	Phosphatic Fertilizers	79	79	D	26	31	28	D	0	13

3254	Pharmaceuticals and Medicines	1,471	1,471	0	176	1,202	150	Q	0	61
325412	Pharmaceutical Preparation	687	687	0	80	576	76	0	0	17
325992	Photographic Film, Paper, Plate, Chemical, and Copy Toner Manufacturing	69	69	0	16	51	19	0	0	9
326	Plastics and Rubber Products	8,490	8,490	Q	251	5,261	2,542	0	0	359
327	Nonmetallic Mineral Products	12,292	12,288	D	2,409	6,162	3,783	151	D	1,085
327120	Clay Building Material and Refractories	364	364	0	98	313	132	D	0	68
327211	Flat Glass	93	93	0	7	75	28	0	0	D
327212	Other Pressed and Blown Glass and Glassware	156	156	0	6	132	39	0	0	8
327213	Glass Containers	54	54	0	13	53	13	0	0	6
327215	Glass Products from Purchased Glass	599	599	0	17	421	112	0	0	D
327310	Cements	159	159	0	61	94	26	62	8	66
327410	Lime	95	95	0	57	59	20	47	4	31
327420	Gypsum	126	126	D	55	122	69	0	0	11
327993	Mineral Wool	185	185	0	21	149	144	D	D	14
331	Primary Metals	2,677	2,671	D	459	2,463	1,715	31	71	327
331110	Iron and Steel Mills and Ferroalloys	165	162	D	92	150	89	20	20	79
3312	Steel Products from Purchased Steel	564	564	0	92	501	363	0	3	73
3313	Alumina and Aluminum Production and Processing	353	351	0	80	332	207	0	0	41
331314	Secondary Smelting and Alloying of Aluminum	90	88	0	40	87	38	0	0	10
331315	Aluminum Sheet, Plate and Foils	67	67	0	24	66	55	0	0	13
331318	Other Aluminum Rolling, Drawing and Extruding	182	182	0	11	172	107	0	0	13
3314	Nonferrous Metal (except Aluminum) Production and Processing	517	517	0	64	474	292	0	11	40
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	74	74	0	9	66	55	0	D	8
3315	Foundries	1,078	1,077	0	131	1,006	763	Q	38	94
331511	Iron Foundries	259	258	0	64	234	190	Q	38	25
331523	Nonferrous Metal Die-Casting Foundries	217	217	0	9	207	135	0	0	30
331524	Aluminum Foundries, except Die-Casting	247	247	0	10	225	171	0	0	8
332	Fabricated Metal Products	38,253	38,096	Q	2,226	21,344	13,352	0	0	2,915
333	Machinery	14,061	14,061	0	775	8,952	4,643	0	0	1,328
334	Computer and Electronic Products	6,625	6,625	9	215	3,978	614	0	0	105
334413	Semiconductors and Related Devices	375	375	9	82	231	38	0	0	25
335	Electrical Equipment, Appliances, and Components	3,301	3,301	0	299	2,022	807	0	D	115
336	Transportation Equipment	7,600	7,600	Q	645	4,925	2,674	0	0	1,065
336110	Automobile and Light Duty Motor Vehicle Manufacturing	210	210	0	Q	165	Q	0	0	44
3364	Aerospace Product and Parts	1,227	1,227	0	125	856	489	0	0	172
336411	Aircraft	286	286	0	44	Q	51	0	0	30
337	Furniture and Related Products	8,523	8,259	0	439	4,720	2,536	D	0	626
339	Miscellaneous	13,055	13,055	0	Q	5,726	1,896	0	0	491
	Total	185,036	184,421	584	14,511	109,631	49,812	392	99	13,234

Data source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-846, 2022 Manufacturing Energy Consumption Survey

Note: Totals may not equal sum of components because of independent rounding. The derived estimates presented in this table are for the first use (formerly primary consumption) of energy for heat and power and as feedstock or raw material inputs. First use is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; wood chips, bark, and wood waste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.

D=Withheld to avoid disclosing data for individual establishments

Q=Withheld because relative standard error (RSE) is greater than 50%

NIA-Niat available

<sup>&</sup>lt;sup>a</sup>The Bureau of the Census classifies establishments using the 2022 North American Industry Classification System (NAICS).

b Any energy source represents the non-duplicative total of establishments identified with any of the listed energy sources. This count includes only those establishments that reported this activity in 2022.

<sup>&</sup>lt;sup>c</sup> Net electricity is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

<sup>&</sup>lt;sup>d</sup> Distillate fuel oil includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

e Natural gas includes natural gas obtained from utilities, local distribution companies, and any other suppliers, such as independent gas producers, gas brokers, marketers, and any marketing subsidiaries of utilities.

f Hydrocarbon gas liquids (HGLs) include ethane, ethylene, propane, propylene, normal butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas liquids (NGLs).

<sup>&</sup>lt;sup>g</sup> Other includes net steam (the sum of purchases, generation from renewables, and net transfers) and other energy that respondents indicated was used to produce heat and power or as feedstock/raw material inputs.

<sup>\*</sup> Estimate less than 0.5

## NA=Not available

The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure protection of the confidential source data (Project No. 7504703, Disclosure Review Board (DRB) approval number: CBDRB-FY25-0054).

## RSE Table 3.4 Relative standard errors for Table 3.4

Unit: Percentage

NAICS code <sup>a</sup>	Subsector and industry	Any energy source <sup>b</sup> Net	electricity <sup>c</sup>	Residual fuel oil	Distillate fuel oil <sup>d</sup>	Natural gas <sup>e</sup>	HGL (excluding natural gasoline) <sup>f</sup>	Coal	Coke and breeze	<b>O</b> ther <sup>g</sup>
		Total United States								
311	Food	5.1	5.1	23.9	15.2	6.1	14.1	0.0	0.0	23.4
3112	Grain and Oilseed Milling	7.7	7.7	34.0	12.4	9.0	13.5	0.0	X	5.7
311221	Wet Corn Milling and Starch Manufacturing	0.0	0.0	X	0.0	0.0	0.0	D	X	0.0
31131	Sugar Manufacturing	0.0	0.0	D	0.0	0.0	0.0	0.0	0.0	0.0
3114	Fruit and Vegetable Preserving and Specialty Food	12.9	12.9	D	14.9	13.9	12.6	Х	X	41.8
3115	Dairy Product Manufacturing	11.7	11.7	54.2	10.9	10.3	41.2	Х	X	24.6
3116	Animal Slaughtering and Processing	7.3	7.3	D	24.0	7.9	19.5	Х	X	39.5
312	Beverage and Tobacco Products	6.2	6.2	X	23.2	9.2	12.3	0.0	X	28.8
3121	Beverages	6.3	6.2	X	23.9	9.3	12.5	0.0	X	29.3
3122	Tobacco	0.0	0.0	X	0.0	0.0	0.0	Х	X	0.0
313	Textile Mills	16.5	16.6	X	50.9	16.4	22.4	33.4	X	40.2
314	Textile Product Mills	20.9	20.9	X	36.4	31.6	51.4	Х	X	91.0
315	Apparel	18.3	18.3	X	91.9	39.1	34.4	Х	X	D
316	Leather and Allied Products	23.0	23.0	X	30.0	30.0	30.8	Х	X	D
321	Wood Products	5.7	5.8	63.6	10.1	9.2	11.6	99.0	X	12.8
321113	Sawmills	7.4	7.5	70.6	10.5	11.4	12.4	Х	X	12.2
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	9.5	9.5	0.0	21.9	12.9	17.1	Х	X	12.8
321219	Reconstituted Wood Products	18.2	18.2	D	0.0	8.5	35.6	Х	X	1.2
3219	Other Wood Products	8.3	8.5	X	23.8	11.9	16.4	99.0	X	19.9
322	Paper	10.3	10.3	8.1	18.4	11.0	16.1	2.5	X	10.9
322110	Pulp Mills	0.0	0.0	0.0	0.0	0.0	0.0	D	X	0.0
322120	Paper Mills	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0
322130	Paperboard Mills	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0
323	Printing and Related Support	7.1	7.1	99.0	81.7	10.4	26.2	Х	X	83.5
324	Petroleum and Coal Products	2.7	2.7	16.4	4.6	3.2	6.9	D	D	5.6
324110	Petroleum Refineries	0.0	0.0	D	0.0	0.0	0.0	Х	Х	0.0
324121	Asphalt Paving Mixture and Block	3.4	3.4	D	6.1	4.0	10.5	Х	Х	12.8
324122	Asphalt Shingle and Coating Materials	13.0	13.0	Х	0.0	13.3	16.2	Х	Х	14.8
324191	Petroleum Lubricating Oil and Grease Manufacturing	7.4	7.4	X	6.7	11.2	18.2	Х	Х	9.9
324199	All Other Petroleum and Coal Products Manufacturing	0.0	0.0	Х	0.0	0.0	0.0	D	D	0.0
325	Chemicals	5.7	5.7	D	12.5	6.8	11.5	64.9	Х	11.7
325110	Petrochemicals	0.0	0.0	Х	0.0	0.0	0.0	Х	Х	0.0
325120	Industrial Gases	20.7	20.7	X	6.9	43.3	46.2	Х	Х	66.9
325180	Other Basic Inorganic Chemical Manufacturing	22.8	22.9	Х	29.6	17.2	24.6	0.0	Х	17.7
325193	Ethyl Alcohol	3.9	3.9	X	5.9	4.0	5.7	D	X	7.4
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	0.0	0.0	X	0.0	0.0	0.0	Х	X	0.0
325199	All Other Basic Organic Chemical Manufacturing	13.8	13.8	D	14.8	15.6	27.6	0.0	X	8.9
325211	Plastics Materials and Resins	16.7	16.7	X	24.7	18.6	25.0	Х	X	14.0
325212	Synthetic Rubber	29.8	29.8	X	0.0	32.8	0.0	D	X	0.0
325220	Artificial and Synthetic Fibers and Filaments	6.6	6.6	X	0.0	7.6	0.0	Х	X	0.0
325311	Nitrogenous Fertilizers	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0
325312	Phosphatic Fertilizers	0.0	0.0	D	0.0	0.0	0.0	D	X	0.0
3254	Pharmaceuticals and Medicines	10.4	10.4	Х	11.8	10.7	24.1	96.1	X	39.6
325412	Pharmaceutical Preparation	14.6	14.6	Х	19.9	17.3	35.1	Х	Х	9.7
325992	Photographic Film, Paper, Plate, Chemical, and Copy Toner Manufacturing	0.0	0.0	X	0.0	0.0	0.0	Х	X	0.0
326	Plastics and Rubber Products	6.0	6.0	87.0	40.5	8.8	14.1	Х	X	37.5
327	Nonmetallic Mineral Products	6.9	6.9	D	18.0	10.4	14.4	22.1	D	25.4

327120	Clay Building Material and Refractories	12.5	12.5	Х	13.7	11.3	12.3	D	Х	14.2
327211	Flat Glass	4.1	4.1	X	0.0	4.7	0.0	Х	X	D
327212	Other Pressed and Blown Glass and Glassware	23.7	23.7	X	0.0	26.1	29.2	X	X	43.9
327213	Glass Containers	1.0	1.0	X	0.0	1.0	0.0	X	X	0.0
327215	Glass Products from Purchased Glass	10.7	10.7	X	34.5	12.6	24.0	Х	X	D
327310	Cements	18.3	18.3	X	19.1	10.6	3.4	4.3	29.9	4.0
327410	Lime	0.0	0.0	X	0.0	0.0	0.0	0.0	0.0	0.0
327420	Gypsum	10.4	10.4	D	8.1	10.8	6.4	X	X	0.0
327993	Mineral Wool	25.7	25.7	X	0.0	29.5	32.9	D	D	0.0
331	Primary Metals	3.0	3.0	D	4.4	3.3	4.2	22.6	10.0	6.3
331110	Iron and Steel Mills and Ferroalloys	0.0	0.0	D	0.0	0.0	0.0	0.0	0.0	0.0
3312	Steel Products from Purchased Steel	6.8	6.8	X	12.6	7.6	9.3	Х	0.0	12.9
3313	Alumina and Aluminum Production and Processing	5.3	5.4	X	0.0	5.7	7.8	Х	X	3.0
331314	Secondary Smelting and Alloying of Aluminum	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0
331315	Aluminum Sheet, Plate and Foils	23.5	23.5	X	0.0	23.9	28.8	Х	X	0.0
331318	Other Aluminum Rolling, Drawing and Extruding	5.7	5.7	X	0.0	6.1	3.8	X	X	9.4
3314	Nonferrous Metal (except Aluminum) Production and Processing	9.1	9.1	X	16.4	9.9	11.9	Х	13.0	11.6
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	19.7	19.7	X	0.0	22.0	26.5	Х	D	0.0
3315	Foundries	4.8	4.8	X	9.8	5.1	6.6	66.3	18.5	18.7
331511	Iron Foundries	9.1	9.2	X	14.0	9.9	12.1	66.3	18.5	9.4
331523	Nonferrous Metal Die-Casting Foundries	5.7	5.7	X	19.8	6.0	4.8	X	X	12.5
331524	Aluminum Foundries, except Die-Casting	7.8	7.8	X	29.1	8.1	10.6	Х	X	0.0
332	Fabricated Metal Products	4.2	4.2	99.5	24.5	6.8	9.2	X	X	21.1
333	Machinery	5.7	5.7	X	27.4	7.8	12.1	X	X	26.2
334	Computer and Electronic Products	8.1	8.1	0.0	22.9	11.6	30.7	Х	X	43.3
334413	Semiconductors and Related Devices	16.2	16.2	0.0	13.5	20.1	25.6	X	X	23.5
335	Electrical Equipment, Appliances, and Components	12.8	12.8	X	37.4	17.1	27.2	Х	D	42.6
336	Transportation Equipment	7.9	7.9	96.5	28.1	10.5	14.5	Х	X	23.5
336110	Automobile and Light Duty Motor Vehicle Manufacturing	31.1	31.1	X	57.7	40.3	62.1	X	X	6.0
3364	Aerospace Product and Parts	12.4	12.4	X	19.6	14.9	13.9	Х	X	22.0
336411	Aircraft	42.6	42.6	X	24.5	56.9	23.1	Х	X	34.9
337	Furniture and Related Products	7.9	8.0	X	40.6	11.8	16.6	D	X	34.6
339	Miscellaneous	6.7	6.7	X	50.5	11.5	20.6	Х	X	42.5
	Total	1.6	1.6	33.6	6.1	2.4	3.8	31.0	7.5	7.3

Data source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-846, 2022 Manufacturing Energy Consumption Survey

Note: Totals may not equal sum of components because of independent rounding. The derived estimates presented in this table are for the first use (formerly primary consumption) of energy for heat and power and as feedstock or raw material inputs. First use is defined as the consumption of the energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Examples of the latter are hydrogen produced from the electrolysis of brine; the output of captive (onsite) mines or wells; wood chips, bark, and wood waste from wood purchased as a raw material input; and waste materials, such as wastepaper and packing materials. First use excludes quantities of energy that are produced from other energy inputs and, therefore, avoids double counting.

<sup>a</sup> The Bureau of the Census classifies establishments using the 2022 North American Industry Classification System (NAICS).

D=Withheld to avoid disclosing data for individual establishments

Q=Withheld because relative standard error (RSE) is greater than 50%

NA=Not available

X=Not defined because RSE corresponds to a data table value of zero

The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure protection of the confidential source data (Project No. 7504703, Disclosure Review Board (DRB) approval number: CBDRB-FY25-0054).

b Any energy source represents the non-duplicative total of establishments identified with any of the listed energy sources. This count includes only those establishments that reported this activity in 2022.

<sup>&</sup>lt;sup>c</sup> Net electricity is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

<sup>&</sup>lt;sup>d</sup> Distillate fuel oil includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

e Natural gas includes natural gas obtained from utilities, local distribution companies, and any other suppliers, such as independent gas producers, gas brokers, marketers, and any marketing subsidiaries of utilities.

f Hydrocarbon gas liquids (HGLs) include ethane, ethylene, propane, propylene, normal butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas liquids (NGLs).

g Other includes net steam (the sum of purchases, generation from renewables, and net transfers) and other energy that respondents indicated was used to produce heat and power or as feedstock/raw material inputs.

<sup>\*</sup> Estimate less than 0.5