

Released: February 2021  
 Next MECS will be fielded in 2022.

**Table 1.1 First Use of Energy for All Purposes (Fuel and Nonfuel), 2018;**

**Level: National and Regional Data;**  
**Row: NAICS Codes; Column: Energy Sources and Shipments;**  
**Unit: Physical Units or Btu.**

NAICS Code(a)	Subsector and Industry	Total(b) (trillion Btu)	Net Electricity(c) (million kWh)	Residual Fuel Oil (million bbl)	Distillate Fuel Oil(d) (million bbl)	Natural Gas(e) (billion cu ft)	HGL (excluding natural gasoline)(f) (million bbl)	Coal (million short tons)	Coke and Breeze (million short tons)	Other(g) (trillion Btu)	Shipments of Energy Sources Produced Onsite(h) (trillion Btu)
<b>Total United States</b>											
311	Food	1,161	91,975	*	3	650	2	2	*	102	*
3112	Grain and Oilseed Milling	247	14,710	*	*	144	*	1	0	27	*
311221	Wet Corn Milling	111	6,013	0	*	59	*	1	0	18	0
31131	Sugar Manufacturing	107	1,143	*	*	32	*	1	*	39	0
3114	Fruit and Vegetable Preserving and Specialty Food	130	9,928	*	*	90	*	0	0	1	0
3115	Dairy Product	124	11,504	*	*	78	*	0	0	1	0
3116	Animal Slaughtering and Processing	278	31,687	*	1	145	*	0	0	15	0
312	Beverage and Tobacco Products	118	14,260	*	*	52	*	*	0	Q	0
3121	Beverages	111	13,494	*	*	48	*	*	0	Q	0
3122	Tobacco	7	766	*	*	4	*	0	0	*	0
313	Textile Mills	64	10,881	*	*	22	*	*	0	1	0
314	Textile Product Mills	22	2,858	0	*	11	*	*	0	*	0
315	Apparel	4	724	0	*	2	*	*	0	*	0
316	Leather and Allied Products	2	226	0	*	1	*	0	0	*	0
321	Wood Products	388	20,702	*	2	65	1	*	0	233	0
321113	Sawmills	161	7,212	*	1	17	*	0	0	114	0
3212	Veneer, Plywood, and Engineered Woods	139	6,710	*	*	30	*	*	0	83	0
321219	Reconstituted Wood Products	78	4,289	*	*	20	*	0	0	42	0
3219	Other Wood Products	79	6,325	*	Q	15	*	*	0	35	0
322	Paper	2,041	50,995	1	1	554	1	3	0	1,223	0
322110	Pulp Mills	292	1,593	*	*	39	*	*	0	242	0
322121	Paper Mills, except Newsprint	698	15,509	1	*	218	*	2	0	375	0
322122	Newsprint Mills	35	4,946	0	*	5	*	0	0	12	0
322130	Paperboard Mills	897	16,308	*	*	227	*	1	0	588	0
323	Printing and Related Support	60	10,043	*	*	24	*	0	0	*	0
324	Petroleum and Coal Products	4,245	52,035	1	2	1,040	5	8	0	2,952	159
324110	Petroleum Refineries	3,375	48,497	*	1	958	4	0	0	2,192	0
324121	Asphalt Paving Mixture and Block	475	1,378	*	1	40	1	*	0	416	0
324122	Asphalt Shingle and Coating Materials	272	930	*	*	13	*	0	0	257	Q
324191	Petroleum Lubricating Oil and Grease Products	26	1,340	0	*	20	*	0	0	1	Q
324199	Other Petroleum and Coal Products	97	-110	0	*	8	*	8	0	85	155
325	Chemicals	7,141	146,846	7	2	3,115	882	6	*	965	583
325110	Petrochemicals	1,461	6,946	0	*	296	386	0	0	347	422
325120	Industrial Gases	291	21,611	0	*	235	*	0	0	4	30
325180	Other Basic Inorganic Chemicals	555	29,720	7	*	254	16	2	*	57	0
325193	Ethyl Alcohol	453	10,721	0	*	347	*	2	0	12	0
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	233	3,141	0	*	116	19	*	0	30	9
325199	Other Basic Organic Chemicals	1,366	18,970	*	Q	575	127	2	0	333	88
325211	Plastics Materials and Resins	1,675	16,884	0	D	441	D	D	0	D	34
325212	Synthetic Rubber	38	1,386	0	*	19	1	*	0	9	0

325220	Artificial and Synthetic Fibers and Filaments	33	2,694	0	*	22	*	*	0	*	0
325311	Nitrogenous Fertilizers	614	5,131	0	*	D	*	0	0	D	0
325312	Phosphatic Fertilizers	37	D	*	D	28	*	D	0	*	0
3254	Pharmaceuticals and Medicines	115	10,442	0	*	61	*	*	0	16	0
325412	Pharmaceutical Preparation	67	6,121	0	*	30	*	*	0	14	0
325992	Photographic Film, Paper, Plate, and Chemicals	8	921	*	*	3	*	0	0	2	0
326	Plastics and Rubber Products	257	49,342	*	*	81	1	0	0	*	0
327	Nonmetallic Mineral Products	846	37,953	*	4	337	1	9	*	149	0
327120	Clay Building Material and Refractories	47	1,769	0	*	35	*	*	0	1	0
327211	Flat Glass	47	1,419	0	*	40	*	*	0	1	0
327212	Other Pressed and Blown Glass and Glassware	31	2,135	0	*	22	*	0	0	1	0
327213	Glass Containers	54	3,447	0	*	41	*	0	0	*	0
327215	Glass Products from Purchased Glass	22	3,675	0	*	9	*	0	0	*	0
327310	Cements	296	11,444	0	*	56	*	5	*	90	0
327410	Lime	106	1,384	0	*	18	*	3	*	17	0
327420	Gypsum	59	1,541	0	*	50	*	0	0	*	0
327993	Mineral Wool	33	3,110	0	*	21	*	*	*	*	0
331	Primary Metals	1,511	112,848	*	1	658	1	13	10	30	125
331110	Iron and Steel Mills and Ferroalloys	1,047	55,633	*	1	436	*	13	10	17	125
3312	Steel Products from Purchased Steel	53	6,915	0	*	25	*	*	*	1	0
3313	Alumina and Aluminum	217	26,260	0	*	113	*	0	0	10	*
331314	Secondary Smelting and Alloying of Aluminum	21	780	0	*	18	*	0	0	*	0
331315	Aluminum Sheet, Plate and Foils	72	5,377	0	*	52	*	0	0	*	*
331318	Other Aluminum Rolling, Drawing and Extruding	24	1,917	0	*	17	*	0	0	*	0
3314	Nonferrous Metals, except Aluminum	100	13,274	0	*	41	*	*	*	3	0
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	48	7,887	0	*	16	*	*	*	1	0
3315	Foundries	93	10,766	*	*	44	*	*	*	*	0
331511	Iron Foundries	41	5,197	0	*	12	*	*	*	*	0
331523	Nonferrous Metal Die-Casting Foundries	22	2,078	*	*	14	*	0	0	*	0
331524	Aluminum Foundries, except Die-Casting	9	788	0	*	6	*	0	0	*	0
332	Fabricated Metal Products	257	36,281	0	*	122	1	*	0	2	0
333	Machinery	148	23,556	*	*	59	1	*	0	1	0
334	Computer and Electronic Products	110	22,221	*	*	32	*	0	0	1	0
334413	Semiconductors and Related Devices	54	11,612	*	*	13	*	0	0	*	0
335	Electrical Equip., Appliances, and Components	85	11,045	*	*	35	*	0	0	10	0
336	Transportation Equipment	348	50,479	*	1	154	1	0	*	8	0
336111	Automobiles	34	4,026	0	*	18	*	0	0	2	0
336112	Light Trucks and Utility Vehicles	41	4,238	0	*	24	*	0	0	1	0
3364	Aerospace Product and Parts	66	9,678	*	*	27	*	0	0	4	0
336411	Aircraft	17	2,722	0	*	6	*	0	0	2	0
337	Furniture and Related Products	37	4,672	0	*	15	*	*	0	5	0
339	Miscellaneous	61	9,571	0	*	25	*	*	0	1	0
	Subtotal	18,907	759,512	9	16	7,052	898	41	11	5,695	867
	Miscellaneous Nonfuel Products(i)	529	0	0	0	0	0	0	0	529	0
	Total	19,436	759,512	9	16	7,052	898	41	11	6,224	867
<b>Northeast Census Region</b>											
311	Food	81	7,833	*	Q	47	*	0	0	*	0
3112	Grain and Oilseed Milling	4	497	0	*	2	*	0	0	0	0
311221	Wet Corn Milling	*	15	0	0	*	*	0	0	0	0
31131	Sugar Manufacturing	2	4	0	*	2	*	0	0	0	0
3114	Fruit and Vegetable Preserving and Specialty Food	12	790	*	*	8	*	0	0	*	0
3115	Dairy Product	17	1,459	*	*	11	*	0	0	*	0

3116	Animal Slaughtering and Processing	11	1,101	0	*	7	*	0	0	*	0
312	Beverage and Tobacco Products	13	1,675	*	*	7	*	0	0	*	0
3121	Beverages	12	1,648	*	*	6	*	0	0	*	0
3122	Tobacco	1	28	*	*	1	*	0	0	*	0
313	Textile Mills	6	571	0	*	4	*	0	0	*	0
314	Textile Product Mills	2	322	0	*	1	*	*	0	*	0
315	Apparel	1	151	0	0	1	*	*	0	0	0
316	Leather and Allied Products	1	49	0	*	*	*	0	0	0	0
321	Wood Products	52	1,487	*	*	5	*	*	0	39	0
321113	Sawmills	8	379	*	*	*	*	0	0	6	0
3212	Veneer, Plywood, and Engineered Woods	29	269	*	*	2	*	*	0	27	0
321219	Reconstituted Wood Products	17	196	*	*	2	*	0	0	15	0
3219	Other Wood Products	13	817	*	*	3	*	*	0	Q	0
322	Paper	193	4,429	*	*	77	*	*	0	87	0
322110	Pulp Mills	D	251	*	*	4	*	0	0	D	0
322121	Paper Mills, except Newsprint	120	973	*	*	49	*	*	0	55	0
322122	Newsprint Mills	0	0	0	0	0	0	0	0	0	0
322130	Paperboard Mills	23	1,454	*	*	15	*	0	0	3	0
323	Printing and Related Support	9	1,588	*	*	3	*	0	0	*	0
324	Petroleum and Coal Products	264	2,611	*	*	41	*	0	0	210	0
324110	Petroleum Refineries	136	2,119	*	*	29	*	0	0	99	0
324121	Asphalt Paving Mixture and Block	90	281	*	*	8	*	0	0	78	0
324122	Asphalt Shingle and Coating Materials	35	90	0	*	1	*	0	0	33	0
324191	Petroleum Lubricating Oil and Grease Products	1	45	0	*	*	*	0	0	*	0
324199	Other Petroleum and Coal Products	2	76	0	*	2	*	0	0	*	0
325	Chemicals	173	11,275	*	*	112	*	*	0	12	1
325110	Petrochemicals	*	17	0	*	*	*	0	0	*	0
325120	Industrial Gases	12	2,777	0	0	2	*	0	0	1	1
325180	Other Basic Inorganic Chemicals	13	1,619	0	*	6	*	0	0	2	0
325193	Ethyl Alcohol	7	170	0	*	7	*	0	0	*	0
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	3	107	0	0	2	0	0	0	*	0
325199	Other Basic Organic Chemicals	58	1,502	*	*	44	*	*	0	2	0
325211	Plastics Materials and Resins	D	825	0	*	4	*	0	0	D	0
325212	Synthetic Rubber	*	18	0	*	*	*	0	0	*	0
325220	Artificial and Synthetic Fibers and Filaments	*	35	0	*	*	*	0	0	*	0
325311	Nitrogenous Fertilizers	1	24	0	*	*	*	0	0	*	0
325312	Phosphatic Fertilizers	*	1	0	*	0	*	0	0	0	0
3254	Pharmaceuticals and Medicines	32	2,371	0	*	22	*	0	0	1	0
325412	Pharmaceutical Preparation	13	1,360	0	*	8	*	0	0	*	0
325992	Photographic Film, Paper, Plate, and Chemicals	4	412	*	*	1	*	0	0	2	0
326	Plastics and Rubber Products	28	4,763	0	*	10	*	0	0	*	0
327	Nonmetallic Mineral Products	88	3,875	0	1	50	*	*	0	13	0
327120	Clay Building Material and Refractories	6	213	0	*	3	*	*	0	*	0
327211	Flat Glass	4	123	0	0	4	*	0	0	0	0
327212	Other Pressed and Blown Glass and Glassware	5	416	0	*	4	*	0	0	*	0
327213	Glass Containers	7	461	0	*	6	*	0	0	*	0
327215	Glass Products from Purchased Glass	3	289	0	*	2	*	0	0	*	0
327310	Cements	24	810	0	*	15	*	*	0	4	0
327410	Lime	5	55	0	*	3	0	*	0	*	0
327420	Gypsum	6	138	0	*	6	*	0	0	0	0
327993	Mineral Wool	3	129	0	*	2	*	0	0	0	0
331	Primary Metals	159	10,918	0	*	70	*	6	*	3	85
331110	Iron and Steel Mills and Ferroalloys	113	6,305	0	*	43	*	6	*	2	85

3312	Steel Products from Purchased Steel	4	481	0	*	2	*	*	*	*	0
3313	Alumina and Aluminum	20	1,547	0	*	14	*	0	0	*	0
331314	Secondary Smelting and Alloying of Aluminum	1	24	0	*	*	*	0	0	0	0
331315	Aluminum Sheet, Plate and Foils	9	579	0	*	7	*	0	0	*	0
331318	Other Aluminum Rolling, Drawing and Extruding	5	281	0	*	4	*	0	0	*	0
3314	Nonferrous Metals, except Aluminum	14	1,573	0	*	7	*	0	*	1	0
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	1	123	0	0	*	*	0	0	0	0
3315	Foundries	8	1,012	0	*	4	*	*	*	*	0
331511	Iron Foundries	3	464	0	*	1	*	*	*	*	0
331523	Nonferrous Metal Die-Casting Foundries	1	93	0	0	1	*	0	0	*	0
331524	Aluminum Foundries, except Die-Casting	1	82	0	*	*	*	0	0	*	0
332	Fabricated Metal Products	47	6,099	0	*	23	*	0	0	Q	0
333	Machinery	15	2,219	*	*	6	*	*	0	*	0
334	Computer and Electronic Products	24	4,350	*	*	8	*	0	0	1	0
334413	Semiconductors and Related Devices	6	1,020	*	*	2	*	0	0	*	0
335	Electrical Equip., Appliances, and Components	12	1,527	0	*	6	*	0	0	*	0
336	Transportation Equipment	34	Q	*	*	16	*	0	0	*	0
336111	Automobiles	*	1	0	0	*	0	0	0	0	0
336112	Light Trucks and Utility Vehicles	*	1	0	0	*	0	0	0	0	0
3364	Aerospace Product and Parts	9	845	*	*	6	*	0	0	*	0
336411	Aircraft	1	169	0	*	1	*	0	0	*	0
337	Furniture and Related Products	5	577	0	*	2	*	0	0	*	0
339	Miscellaneous	17	2,168	0	*	8	*	0	0	*	0
	Total	1,223	73,182	1	3	496	2	7	*	366	86

**Midwest Census Region**

311	Food	487	33,101	*	*	295	*	2	*	21	*
3112	Grain and Oilseed Milling	189	10,506	*	*	112	*	1	0	17	*
311221	Wet Corn Milling	100	5,563	0	*	55	*	*	0	13	0
31131	Sugar Manufacturing	36	608	*	*	8	*	1	*	*	0
3114	Fruit and Vegetable Preserving and Specialty Food	33	3,657	0	*	19	*	0	0	*	0
3115	Dairy Product	48	4,353	*	*	31	*	0	0	*	0
3116	Animal Slaughtering and Processing	89	7,588	*	*	59	*	0	0	1	0
312	Beverage and Tobacco Products	29	1,480	*	*	12	*	0	0	Q	0
3121	Beverages	29	1,479	*	*	12	*	0	0	Q	0
3122	Tobacco	*	1	0	0	*	0	0	0	0	0
313	Textile Mills	2	301	0	*	1	*	0	0	*	0
314	Textile Product Mills	1	143	0	0	*	0	0	0	0	0
315	Apparel	*	70	0	0	*	0	0	0	0	0
316	Leather and Allied Products	1	107	0	*	1	*	0	0	*	0
321	Wood Products	39	3,001	*	Q	10	*	0	0	13	0
321113	Sawmills	6	448	*	*	1	*	0	0	4	0
3212	Veneer, Plywood, and Engineered Woods	12	771	0	*	4	*	0	0	6	0
321219	Reconstituted Wood Products	8	519	0	*	3	*	0	0	3	0
3219	Other Wood Products	19	1,741	0	Q	5	*	0	0	4	0
322	Paper	274	13,496	*	*	107	*	1	0	103	0
322110	Pulp Mills	2	249	0	*	1	*	0	0	*	0
322121	Paper Mills, except Newsprint	172	5,212	*	*	52	*	1	0	88	0
322122	Newsprint Mills	0	0	0	0	0	0	0	0	0	0
322130	Paperboard Mills	54	2,779	*	*	27	*	*	0	15	0
323	Printing and Related Support	26	3,786	0	*	13	*	0	0	*	0
324	Petroleum and Coal Products	792	10,453	*	1	131	1	6	0	532	34
324110	Petroleum Refineries	484	9,786	0	*	113	1	0	0	328	0

324121	Asphalt Paving Mixture and Block	126	257	*	*	10	*	0	0	113	0
324122	Asphalt Shingle and Coating Materials	D	275	*	*	4	*	0	0	D	0
324191	Petroleum Lubricating Oil and Grease Products	3	194	0	*	2	*	0	0	*	0
324199	Other Petroleum and Coal Products	D	-59	0	*	2	*	6	0	D	34
325	Chemicals	993	38,470	D	*	619	29	D	0	70	3
325110	Petrochemicals	*	3	0	*	*	*	0	0	0	0
325120	Industrial Gases	26	6,549	0	0	6	*	0	0	0	2
325180	Other Basic Inorganic Chemicals	48	3,783	D	*	21	*	0	0	D	0
325193	Ethyl Alcohol	416	9,712	0	*	315	*	2	0	11	0
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	7	287	0	*	2	*	*	0	3	0
325199	Other Basic Organic Chemicals	72	4,011	0	*	40	D	*	0	D	0
325211	Plastics Materials and Resins	D	D	0	*	31	D	D	0	D	*
325212	Synthetic Rubber	2	178	0	*	1	*	0	0	*	0
325220	Artificial and Synthetic Fibers and Filaments	1	74	0	0	*	*	0	0	0	0
325311	Nitrogenous Fertilizers	142	1,774	0	*	D	*	0	0	D	0
325312	Phosphatic Fertilizers	*	8	0	*	*	*	0	0	0	0
3254	Pharmaceuticals and Medicines	35	3,305	0	*	20	*	*	0	2	0
325412	Pharmaceutical Preparation	24	2,130	0	*	14	*	*	0	2	0
325992	Photographic Film, Paper, Plate, and Chemicals	*	52	0	*	*	*	0	0	*	0
326	Plastics and Rubber Products	110	21,719	0	*	34	*	0	0	*	0
327	Nonmetallic Mineral Products	238	11,435	0	1	87	*	3	*	44	0
327120	Clay Building Material and Refractories	9	285	0	*	7	*	*	0	*	0
327211	Flat Glass	16	462	0	*	14	*	0	0	*	0
327212	Other Pressed and Blown Glass and Glassware	10	496	0	*	8	*	0	0	*	0
327213	Glass Containers	15	945	0	*	11	*	0	0	*	0
327215	Glass Products from Purchased Glass	9	1,721	0	*	3	*	0	0	*	0
327310	Cements	76	3,096	0	*	6	*	1	*	29	0
327410	Lime	46	467	0	*	9	*	1	*	7	0
327420	Gypsum	10	264	0	*	9	*	0	0	*	0
327993	Mineral Wool	13	1,292	0	*	8	*	0	*	*	0
331	Primary Metals	846	41,574	*	D	340	*	D	10	13	24
331110	Iron and Steel Mills and Ferroalloys	675	20,012	*	D	260	*	D	10	10	24
3312	Steel Products from Purchased Steel	22	2,294	0	*	13	*	*	0	*	0
3313	Alumina and Aluminum	62	8,608	0	*	28	*	0	0	3	0
331314	Secondary Smelting and Alloying of Aluminum	9	300	0	*	8	*	0	0	*	0
331315	Aluminum Sheet, Plate and Foils	19	1,564	0	*	13	*	0	0	*	0
331318	Other Aluminum Rolling, Drawing and Extruding	8	698	0	*	5	*	0	0	*	0
3314	Nonferrous Metals, except Aluminum	28	4,097	0	*	11	*	0	*	*	0
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	12	2,472	0	*	3	*	0	*	*	0
3315	Foundries	59	6,563	*	*	27	*	*	*	*	0
331511	Iron Foundries	28	3,252	0	*	8	*	*	*	*	0
331523	Nonferrous Metal Die-Casting Foundries	14	1,348	*	*	9	*	0	0	*	0
331524	Aluminum Foundries, except Die-Casting	5	458	0	*	3	*	0	0	*	0
332	Fabricated Metal Products	124	18,470	0	*	56	*	0	0	*	0
333	Machinery	73	9,656	0	*	35	1	0	0	*	0
334	Computer and Electronic Products	15	3,191	0	*	4	*	0	0	*	0
334413	Semiconductors and Related Devices	5	1,172	0	*	1	*	0	0	*	0
335	Electrical Equip., Appliances, and Components	27	3,786	*	*	12	*	0	0	*	0
336	Transportation Equipment	184	24,909	0	D	88	D	0	*	5	0
336111	Automobiles	21	2,026	0	*	12	*	0	0	1	0
336112	Light Trucks and Utility Vehicles	25	2,259	0	*	16	*	0	0	1	0
3364	Aerospace Product and Parts	18	2,405	0	*	8	*	0	0	2	0
336411	Aircraft	4	528	0	*	2	*	0	0	*	0

337	Furniture and Related Products	18	1,813	0	*	8	*	0	0	Q	0
339	Miscellaneous	22	3,343	0	*	9	*	*	0	1	0
	Total	4,300	244,303	D	4	1,861	D	19	10	819	61

**South Census Region**

311	Food	308	23,365	*	*	157	1	*	0	60	*
3112	Grain and Oilseed Milling	44	2,848	*	*	24	*	*	0	9	*
311221	Wet Corn Milling	9	358	0	*	2	*	*	0	5	0
31131	Sugar Manufacturing	48	266	*	*	10	*	*	0	37	0
3114	Fruit and Vegetable Preserving and Specialty Food	23	1,871	0	*	16	*	0	0	*	0
3115	Dairy Product	19	2,365	0	*	10	*	0	0	*	0
3116	Animal Slaughtering and Processing	111	9,706	0	*	59	*	0	0	14	0
312	Beverage and Tobacco Products	52	7,631	*	*	23	*	*	0	1	0
3121	Beverages	46	6,895	0	*	20	*	*	0	1	0
3122	Tobacco	6	736	*	*	4	*	0	0	*	0
313	Textile Mills	53	9,776	*	*	16	*	*	0	1	0
314	Textile Product Mills	17	2,231	0	*	9	*	0	0	*	0
315	Apparel	3	451	0	*	1	*	0	0	*	0
316	Leather and Allied Products	*	53	0	0	*	*	0	0	*	0
321	Wood Products	217	12,741	*	1	38	*	0	0	129	0
321113	Sawmills	101	5,678	*	*	13	*	0	0	65	0
3212	Veneer, Plywood, and Engineered Woods	70	4,001	*	*	18	*	0	0	37	0
321219	Reconstituted Wood Products	42	2,734	*	*	12	*	0	0	20	0
3219	Other Wood Products	41	2,773	0	*	6	*	0	0	24	0
322	Paper	1,413	24,737	1	1	319	*	2	0	957	0
322110	Pulp Mills	D	1,005	*	*	34	*	*	0	D	0
322121	Paper Mills, except Newsprint	352	7,240	*	*	90	*	1	0	213	0
322122	Newsprint Mills	23	2,032	0	*	4	*	0	0	12	0
322130	Paperboard Mills	743	9,916	*	*	168	*	1	0	519	0
323	Printing and Related Support	21	3,887	0	*	7	*	0	0	*	0
324	Petroleum and Coal Products	2,224	30,130	*	D	622	D	2	0	1,538	114
324110	Petroleum Refineries	1,913	28,203	0	D	581	D	0	0	1,210	0
324121	Asphalt Paving Mixture and Block	172	561	*	1	14	*	*	0	151	0
324122	Asphalt Shingle and Coating Materials	114	440	0	*	6	*	0	0	108	Q
324191	Petroleum Lubricating Oil and Grease Products	22	1,082	0	*	17	*	0	0	1	Q
324199	Other Petroleum and Coal Products	4	-157	0	*	3	*	2	0	68	111
325	Chemicals	5,806	85,109	D	1	2,296	853	D	*	878	578
325110	Petrochemicals	1,460	6,926	0	*	295	386	0	0	347	422
325120	Industrial Gases	214	D	0	*	D	*	0	0	3	25
325180	Other Basic Inorganic Chemicals	429	21,063	D	*	209	16	*	*	D	0
325193	Ethyl Alcohol	15	428	0	*	13	*	0	0	*	0
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	220	2,738	0	*	109	19	*	0	26	9
325199	Other Basic Organic Chemicals	1,228	12,718	*	Q	487	D	2	0	D	88
325211	Plastics Materials and Resins	1,521	D	0	D	404	D	D	0	D	34
325212	Synthetic Rubber	35	1,179	0	*	17	1	*	0	9	0
325220	Artificial and Synthetic Fibers and Filaments	32	2,576	0	*	22	*	*	0	*	0
325311	Nitrogenous Fertilizers	459	2,873	0	*	432	*	0	0	*	0
325312	Phosphatic Fertilizers	D	D	*	D	D	*	D	0	*	0
3254	Pharmaceuticals and Medicines	39	3,369	0	*	14	*	0	0	13	0
325412	Pharmaceutical Preparation	25	1,892	0	*	6	*	0	0	12	0
325992	Photographic Film, Paper, Plate, and Chemicals	2	283	0	*	1	*	0	0	*	0
326	Plastics and Rubber Products	102	19,490	*	*	31	*	0	0	*	0
327	Nonmetallic Mineral Products	342	16,443	*	1	151	*	4	*	46	0

327120	Clay Building Material and Refractories	30	1,193	0	*	23	*	0	0	1	0
327211	Flat Glass	21	667	0	*	17	*	*	0	1	0
327212	Other Pressed and Blown Glass and Glassware	15	1,144	0	*	10	*	0	0	1	0
327213	Glass Containers	19	1,159	0	*	15	*	0	0	*	0
327215	Glass Products from Purchased Glass	8	1,351	0	*	3	*	0	0	*	0
327310	Cements	132	5,251	0	*	26	*	2	*	36	0
327410	Lime	40	676	0	*	5	*	1	*	6	0
327420	Gypsum	31	890	0	*	27	*	0	0	*	0
327993	Mineral Wool	13	1,170	0	*	8	*	*	*	*	0
331	Primary Metals	417	48,372	0	D	207	*	D	*	10	16
331110	Iron and Steel Mills and Ferroalloys	231	25,978	0	D	117	*	D	*	5	15
3312	Steel Products from Purchased Steel	25	3,953	0	*	9	*	0	*	1	0
3313	Alumina and Aluminum	108	11,518	0	*	62	*	0	0	4	*
331314	Secondary Smelting and Alloying of Aluminum	10	225	0	*	8	*	0	0	*	0
331315	Aluminum Sheet, Plate and Foils	40	2,789	0	*	29	*	0	0	*	*
331318	Other Aluminum Rolling, Drawing and Extruding	9	691	0	*	6	*	0	0	*	0
3314	Nonferrous Metals, except Aluminum	34	4,521	0	*	10	*	*	*	1	0
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	17	3,001	0	*	1	*	*	0	1	0
3315	Foundries	19	2,404	0	*	9	*	*	*	*	0
331511	Iron Foundries	8	1,348	0	*	2	*	0	*	*	0
331523	Nonferrous Metal Die-Casting Foundries	5	436	0	*	4	*	0	0	*	0
331524	Aluminum Foundries, except Die-Casting	2	155	0	*	1	*	0	0	*	0
332	Fabricated Metal Products	59	7,388	0	*	31	*	*	0	*	0
333	Machinery	52	10,446	0	*	15	*	0	0	*	0
334	Computer and Electronic Products	33	6,895	0	*	9	*	0	0	*	0
334413	Semiconductors and Related Devices	18	4,022	0	*	4	*	0	0	*	0
335	Electrical Equip., Appliances, and Components	39	4,336	0	*	14	*	0	0	9	0
336	Transportation Equipment	105	16,718	*	D	39	D	0	0	2	0
336111	Automobiles	12	1,749	0	*	5	*	0	0	*	0
336112	Light Trucks and Utility Vehicles	16	1,975	0	*	9	*	0	0	*	0
3364	Aerospace Product and Parts	18	3,449	0	*	5	*	0	0	1	0
336411	Aircraft	7	1,345	0	*	1	*	0	0	1	0
337	Furniture and Related Products	12	1,767	0	*	4	*	*	0	Q	0
339	Miscellaneous	17	3,052	0	*	6	*	0	0	*	0
	Total	11,292	335,017	D	D	3,995	857	11	*	3,633	709

**West Census Region**

311	Food	286	27,676	0	1	151	1	*	*	Q	0
3112	Grain and Oilseed Milling	10	860	0	*	6	*	0	0	*	0
311221	Wet Corn Milling	2	76	0	*	2	*	0	0	*	0
31131	Sugar Manufacturing	21	265	0	*	13	*	*	*	2	0
3114	Fruit and Vegetable Preserving and Specialty Food	62	3,610	0	*	47	*	0	0	1	0
3115	Dairy Product	40	3,328	0	*	26	*	0	0	1	0
3116	Animal Slaughtering and Processing	Q	Q	0	*	20	*	0	0	*	0
312	Beverage and Tobacco Products	24	3,474	0	*	11	*	0	0	*	0
3121	Beverages	24	3,472	0	*	11	*	0	0	*	0
3122	Tobacco	*	2	0	0	0	0	0	0	0	0
313	Textile Mills	2	234	0	0	1	*	0	0	*	0
314	Textile Product Mills	Q	163	0	0	Q	*	0	0	0	0
315	Apparel	*	51	0	0	*	*	0	0	0	0
316	Leather and Allied Products	*	17	0	0	*	*	0	0	*	0
321	Wood Products	80	3,473	*	*	12	*	0	0	52	0
321113	Sawmills	46	708	0	*	3	*	0	0	39	0

3212	Veneer, Plywood, and Engineered Woods	27	1,668	0	*	7	*	0	0	13	0
321219	Reconstituted Wood Products	10	840	0	*	3	*	0	0	4	0
3219	Other Wood Products	6	993	0	*	2	*	0	0	*	0
322	Paper	160	8,334	*	*	52	*	0	0	76	0
322110	Pulp Mills	7	88	*	0	0	0	0	0	6	0
322121	Paper Mills, except Newsprint	54	2,084	0	*	27	*	0	0	19	0
322122	Newsprint Mills	11	2,915	0	*	1	*	0	0	*	0
322130	Paperboard Mills	76	2,160	*	*	17	*	0	0	51	0
323	Printing and Related Support	4	782	0	*	1	*	0	0	*	0
324	Petroleum and Coal Products	965	8,841	*	D	247	D	0	0	672	10
324110	Petroleum Refineries	842	8,389	*	D	235	D	0	0	556	0
324121	Asphalt Paving Mixture and Block	86	280	*	*	8	*	0	0	74	0
324122	Asphalt Shingle and Coating Materials	D	124	0	*	2	*	0	0	D	0
324191	Petroleum Lubricating Oil and Grease Products	1	19	0	0	1	*	0	0	0	0
324199	Other Petroleum and Coal Products	D	30	0	*	*	*	0	0	D	10
325	Chemicals	170	11,992	0	*	88	*	2	0	5	2
325110	Petrochemicals	0	0	0	0	0	0	0	0	0	0
325120	Industrial Gases	39	D	0	0	D	*	0	0	*	2
325180	Other Basic Inorganic Chemicals	66	3,254	0	*	18	*	2	0	Q	0
325193	Ethyl Alcohol	14	412	0	*	12	*	0	0	1	0
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	3	8	0	*	2	*	*	0	*	0
325199	Other Basic Organic Chemicals	7	738	0	*	4	*	0	0	1	0
325211	Plastics Materials and Resins	2	292	0	*	1	*	0	0	*	0
325212	Synthetic Rubber	*	12	0	0	*	*	0	0	*	0
325220	Artificial and Synthetic Fibers and Filaments	*	9	0	0	*	*	0	0	0	0
325311	Nitrogenous Fertilizers	13	459	0	*	11	*	0	0	*	0
325312	Phosphatic Fertilizers	D	D	0	*	D	*	0	0	*	0
3254	Pharmaceuticals and Medicines	9	1,397	0	*	4	*	0	0	*	0
325412	Pharmaceutical Preparation	5	738	0	*	2	*	0	0	*	0
325992	Photographic Film, Paper, Plate, and Chemicals	2	173	0	*	1	*	0	0	*	0
326	Plastics and Rubber Products	17	3,370	0	*	Q	*	0	0	*	0
327	Nonmetallic Mineral Products	179	6,199	0	1	49	*	3	*	46	0
327120	Clay Building Material and Refractories	2	78	0	*	2	*	0	0	*	0
327211	Flat Glass	6	167	0	*	5	*	0	0	*	0
327212	Other Pressed and Blown Glass and Glassware	1	78	0	*	1	*	0	0	*	0
327213	Glass Containers	12	882	0	*	9	*	0	0	*	0
327215	Glass Products from Purchased Glass	2	313	0	*	1	*	0	0	*	0
327310	Cements	64	2,288	0	*	9	*	1	*	21	0
327410	Lime	14	185	0	*	*	*	*	*	3	0
327420	Gypsum	11	250	0	*	9	*	0	0	*	0
327993	Mineral Wool	4	519	0	*	2	*	0	0	*	0
331	Primary Metals	89	11,983	0	*	41	*	*	*	4	0
331110	Iron and Steel Mills and Ferroalloys	29	3,339	0	*	16	*	*	0	*	0
3312	Steel Products from Purchased Steel	1	187	0	*	*	*	0	0	*	0
3313	Alumina and Aluminum	27	4,587	0	*	8	*	0	0	3	0
331314	Secondary Smelting and Alloying of Aluminum	2	230	0	*	1	*	0	0	*	0
331315	Aluminum Sheet, Plate and Foils	5	445	0	*	4	*	0	0	*	0
331318	Other Aluminum Rolling, Drawing and Extruding	3	247	0	*	2	*	0	0	*	0
3314	Nonferrous Metals, except Aluminum	24	3,083	0	*	12	*	0	0	1	0
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	19	2,292	0	*	11	*	0	0	*	0
3315	Foundries	8	787	0	*	4	*	0	*	*	0
331511	Iron Foundries	2	132	0	*	1	*	0	*	*	0
331523	Nonferrous Metal Die-Casting Foundries	2	200	0	*	1	*	0	0	*	0



331524	Aluminum Foundries, except Die-Casting	1	93	0	*	1	*	0	0	*	0
332	Fabricated Metal Products	27	4,325	0	*	11	*	0	0	Q	0
333	Machinery	9	1,235	0	*	4	*	0	0	*	0
334	Computer and Electronic Products	39	7,785	0	*	11	*	0	0	*	0
334413	Semiconductors and Related Devices	25	5,398	0	*	7	*	0	0	*	0
335	Electrical Equip., Appliances, and Components	7	1,397	0	*	Q	*	0	0	*	0
336	Transportation Equipment	26	4,158	0	*	10	*	0	0	1	0
336111	Automobiles	1	250	0	*	*	*	0	0	*	0
336112	Light Trucks and Utility Vehicles	*	3	0	0	*	*	0	0	0	0
3364	Aerospace Product and Parts	20	2,978	0	*	9	*	0	0	1	0
336411	Aircraft	5	680	0	*	2	*	0	0	1	0
337	Furniture and Related Products	3	514	0	0	1	*	0	0	*	0
339	Miscellaneous	5	1,007	0	*	1	*	0	0	*	0
	Total	2,092	107,011	1	D	701	D	4	*	877	12

(a) The Bureau of the Census classifies establishments using the 2017 North American Industry Classification System (NAICS).

(b) *Total* is the sum of all of the listed energy sources, including *Other*, minus the *Shipments of Energy Sources Produced Onsite*. It is the total amount of first use of energy for all (fuel and nonfuel) purposes.

(c) *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).

(d) *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 supplier(s), such as independent gas producers, gas brokers, marketers, and any marketing subsidiaries of utilities.

(f) Hydrocarbon Gas Liquids (HGL) 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 (NGL).

(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. See also Footnote *i*.

(h) *Shipments of Energy Sources Produced Onsite* are those shipments produced or transformed onsite from the nonfuel use of other energy sources. For example, at an establishment that processes coal to make coke for later use, the entire quantity of coal is counted as first use. Any onsite consumption of coke is not counted as first use because it would duplicate the coal use. If some of the coke is then sold to another establishment, that second establishment will consider this coke to be a shipment of an offsite-produced energy source. Hence, the second establishment will count this coke as its first use, thereby resulting in double counting. In order to eliminate the double counting, the energy equivalent of the coke shipment must be subtracted from first use.

(i) Previously, the Manufacturing Energy Consumption Survey (MECS) had accounted for energy consumed in petroleum refineries by measuring their own fuel use, assuming shipments of fuel products would later be counted in the industries that use them, and assigning the heat equivalent of the nonfuel products to the petroleum refinery (for a more detailed explanation see, *Feedstock and Offsite-Produced Fuel at Petroleum Refineries*). Starting with the 2014 MECS, however, EIA began collecting asphalt and petrochemical feedstock data from establishments that use those nonfuel products. These data are included in the *Other* column. However, other *Miscellaneous Nonfuel Products* (i.e. lubricants, solvents, waxes, and special naphthas) from refineries, and used elsewhere throughout the manufacturing sector as energy are not collected on the MECS. An estimate of the *Miscellaneous Nonfuel Products* used in manufacturing was derived using EIA's [U.S. Product Supplied for Crude Oil and Petroleum Products](#) data.

\* Estimate less than 0.5.

D=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error (RSE) is greater than 50 percent.

NA=Not available.

Notes: 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 feedstocks 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.

Sources: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-846, *2018 Manufacturing Energy Consumption Survey*, and Office of Energy Production, Conversion & Delivery, Form EIA-810, *Monthly Refinery Report* for 2018.

The Census Bureau has reviewed this data product for unauthorized disclosure of confidential information and has approved the disclosure avoidance practices applied (Approval ID: CBDRB-FY20-260).



Released: February 2021  
 Next MECS will be fielded in 2022.

**RSE Table 1.1 Relative Standard Errors for Table 1.1;**  
 Unit: Percents

NAICS Code(a)	Subsector and Industry	Total(b)	Net Electricity(c)	Residual Fuel Oil	Distillate Fuel Oil(d)	Natural Gas(e)	HGL (excluding natural gasoline)(f)	Coal	Coke and Breeze	Other(g)	Shipments of Energy Sources Produced Onsite(h)
<b>Total United States</b>											
311	Food	5.1	11.4	2.2	27.5	4.5	18.2	0.0	0.0	14.5	0.0
3112	Grain and Oilseed Milling	2.4	1.9	15.8	6.8	3.5	15.0	0.0	X	3.3	0.0
311221	Wet Corn Milling	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
31131	Sugar Manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X
3114	Fruit and Vegetable Preserving and Specialty Food	3.2	6.1	0.0	7.0	3.2	5.8	X	X	2.6	X
3115	Dairy Product	2.4	3.3	28.5	32.4	2.4	12.9	X	X	21.2	X
3116	Animal Slaughtering and Processing	14.8	31.0	0.0	13.3	6.1	22.0	X	X	37.2	X
312	Beverage and Tobacco Products	12.0	15.5	0.0	29.3	8.5	11.2	0.0	X	85.8	X
3121	Beverages	12.8	16.3	0.0	31.3	9.2	12.8	0.0	X	85.8	X
3122	Tobacco	0.0	0.0	0.0	0.0	0.0	0.0	X	X	0.0	X
313	Textile Mills	6.4	6.1	78.4	24.0	12.7	25.0	16.2	X	3.9	X
314	Textile Product Mills	9.7	7.9	X	28.1	13.5	29.1	0.0	X	76.5	X
315	Apparel	10.0	11.3	X	51.8	14.0	42.2	99.4	X	98.2	X
316	Leather and Allied Products	7.7	5.1	X	4.0	11.5	31.1	X	X	21.5	X
321	Wood Products	4.0	3.0	0.5	29.8	10.1	6.0	63.3	X	5.0	X
321113	Sawmills	5.2	7.0	7.7	3.6	36.2	8.6	X	X	1.3	X
3212	Veneer, Plywood, and Engineered Woods	1.0	1.2	0.0	3.2	1.2	3.1	80.4	X	1.5	X
321219	Reconstituted Wood Products	0.5	1.5	0.0	2.6	0.9	5.9	X	X	0.1	X
3219	Other Wood Products	16.2	5.7	85.9	65.7	14.7	15.0	75.3	X	33.2	X
322	Paper	0.4	1.4	0.0	0.7	1.0	11.0	0.0	X	0.1	X
322110	Pulp Mills	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X
322121	Paper Mills, except Newsprint	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X
322122	Newsprint Mills	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
322130	Paperboard Mills	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X
323	Printing and Related Support	7.7	7.8	50.9	43.0	9.9	20.7	X	X	59.0	X
324	Petroleum and Coal Products	0.5	0.5	8.9	8.7	0.4	5.6	0.1	X	0.7	1.0
324110	Petroleum Refineries	0.0	0.0	0.0	0.0	0.0	0.0	X	X	0.0	X
324121	Asphalt Paving Mixture and Block	4.6	8.7	29.3	14.9	3.8	35.8	19.9	X	4.7	X
324122	Asphalt Shingle and Coating Materials	1.5	1.7	0.0	0.9	1.1	2.6	X	X	1.3	68.8
324191	Petroleum Lubricating Oil and Grease Products	18.0	19.1	X	60.7	21.2	40.2	X	X	11.0	56.6
324199	Other Petroleum and Coal Products	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	0.0
325	Chemicals	1.3	1.5	0.1	28.8	2.0	1.4	1.4	0.0	2.5	0.0
325110	Petrochemicals	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	0.0
325120	Industrial Gases	5.4	3.8	X	0.0	6.4	70.2	X	X	5.9	0.0
325180	Other Basic Inorganic Chemicals	6.4	2.0	0.1	3.0	13.8	0.1	0.0	0.0	8.3	X
325193	Ethyl Alcohol	1.2	1.9	X	2.8	1.5	1.6	0.0	X	2.7	X
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	0.0

325199	Other Basic Organic Chemicals	4.6	5.9	0.0	58.8	5.8	5.8	1.2	X	5.3	0.0
325211	Plastics Materials and Resins	2.1	3.4	X	D	1.0	D	D	X	D	0.0
325212	Synthetic Rubber	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
325220	Artificial and Synthetic Fibers and Filaments	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
325311	Nitrogenous Fertilizers	4.0	12.5	X	2.7	D	37.4	X	X	D	X
325312	Phosphatic Fertilizers	0.0	D	0.0	D	0.0	0.0	D	X	0.0	X
3254	Pharmaceuticals and Medicines	5.9	2.9	X	2.4	5.1	25.5	0.0	X	36.0	X
325412	Pharmaceutical Preparation	9.6	1.7	X	2.9	9.5	30.1	0.0	X	39.7	X
325992	Photographic Film, Paper, Plate, and Chemicals	0.2	0.3	0.0	0.1	0.4	1.5	X	X	0.0	X
326	Plastics and Rubber Products	7.7	7.7	72.4	73.7	14.1	17.3	X	X	2.9	X
327	Nonmetallic Mineral Products	3.5	2.5	97.3	16.7	1.7	27.4	7.5	18.7	10.8	X
327120	Clay Building Material and Refractories	2.0	3.6	X	2.2	2.2	5.5	0.0	X	24.9	X
327211	Flat Glass	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
327212	Other Pressed and Blown Glass and Glassware	0.6	0.8	X	0.7	0.7	27.3	X	X	0.1	X
327213	Glass Containers	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
327215	Glass Products from Purchased Glass	0.9	1.4	X	26.0	1.0	1.9	X	X	0.1	X
327310	Cements	0.4	0.3	X	0.3	1.2	1.1	0.3	11.3	0.1	X
327410	Lime	0.0	0.0	X	0.0	0.0	0.0	0.0	0.0	0.0	X
327420	Gypsum	1.0	2.0	X	47.3	0.5	1.4	X	X	0.0	X
327993	Mineral Wool	0.7	0.4	X	0.1	1.0	6.1	0.0	0.0	0.1	X
331	Primary Metals	0.3	1.1	0.3	0.9	0.2	2.2	0.1	0.3	0.9	0.0
331110	Iron and Steel Mills and Ferroalloys	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3312	Steel Products from Purchased Steel	9.4	17.6	X	11.1	3.8	15.4	0.0	0.0	26.3	X
3313	Alumina and Aluminum	0.2	0.1	X	0.7	0.4	1.0	X	X	0.1	0.0
331314	Secondary Smelting and Alloying of Aluminum	2.1	1.5	X	2.8	2.3	1.1	X	X	3.4	X
331315	Aluminum Sheet, Plate and Foils	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	0.0
331318	Other Aluminum Rolling, Drawing and Extruding	0.6	1.2	X	0.3	0.4	2.3	X	X	11.1	X
3314	Nonferrous Metals, except Aluminum	1.0	0.9	X	5.2	1.3	2.0	0.0	11.0	0.7	X
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	0.7	0.6	X	0.2	1.2	3.1	0.0	0.0	0.1	X
3315	Foundries	0.9	0.9	89.7	1.6	0.9	1.7	0.3	4.2	1.7	X
331511	Iron Foundries	1.7	1.5	X	0.8	1.9	4.2	0.0	4.2	4.2	X
331523	Nonferrous Metal Die-Casting Foundries	1.3	1.2	89.7	5.6	1.6	1.4	X	X	0.7	X
331524	Aluminum Foundries, except Die-Casting	0.9	1.1	X	1.4	1.2	2.9	X	X	3.2	X
332	Fabricated Metal Products	11.3	10.0	X	58.9	16.0	19.1	70.3	X	42.6	X
333	Machinery	11.9	17.2	99.0	29.7	12.9	26.6	99.0	X	46.7	X
334	Computer and Electronic Products	7.2	6.7	0.0	57.2	11.4	48.0	X	X	31.5	X
334413	Semiconductors and Related Devices	3.3	3.3	0.0	1.2	3.7	13.2	X	X	9.8	X
335	Electrical Equip., Appliances, and Components	10.2	8.8	47.2	23.6	15.1	24.5	X	X	28.5	X
336	Transportation Equipment	7.9	9.2	10.2	26.3	8.4	12.5	X	30.3	6.7	X
336111	Automobiles	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
336112	Light Trucks and Utility Vehicles	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
3364	Aerospace Product and Parts	2.9	4.2	0.0	3.9	2.6	10.3	X	X	0.9	X
336411	Aircraft	5.6	10.0	X	8.0	1.6	52.7	X	X	0.1	X
337	Furniture and Related Products	11.3	8.6	X	60.4	12.4	24.6	75.8	X	49.1	X
339	Miscellaneous	12.2	11.1	X	59.5	17.5	44.9	99.0	X	6.7	X
	Subtotal	0.7	1.8	0.6	8.0	1.1	1.4	1.7	0.5	0.7	0.2
	Miscellaneous Nonfuel Products(i)	0	X	X	X	X	X	X	X	0	X
	Total	0.7	1.8	0.6	8.0	1.1	1.4	1.7	0.5	0.7	0.2

**Northeast Census Region**

311	Food	10.1	11.7	0.0	88.2	9.8	15.3	X	X	10.4	X
3112	Grain and Oilseed Milling	2.3	5.2	X	71.1	0.9	0.0	X	X	X	X
311221	Wet Corn Milling	0.0	0.0	X	X	0.0	0.0	X	X	X	X
31131	Sugar Manufacturing	0.0	0.0	X	0.0	0.0	0.0	X	X	X	X
3114	Fruit and Vegetable Preserving and Specialty Food	10.5	6.5	0.0	16.0	13.5	14.9	X	X	8.9	X
3115	Dairy Product	5.1	4.8	0.0	14.6	6.5	10.2	X	X	24.6	X
3116	Animal Slaughtering and Processing	2.5	3.0	X	2.3	2.2	35.1	X	X	0.3	X
312	Beverage and Tobacco Products	5.0	7.1	0.0	50.3	4.3	28.1	X	X	0.0	X
3121	Beverages	5.3	7.2	0.0	50.9	4.7	28.3	X	X	0.0	X
3122	Tobacco	0.0	0.0	0.0	0.0	0.0	0.0	X	X	0.0	X
313	Textile Mills	8.5	6.2	X	59.3	13.1	3.7	X	X	83.5	X
314	Textile Product Mills	31.0	32.0	X	62.8	41.4	54.9	0.0	X	84.7	X
315	Apparel	27.8	30.5	X	X	36.6	68.3	99.4	X	X	X
316	Leather and Allied Products	11.0	8.7	X	2.4	15.1	9.1	X	X	X	X
321	Wood Products	8.3	8.5	0.4	16.9	18.6	7.3	63.3	X	10.2	X
321113	Sawmills	1.2	1.9	0.0	4.0	9.7	7.1	X	X	1.4	X
3212	Veneer, Plywood, and Engineered Woods	0.1	1.4	0.0	7.1	1.2	9.3	80.4	X	0.1	X
321219	Reconstituted Wood Products	0.0	0.0	0.0	0.0	0.0	0.0	X	X	0.0	X
3219	Other Wood Products	33.5	15.4	85.9	44.2	33.2	44.2	75.3	X	60.0	X
322	Paper	2.3	9.0	0.0	8.0	4.4	29.9	0.0	X	0.1	X
322110	Pulp Mills	D	0.0	0.0	0.0	0.0	0.0	X	X	D	X
322121	Paper Mills, except Newsprint	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X
322122	Newsprint Mills	X	X	X	X	X	X	X	X	X	X
322130	Paperboard Mills	0.0	0.0	0.0	0.0	0.0	0.0	X	X	0.0	X
323	Printing and Related Support	21.1	21.9	50.9	53.9	28.9	61.4	X	X	98.9	X
324	Petroleum and Coal Products	1.9	0.6	3.5	15.5	1.2	1.2	X	X	2.2	X
324110	Petroleum Refineries	0.0	0.0	0.0	0.0	0.0	0.0	X	X	0.0	X
324121	Asphalt Paving Mixture and Block	5.6	5.9	3.7	17.0	5.7	5.0	X	X	6.0	X
324122	Asphalt Shingle and Coating Materials	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
324191	Petroleum Lubricating Oil and Grease Products	1.2	3.8	X	25.5	1.6	2.2	X	X	0.0	X
324199	Other Petroleum and Coal Products	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
325	Chemicals	7.8	4.4	0.0	3.0	10.6	18.3	0.0	X	8.7	0.0
325110	Petrochemicals	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
325120	Industrial Gases	9.3	11.4	X	X	32.4	85.5	X	X	21.3	0.0
325180	Other Basic Inorganic Chemicals	8.6	1.8	X	5.1	17.7	16.7	X	X	4.7	X
325193	Ethyl Alcohol	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	0.0	0.0	X	X	0.0	X	X	X	0.0	X
325199	Other Basic Organic Chemicals	0.2	0.7	0.0	0.0	0.3	19.5	0.0	X	0.0	X
325211	Plastics Materials and Resins	D	1.9	X	55.5	2.4	8.1	X	X	D	X
325212	Synthetic Rubber	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
325220	Artificial and Synthetic Fibers and Filaments	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
325311	Nitrogenous Fertilizers	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
325312	Phosphatic Fertilizers	0.0	0.0	X	0.0	X	0.0	X	X	X	X
3254	Pharmaceuticals and Medicines	1.3	2.8	X	3.6	1.2	46.2	X	X	0.1	X
325412	Pharmaceutical Preparation	2.3	4.0	X	3.8	1.7	50.1	X	X	0.1	X
325992	Photographic Film, Paper, Plate, and Chemicals	0.0	0.0	0.0	0.0	0.0	0.0	X	X	0.0	X

326	Plastics and Rubber Products	30.8	32.0	X	87.7	45.9	63.8	X	X	81.4	X
327	Nonmetallic Mineral Products	7.2	14.7	X	47.5	3.1	30.3	0.0	X	32.9	X
327120	Clay Building Material and Refractories	3.5	4.1	X	0.1	5.9	8.2	0.0	X	0.1	X
327211	Flat Glass	0.0	0.0	X	X	0.0	0.0	X	X	X	X
327212	Other Pressed and Blown Glass and Glassware	1.5	1.6	X	2.7	1.8	65.7	X	X	0.0	X
327213	Glass Containers	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
327215	Glass Products from Purchased Glass	0.7	1.3	X	53.7	0.8	2.9	X	X	0.1	X
327310	Cements	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
327410	Lime	0.0	0.0	X	0.0	0.0	X	0.0	X	0.0	X
327420	Gypsum	0.0	0.0	X	0.0	0.0	0.0	X	X	X	X
327993	Mineral Wool	0.0	0.0	X	0.0	0.0	0.0	X	X	X	X
331	Primary Metals	0.2	0.6	X	0.4	0.3	5.5	0.0	1.3	4.1	0.0
331110	Iron and Steel Mills and Ferroalloys	0.0	0.0	X	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3312	Steel Products from Purchased Steel	6.0	7.9	X	6.6	2.5	38.7	0.0	0.0	50.0	X
3313	Alumina and Aluminum	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
331314	Secondary Smelting and Alloying of Aluminum	0.0	0.0	X	0.0	0.0	0.0	X	X	X	X
331315	Aluminum Sheet, Plate and Foils	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
331318	Other Aluminum Rolling, Drawing and Extruding	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
3314	Nonferrous Metals, except Aluminum	1.7	2.9	X	0.0	2.2	12.4	X	0.0	0.5	X
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	0.0	0.0	X	X	0.0	0.0	X	X	X	X
3315	Foundries	1.8	2.1	X	5.4	1.8	2.6	0.0	49.2	15.0	X
331511	Iron Foundries	1.4	1.1	X	2.1	1.4	1.0	0.0	49.2	66.0	X
331523	Nonferrous Metal Die-Casting Foundries	5.9	12.4	X	X	3.2	1.2	X	X	0.0	X
331524	Aluminum Foundries, except Die-Casting	1.7	3.1	X	6.3	1.2	6.6	X	X	5.5	X
332	Fabricated Metal Products	33.9	26.9	X	91.6	46.8	52.8	X	X	61.7	X
333	Machinery	19.6	21.1	99.0	54.9	24.9	37.3	99.0	X	60.6	X
334	Computer and Electronic Products	13.4	12.3	0.0	67.0	18.8	51.8	X	X	44.8	X
334413	Semiconductors and Related Devices	2.4	2.2	0.0	0.6	2.3	0.0	X	X	23.2	X
335	Electrical Equip., Appliances, and Components	29.7	25.1	X	42.8	38.2	41.9	X	X	50.0	X
336	Transportation Equipment	36.9	53.8	60.3	22.6	23.8	12.4	X	X	5.9	X
336111	Automobiles	0.0	0.0	X	X	0.0	X	X	X	X	X
336112	Light Trucks and Utility Vehicles	0.0	0.0	X	X	0.0	X	X	X	X	X
3364	Aerospace Product and Parts	1.9	5.2	0.0	0.1	1.1	2.3	X	X	0.1	X
336411	Aircraft	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
337	Furniture and Related Products	25.9	25.0	X	98.9	36.2	53.4	X	X	73.3	X
339	Miscellaneous	35.6	36.7	X	67.3	41.5	55.9	X	X	93.8	X
	Total	2.5	5.2	5.3	28.3	3.8	8.7	0.1	1.3	2.1	0.0

**Midwest Census Region**

311	Food	4.7	4.2	5.7	11.1	6.5	30.7	0.0	0.0	10.0	0.0
3112	Grain and Oilseed Milling	3.0	1.9	48.4	7.3	4.5	22.0	0.0	X	0.6	0.0
311221	Wet Corn Milling	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
31131	Sugar Manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X
3114	Fruit and Vegetable Preserving and Specialty Food	9.5	15.6	X	15.4	9.4	7.4	X	X	2.0	X
3115	Dairy Product	3.7	4.5	67.2	20.5	4.0	50.2	X	X	2.7	X
3116	Animal Slaughtering and Processing	6.5	3.5	0.0	28.7	8.9	16.6	X	X	0.2	X
312	Beverage and Tobacco Products	38.3	4.7	0.0	6.2	6.2	26.7	X	X	97.1	X
3121	Beverages	38.3	4.7	0.0	6.2	6.2	26.7	X	X	97.1	X

3122	Tobacco	0.0	0.0	X	X	0.0	X	X	X	X	X
313	Textile Mills	10.0	12.7	X	94.8	13.1	33.0	X	X	1.4	X
314	Textile Product Mills	46.2	41.4	X	X	57.4	X	X	X	X	X
315	Apparel	41.5	40.9	X	X	61.2	X	X	X	X	X
316	Leather and Allied Products	12.6	7.8	X	28.3	17.2	48.1	X	X	23.1	X
321	Wood Products	10.9	6.9	86.3	79.6	6.2	18.6	X	X	14.6	X
321113	Sawmills	3.3	9.7	86.3	6.2	4.7	20.8	X	X	3.5	X
3212	Veneer, Plywood, and Engineered Woods	9.8	1.1	X	2.1	2.2	10.5	X	X	20.6	X
321219	Reconstituted Wood Products	0.4	0.8	X	0.0	0.5	7.2	X	X	0.3	X
3219	Other Wood Products	21.5	11.6	X	95.8	12.0	25.5	X	X	40.8	X
322	Paper	2.1	4.6	0.0	0.5	3.9	21.7	0.0	X	0.1	X
322110	Pulp Mills	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
322121	Paper Mills, except Newsprint	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X
322122	Newsprint Mills	X	X	X	X	X	X	X	X	X	X
322130	Paperboard Mills	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X
323	Printing and Related Support	12.7	12.5	X	18.7	14.4	35.9	X	X	49.7	X
324	Petroleum and Coal Products	1.5	0.1	0.0	2.8	0.3	1.2	0.0	X	2.3	0.0
324110	Petroleum Refineries	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
324121	Asphalt Paving Mixture and Block	9.5	2.6	0.0	4.0	3.8	30.3	X	X	10.6	X
324122	Asphalt Shingle and Coating Materials	D	3.4	0.0	0.0	1.3	1.8	X	X	D	X
324191	Petroleum Lubricating Oil and Grease Products	3.3	3.6	X	0.2	3.8	9.3	X	X	56.8	X
324199	Other Petroleum and Coal Products	D	0.0	X	0.0	0.0	0.0	0.0	X	D	0.0
325	Chemicals	3.1	2.6	D	4.4	4.2	0.6	D	X	12.4	0.0
325110	Petrochemicals	0.0	0.0	X	0.0	0.0	0.0	X	X	X	X
325120	Industrial Gases	3.5	3.2	X	X	9.0	25.8	X	X	X	0.0
325180	Other Basic Inorganic Chemicals	1.1	0.7	D	6.9	2.0	4.6	X	X	D	X
325193	Ethyl Alcohol	1.3	2.1	X	2.9	1.6	1.7	0.0	X	2.8	X
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
325199	Other Basic Organic Chemicals	12.7	5.5	X	10.0	20.4	D	87.5	X	D	X
325211	Plastics Materials and Resins	D	D	X	10.9	6.1	D	D	X	D	0.0
325212	Synthetic Rubber	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
325220	Artificial and Synthetic Fibers and Filaments	0.0	0.0	X	X	0.0	0.0	X	X	X	X
325311	Nitrogenous Fertilizers	0.1	0.1	X	2.5	D	39.4	X	X	D	X
325312	Phosphatic Fertilizers	0.0	0.0	X	0.0	0.0	0.0	X	X	X	X
3254	Pharmaceuticals and Medicines	10.6	8.4	X	13.5	15.0	37.8	0.0	X	0.1	X
325412	Pharmaceutical Preparation	12.5	1.9	X	15.9	20.1	40.1	0.0	X	0.1	X
325992	Photographic Film, Paper, Plate, and Chemicals	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
326	Plastics and Rubber Products	13.6	12.8	X	59.1	23.7	25.8	X	X	52.0	X
327	Nonmetallic Mineral Products	1.9	4.0	X	38.3	2.6	32.7	0.0	0.0	1.8	X
327120	Clay Building Material and Refractories	2.9	3.6	X	5.0	3.4	13.8	0.0	X	11.2	X
327211	Flat Glass	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
327212	Other Pressed and Blown Glass and Glassware	0.9	0.9	X	0.8	1.0	8.0	X	X	0.0	X
327213	Glass Containers	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
327215	Glass Products from Purchased Glass	1.9	2.6	X	0.5	2.5	8.2	X	X	0.0	X
327310	Cements	0.1	0.1	X	0.1	0.1	0.0	0.0	0.0	0.1	X
327410	Lime	0.0	0.0	X	0.0	0.0	0.0	0.0	0.0	0.0	X
327420	Gypsum	0.3	2.2	X	0.0	0.2	1.5	X	X	0.0	X
327993	Mineral Wool	0.5	0.7	X	0.0	0.5	3.2	X	0.0	0.0	X

331	Primary Metals	0.1	0.2	0.3	D	0.2	2.1	D	0.2	0.4	0.0
331110	Iron and Steel Mills and Ferroalloys	0.0	0.0	0.0	D	0.0	0.0	D	0.0	0.0	0.0
3312	Steel Products from Purchased Steel	2.6	1.8	X	5.3	3.7	17.8	0.0	X	35.1	X
3313	Alumina and Aluminum	0.4	0.2	X	1.1	0.8	3.8	X	X	0.1	X
331314	Secondary Smelting and Alloying of Aluminum	2.6	3.3	X	2.6	2.7	6.8	X	X	0.0	X
331315	Aluminum Sheet, Plate and Foils	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
331318	Other Aluminum Rolling, Drawing and Extruding	1.7	2.5	X	0.4	1.2	4.6	X	X	14.8	X
3314	Nonferrous Metals, except Aluminum	1.6	0.9	X	13.0	3.1	0.7	X	0.0	1.5	X
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	0.0	0.0	X	0.0	0.0	0.0	X	0.0	0.0	X
3315	Foundries	1.3	1.3	89.7	1.4	1.4	2.1	0.3	5.2	1.6	X
331511	Iron Foundries	2.4	2.2	X	1.3	2.9	5.6	0.0	5.2	3.7	X
331523	Nonferrous Metal Die-Casting Foundries	2.0	1.5	89.7	7.0	2.4	2.5	X	X	0.7	X
331524	Aluminum Foundries, except Die-Casting	1.3	1.5	X	0.0	1.7	0.8	X	X	0.0	X
332	Fabricated Metal Products	15.7	15.6	X	77.8	21.4	21.4	X	X	56.0	X
333	Machinery	14.2	13.9	X	35.1	17.9	41.2	X	X	63.1	X
334	Computer and Electronic Products	15.2	16.0	X	17.8	22.7	87.3	X	X	4.9	X
334413	Semiconductors and Related Devices	11.6	11.5	X	6.6	12.2	53.0	X	X	4.8	X
335	Electrical Equip., Appliances, and Components	26.2	21.7	47.2	44.6	35.2	33.4	X	X	78.5	X
336	Transportation Equipment	12.9	15.4	X	D	13.0	D	X	30.3	9.7	X
336111	Automobiles	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
336112	Light Trucks and Utility Vehicles	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
3364	Aerospace Product and Parts	2.0	2.5	X	0.0	2.4	31.5	X	X	0.2	X
336411	Aircraft	1.6	1.6	X	0.0	1.3	81.1	X	X	0.0	X
337	Furniture and Related Products	19.6	15.5	X	88.7	16.5	31.9	X	X	72.4	X
339	Miscellaneous	15.1	15.4	X	29.1	19.9	72.8	99.0	X	0.2	X
	Total	1.3	2.5	D	18.8	2.1	D	0.1	0.2	2.3	0.0

**South Census Region**

311	Food	4.9	5.8	1.4	14.2	6.2	17.7	0.0	X	9.1	0.0
3112	Grain and Oilseed Milling	2.6	6.1	16.7	1.6	1.9	35.1	0.0	X	9.4	0.0
311221	Wet Corn Milling	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
31131	Sugar Manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X
3114	Fruit and Vegetable Preserving and Specialty Food	4.4	5.6	X	3.7	4.9	17.6	X	X	3.2	X
3115	Dairy Product	10.1	12.5	X	53.5	9.2	0.4	X	X	61.4	X
3116	Animal Slaughtering and Processing	6.0	4.2	X	17.6	4.7	28.7	X	X	39.7	X
312	Beverage and Tobacco Products	17.0	28.4	0.0	5.4	18.7	10.0	0.0	X	1.9	X
3121	Beverages	19.3	31.5	X	6.9	22.1	17.1	0.0	X	1.9	X
3122	Tobacco	0.0	0.0	0.0	0.0	0.0	0.0	X	X	0.0	X
313	Textile Mills	7.6	6.7	78.4	25.5	17.2	50.3	16.2	X	4.2	X
314	Textile Product Mills	11.5	9.4	X	31.5	15.6	34.0	X	X	87.8	X
315	Apparel	12.4	15.6	X	51.8	11.8	45.0	X	X	98.2	X
316	Leather and Allied Products	9.8	12.6	X	X	4.8	45.9	X	X	0.0	X
321	Wood Products	6.6	4.6	2.4	7.8	17.0	15.5	X	X	8.5	X
321113	Sawmills	8.3	8.8	83.8	6.9	46.5	19.3	X	X	2.2	X
3212	Veneer, Plywood, and Engineered Woods	0.8	1.7	0.0	3.4	1.4	3.3	X	X	0.7	X
321219	Reconstituted Wood Products	1.0	2.3	0.0	4.8	1.5	9.3	X	X	0.1	X
3219	Other Wood Products	28.1	11.0	X	27.2	34.1	27.8	X	X	44.4	X
322	Paper	0.4	2.6	0.0	0.1	1.2	14.2	0.0	X	0.1	X



322110	Pulp Mills	D	0.0	0.0	0.0	0.0	0.0	0.0	X	D	X
322121	Paper Mills, except Newsprint	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X
322122	Newsprint Mills	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
322130	Paperboard Mills	0.0	0.0	0.0	0.0	0.0	0.0	0.0	X	0.0	X
323	Printing and Related Support	15.3	16.0	X	46.1	19.7	26.0	X	X	87.8	X
324	Petroleum and Coal Products	0.7	0.9	20.3	D	0.7	D	0.1	X	0.8	1.4
324110	Petroleum Refineries	0.0	0.0	X	D	0.0	D	X	X	0.0	X
324121	Asphalt Paving Mixture and Block	8.4	20.4	20.3	34.1	9.7	34.5	19.9	X	7.9	X
324122	Asphalt Shingle and Coating Materials	3.2	2.8	X	1.2	2.3	7.7	X	X	2.7	68.8
324191	Petroleum Lubricating Oil and Grease Products	21.5	23.6	X	72.2	24.9	42.7	X	X	13.0	56.6
324199	Other Petroleum and Coal Products	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	0.0
325	Chemicals	1.5	2.3	D	34.2	2.4	1.5	D	0.0	2.6	0.0
325110	Petrochemicals	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	0.0
325120	Industrial Gases	7.3	D	X	0.0	D	65.1	X	X	0.1	0.0
325180	Other Basic Inorganic Chemicals	8.2	2.9	D	4.7	16.8	0.1	0.0	0.0	D	X
325193	Ethyl Alcohol	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	0.0
325199	Other Basic Organic Chemicals	5.1	8.6	0.0	61.0	6.7	D	0.0	X	D	0.0
325211	Plastics Materials and Resins	2.3	D	X	D	1.0	D	D	X	D	0.0
325212	Synthetic Rubber	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
325220	Artificial and Synthetic Fibers and Filaments	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
325311	Nitrogenous Fertilizers	5.3	22.4	X	5.7	4.9	52.1	X	X	31.4	X
325312	Phosphatic Fertilizers	D	D	0.0	D	D	0.0	D	X	0.0	X
3254	Pharmaceuticals and Medicines	14.7	2.0	X	0.6	2.0	1.4	X	X	44.0	X
325412	Pharmaceutical Preparation	22.4	2.5	X	1.0	3.8	2.0	X	X	45.0	X
325992	Photographic Film, Paper, Plate, and Chemicals	0.9	0.9	X	7.0	1.4	1.6	X	X	0.0	X
326	Plastics and Rubber Products	14.5	15.0	72.4	79.8	21.8	22.7	X	X	1.8	X
327	Nonmetallic Mineral Products	1.4	2.7	97.3	20.9	2.1	28.5	0.3	7.6	2.2	X
327120	Clay Building Material and Refractories	2.9	5.3	X	3.1	3.0	7.2	X	X	27.4	X
327211	Flat Glass	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
327212	Other Pressed and Blown Glass and Glassware	0.9	1.0	X	0.0	1.2	33.2	X	X	0.1	X
327213	Glass Containers	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
327215	Glass Products from Purchased Glass	1.2	1.8	X	33.6	0.9	1.7	X	X	0.1	X
327310	Cements	0.8	0.7	X	0.0	2.6	0.0	0.4	12.3	0.0	X
327410	Lime	0.0	0.0	X	0.0	0.0	0.0	0.0	0.0	0.0	X
327420	Gypsum	1.0	3.3	X	1.7	0.9	2.2	X	X	0.0	X
327993	Mineral Wool	0.3	0.7	X	0.1	0.2	11.9	0.0	0.0	0.7	X
331	Primary Metals	1.2	2.5	X	D	0.4	6.8	D	9.6	2.2	0.0
331110	Iron and Steel Mills and Ferroalloys	0.0	0.0	X	D	0.0	0.0	D	0.0	0.0	0.0
3312	Steel Products from Purchased Steel	19.7	30.7	X	20.0	9.0	42.7	X	0.0	37.4	X
3313	Alumina and Aluminum	0.4	0.1	X	1.3	0.6	0.9	X	X	0.1	0.0
331314	Secondary Smelting and Alloying of Aluminum	3.9	2.5	X	6.3	4.2	1.0	X	X	4.2	X
331315	Aluminum Sheet, Plate and Foils	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	0.0
331318	Other Aluminum Rolling, Drawing and Extruding	0.5	1.4	X	1.3	0.4	2.7	X	X	0.0	X
3314	Nonferrous Metals, except Aluminum	2.0	1.6	X	0.0	2.3	8.9	0.0	19.3	1.3	X
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
3315	Foundries	0.9	1.4	X	3.4	0.8	4.2	0.0	0.0	3.1	X
331511	Iron Foundries	1.6	2.3	X	1.5	1.4	7.6	X	0.0	0.0	X

331523	Nonferrous Metal Die-Casting Foundries	1.4	1.3	X	0.0	1.6	1.9	X	X	1.5	X
331524	Aluminum Foundries, except Die-Casting	0.7	2.2	X	0.0	0.1	20.9	X	X	0.0	X
332	Fabricated Metal Products	26.1	21.4	X	46.7	34.7	38.4	70.3	X	69.1	X
333	Machinery	28.3	37.3	X	75.6	29.2	41.2	X	X	68.9	X
334	Computer and Electronic Products	21.0	19.2	X	2.0	33.9	40.2	X	X	7.2	X
334413	Semiconductors and Related Devices	2.3	2.9	X	0.0	0.0	0.0	X	X	7.7	X
335	Electrical Equip., Appliances, and Components	13.3	13.7	X	36.9	16.9	28.3	X	X	30.7	X
336	Transportation Equipment	10.4	9.4	3.5	D	15.5	D	X	X	6.5	X
336111	Automobiles	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
336112	Light Trucks and Utility Vehicles	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
3364	Aerospace Product and Parts	10.4	11.3	X	26.2	14.0	5.2	X	X	3.2	X
336411	Aircraft	13.3	19.9	X	0.0	5.4	26.1	X	X	0.0	X
337	Furniture and Related Products	20.0	16.9	X	42.9	30.3	24.7	75.8	X	58.6	X
339	Miscellaneous	20.8	18.2	X	56.7	33.4	67.6	X	X	53.1	X
	Total	0.9	2.0	D	D	1.5	1.5	0.8	5.8	0.8	0.2

**West Census Region**

311	Food	18.5	37.2	X	28.3	13.2	44.8	0.0	0.0	65.5	X
3112	Grain and Oilseed Milling	4.6	7.5	X	0.0	6.1	43.1	X	X	7.3	X
311221	Wet Corn Milling	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
31131	Sugar Manufacturing	0.0	0.0	X	0.0	0.0	0.0	0.0	0.0	0.0	X
3114	Fruit and Vegetable Preserving and Specialty Food	3.5	5.0	X	17.5	3.8	7.4	X	X	4.1	X
3115	Dairy Product	2.5	2.9	X	35.2	2.7	27.1	X	X	41.4	X
3116	Animal Slaughtering and Processing	60.3	73.8	X	10.8	32.4	59.3	X	X	82.5	X
312	Beverage and Tobacco Products	6.2	10.3	X	25.4	5.5	20.7	X	X	32.7	X
3121	Beverages	6.2	10.3	X	25.4	5.5	20.7	X	X	32.7	X
3122	Tobacco	0.0	0.0	X	X	X	X	X	X	X	X
313	Textile Mills	9.8	15.7	X	X	12.5	73.6	X	X	0.0	X
314	Textile Product Mills	50.3	42.1	X	X	57.0	92.2	X	X	X	X
315	Apparel	23.1	25.5	X	X	31.1	32.2	X	X	X	X
316	Leather and Allied Products	7.9	7.6	X	X	10.6	33.4	X	X	0.0	X
321	Wood Products	1.3	4.7	0.0	3.4	4.4	10.7	X	X	0.3	X
321113	Sawmills	0.5	6.2	X	1.5	1.4	18.5	X	X	0.4	X
3212	Veneer, Plywood, and Engineered Woods	1.2	2.7	X	6.7	3.2	6.1	X	X	0.5	X
321219	Reconstituted Wood Products	0.3	1.0	X	0.0	0.1	7.7	X	X	0.1	X
3219	Other Wood Products	14.5	15.0	X	27.4	20.8	25.1	X	X	57.7	X
322	Paper	1.3	3.6	0.0	4.4	2.5	26.4	X	X	0.0	X
322110	Pulp Mills	0.0	0.0	0.0	X	X	X	X	X	0.0	X
322121	Paper Mills, except Newsprint	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
322122	Newsprint Mills	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
322130	Paperboard Mills	0.0	0.0	0.0	0.0	0.0	0.0	X	X	0.0	X
323	Printing and Related Support	23.2	23.8	X	99.0	31.4	44.5	X	X	70.1	X
324	Petroleum and Coal Products	1.0	0.3	10.6	D	0.1	D	X	X	1.3	0.0
324110	Petroleum Refineries	0.0	0.0	0.0	D	0.0	D	X	X	0.0	X
324121	Asphalt Paving Mixture and Block	11.1	10.4	58.9	9.8	4.2	53.8	X	X	11.8	X
324122	Asphalt Shingle and Coating Materials	D	3.1	X	19.9	0.5	1.5	X	X	D	X
324191	Petroleum Lubricating Oil and Grease Products	0.0	0.0	X	X	0.0	0.0	X	X	X	X
324199	Other Petroleum and Coal Products	D	0.0	X	0.0	0.0	0.0	X	X	D	0.0

325	Chemicals	1.9	4.7	X	1.5	1.1	39.1	0.0	X	32.6	0.0
325110	Petrochemicals	X	X	X	X	X	X	X	X	X	X
325120	Industrial Gases	1.6	D	X	X	D	95.1	X	X	0.0	0.0
325180	Other Basic Inorganic Chemicals	3.0	1.3	X	2.2	2.6	12.3	0.0	X	54.5	X
325193	Ethyl Alcohol	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
325194	Cyclic Crudes, Intermediate and Gum and Wood Chemicals	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
325199	Other Basic Organic Chemicals	3.6	4.2	X	4.3	4.0	13.2	X	X	0.1	X
325211	Plastics Materials and Resins	1.5	0.8	X	15.9	2.9	4.7	X	X	0.1	X
325212	Synthetic Rubber	0.0	0.0	X	X	0.0	0.0	X	X	0.0	X
325220	Artificial and Synthetic Fibers and Filaments	0.0	0.0	X	X	0.0	0.0	X	X	X	X
325311	Nitrogenous Fertilizers	6.9	8.6	X	14.5	6.2	37.8	X	X	0.0	X
325312	Phosphatic Fertilizers	D	D	X	0.0	D	0.0	X	X	0.0	X
3254	Pharmaceuticals and Medicines	6.3	6.5	X	15.0	6.9	41.8	X	X	96.2	X
325412	Pharmaceutical Preparation	9.2	8.3	X	17.9	11.9	46.1	X	X	50.5	X
325992	Photographic Film, Paper, Plate, and Chemicals	0.1	0.1	X	0.0	0.1	0.0	X	X	0.0	X
326	Plastics and Rubber Products	32.1	32.6	X	99.0	62.0	40.8	X	X	87.6	X
327	Nonmetallic Mineral Products	16.2	8.9	X	31.9	8.7	65.5	27.1	59.9	33.9	X
327120	Clay Building Material and Refractories	1.3	2.0	X	2.8	1.3	3.9	X	X	53.9	X
327211	Flat Glass	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
327212	Other Pressed and Blown Glass and Glassware	2.7	11.1	X	84.4	2.1	12.0	X	X	8.7	X
327213	Glass Containers	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
327215	Glass Products from Purchased Glass	1.8	1.8	X	0.0	2.8	4.2	X	X	0.3	X
327310	Cements	0.4	0.7	X	1.7	0.2	23.8	0.7	30.1	0.1	X
327410	Lime	0.0	0.0	X	0.0	0.0	0.0	0.0	0.0	0.0	X
327420	Gypsum	4.6	2.5	X	78.4	0.1	0.1	X	X	0.0	X
327993	Mineral Wool	5.3	1.3	X	0.0	8.3	4.1	X	X	0.0	X
331	Primary Metals	0.6	0.6	X	3.7	0.8	3.6	0.0	0.0	0.1	X
331110	Iron and Steel Mills and Ferroalloys	0.0	0.0	X	0.0	0.0	0.0	0.0	X	0.0	X
3312	Steel Products from Purchased Steel	6.6	7.8	X	1.9	15.9	1.5	X	X	15.1	X
3313	Alumina and Aluminum	0.3	0.2	X	0.0	0.4	3.6	X	X	0.0	X
331314	Secondary Smelting and Alloying of Aluminum	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
331315	Aluminum Sheet, Plate and Foils	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
331318	Other Aluminum Rolling, Drawing and Extruding	2.5	4.4	X	0.0	1.7	5.6	X	X	0.0	X
3314	Nonferrous Metals, except Aluminum	2.0	2.1	X	21.9	2.4	4.6	X	X	0.1	X
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	1.8	1.9	X	0.9	1.8	23.5	X	X	0.3	X
3315	Foundries	1.4	1.8	X	5.3	1.6	11.7	X	0.0	0.1	X
331511	Iron Foundries	0.7	0.5	X	0.0	0.3	47.9	X	0.0	0.0	X
331523	Nonferrous Metal Die-Casting Foundries	3.1	1.3	X	0.0	4.1	9.8	X	X	0.0	X
331524	Aluminum Foundries, except Die-Casting	5.0	2.5	X	64.2	6.5	0.4	X	X	0.0	X
332	Fabricated Metal Products	30.0	27.9	X	70.3	37.4	43.0	X	X	84.1	X
333	Machinery	31.1	23.7	X	73.8	47.4	58.1	X	X	68.9	X
334	Computer and Electronic Products	7.5	6.7	X	10.4	12.1	68.8	X	X	32.4	X
334413	Semiconductors and Related Devices	6.3	6.3	X	5.2	7.3	5.3	X	X	1.1	X
335	Electrical Equip., Appliances, and Components	29.4	22.5	X	96.8	53.3	80.5	X	X	95.6	X
336	Transportation Equipment	7.5	11.1	X	1.6	5.0	23.0	X	X	0.5	X
336111	Automobiles	0.0	0.0	X	0.0	0.0	0.0	X	X	0.0	X
336112	Light Trucks and Utility Vehicles	0.0	0.0	X	X	0.0	0.0	X	X	X	X
3364	Aerospace Product and Parts	1.6	2.4	X	1.8	1.7	2.5	X	X	0.2	X

336411	Aircraft	4.1	6.7	X	14.1	2.7	12.1	X	X	0.1	X
337	Furniture and Related Products	28.4	26.7	X	X	44.0	52.5	X	X	99.0	X
339	Miscellaneous	22.7	23.5	X	74.5	32.6	48.6	X	X	93.5	X
	Total	3.0	9.8	6.7	D	3.0	D	15.6	42.9	2.6	0.0

(a) The Bureau of the Census classifies establishments using the 2017 North American Industry Classification System (NAICS).

(b) *Total* is the sum of all of the listed energy sources, including *Other*, minus the *Shipments of Energy Sources Produced Onsite*. It is the total amount of first use of energy for all (fuel and nonfuel) purposes.

(c) *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).

(d) *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 supplier(s), such as independent gas producers, gas brokers, marketers, and any marketing subsidiaries of utilities.

(f) Hydrocarbon Gas Liquids (*HGL*) 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 (*NGL*).

(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. See also Footnote *i*.

(h) *Shipments of Energy Sources Produced Onsite* are those shipments produced or transformed onsite from the nonfuel use of other energy sources. For example, at an establishment that processes coal to make coke for later use, the entire quantity of coal is counted as first use. Any onsite consumption of coke is not counted as first use because it would duplicate the coal use. If some of the coke is then sold to another establishment, that second establishment will consider this coke to be a shipment of an offsite-produced energy source. Hence, the second establishment will count this coke as its first use, thereby resulting in double counting. In order to eliminate the double counting, the energy equivalent of the coke shipment must be subtracted from first use.

(i) Previously, the Manufacturing Energy Consumption Survey (MECS) had accounted for energy consumed in petroleum refineries by measuring their own fuel use, assuming shipments of fuel products would later be counted in the industries that use them, and assigning the heat equivalent of the nonfuel products to the petroleum refinery (for a more detailed explanation see, *Feedstock and Offsite-Produced Fuel at Petroleum Refineries*). Starting with the 2014 MECS, however, EIA began collecting asphalt and petrochemical feedstock data from establishments that use those nonfuel products. These data are included in the *Other* column. However, other *Miscellaneous Nonfuel Products* (i.e. lubricants, solvents, waxes, and special naphthas) from refineries, and used elsewhere throughout the manufacturing sector as energy are not collected on the MECS. An estimate of the *Miscellaneous Nonfuel Products* used in manufacturing was derived using EIA's [U.S. Product Supplied for Crude Oil and Petroleum Products](#) data.

\* Estimate less than 0.5.

D=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error (RSE) is greater than 50 percent.

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

NA=Not available.

Notes: 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 feedstocks 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.

Sources: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-846, *2018 Manufacturing Energy Consumption Survey*, and Office of Energy Production, Conversion & Delivery, Form EIA-810, *Monthly Refinery Report* for 2018.

*The Census Bureau has reviewed this data product for unauthorized disclosure of confidential information and has approved the disclosure avoidance practices applied (Approval ID: CBDRB-FY20-260).*