

**Technical Appendix for  
Delgado, M., M.E. Porter, and S. Stern (2014), "Defining Clusters of Related Industries"\***

**Proposed Set of Cluster Definitions  $C^{**}$  (June 2014):**

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Definition of Terms in the Cluster by Cluster Analysis

Term	Definition
Cluster Name	The name for the cluster
Cluster Code	A number for each cluster based on alphabetic order
Description	A short narrative describing the cluster
Number of Industries	Number of industries in the cluster
Within Cluster Relatedness (WCR <sub>c</sub> ) Score	Within Cluster Relatedness score of a cluster <i>c</i> . WCR <sub>c</sub> is based on the average of (standardized) WCR <sup>LC-Emp</sup> , WCR <sup>LC-Est</sup> , WCR <sup>IO</sup> , and WCR <sup>Occ</sup> .
NAICS	The 2007 6-digit NAICS code for each industry
NAICS Name	The 2007 NAICS label for each industry
Subcluster Name	The name for each subcluster within the cluster. These subclusters are based mainly on industry definitions.
Within Cluster Relatedness (WCR <sub>ic</sub> ) Score	Within Cluster Relatedness score of an industry <i>i</i> within a cluster <i>c</i> . WCR <sub>ic</sub> is based on the average of (standardized) WCR <sup>LC-Emp</sup> , WCR <sup>LC-Est</sup> , WCR <sup>IO</sup> , and WCR <sup>Occ</sup> .
Within Cluster Relatedness (WCR <sub>ic</sub> ) Rank	The WCR <sub>ic</sub> rank of the cluster for each industry. If rank = 1, then the cluster was the best placement for the industry (worst = 51)
Notes	* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster. + = Industry that was originally part of a cluster that was combined with another to produce the focal cluster.

**Overview of Proposed Set of Benchmark Cluster Definitions C\*\***  
**51 Traded Clusters; 778 Industries (6-digit NAICS, 2007 codes)**

Cluster Code	Cluster Name	No. of Industries	% of Traded Employment	WCR <sub>c</sub>
1	Aerospace Vehicles and Defense	7	0.013	1.930
2	Agricultural Inputs and Services	9	0.002	1.136
3	Apparel	21	0.004	2.285
4	Automotive	26	0.019	2.274
5	Biopharmaceuticals	4	0.006	3.346
6	Business Services	33	0.242	1.173
7	Coal Mining	4	0.002	2.299
8	Communications Equipment and Services	8	0.013	2.374
9	Construction Products and Services	20	0.018	1.808
10	Distribution and Electronic Commerce	62	0.130	2.188
11	Downstream Chemical Products	13	0.006	1.297
12	Downstream Metal Products	16	0.010	1.055
13	Education and Knowledge Creation	15	0.068	1.339
14	Electric Power Generation and Transmission	5	0.003	0.899
15	Environmental Services	7	0.002	2.812
16	Financial Services	26	0.049	2.043
17	Fishing and Fishing Products	5	0.001	3.399
18	Food Processing and Manufacturing	47	0.022	0.817
19	Footwear	6	0.000	5.219
20	Forestry	4	0.002	3.466
21	Furniture	12	0.009	1.425
22	Hospitality and Tourism	31	0.070	0.453
23	Information Technology and Analytical Instruments	27	0.026	1.318
24	Insurance Services	8	0.038	4.346
25	Jewelry and Precious Metals	4	0.001	5.492
26	Leather and Related Products	6	0.001	1.321
27	Lighting and Electrical Equipment	15	0.008	1.487
28	Livestock Processing	5	0.012	1.665
29	Marketing, Design, and Publishing	22	0.029	1.678
30	Medical Devices	5	0.007	2.121
31	Metal Mining	8	0.001	0.600
32	Metalworking Technology	17	0.012	1.434
33	Music and Sound Recording	5	0.001	6.192
34	Nonmetal Mining	13	0.002	0.635
35	Oil and Gas Production and Transportation	12	0.013	1.474
36	Paper and Packaging	20	0.009	1.623
37	Performing Arts	8	0.007	1.836
38	Plastics	15	0.016	2.038
39	Printing Services	13	0.013	2.542
40	Production Technology and Heavy Machinery	41	0.023	1.078
41	Recreational and Small Electric Goods	15	0.005	1.300
42	Textile Manufacturing	23	0.005	1.198
43	Tobacco	3	0.000	7.533
44	Trailers, Motor Homes, and Appliances	9	0.003	0.518
45	Transportation and Logistics	17	0.038	1.138
46	Upstream Chemical Products	12	0.004	1.240
47	Upstream Metal Manufacturing	26	0.009	0.969
48	Video Production and Distribution	6	0.005	3.132
49	Vulcanized and Fired Materials	17	0.006	0.942
50	Water Transportation	12	0.007	1.725
51	Wood Products	13	0.009	1.715

**Cluster Name:**

**Aerospace Vehicles and Defense**

**Cluster Code:**

**1**

**Description:**

Establishments in this cluster manufacture aircraft, space vehicles, guided missiles, and related parts. This cluster also contains firms that manufacture the necessary search and navigation equipment used by these products.

<i>Number of Industries</i>	7
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.930

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
336411	Aircraft Manufacturing	Aircraft	1	3.531
336412	Aircraft Engine and Engine Parts Manufacturing	Aircraft	1	1.653
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	Aircraft	1	2.215
336414	Guided Missile and Space Vehicle Manufacturing	Missiles and Space Vehicles	1	1.467
336415	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing	Missiles and Space Vehicles	1	1.885
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing	Missiles and Space Vehicles	1	0.986
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing	Search and Navigation Equipment	1	1.773

**Cluster Name:**

**Agricultural Inputs and Services**

**Cluster Code:**

**2**

**Description:**

This cluster includes establishments primarily engaged in farming and related services. Farming includes soil preparation, planting, cultivation, harvest, fertilizer creation, and post-harvest activities. It also includes services that supply farm labor, support for animal production, and additional operations management.

<i>Number of Industries</i>	9
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.136

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
115111 *	Cotton Ginning	Agricultural Services	2	0.467
115112	Soil Preparation, Planting, and Cultivating	Agricultural Services	1	1.292
115113	Crop Harvesting, Primarily by Machine	Agricultural Services	1	1.354
115114	Postharvest Crop Activities (except Cotton Ginning)	Agricultural Services	1	1.301
115210 *	Support Activities for Animal Production	Agricultural Services	25	0.100
115115	Farm Labor Contractors and Crew Leaders	Farm Management and Labor Services	1	1.266
115116	Farm Management Services	Farm Management and Labor Services	1	1.323
325311	Nitrogenous Fertilizer Manufacturing	Fertilizers	1	1.563
325314	Fertilizer (Mixing Only) Manufacturing	Fertilizers	1	1.556

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Apparel**

**Cluster Code:**

**3**

**Description:**

The establishments in this cluster are focused on manufacturing clothing and fabric accessories (for example, hats, gloves, and neckties) for men, women, and children.

<i>Number of Industries</i>	21
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	2.285

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
314999	All Other Miscellaneous Textile Product Mills	Accessories and Specialty Apparel	2	1.955
315292	Fur and Leather Apparel Manufacturing	Accessories and Specialty Apparel	1	1.913
315299	All Other Cut and Sew Apparel Manufacturing	Accessories and Specialty Apparel	1	1.838
315991	Hat, Cap, and Millinery Manufacturing	Accessories and Specialty Apparel	1	2.560
315992	Glove and Mitten Manufacturing	Accessories and Specialty Apparel	1	1.980
315993	Men's and Boys' Neckwear Manufacturing	Accessories and Specialty Apparel	1	2.967
315999	Other Apparel Accessories and Other Apparel Manufacturing	Accessories and Specialty Apparel	1	3.147
315221 *	Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing	Men's Clothing	2	1.379
315222 *	Men's and Boys' Cut and Sew Suit, Coat, and Overcoat Manufacturing	Men's Clothing	2	1.908
315223 *	Men's and Boys' Cut and Sew Shirt (except Work Shirt) Manufacturing	Men's Clothing	2	2.429
315224 *	Men's and Boys' Cut and Sew Trouser, Slack, and Jean Manufacturing	Men's Clothing	2	2.006
315225 *	Men's and Boys' Cut and Sew Work Clothing Manufacturing	Men's Clothing	2	1.756
315228 *	Men's and Boys' Cut and Sew Other Outerwear Manufacturing	Men's Clothing	2	1.998
315231	Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing	Women's Clothing	1	2.622
315232	Women's and Girls' Cut and Sew Blouse and Shirt Manufacturing	Women's Clothing	1	2.712
315233	Women's and Girls' Cut and Sew Dress Manufacturing	Women's Clothing	1	2.839
315234	Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket, and Skirt Manufacturing	Women's Clothing	1	2.818
315239	Women's and Girls' Cut and Sew Other Outerwear Manufacturing	Women's Clothing	1	2.788
315291	Infants' Cut and Sew Apparel Manufacturing	Women's Clothing	1	1.922
315211	Men's and Boys' Cut and Sew Apparel Contractors	Apparel Contractors	1	2.244
315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	Apparel Contractors	1	2.198

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.  
Apparel (3) and Leather and Related Products (26) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.

**Cluster Name:**

**Automotive**

**Cluster Code:**

**4**

**Description:**

This cluster includes establishments along the value chain that are necessary for manufacturing cars, trucks, and other motorized land-based transportation equipment (other than motorcycles). This includes metal mills and foundries, manufacturers of metal automotive parts, and manufacturers of completed automobiles.

<i>Number of Industries</i>	26
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	2.274

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
332114	Custom Roll Forming	Automotive Parts	1	1.943
336321	Vehicular Lighting Equipment Manufacturing	Automotive Parts	1	2.707
336322	Other Motor Vehicle Electrical and Electronic Equipment Manufacturing	Automotive Parts	1	3.133
336330	Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing	Automotive Parts	1	3.018
336340	Motor Vehicle Brake System Manufacturing	Automotive Parts	1	2.826
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing	Automotive Parts	1	3.031
336360	Motor Vehicle Seating and Interior Trim Manufacturing	Automotive Parts	1	3.120
336391	Motor Vehicle Air-Conditioning Manufacturing	Automotive Parts	1	2.807
336399	All Other Motor Vehicle Parts Manufacturing	Automotive Parts	1	3.186
336311	Carburetor, Piston, Piston Ring, and Valve Manufacturing	Gasoline Engine and Engine Parts	1	2.594
336312	Gasoline Engine and Engine Parts Manufacturing	Gasoline Engine and Engine Parts	1	3.126
336111	Automobile Manufacturing	Motor Vehicles	1	2.700
336112	Light Truck and Utility Vehicle Manufacturing	Motor Vehicles	1	2.589
336120 *	Heavy Duty Truck Manufacturing	Motor Vehicles	1	1.452
336211 *	Motor Vehicle Body Manufacturing	Motor Vehicles	1	1.323
336370	Motor Vehicle Metal Stamping	Motor Vehicles	1	2.986
336999 *	All Other Transportation Equipment Manufacturing	Small Vehicles	1	1.077
336992 *	Military Armored Vehicle, Tank, and Tank Component Manufacturing	Military Vehicles and Tanks	1	0.594
331511	Iron Foundries	Metal Mills and Foundries	1	1.581
331512	Steel Investment Foundries	Metal Mills and Foundries	1	1.595
331513	Steel Foundries (except Investment)	Metal Mills and Foundries	1	1.663
331521	Aluminum Die-Casting Foundries	Metal Mills and Foundries	1	2.146
331522	Nonferrous (except Aluminum) Die-Casting Foundries	Metal Mills and Foundries	1	1.863
331524	Aluminum Foundries (except Die-Casting)	Metal Mills and Foundries	1	2.136
331525	Copper Foundries (except Die-Casting)	Metal Mills and Foundries	1	1.974
331528	Other Nonferrous Foundries (except Die-Casting)	Metal Mills and Foundries	1	1.955

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Biopharmaceuticals**

**Cluster Code:**

**5**

**Description:**

Establishments in this cluster produce complex chemical and biological substances used in medications, vaccines, diagnostic tests, and similar medical applications.

<i>Number of Industries</i>	4
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	3,346

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
325411	Medicinal and Botanical Manufacturing	Biopharmaceutical Products	1	3.821
325412	Pharmaceutical Preparation Manufacturing	Biopharmaceutical Products	1	4.430
325414	Biological Product (except Diagnostic) Manufacturing	Biological Products	1	3.102
325413	In-Vitro Diagnostic Substance Manufacturing	Diagnostic Substances	1	2.031

Note: Biopharmaceuticals (5) and Downstream Chemical Products (11) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.



**Cluster Name:****Business Services****Cluster Code:****6****Description:**

Firms in this cluster include establishments and services primarily designed to support other aspects of a business or to assist unrelated companies. This includes corporate headquarters. Professional services such as consulting, legal services, facilities support services, computer services, engineering and architectural services, and placement services. All for-hire ground passenger transportation services are also present in this cluster.

<i>Number of Industries</i>	33
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.173

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
551111 *	Offices of Bank Holding Companies	Corporate Headquarters	5	1.336
551112 *	Offices of Other Holding Companies	Corporate Headquarters	6	1.479
551114 *	Corporate, Subsidiary, and Regional Managing Offices	Corporate Headquarters	6	1.798
541611	Administrative Management and General Management Consulting Services	Consulting Services	1	1.554
541612	Human Resources and Executive Search Consulting Services	Consulting Services	1	1.513
541614	Process, Physical Distribution, and Logistics Consulting Services	Consulting Services	1	1.579
541618	Other Management Consulting Services	Consulting Services	1	1.530
541690	Other Scientific and Technical Consulting Services	Consulting Services	1	1.250
533110 *	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	Business Support Services	3	1.318
541199 *	All Other Legal Services	Business Support Services	3	0.851
541214 *	Payroll Services	Business Support Services	6	0.833
541930 *	Translation and Interpretation Services	Business Support Services	1	0.920
541990 *	All Other Professional, Scientific, and Technical Services	Business Support Services	1	1.017
561210	Facilities Support Services	Business Support Services	1	0.805
561330 *	Professional Employer Organizations	Business Support Services	2	1.080
561421 *	Telephone Answering Services	Business Support Services	3	0.813
561422 *	Telemarketing Bureaus	Business Support Services	3	0.882
561920 *	Convention and Trade Show Organizers	Business Support Services	2	1.166
518210	Data Processing, Hosting, and Related Services	Computer Services	1	1.420
541511	Custom Computer Programming Services	Computer Services	1	1.358
541512	Computer Systems Design Services	Computer Services	1	1.313
541513	Computer Facilities Management Services	Computer Services	1	1.129
541519	Other Computer Related Services	Computer Services	1	1.059

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
561311 *	Employment Placement Agencies	Employment Placement Services	2	1.519
561312 *	Executive Search Services	Employment Placement Services	2	1.498
541330	Engineering Services	Engineering Services	1	1.281
541310	Architectural Services	Architectural and Drafting Services	1	1.374
541320	Landscape Architectural Services	Architectural and Drafting Services	1	1.300
541340	Drafting Services	Architectural and Drafting Services	2	1.124
485310 *	Taxi Service	Ground Passenger Transportation	2	0.285
485320 *	Limousine Service	Ground Passenger Transportation	5	0.722
485999 *	All Other Transit and Ground Passenger Transportation	Ground Passenger Transportation	2	0.871
532112 *	Passenger Car Leasing	Ground Passenger Transportation	3	0.741

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Coal Mining**

**Cluster Code:**

**7**

**Description:**

This cluster includes establishments that mine coal and provide services to support coal mining.

<i>Number of Industries</i>	4
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	2.299

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
212111	Bituminous Coal and Lignite Surface Mining	Coal Mining	2	2.480
212112	Bituminous Coal Underground Mining	Coal Mining	2	2.509
212113	Anthracite Mining	Coal Mining	2	1.440
213113 *	Support Activities for Coal Mining	Coal Mining	1	2.769

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

Coal Mining (7) and Electric Power Generation and Transmission (14) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.

**Cluster Name:**

**Communications Equipment and Services**

**Cluster Code:**

**8**

**Description:**

This cluster involves goods and services used for communications. This includes cable, wireless, and satellite services, as well as telephone, broadcasting, and wireless communications equipment.

<i>Number of Industries</i>	8
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	2.374

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
515210	Cable and Other Subscription Programming	Communications Services	1	2.562
517210	Wireless Telecommunications Carriers (except Satellite)	Communications Services	1	3.240
517410	Satellite Telecommunications	Communications Services	1	3.203
517919	All Other Telecommunications	Communications Services	1	3.386
334210	Telephone Apparatus Manufacturing	Communications Equipment	1	2.880
334220 *	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	Communications Equipment	2	1.173
334290 *	Other Communications Equipment Manufacturing	Communications Equipment	1	1.444
335912	Primary Battery Manufacturing	Communications Equipment Components	1	1.105

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Construction Products and Services**

**Cluster Code:**

**9**

**Description:**

The establishments in this cluster supply construction materials, components, products, and services. Construction materials and components include those made of sand, stone, gravel, asphalt, cement, concrete, and other earthen substances. Construction products include pipes and heat exchangers. Construction services include the construction of pipelines for water, sewers, oil and gas, power, and communication, as well as building services for homes and industrial buildings.

<i>Number of Industries</i>	20
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.808

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
236210	Industrial Building Construction	Construction	1	4.021
237120	Oil and Gas Pipeline and Related Structures Construction	Construction	1	3.616
237130	Power and Communication Line and Related Structures Construction	Construction	1	3.917
237990	Other Heavy and Civil Engineering Construction	Construction	1	4.075
221310 *	Water Supply and Irrigation Systems	Water, Sewage, and Other Systems	1	0.689
221330	Steam and Air-Conditioning Supply	Water, Sewage, and Other Systems	1	0.131
332410 *	Power Boiler and Heat Exchanger Manufacturing	Construction Products	1	0.643
332420	Metal Tank (Heavy Gauge) Manufacturing	Construction Products	1	1.532
332913 *	Plumbing Fixture Fitting and Trim Manufacturing	Construction Products	1	1.280
332996 *	Fabricated Pipe and Pipe Fitting Manufacturing	Construction Products	1	1.355
327310 *	Cement Manufacturing	Construction Components	1	0.902
327331 *	Concrete Block and Brick Manufacturing	Construction Components	1	1.711
327332 *	Concrete Pipe Manufacturing	Construction Components	1	1.660
327410 *	Lime Manufacturing	Construction Components	1	0.681
327420 *	Gypsum Product Manufacturing	Construction Components	1	1.215
327991	Cut Stone and Stone Product Manufacturing	Construction Components	1	1.801
327993	Mineral Wool Manufacturing	Construction Components	1	1.607
327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing	Construction Components	1	1.751
324121	Asphalt Paving Mixture and Block Manufacturing	Construction Materials	1	1.752
324122	Asphalt Shingle and Coating Materials Manufacturing	Construction Materials	1	1.830

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Cluster Code:**

**Description:**

**Distribution and Electronic Commerce**

**10**

This cluster consists primarily of traditional wholesalers as well as mail order houses and electronic merchants. The companies in this cluster mostly buy, hold, and distribute a wide range of products such as apparel, food, chemicals, gasses, minerals, farm materials, machinery, and other merchandise. The cluster also contains firms that support distribution and electronic commerce operations, including packaging, labeling, and equipment rental and leasing.

Number of Industries	62
Within Cluster Relatedness (WCR <sub>c</sub> )	2.188

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
493110	General Warehousing and Storage	Warehousing and Storage	1	2.528
493120	Refrigerated Warehousing and Storage	Warehousing and Storage	1	2.274
493190	Other Warehousing and Storage	Warehousing and Storage	1	2.414
425110	Business to Business Electronic Markets	Electronic and Catalog Shopping	1	2.282
454111 *	Electronic Shopping	Electronic and Catalog Shopping	1	1.626
454112 *	Electronic Auctions	Electronic and Catalog Shopping	1	0.946
454113 *	Mail-Order Houses	Electronic and Catalog Shopping	1	1.483
425120	Wholesale Trade Agents and Brokers	Wholesale Trade Agents and Brokers	1	2.454
561499 *	All Other Business Support Services	Packaging and Labeling Services	1	1.445
561910	Packaging and Labeling Services	Packaging and Labeling Services	1	2.086
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	Wholesale of Apparel and Accessories	1	2.314
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	Wholesale of Apparel and Accessories	1	2.358
424330	Women's, Children's, and Infants' Clothing and Accessories Merchant Wholesalers	Wholesale of Apparel and Accessories	1	2.229
424340	Footwear Merchant Wholesalers	Wholesale of Apparel and Accessories	2	2.227
424920	Book, Periodical, and Newspaper Merchant Wholesalers	Wholesale of Books, Periodicals, and Newspapers	1	2.393
424610	Plastics Materials and Basic Forms and Shapes Merchant Wholesalers	Wholesale of Chemical and Allied Products	1	2.512
424690	Other Chemical and Allied Products Merchant Wholesalers	Wholesale of Chemical and Allied Products	1	2.460
424210	Drugs and Druggists' Sundries Merchant Wholesalers	Wholesale of Drugs and Druggists' Sundries	2	1.989
424590	Other Farm Product Raw Material Merchant Wholesalers	Wholesale of Farm Products and Supplies	1	1.788
424910 *	Farm Supplies Merchant Wholesalers	Wholesale of Farm Products and Supplies	1	1.841
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	Wholesale of Farm Products and Supplies	1	2.281
424940	Tobacco and Tobacco Product Merchant Wholesalers	Wholesale of Farm Products and Supplies	1	2.344
493130	Farm Product Warehousing and Storage	Wholesale of Farm Products and Supplies	1	1.438
424440	Poultry and Poultry Product Merchant Wholesalers	Wholesale of Food Products	1	2.247
424460	Fish and Seafood Merchant Wholesalers	Wholesale of Food Products	2	2.191
424470	Meat and Meat Product Merchant Wholesalers	Wholesale of Food Products	1	2.360
424480	Fresh Fruit and Vegetable Merchant Wholesalers	Wholesale of Food Products	1	2.301
424820	Wine and Distilled Alcoholic Beverage Merchant Wholesalers	Wholesale of Food Products	1	2.325
423210	Furniture Merchant Wholesalers	Wholesale of Furniture and Home Furnishing	1	2.529

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
423220	Home Furnishing Merchant Wholesalers	Wholesale of Furniture and Home Furnishing	1	2.505
423940	Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers	Wholesale of Jewelry, Watches, Precious Stones, and Precious Metals	2	2.233
424110	Printing and Writing Paper Merchant Wholesalers	Wholesale of Paper and Paper Products	1	2.452
424120	Stationery and Office Supplies Merchant Wholesalers	Wholesale of Paper and Paper Products	1	2.112
424130	Industrial and Personal Service Paper Merchant Wholesalers	Wholesale of Paper and Paper Products	1	2.556
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	Wholesale of Sporting and Recreational Goods and Supplies	1	2.432
423920	Toy and Hobby Goods and Supplies Merchant Wholesalers	Wholesale of Toy and Hobby Goods and Supplies	1	2.280
424950	Paint, Varnish, and Supplies Merchant Wholesalers	Wholesale of Other Merchandise	1	2.502
424990	Other Miscellaneous Nondurable Goods Merchant Wholesalers	Wholesale of Other Merchandise	1	2.489
423820 *	Farm and Garden Machinery and Equipment Merchant Wholesalers	Wholesale of Farm and Garden Machinery and Equipment	1	1.635
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	Wholesale of Construction and Mining Machinery and Equipment	1	2.220
423830	Industrial Machinery and Equipment Merchant Wholesalers	Wholesale of Industrial Machinery, Equipment, and Supplies	1	2.307
423840	Industrial Supplies Merchant Wholesalers	Wholesale of Industrial Machinery, Equipment, and Supplies	1	2.388
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	Wholesale of Service Establishment Equipment and Supplies	1	2.423
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	Wholesale of Transportation Equipment and Supplies (except Motor Vehicles)	1	2.123
423410	Photographic Equipment and Supplies Merchant Wholesalers	Wholesale of Professional and Commercial Equipment and Supplies	2	2.220
423420	Office Equipment Merchant Wholesalers	Wholesale of Professional and Commercial Equipment and Supplies	1	2.317
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	Wholesale of Professional and Commercial Equipment and Supplies	1	2.097
423440	Other Commercial Equipment Merchant Wholesalers	Wholesale of Professional and Commercial Equipment and Supplies	1	2.350
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	Wholesale of Professional and Commercial Equipment and Supplies	1	2.313
423460	Ophthalmic Goods Merchant Wholesalers	Wholesale of Professional and Commercial Equipment and Supplies	2	2.199
423490	Other Professional Equipment and Supplies Merchant Wholesalers	Wholesale of Professional and Commercial Equipment and Supplies	1	2.241
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	Wholesale of Electrical and Electronic Goods	1	2.520
423620	Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers	Wholesale of Electrical and Electronic Goods	1	2.453
423690	Other Electronic Parts and Equipment Merchant Wholesalers	Wholesale of Electrical and Electronic Goods	1	2.226
423510	Metal Service Centers and Other Metal Merchant Wholesalers	Wholesale of Metals and Minerals (except Petroleum)	1	2.367
423520	Coal and Other Mineral and Ore Merchant Wholesalers	Wholesale of Metals and Minerals (except Petroleum)	2	1.686
424710	Petroleum Bulk Stations and Terminals	Wholesale of Petroleum and Petroleum Products	1	1.793
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	Wholesale of Petroleum and Petroleum Products	1	1.878
532411	Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing	Rental and Leasing	1	1.908
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	Rental and Leasing	1	1.897
532420	Office Machinery and Equipment Rental and Leasing	Rental and Leasing	1	2.437
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	Rental and Leasing	1	2.402

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Downstream Chemical Products**

**Cluster Code:**

**11**

**Description:**

Establishments in this cluster manufacture complex chemical products for end users. These products include adhesives, beauty products, soaps, cleaners, film processing chemicals, dyes, paints, explosives, and lubricating oils.

<i>Number of Industries</i>	13
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.297

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
325611	Soap and Other Detergent Manufacturing	Personal Care and Cleaning Products	1	1.868
325612	Polish and Other Sanitation Good Manufacturing	Personal Care and Cleaning Products	1	1.740
325613	Surface Active Agent Manufacturing	Personal Care and Cleaning Products	1	1.573
325620	Toilet Preparation Manufacturing	Personal Care and Cleaning Products	2	1.437
325520	Adhesive Manufacturing	Processed Chemical Products	1	1.548
325991	Custom Compounding of Purchased Resins	Processed Chemical Products	1	1.461
325992	Photographic Film, Paper, Plate, and Chemical Manufacturing	Processed Chemical Products	1	0.934
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	Processed Chemical Products	1	1.575
325131	Inorganic Dye and Pigment Manufacturing	Dye, Pigment, and Coating	2	0.852
325132	Synthetic Organic Dye and Pigment Manufacturing	Dye, Pigment, and Coating	1	0.976
325510	Paint and Coating Manufacturing	Dye, Pigment, and Coating	1	1.789
325920	Explosives Manufacturing	Explosives	1	0.458
324191 *	Petroleum Lubricating Oil and Grease Manufacturing	Lubricating Oils and Greases	4	0.644

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

Biopharmaceuticals (5) and Downstream Chemical Products (11) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.



**Cluster Name:**

**Downstream Metal Products**

**Cluster Code:**

**12**

**Description:**

This cluster contains establishments that manufacture metal containers, prefabricated metal structures, and end user metal products. These end user products include ammunition, kitchenware, hardware, metal bathroom fixtures, and similar metal products used in home finishing such as doors, windows and ornamentation.

<i>Number of Industries</i>	16
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.055

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
332211	Cutlery and Flatware (except Precious) Manufacturing	Metal Products	5	0.727
332213	Saw Blade and Handsaw Manufacturing	Metal Products	4	0.786
332214 *	Kitchen Utensil, Pot, and Pan Manufacturing	Metal Products	3	0.794
332321	Metal Window and Door Manufacturing	Metal Products	3	1.200
332323	Ornamental and Architectural Metal Work Manufacturing	Metal Products	3	1.280
332510	Hardware Manufacturing	Metal Products	8	1.151
332998	Enameled Iron and Metal Sanitary Ware Manufacturing	Metal Products	1	1.198
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	Metal Products	1	1.612
332992	Small Arms Ammunition Manufacturing	Ammunition	1	0.917
332993	Ammunition (except Small Arms) Manufacturing	Ammunition	1	0.931
332994	Small Arms Manufacturing	Ammunition	2	0.837
332995	Other Ordnance and Accessories Manufacturing	Ammunition	1	0.972
332311	Prefabricated Metal Building and Component Manufacturing	Fabricated Metal Structures	2	0.912
332312	Fabricated Structural Metal Manufacturing	Fabricated Metal Structures	2	1.221
332431	Metal Can Manufacturing	Metal Containers	1	1.168
332439	Other Metal Container Manufacturing	Metal Containers	1	1.174

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster. Downstream Metal Products (12) and Production Technology and Heavy Machinery (40) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.

**Cluster Name:**

**Education and Knowledge Creation**

**Cluster Code:**

**13**

**Description:**

This cluster contains all educational and training institutions, as well as related supporting establishments. It also includes research and development institutions in biotechnology, physical sciences, engineering, life sciences, and social sciences.

<i>Number of Industries</i>	15
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.339

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
611410	Business and Secretarial Schools	Training Programs	1	1.174
611420	Computer Training	Training Programs	1	1.357
611430	Professional and Management Development Training	Training Programs	1	1.704
611512	Flight Training	Training Programs	1	1.758
611513	Apprenticeship Training	Training Programs	1	0.699
611630	Language Schools	Training Programs	1	1.209
611691	Exam Preparation and Tutoring	Training Programs	1	1.486
611699	All Other Miscellaneous Schools and Instruction	Training Programs	1	1.465
611210	Junior Colleges	Colleges, Universities, and Professional Schools	1	1.490
611310	Colleges, Universities, and Professional Schools	Colleges, Universities, and Professional Schools	1	1.367
611710	Educational Support Services	Educational Support Services	1	1.471
541711 *	Research and Development in Biotechnology	Research Organizations	1	1.523
541712 *	Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology)	Research Organizations	2	1.113
541720 *	Research and Development in the Social Sciences and Humanities	Research Organizations	2	1.233
813920	Professional Organizations	Professional Organizations	2	1.039
332439	Other Metal Container Manufacturing	Metal Containers	1	1.174

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Electric Power Generation and Transmission**

**Cluster Code:**

**14**

**Description:**

This cluster contains establishments primarily engaged in generating and distributing electric power. This includes power generated from alternative energy sources such as hydroelectric power, nuclear electric power, and solar and wind generated electric power.

<i>Number of Industries</i>	5
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	0.899

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
221112	Fossil Fuel Electric Power Generation	Fossil Fuel Electric Power	2	1.081
221111	Hydroelectric Power Generation	Alternative Electric Power	2	0.709
221113	Nuclear Electric Power Generation	Alternative Electric Power	2	0.970
221119	Other Electric Power Generation	Alternative Electric Power	2	1.008
221121	Electric Bulk Power Transmission and Control	Electric Power Transmission	2	0.726

Note: Coal Mining (7) and Electric Power Generation and Transmission (14) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.

**Cluster Name:**

**Environmental Services**

**Cluster Code:**

**15**

**Description:**

This cluster contains establishments primarily engaged in collection, treatment, processing, and disposal of hazardous and non-hazardous waste.

<i>Number of Industries</i>	7
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	2.812

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
562112	Hazardous Waste Collection	Waste Collection	1	2.982
562119	Other Waste Collection	Waste Collection	1	2.970
562211	Hazardous Waste Treatment and Disposal	Waste Processing	1	2.919
562213	Solid Waste Combustors and Incinerators	Waste Processing	1	2.745
562219	Other Nonhazardous Waste Treatment and Disposal	Waste Processing	1	2.849
562920	Materials Recovery Facilities	Waste Processing	1	2.679
562998	All Other Miscellaneous Waste Management Services	Other Waste Management Services	1	2.543

**Cluster Name:**  
**Cluster Code:**  
**Description:**

**Financial Services**  
**16**

This cluster contains establishments involved in aiding the transaction and growth of financial assets for businesses and individuals. These firms include securities brokers, dealers, and exchanges; credit institutions; and financial investment support. Insurance firms are located in a separate Insurance cluster.

Number of Industries	26
Within Cluster Relatedness (WCR <sub>c</sub> )	2.043

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
523910	Miscellaneous Intermediation	Financial Investment Activities	1	2.825
523920	Portfolio Management	Financial Investment Activities	1	2.758
523930	Investment Advice	Financial Investment Activities	1	2.882
523991	Trust, Fiduciary, and Custody Activities	Financial Investment Activities	1	2.481
523999	Miscellaneous Financial Investment Activities	Financial Investment Activities	1	2.542
525910	Open-End Investment Funds	Financial Investment Activities	2	3.412
525990	Other Financial Vehicles	Financial Investment Activities	2	3.412
522120	Savings Institutions	Credit Intermediation	1	1.974
522190	Other Depository Credit Intermediation	Credit Intermediation	1	1.586
522210 *	Credit Card Issuing	Credit Intermediation	1	1.011
522220 *	Sales Financing	Credit Intermediation	1	1.773
522291 *	Consumer Lending	Credit Intermediation	1	1.342
522292 *	Real Estate Credit	Credit Intermediation	1	1.571
522293 *	International Trade Financing	Credit Intermediation	1	1.638
522294 *	Secondary Market Financing	Credit Intermediation	1	0.919
522298 *	All Other Nondepository Credit Intermediation	Credit Intermediation	1	1.432
522320 *	Financial Transactions Processing, Reserve, and Clearinghouse Activities	Credit Intermediation	1	1.578
522390 *	Other Activities Related to Credit Intermediation	Credit Intermediation	1	1.595
561450 *	Credit Bureaus	Credit Bureaus	5	1.058
521110	Monetary Authorities - Central Bank	Monetary Authorities - Central Bank	1	1.575
522310 *	Mortgage and Nonmortgage Loan Brokers	Securities Brokers, Dealers and Exchanges	1	1.653
523110	Investment Banking and Securities Dealing	Securities Brokers, Dealers, and Exchanges	1	2.562
523120	Securities Brokerage	Securities Brokers, Dealers, and Exchanges	1	2.769
523130	Commodity Contracts Dealing	Securities Brokers, Dealers, and Exchanges	1	2.339
523140	Commodity Contracts Brokerage	Securities Brokers, Dealers, and Exchanges	1	2.341
523210	Securities and Commodity Exchanges	Securities Brokers, Dealers, and Exchanges	1	2.094

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.  
+ = Industry that was originally part of a cluster that was combined with another to produce the focal cluster.

**Cluster Name:**

**Fishing and Fishing Products**

**Cluster Code:**

**17**

**Description:**

Establishments in this cluster are engaged primarily in catching fish and other seafood and processing the catch for consumption.

<i>Number of Industries</i>	5
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	3.399

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
114111	Finfish Fishing	Fishing and Fishing Products	1	3.271
114112	Shellfish Fishing	Fishing and Fishing Products	1	3.199
114119	Other Marine Fishing	Fishing and Fishing Products	1	2.492
311711	Seafood Canning	Fishing and Fishing Products	1	3.845
311712	Fresh and Frozen Seafood Processing	Fishing and Fishing Products	1	4.188

**Cluster Name:**

**Food Processing and Manufacturing**

**Cluster Code:**

**18**

**Description:**

This cluster includes firms involved in the processing of raw food materials and the manufacturing of downstream food products for end users. This includes millers and refineries of rice, flour, corn, sugar, and oilseeds. These upstream products contribute in part to producing specialty foods, animal foods, baked goods, candies, teas, coffees, beers, wines, other beverages, meats, packaged fruits and vegetables, and processed dairy products.

<i>Number of Industries</i>	47
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	0.817

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
311412	Frozen Specialty Food Manufacturing	Specialty Foods and Ingredients	2	1.143
311422	Specialty Canning	Specialty Foods and Ingredients	1	1.006
311930 +	Flavoring Syrup and Concentrate Manufacturing	Specialty Foods and Ingredients	1	1.329
311941	Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing	Specialty Foods and Ingredients	1	1.125
311942	Spice and Extract Manufacturing	Specialty Foods and Ingredients	2	1.120
311991	Perishable Prepared Food Manufacturing	Specialty Foods and Ingredients	2	1.351
311999	All Other Miscellaneous Food Manufacturing	Specialty Foods and Ingredients	2	1.342
311211	Flour Milling	Baked Goods	2	1.025
311230	Breakfast Cereal Manufacturing	Baked Goods	1	0.668
311813	Frozen Cakes, Pies, and Other Pastries Manufacturing	Baked Goods	1	1.033
311821	Cookie and Cracker Manufacturing	Baked Goods	2	0.835
311822	Flour Mixes and Dough Manufacturing from Purchased Flour	Baked Goods	2	0.868
311823	Dry Pasta Manufacturing	Baked Goods	2	0.839
311830	Tortilla Manufacturing	Baked Goods	3	0.494
311919	Other Snack Food Manufacturing	Baked Goods	1	1.016
311320	Chocolate and Confectionery Manufacturing from Cacao Beans	Candy and Chocolate	1	0.942
311330	Confectionery Manufacturing from Purchased Chocolate	Candy and Chocolate	2	1.131
311340	Nonchocolate Confectionery Manufacturing	Candy and Chocolate	2	1.035
311920	Coffee and Tea Manufacturing	Coffee and Tea	2	1.043
311411	Frozen Fruit, Juice, and Vegetable Manufacturing	Packaged Fruit and Vegetables	1	0.751
311421	Fruit and Vegetable Canning	Packaged Fruit and Vegetables	1	1.309
311423	Dried and Dehydrated Food Manufacturing	Packaged Fruit and Vegetables	1	0.938
311911	Roasted Nuts and Peanut Butter Manufacturing	Packaged Fruit and Vegetables	2	1.053
311511	Fluid Milk Manufacturing	Dairy Products	1	1.189

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
311512	Creamery Butter Manufacturing	Dairy Products	1	0.673
311513	Cheese Manufacturing	Dairy Products	1	0.751
311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing	Dairy Products	1	0.891
311520	Ice Cream and Frozen Dessert Manufacturing	Dairy Products	2	1.089
311111 *	Dog and Cat Food Manufacturing	Animal Foods	3	0.674
311119 +	Other Animal Food Manufacturing	Animal Foods	3	0.684
312111 +	Soft Drink Manufacturing	Soft Drinks and Ice	3	1.014
312112 +	Bottled Water Manufacturing	Soft Drinks and Ice	2	0.902
312113 +	Ice Manufacturing	Soft Drinks and Ice	2	0.853
311213	Malt Manufacturing	Malt Beverages	1	0.372
312120 +	Breweries	Malt Beverages	2	0.649
312140 *	Distilleries	Distilleries	2	0.310
312130 +	Wineries	Wineries	3	0.436
311212	Rice Milling	Milling and Refining of Cereals and Oilseeds	2	0.267
311221	Wet Corn Milling	Milling and Refining of Cereals and Oilseeds	1	0.359
311222	Soybean Processing	Milling and Refining of Cereals and Oilseeds	1	0.433
311223	Other Oilseed Processing	Milling and Refining of Cereals and Oilseeds	1	0.491
311225	Fats and Oils Refining and Blending	Milling and Refining of Cereals and Oilseeds	1	1.108
311311	Sugarcane Mills	Milling and Refining of Sugar	1	0.232
311312	Cane Sugar Refining	Milling and Refining of Sugar	1	0.608
311313	Beet Sugar Manufacturing	Milling and Refining of Sugar	1	0.301
424510 +	Grain and Field Bean Merchant Wholesalers	Farm Wholesalers	4	0.258
327213 +	Glass Container Manufacturing	Glass Containers	5	0.470

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.  
+ = Industry that was originally part of a cluster that was combined with another to produce the focal cluster.



**Cluster Name:**

**Footwear**

**Cluster Code:**

**19**

**Description:**

Establishments in this cluster are those that manufacture men's and women's shoes, boots, slippers, and other footwear. This cluster also contains the upstream leather used in making footwear.

<i>Number of Industries</i>	6
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	5.219

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
316211	Rubber and Plastics Footwear Manufacturing	Footwear	1	6.057
316212	House Slipper Manufacturing	Footwear	1	5.567
316213	Men's Footwear (except Athletic) Manufacturing	Footwear	1	6.001
316214	Women's Footwear (except Athletic) Manufacturing	Footwear	1	6.011
316219	Other Footwear Manufacturing	Footwear	1	6.174
316110 *	Leather and Hide Tanning and Finishing	Footwear Components	1	1.507

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Forestry**

**Cluster Code:**

**20**

**Description:**

Establishments in this cluster are those that involve growing and harvesting trees. It also includes support services for these activities.

<i>Number of Industries</i>	4
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	3.466

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
113110	Timber Tract Operations	Forestry	1	4.322
113210	Forest Nurseries & Gathering Forest Products	Forestry	1	3.310
113310	Logging	Forestry	1	3.828
115310	Forestry Support Activities	Forestry	1	2.403

**Cluster Name:**

**Furniture**

**Cluster Code:**

**21**

**Description:**

This cluster contains establishments that manufacture furniture, cabinets, and shelving for residential homes and offices. It also includes establishments that produce manufactured homes. The products in this cluster can be made of wood, metal, plastic, and/or textiles.

<i>Number of Industries</i>	12
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.425

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
337121	Upholstered Household Furniture Manufacturing	Household Furniture	1	1.794
337122	Nonupholstered Wood Household Furniture Manufacturing	Household Furniture	1	1.820
337124	Metal Household Furniture Manufacturing	Household Furniture	1	1.350
337125	Household Furniture (except Wood and Metal) Manufacturing	Household Furniture	1	1.530
337910 *	Mattress Manufacturing	Household Furniture	5	1.125
337127 *	Institutional Furniture Manufacturing	Institutional Furniture	1	1.491
337211 *	Wood Office Furniture Manufacturing	Office Furniture	2	1.313
337214	Office Furniture (except Wood) Manufacturing	Office Furniture	1	0.993
337110	Wood Kitchen Cabinet and Countertop Manufacturing	Wood Cabinets and Woodwork	1	1.479
337129	Wood Television, Radio, and Sewing Machine Cabinet Manufacturing	Wood Cabinets and Woodwork	1	1.174
337215	Showcase, Partition, Shelving, and Locker Manufacturing	Wood Cabinets and Woodwork	1	1.742
321991	Manufactured Home (Mobile Home) Manufacturing	Mobile Homes	1	1.289

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Hospitality and Tourism**

**Cluster Code:**

**22**

**Description:**

This cluster contains establishments related to hospitality and tourism services and venues. This includes sport venues, casinos, museums, and other attractions. It also includes hotels and other accommodations, transportation, and services related to recreational travel such as reservation services and tour operators.

<i>Number of Industries</i>	31
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	0.453

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
711211	Sports Teams and Clubs	Spectator Sports	3	0.915
711212	Racetracks	Spectator Sports	2	0.567
711219	Other Spectator Sports	Spectator Sports	4	0.596
713110	Amusement and Theme Parks	Amusement Parks and Arcades	5	0.294
713120	Amusement Arcades	Amusement Parks and Arcades	6	0.750
453920 *	Art Dealers	Cultural and Educational Entertainment	13	0.589
712110	Museums	Cultural and Educational Entertainment	6	0.832
712120	Historical Sites	Cultural and Educational Entertainment	5	0.437
712130	Zoos and Botanical Gardens	Cultural and Educational Entertainment	7	0.746
712190	Nature Parks and Other Similar Institutions	Cultural and Educational Entertainment	6	0.740
713210	Casinos (except Casino Hotels)	Gambling Facilities	3	-0.206
713290	Other Gambling Industries	Gambling Facilities	2	0.115
114210 *	Hunting and Trapping	Other Tourism Attractions	14	-0.215
713920	Skiing Facilities	Other Tourism Attractions	1	0.147
713930	Marinas	Other Tourism Attractions	4	0.718
713990	All Other Amusement and Recreation Industries	Other Tourism Attractions	6	0.866
721214	Recreational and Vacation Camps (except Campgrounds)	Other Tourism Attractions	6	0.718
561591 *	Convention and Visitors Bureaus	Accommodations and Related Services	9	0.508
721110	Hotels (except Casino Hotels) and Motels	Accommodations and Related Services	3	0.871
721120	Casino Hotels	Accommodations and Related Services	2	-0.535
721191	Bed-and-Breakfast Inns	Accommodations and Related Services	2	0.477
721199	All Other Traveler Accommodation	Accommodations and Related Services	3	0.316
721211	RV (Recreational Vehicle) Parks and Campgrounds	Accommodations and Related Services	3	0.613
721310	Rooming and Boarding Houses	Accommodations and Related Services	7	0.434

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
487110 *	Scenic and Sightseeing Transportation, Land	Tourism Related Services	13	0.496
487210 *	Scenic and Sightseeing Transportation, Water	Tourism Related Services	9	0.324
487990 *	Scenic and Sightseeing Transportation, Other	Tourism Related Services	6	-0.155
532292 *	Recreational Goods Rental	Tourism Related Services	6	0.214
561510 *	Travel Agencies	Tourism Related Services	12	0.679
561520 *	Tour Operators	Tourism Related Services	9	0.702
561599 *	All Other Travel Arrangement and Reservation Services	Tourism Related Services	7	0.485

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:****Information Technology and Analytical Instruments****Cluster Code:****23****Description:**

This cluster consists of information technology and analytical products such as computers, software, audio visual equipment, laboratory instruments, and medical apparatus. The cluster also includes the standard and precision electronics used by these products (for example, circuit boards and semiconductor devices).

<i>Number of Industries</i>	27
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<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.318
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NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
334411	Electron Tube Manufacturing	Electronic Components	1	1.380
334412	Bare Printed Circuit Board Manufacturing	Electronic Components	1	1.634
334414	Electronic Capacitor Manufacturing	Electronic Components	3	0.988
334415	Electronic Resistor Manufacturing	Electronic Components	1	1.188
334416	Electronic Coil, Transformer, and Other Inductor Manufacturing	Electronic Components	1	1.524
334417	Electronic Connector Manufacturing	Electronic Components	1	1.248
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing	Electronic Components	1	1.846
334419	Other Electronic Component Manufacturing	Electronic Components	1	1.662
334111	Electronic Computer Manufacturing	Computers and Peripherals	1	1.280
334112	Computer Storage Device Manufacturing	Computers and Peripherals	1	1.181
334113	Computer Terminal Manufacturing	Computers and Peripherals	2	0.457
334119	Other Computer Peripheral Equipment Manufacturing	Computers and Peripherals	2	1.154
333295 *	Semiconductor Machinery Manufacturing	Semiconductors	2	0.932
334413	Semiconductor and Related Device Manufacturing	Semiconductors	1	1.618
511210	Software Publishers	Software Publishers	1	1.279
334611 *	Software Reproducing	Software Reproducing	3	0.952
334613 *	Magnetic and Optical Recording Media Manufacturing	Software Reproducing	2	0.793
334512	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use	Process and Laboratory Instruments	2	1.210
334513 *	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables	Process and Laboratory Instruments	1	1.415
334514	Totalizing Fluid Meter and Counting Device Manufacturing	Process and Laboratory Instruments	1	1.249
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	Process and Laboratory Instruments	1	1.688
334516 *	Analytical Laboratory Instrument Manufacturing	Process and Laboratory Instruments	1	1.539
334518	Watch, Clock, and Part Manufacturing	Process and Laboratory Instruments	1	1.282
334519	Other Measuring and Controlling Device Manufacturing	Process and Laboratory Instruments	1	1.604
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing	Medical Apparatus	1	1.582
334517	Irradiation Apparatus Manufacturing	Medical Apparatus	1	1.372
334310	Audio and Video Equipment Manufacturing	Audio and Video Equipment	1	1.530

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Insurance Services**

**Cluster Code:**

**24**

**Description:**

This cluster consists of firms providing a range of insurance types, as well as support services such as reinsurance and claims adjustment.

<i>Number of Industries</i>	8
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	4.346

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
524291	Claims Adjusting	Insurance Related Services	1	6.169
524298	All Other Insurance Related Activities	Insurance Related Services	1	6.203
524113	Direct Life Insurance Carriers	Insurance Carriers	1	3.927
524114	Direct Health and Medical Insurance Carriers	Insurance Carriers	1	3.918
524126	Direct Property and Casualty Insurance Carriers	Insurance Carriers	1	3.918
524127	Direct Title Insurance Carriers	Insurance Carriers	1	3.547
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers	Insurance Carriers	1	3.318
524130	Reinsurance Carriers	Reinsurance Carriers	1	3.765

**Cluster Name:**

**Jewelry and Precious Metals**

**Cluster Code:**

**25**

**Description:**

Establishments in this cluster manufacture jewelry, silverware, and fine tableware. This cluster also includes the upstream manufacture of jewelry parts and the processing of gemstones.

<i>Number of Industries</i>	4
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	5.492

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
339911	Jewelry (except Costume) Manufacturing	Jewelry and Precious Metals Products	1	5.634
339912	Silverware and Hollowware Manufacturing	Jewelry and Precious Metals Products	1	5.264
339913	Jewelers' Material and Lapidary Work Manufacturing	Jewelry and Precious Metals Products	1	5.480
339914	Costume Jewelry and Novelty Manufacturing	Jewelry and Precious Metals Products	1	5.591



**Cluster Name:**

**Leather and Related Products**

**Cluster Code:**

**26**

**Description:**

This cluster consists of manufacturers of luggage and handbags made of leather and fabric. It also includes producers of personal and assorted other leather goods, as well as mills that produce textile bags and related products made from canvas.

<i>Number of Industries</i>	6
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.321

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
316991	Luggage Manufacturing	Personal Leather Goods and Luggage	2	1.480
316993	Personal Leather Good (except Women's Handbag and Purse) Manufacturing	Personal Leather Goods and Luggage	2	1.414
316999	All Other Leather Good Manufacturing	Personal Leather Goods and Luggage	2	1.286
316992	Women's Handbag and Purse Manufacturing	Women's Handbags and Purses	2	1.491
314911	Textile Bag Mills	Textile Bags and Canvas Products	2	0.958
314912	Canvas and Related Product Mills	Textile Bags and Canvas Products	2	1.295

Note: Apparel (3) and Leather and Related Products (26) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.

**Cluster Name:****Lighting and Electrical Equipment****Cluster Code:****27****Description:**

This cluster contains firms involved in the manufacture of electrical equipment and electronic components. The companies in this cluster manufacture wire for communications, wiring devices, fiber optic cables, switchboards, lighting fixtures, motors, transformers, and related products.

<i>Number of Industries</i>	15
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<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.487
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NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
335110	Electric Lamp Bulb and Part Manufacturing	Lighting Fixtures and Parts	1	1.335
335121	Residential Electric Lighting Fixture Manufacturing	Lighting Fixtures and Parts	1	1.766
335122	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing	Lighting Fixtures and Parts	1	1.771
335129	Other Lighting Equipment Manufacturing	Lighting Fixtures and Parts	1	1.682
335311	Power, Distribution, and Specialty Transformer Manufacturing	Electrical Equipment	1	1.621
335312	Motor and Generator Manufacturing	Electrical Equipment	1	1.300
335313	Switchgear and Switchboard Apparatus Manufacturing	Electrical Equipment	1	1.481
335314	Relay and Industrial Control Manufacturing	Electrical Equipment	1	1.642
335921	Fiber Optic Cable Manufacturing	Electrical Components	1	1.389
335929	Other Communication and Energy Wire Manufacturing	Electrical Components	1	1.609
335931	Current-Carrying Wiring Device Manufacturing	Electrical Components	1	1.671
335932	Noncurrent-Carrying Wiring Device Manufacturing	Electrical Components	1	1.233
335991	Carbon and Graphite Product Manufacturing	Electrical Components	1	1.149
335999 *	All Other Miscellaneous Electrical Equipment and Component Manufacturing	Electrical Components	1	1.650
335911	Storage Battery Manufacturing	Storage Battery	1	1.000

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

Lighting and Electrical Equipment (27), Medical Devices (30), and Recreational and Small Electric Goods (41) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.

**Cluster Name:**

**Livestock Processing**

**Cluster Code:**

**28**

**Description:**

This cluster contains establishments engaged in processing meat from livestock and livestock wholesaling.

<i>Number of Industries</i>	5
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.665

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
311611	Animal (except Poultry) Slaughtering	Meat Processing	1	2.104
311612	Meat Processed from Carcasses	Meat Processing	1	2.107
311613	Rendering and Meat Byproduct Processing	Meat Processing	1	2.254
311615	Poultry Processing	Meat Processing	1	1.573
424520 *	Livestock Merchant Wholesalers	Livestock Merchant Wholesalers	4	0.286

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Marketing, Design, and Publishing**

**Cluster Code:**

**29**

**Description:**

This cluster consists of establishments involved in design services (physical and graphical), marketing (including advertising creation, marketing research, media buying, and public relations), and publishing (both in hard copy and on the internet).

<i>Number of Industries</i>	22
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.678

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
541810	Advertising Agencies	Advertising Related Services	2	2.159
541850	Display Advertising	Advertising Related Services	2	1.962
541860	Direct Mail Advertising	Advertising Related Services	1	2.060
541870	Advertising Material Distribution Services	Advertising Related Services	2	2.074
541890	Other Services Related to Advertising	Advertising Related Services	2	2.061
541613 *	Marketing Consulting Services	Other Marketing Related Services	3	1.442
541820	Public Relations Agencies	Other Marketing Related Services	2	2.033
541830	Media Buying Agencies	Other Marketing Related Services	2	2.091
541840	Media Representatives	Other Marketing Related Services	2	2.116
541910 *	Marketing Research and Public Opinion Polling	Other Marketing Related Services	1	1.276
541410	Interior Design Services	Design Services	1	1.539
541420	Industrial Design Services	Design Services	1	1.211
541430	Graphic Design Services	Design Services	1	1.565
541490	Other Specialized Design Services	Design Services	1	1.393
511120	Periodical Publishers	Publishing	2	1.970
511130	Book Publishers	Publishing	1	1.868
511140	Directory and Mailing List Publishers	Publishing	2	1.482
511199	All Other Publishers	Publishing	2	1.431
519110	News Syndicates	Publishing	1	1.459
519120	Libraries and Archives	Publishing	1	1.166
519130	Internet Publishing and Broadcasting and Web Search Portals	Publishing	1	1.251
519190	All Other Information Services	Publishing	1	1.307

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster. Marketing, Design, and Publishing (29) and Performing Arts (37) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.

**Cluster Name:**

**Medical Devices**

**Cluster Code:**

**30**

**Description:**

Establishments in this cluster primarily manufacture surgical, medical, dental, optical, ophthalmic, and veterinary instruments and supplies.

<i>Number of Industries</i>	5
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	2.121

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
333314 *	Optical Instrument and Lens Manufacturing	Optical Instruments and Ophthalmic Goods	1	1.978
339115	Ophthalmic Goods Manufacturing	Optical Instruments and Ophthalmic Goods	1	2.483
339112	Surgical and Medical Instrument Manufacturing	Surgical and Dental Instruments and Supplies	1	2.187
339113	Surgical Appliance and Supplies Manufacturing	Surgical and Dental Instruments and Supplies	1	2.345
339114	Dental Equipment and Supplies Manufacturing	Surgical and Dental Instruments and Supplies	1	1.615

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster. Lighting and Electrical Equipment (27), Medical Devices (30), and Recreational and Small Electric Goods (41) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.

**Cluster Name:**

**Metal Mining**

**Cluster Code:**

**31**

**Description:**

Establishments in this cluster mine various metals including iron, gold, silver, lead, copper, and uranium. It also includes firms involved in supporting metal mining activities.

<i>Number of Industries</i>	8
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	0.600

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
212210 *	Iron Ore Mining	Metal Mining	2	0.038
212221	Gold Ore Mining	Metal Mining	1	0.944
212222	Silver Ore Mining	Metal Mining	1	0.862
212231	Lead Ore & Zinc Ore Mining	Metal Mining	1	0.630
212234	Copper Ore & Nickel Ore Mining	Metal Mining	1	0.621
212291	Uranium-Radium-Vanadium Ore Mining	Metal Mining	1	0.812
212299	All Other Metal Ore Mining	Metal Mining	1	0.980
213114	Support Activities for Metal Mining	Metal Mining	3	-0.084

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.  
Metal Mining (31) and Recreational and Nonmetal Mining (34) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.

**Cluster Name:**

**Metalworking Technology**

**Cluster Code:**

**32**

**Description:**

The establishments in this cluster manufacture machine tools and process metal for use in metal working. The cluster also contains the downstream manufacture of metal fasteners and hand tools.

<i>Number of Industries</i>	17
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.434

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
333511	Industrial Mold Manufacturing	Metalworking Machinery	1	1.896
333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	Metalworking Machinery	1	1.694
333516	Rolling Mill Machinery and Equipment Manufacturing	Metalworking Machinery	1	1.148
333518	Other Metalworking Machinery Manufacturing	Metalworking Machinery	1	1.524
333992 *	Welding and Soldering Equipment Manufacturing	Metalworking Machinery	1	1.294
333512 *	Machine Tool (Metal Cutting Types) Manufacturing	Machine Tools and Accessories	1	1.716
333513	Machine Tool (Metal Forming Types) Manufacturing	Machine Tools and Accessories	1	1.407
333515	Cutting Tool and Machine Tool Accessory Manufacturing	Machine Tools and Accessories	1	1.663
332212 *	Hand and Edge Tool Manufacturing	Hand Tools	1	1.492
333991 *	Power-Driven Handtool Manufacturing	Hand Tools	2	1.184
332721	Precision Turned Product Manufacturing	Fasteners	1	1.860
332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing	Fasteners	1	1.630
327910 *	Abrasive Product Manufacturing	Metal Processing	2	0.914
332313 *	Plate Work Manufacturing	Metal Processing	3	1.187
332811 *	Metal Heat Treating	Metal Processing	1	1.221
332812 *	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	Metal Processing	1	1.276
332813 *	Electroplating, Plating, Polishing, Anodizing, and Coloring	Metal Processing	1	1.270

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Music and Sound Recording**

**Cluster Code:**

**33**

**Description:**

Establishments in this cluster are primarily involved in the production and distribution of music and other sound recordings.

<i>Number of Industries</i>	5
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	6.192

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
512210	Record Production	Music and Sound Recording	1	6.250
512220	Integrated Record Production/Distribution	Music and Sound Recording	1	6.256
512230	Music Publishers	Music and Sound Recording	1	6.159
512240	Sound Recording Studios	Music and Sound Recording	1	6.226
512290	Other Sound Recording Industries	Music and Sound Recording	1	6.070



**Cluster Name:**

**Nonmetal Mining**

**Cluster Code:**

**34**

**Description:**

Establishments in this cluster mine earthen materials other than metals. This includes stone, granite, sand, clay, borate, and other minerals. The cluster also includes support for the nonmetal mining activities.

<i>Number of Industries</i>	13
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	0.635

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
212311	Dimension Stone Mining and Quarrying	Nonmetal Mining	1	0.943
212312	Crushed and Broken Limestone Mining and Quarrying	Nonmetal Mining	2	0.746
212313	Crushed and Broken Granite Mining and Quarrying	Nonmetal Mining	1	0.862
212319	Other Crushed and Broken Stone Mining and Quarrying	Nonmetal Mining	2	1.029
212321	Construction Sand and Gravel Mining	Nonmetal Mining	2	0.928
212322	Industrial Sand Mining	Nonmetal Mining	2	0.621
212324	Kaolin and Ball Clay Mining	Nonmetal Mining	1	0.333
212325	Clay and Ceramic and Refractory Minerals Mining	Nonmetal Mining	1	0.622
212391	Potash, Soda, and Borate Mineral Mining	Nonmetal Mining	1	0.546
212392	Phosphate Rock Mining	Nonmetal Mining	1	0.267
212393	Other Chemical and Fertilizer Mineral Mining	Nonmetal Mining	1	0.415
212399	All Other Nonmetallic Mineral Mining	Nonmetal Mining	1	0.750
213115	Nonmetallic Minerals Support Activity (except Fuels)	Nonmetal Mining	3	0.190

Note: Metal Mining (31) and Recreational and Nonmetal Mining (34) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.

**Cluster Name:**

**Oil and Gas Production and Transportation**

**Cluster Code:**

**35**

**Description:**

This cluster includes firms involved in locating, extracting, refining, and transporting oil and gas. This includes companies that manufacture the equipment necessary to extract oil and gas, as well as companies that provide support services for oil and gas operations and pipeline transport.

<i>Number of Industries</i>	12
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.474

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
324110	Petroleum Refineries	Petroleum Processing	1	2.582
324199	All Other Petroleum and Coal Products Manufacturing	Petroleum Processing	1	0.829
213112	Support Activities for Oil and Gas Operations	Support Activities for Oil and Gas Operations	1	2.168
541360	Geophysical Surveying and Mapping Services	Support Activities for Oil and Gas Operations	1	0.791
213111	Drilling Oil and Gas Wells	Drilling Wells	1	0.942
211111	Crude Petroleum and Natural Gas Extraction	Oil and Gas Extraction	1	2.467
211112	Natural Gas Liquid Extraction	Oil and Gas Extraction	1	2.174
333132	Oil and Gas Field Machinery and Equipment Manufacturing	Oil and Gas Machinery	1	1.148
486110	Pipeline Transportation of Crude Oil	Pipeline Transportation	1	1.286
486210	Pipeline Transportation of Natural Gas	Pipeline Transportation	1	1.097
486910	Pipeline Transportation of Refined Petroleum Products	Pipeline Transportation	2	1.105
486990	All Other Pipeline Transportation	Pipeline Transportation	1	1.094

**Cluster Name:**

**Paper and Packaging**

**Cluster Code:**

**36**

**Description:**

This cluster contains the paper mills and manufacturers of paper products used for shipping, packaging, containers, office supplies, personal products, and similar products.

<i>Number of Industries</i>	20
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.623

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
322110	Pulp Mills	Paper Mills	1	1.027
322121	Paper (except Newsprint) Mills	Paper Mills	1	2.547
322122	Newsprint Mills	Paper Mills	1	1.934
322130	Paperboard Mills	Paper Mills	1	1.961
322211	Corrugated and Solid Fiber Box Manufacturing	Packaging	1	1.930
322212	Folding Paperboard Box Manufacturing	Packaging	1	1.961
322213	Setup Paperboard Box Manufacturing	Packaging	1	1.665
322214	Fiber Can, Tube, Drum, and Similar Products Manufacturing	Packaging	1	1.760
322215	Nonfolding Sanitary Food Container Manufacturing	Packaging	1	1.404
322221	Coated and Laminated Packaging Paper and Plastics Film Manufacturing	Packaging	2	1.489
322222	Coated and Laminated Paper Manufacturing	Packaging	1	1.610
322223	Plastics, Foil, and Coated Paper Bag Manufacturing	Packaging	1	1.333
322224	Uncoated Paper and Multiwall Bag Manufacturing	Packaging	1	1.308
322225	Laminated Aluminum Foil Manufacturing for Flexible Packaging Uses	Packaging	1	1.257
322226	Surface-Coated Paperboard Manufacturing	Packaging	1	1.418
322231	Die-Cut Paper and Paperboard Office Supplies Manufacturing	Paper Products	2	1.576
322232	Envelope Manufacturing	Paper Products	2	1.751
322233	Stationery, Tablet, and Related Product Manufacturing	Paper Products	2	1.543
322291	Sanitary Paper Product Manufacturing	Paper Products	1	1.276
322299	All Other Converted Paper Product Manufacturing	Paper Products	1	1.708

**Cluster Name:**

**Performing Arts**

**Cluster Code:**

**37**

**Description:**

This cluster contains services that produce, promote, and support live artistic performances. Live performances include those by theater companies, dance troupes, musicians, and independent artists.

<i>Number of Industries</i>	8
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.836

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
711110	Theater Companies and Dinner Theaters	Performing Artists	1	1.927
711120	Dance Companies	Performing Artists	1	1.780
711130	Musical Groups and Artists	Performing Artists	1	1.944
711190	Other Performing Arts Companies	Performing Artists	1	1.206
711510	Independent Artists, Writers, and Performers	Performing Artists	1	2.187
711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities	Promoters and Managers	1	1.779
711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities	Promoters and Managers	1	1.811
711410	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures	Promoters and Managers	1	2.053

Note: Marketing, Design, and Publishing (29) and Performing Arts (37) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.

**Cluster Name:**

**Plastics**

**Cluster Code:**

**38**

**Description:**

Establishments in this cluster manufacture plastic materials, components, and products. The plastics and foams are manufactured for packaging, pipes, floor coverings, and related plastic products. The cluster also includes the upstream manufacturing of plastic materials and resins, as well as the industrial machines used to manufacture plastics.

<i>Number of Industries</i>	15
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	2.038

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
326111	Plastics Bag Manufacturing	Plastic Products	1	2.139
326122	Plastics Pipe and Pipe Fitting Manufacturing	Plastic Products	1	1.716
326140	Polystyrene Foam Product Manufacturing	Plastic Products	1	1.734
326150 *	Urethane and Other Foam Product (except Polystyrene) Manufacturing	Plastic Products	1	1.658
326160 *	Plastics Bottle Manufacturing	Plastic Products	1	1.913
326191	Plastics Plumbing Fixture Manufacturing	Plastic Products	1	2.257
326192	Resilient Floor Covering Manufacturing	Plastic Products	1	2.153
326199	All Other Plastics Product Manufacturing	Plastic Products	1	2.638
339994 *	Broom, Brush, and Mop Manufacturing	Plastic Products	3	1.232
325211	Plastics Material and Resin Manufacturing	Plastic Materials and Resins	1	2.606
326112	Plastics Packaging Film and Sheet (including Laminated) Manufacturing	Plastic Materials and Resins	1	2.160
326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing	Plastic Materials and Resins	1	2.292
326121	Unlaminated Plastics Profile Shape Manufacturing	Plastic Materials and Resins	1	2.202
326130	Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing	Plastic Materials and Resins	1	1.871
333220	Plastics and Rubber Industry Machinery Manufacturing	Plastics and Rubber Machinery	1	1.998

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Printing Services**

**Cluster Code:**

**39**

**Description:**

Establishments in this cluster are primarily engaged in commercial printing, digital printing, and binding. The cluster includes upstream products and services necessary for printing (for example, ink and prepress services). It also includes end products such as books, greeting cards, business forms, and related goods.

<i>Number of Industries</i>	13
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	2.542

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
325910	Printing Ink Manufacturing	Printing Inputs	1	3.355
323121	Tradebinding and Related Work	Support Activities for Printing	1	3.064
323122	Prepress Services	Support Activities for Printing	1	3.013
323110	Commercial Lithographic Printing	Printing Services	1	2.691
323111	Commercial Gravure Printing	Printing Services	1	2.025
323112	Commercial Flexographic Printing	Printing Services	1	2.466
323113	Commercial Screen Printing	Printing Services	1	2.515
323115	Digital Printing	Printing Services	1	2.599
323116	Manifold Business Forms Printing	Printing Services	1	2.480
323117	Books Printing	Printing Services	1	2.292
323118	Blankbook, Looseleaf Binders, and Devices Manufacturing	Printing Services	1	2.423
323119	Other Commercial Printing	Printing Services	1	2.633
511191	Greeting Card Publishers	Greeting Card Printing and Publishing	1	1.493

**Cluster Name:**

**Production Technology and Heavy Machinery**

**Cluster Code:**

**40**

**Description:**

Establishments in this cluster primarily manufacture machines designed to produce parts and devices used in the production of downstream products. This cluster also includes end use heavy machinery such as air and material handling equipment. The machines are used for industrial, agricultural, construction, commercial industry, and related purposes.

<i>Number of Industries</i>	41
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.078

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
333210	Sawmill and Woodworking Machinery Manufacturing	Industrial Machinery	2	0.907
333291	Paper Industry Machinery Manufacturing	Industrial Machinery	1	0.716
333292	Textile Machinery Manufacturing	Industrial Machinery	1	0.723
333293	Printing Machinery and Equipment Manufacturing	Industrial Machinery	2	1.189
333294	Food Product Machinery Manufacturing	Industrial Machinery	1	1.273
333298	All Other Industrial Machinery Manufacturing	Industrial Machinery	2	1.336
333993 *	Packaging Machinery Manufacturing	Industrial Machinery	1	1.445
333999	All Other Miscellaneous General Purpose Machinery Manufacturing	Industrial Machinery	1	1.383
333111	Farm Machinery and Equipment Manufacturing	Agricultural and Construction Machinery and Components	1	0.540
333112	Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing	Agricultural and Construction Machinery and Components	2	0.817
333120 *	Construction Machinery Manufacturing	Agricultural and Construction Machinery and Components	1	1.141
333131	Mining Machinery and Equipment Manufacturing	Agricultural and Construction Machinery and Components	1	0.361
333611 *	Turbine and Turbine Generator Set Units Manufacturing	Agricultural and Construction Machinery and Components	2	0.710
333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing	Agricultural and Construction Machinery and Components	2	1.286
333613	Mechanical Power Transmission Equipment Manufacturing	Agricultural and Construction Machinery and Components	2	1.352
333618	Other Engine Equipment Manufacturing	Agricultural and Construction Machinery and Components	2	1.019
336510	Railroad Rolling Stock Manufacturing	Agricultural and Construction Machinery and Components	1	0.540
333411 *	Air Purification Equipment Manufacturing	Air Handling Equipment	1	1.123
333412 *	Industrial and Commercial Fan and Blower Manufacturing	Air Handling Equipment	2	1.096
333414 *	Heating Equipment (except Warm Air Furnaces) Manufacturing	Air Handling Equipment	6	1.163
333415 *	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	Air Handling Equipment	4	1.033
333311 *	Automatic Vending Machine Manufacturing	Commercial and Service Industry Machinery	1	0.934

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
333312 *	Commercial Laundry, Drycleaning, and Pressing Machine Manufacturing	Commercial and Service Industry Machinery	1	0.825
333319	Other Commercial and Service Industry Machinery Manufacturing	Commercial and Service Industry Machinery	4	1.382
333921 *	Elevator and Moving Stairway Manufacturing	Moving and Material Handling Equipment	2	1.089
333922	Conveyor and Conveying Equipment Manufacturing	Moving and Material Handling Equipment	1	1.379
333923	Overhead Traveling Crane, Hoist, and Monorail System Manufacturing	Moving and Material Handling Equipment	1	1.086
333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing	Moving and Material Handling Equipment	1	1.163
332911	Industrial Valve Manufacturing	Process Equipment and Components	1	1.207
332912	Fluid Power Valve and Hose Fitting Manufacturing	Process Equipment and Components	2	1.289
332919	Other Metal Valve and Pipe Fitting Manufacturing	Process Equipment and Components	1	1.191
332991	Ball and Roller Bearing Manufacturing	Process Equipment and Components	2	1.203
332997	Industrial Pattern Manufacturing	Process Equipment and Components	3	1.112
333911	Pump and Pumping Equipment Manufacturing	Process Equipment and Components	1	1.318
333912	Air and Gas Compressor Manufacturing	Process Equipment and Components	1	1.261
333913	Measuring and Dispensing Pump Manufacturing	Process Equipment and Components	1	0.538
333994	Industrial Process Furnace and Oven Manufacturing	Process Equipment and Components	2	1.337
333995	Fluid Power Cylinder and Actuator Manufacturing	Process Equipment and Components	2	1.363
333996	Fluid Power Pump and Motor Manufacturing	Process Equipment and Components	1	1.101
333997	Scale and Balance (except Laboratory) Manufacturing	Process Equipment and Components	1	1.056
339991	Gasket, Packing, and Sealing Device Manufacturing	Process Equipment and Components	7	1.220

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster. Downstream Metal Products (12) and Production Technology and Heavy Machinery (40) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.



**Cluster Name:**

**Recreational and Small Electric Goods**

**Cluster Code:**

**41**

**Description:**

This cluster contains establishments that manufacture end use products for recreational and decorative purposes. These products include games, toys, bicycles, motorcycles, musical instruments, sporting goods, art supplies, office supplies, shades, and home accessories. This cluster also incorporates firms that produce small, simple electric goods like hairdryers, fans, and office machinery.

<i>Number of Industries</i>	15
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.300

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
337920	Blind and Shade Manufacturing	Recreational and Decorative Goods	3	1.374
339992	Musical Instrument Manufacturing	Recreational and Decorative Goods	3	1.595
339993	Fastener, Button, Needle, and Pin Manufacturing	Recreational and Decorative Goods	3	1.369
339999	All Other Miscellaneous Manufacturing	Recreational and Decorative Goods	1	1.585
339931	Doll and Stuffed Toy Manufacturing	Games, Toys, and Children's Vehicles	2	1.168
339932	Game, Toy, and Children's Vehicle Manufacturing	Games, Toys, and Children's Vehicles	1	1.444
336991 *	Motorcycle, Bicycle, and Parts Manufacturing	Motorcycles and Bicycles	1	0.936
339920	Sporting and Athletic Goods Manufacturing	Sporting and Athletic Goods	3	1.249
333313	Office Machinery Manufacturing	Office Supplies	4	0.998
333315 *	Photographic and Photocopying Equipment Manufacturing	Office Supplies	3	1.345
339941	Pen and Mechanical Pencil Manufacturing	Office Supplies	2	1.434
339942	Lead Pencil and Art Good Manufacturing	Office Supplies	1	1.501
339943	Marking Device Manufacturing	Office Supplies	1	1.615
339944	Carbon Paper and Inked Ribbon Manufacturing	Office Supplies	1	1.113
335211 *	Electric Housewares and Household Fan Manufacturing	Electric Housewares	1	0.776

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster. Lighting and Electrical Equipment (27), Medical Devices (30), and Recreational and Small Electric Goods (41) were originally placed in the same cluster by the algorithm but were partitioned in Step 5.

**Cluster Name:**

**Textile Manufacturing**

**Cluster Code:**

**42**

**Description:**

This cluster contains textile mills that primarily produce and finish fabrics for clothing, carpets, upholstery, and similar uses. The textiles include yarn, thread, fibers, hosiery, knits, and other specialty fabrics.

Number of Industries 23

Within Cluster Relatedness (WCR<sub>c</sub>) 1.198

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
313111	Yarn Spinning Mills	Yarn and Thread Mills	1	1.698
313112	Yarn Texturizing, Throwing, and Twisting Mills	Yarn and Thread Mills	1	1.749
313113	Thread Mills	Yarn and Thread Mills	1	1.609
313210	Broadwoven Fabric Mills	Fabric Mills	1	1.451
313221	Narrow Fabric Mills	Fabric Mills	1	1.258
313222	Schiffli Machine Embroidery	Fabric Mills	2	0.927
313230	Nonwoven Fabric Mills	Fabric Mills	1	0.912
313241	Weft Knit Fabric Mills	Fabric Mills	1	1.337
313249	Other Knit Fabric and Lace Mills	Fabric Mills	1	1.480
313311 +	Broadwoven Fabric Finishing Mills	Textile and Fabric Finishing	2	1.469
313312 +	Textile and Fabric Finishing (except Broadwoven Fabric) Mills	Textile and Fabric Finishing	2	1.456
313320 *	Fabric Coating Mills	Textile and Fabric Finishing	4	0.565
315111 +	Sheer Hosiery Mills	Knitting Mills	1	1.313
315119 +	Other Hosiery and Sock Mills	Knitting Mills	1	1.299
315191 +	Outerwear Knitting Mills	Knitting Mills	1	1.432
315192 +	Underwear and Nightwear Knitting Mills	Knitting Mills	1	1.537
314110	Carpet and Rug Mills	Household Textile Products	1	0.987
314121	Curtain and Drapery Mills	Household Textile Products	4	1.028
314129	Other Household Textile Product Mills	Household Textile Products	2	1.306
314991 *	Rope, Cordage, and Twine Mills	Other Textile Products	4	0.400
314992 *	Tire Cord and Tire Fabric Mills	Other Textile Products	3	0.621
325221 *	Cellulosic Organic Fiber Manufacturing	Fibers	2	0.558
325222	Noncellulosic Organic Fiber Manufacturing	Fibers	1	1.152

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

+ = Industry that was originally part of a cluster that was combined with another to produce the focal cluster.

**Cluster Name:**

**Tobacco**

**Cluster Code:**

**43**

**Description:**

The establishments in this cluster manufacture cigarettes and other tobacco products. This also includes upstream tobacco leaf processing.

<i>Number of Industries</i>	3
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	7.533

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
312210	Tobacco Stemming and Redrying	Tobacco	1	7.560
312221	Cigarette Manufacturing	Tobacco	1	7.574
312229	Other Tobacco Product Manufacturing	Tobacco	1	7.466

**Cluster Name:**

**Trailers, Motor Homes, and Appliances**

**Cluster Code:**

**44**

**Description:**

This cluster includes establishments that manufacture trailers, campers, and motor homes, as well as major household appliances.

<i>Number of Industries</i>	9
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	0.518

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
336212	Truck Trailer Manufacturing	Trailers and Motor Homes	3	0.635
336213	Motor Home Manufacturing	Trailers and Motor Homes	1	0.644
336214	Travel Trailer and Camper Manufacturing	Trailers and Motor Homes	1	0.855
339995	Burial Casket Manufacturing	Burial Caskets	6	0.311
335212	Household Vacuum Cleaner Manufacturing	Household Appliances	4	0.337
335221	Household Cooking Appliance Manufacturing	Household Appliances	6	0.442
335222	Household Refrigerator and Home Freezer Manufacturing	Household Appliances	1	0.526
335224	Household Laundry Equipment Manufacturing	Household Appliances	1	0.378
335228	Other Major Household Appliance Manufacturing	Household Appliances	1	0.531

**Cluster Name:**

**Transportation and Logistics**

**Cluster Code:**

**45**

**Description:**

This cluster contains all air, rail, bus, and freight transportation services. It also includes related operation services and support activities such as inspections, maintenance, repairs, security, and loading/unloading.

<i>Number of Industries</i>	17
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.138

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
481111	Scheduled Passenger Air Transportation	Air Transportation	1	1.551
481112	Scheduled Freight Air Transportation	Air Transportation	1	1.037
481212	Nonscheduled Chartered Freight Air Transportation	Air Transportation	1	1.157
488111	Air Traffic Control	Air Transportation	1	1.178
488119	Other Airport Operations	Air Transportation	1	1.723
488190	Other Support Activities for Air Transportation	Air Transportation	1	1.401
481211	Nonscheduled Chartered Passenger Air Transportation	Specialty Air Transportation	1	1.355
481219	Other Nonscheduled Air Transportation	Specialty Air Transportation	1	1.123
488210	Support Activities for Rail Transportation	Ground Transportation Support Activities	1	1.006
488490 *	Other Support Activities for Road Transportation	Ground Transportation Support Activities	2	1.378
488510	Freight Transportation Arrangement	Ground Transportation Support Activities	2	1.514
488991	Packing and Crating	Ground Transportation Support Activities	2	1.408
488999	All Other Support Activities for Transportation	Ground Transportation Support Activities	2	0.849
484121 *	General Freight Trucking, Long-Distance, Truckload	Trucking	1	0.902
484230 *	Specialized Freight (except Used Goods) Trucking, Long-Distance	Trucking	1	1.031
485210 *	Interurban and Rural Bus Transportation	Bus Transportation	15	0.314
485510 *	Charter Bus Industry	Bus Transportation	15	0.418

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Upstream Chemical Products**

**Cluster Code:**

**46**

**Description:**

This cluster consists of firms that manufacture basic organic and inorganic chemicals and gases. The chemicals are usually separate elements that could be used as inputs for more complex downstream chemical products.

<i>Number of Industries</i>	12
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.240

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
325110	Petrochemical Manufacturing	Organic Chemicals	1	1.876
325191	Gum and Wood Chemical Manufacturing	Organic Chemicals	1	1.204
325192	Cyclic Crude and Intermediate Manufacturing	Organic Chemicals	1	1.738
325193	Ethyl Alcohol Manufacturing	Organic Chemicals	1	1.310
325199	All Other Basic Organic Chemical Manufacturing	Organic Chemicals	1	1.932
325212	Synthetic Rubber Manufacturing	Organic Chemicals	1	1.218
325181	Alkalies and Chlorine Manufacturing	Inorganic Chemicals	1	1.208
325182	Carbon Black Manufacturing	Inorganic Chemicals	1	0.344
325188 *	All Other Basic Inorganic Chemical Manufacturing	Inorganic Chemicals	2	1.122
325120	Industrial Gas Manufacturing	Industrial Gas	2	1.167
325312 *	Phosphatic Fertilizer Manufacturing	Agricultural Chemicals	2	0.329
325320	Pesticide and Other Agricultural Chemical Manufacturing	Agricultural Chemicals	1	1.425

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**  
**Cluster Code:**  
**Description:**

**Upstream Metal Manufacturing**  
**47**

The establishments in this cluster manufacture upstream metal products such as pipes, tubes, metal closures, wires, springs, and related products. The cluster includes iron and steel mills and foundries, as well as related metal processing techniques.

<i>Number of Industries</i>	26
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	0.969

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>c</sub> )	
			Rank (1 = best)	Score
331111	Iron and Steel Mills	Iron and Steel Mills and Forging	1	1.707
331112	Electrometallurgical Ferroalloy Product Manufacturing	Iron and Steel Mills and Forging	1	0.936
332111	Iron and Steel Forging	Iron and Steel Mills and Forging	2	1.030
331221	Rolled Steel Shape Manufacturing	Metal Processing	1	1.407
331311 *	Alumina Refining	Metal Processing	2	0.843
331312 *	Primary Aluminum Production	Metal Processing	1	0.569
331314 *	Secondary Smelting and Alloying of Aluminum	Metal Processing	3	1.091
331315 *	Aluminum Sheet, Plate, and Foil Manufacturing	Metal Processing	1	0.786
331316 *	Aluminum Extruded Product Manufacturing	Metal Processing	1	0.987
331319 *	Other Aluminum Rolling and Drawing	Metal Processing	1	0.821
331411 *	Primary Smelting & Refining of Copper	Metal Processing	1	0.236
331419 *	Other Nonferrous Metal Prim Smelting/Refining	Metal Processing	2	0.952
331421 *	Copper Rolling, Drawing, and Extruding	Metal Processing	1	0.966
331422 *	Copper Wire (except Mechanical) Drawing	Metal Processing	1	0.980
331423 *	Secondary Smelting, Refining, and Alloying of Copper	Metal Processing	1	1.030
331491 *	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	Metal Processing	1	1.028
331492 *	Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)	Metal Processing	2	0.999
332112	Nonferrous Forging	Metal Processing	2	0.864
331210	Iron and Steel Pipe and Tube Manufacturing from Purchased Steel	Metal Products	1	1.308
332115	Crown and Closure Manufacturing	Metal Products	1	0.776
332116	Metal Stamping	Metal Products	2	1.054
332117	Powder Metallurgy Part Manufacturing	Metal Products	1	0.356
331222	Steel Wire Drawing	Wire and Spring Products	1	1.262
332611	Spring (Heavy Gauge) Manufacturing	Wire and Spring Products	1	0.912
332612	Spring (Light Gauge) Manufacturing	Wire and Spring Products	2	1.061
332618	Other Fabricated Wire Product Manufacturing	Wire and Spring Products	2	1.238

Notes: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.  
+ = Industry that was originally part of a cluster that was combined with another to produce the focal cluster.

**Cluster Name:**

**Video Production and Distribution**

**Cluster Code:**

**48**

**Description:**

The establishments in this cluster are primarily involved with the production and distribution of motion pictures and other video. This includes specialized viewing venues such as drive-in theaters.

<i>Number of Industries</i>	6
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	3.132

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
334612 *	Prerecorded Compact Disc (except Software), Tape, and Record Reproducing	Video Production and Distribution	3	1.064
512110	Motion Picture and Video Production	Video Production and Distribution	1	3.666
512120	Motion Picture and Video Distribution	Video Production and Distribution	1	3.597
512132	Drive-In Motion Picture Theaters	Video Production and Distribution	1	3.136
512191	Teleproduction and Other Postproduction Services	Video Production and Distribution	1	3.677
512199	Other Motion Picture and Video Industries	Video Production and Distribution	1	3.653

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.



**Cluster Name:**

**Vulcanized and Fired Materials**

**Cluster Code:**

**49**

**Description:**

This cluster contains firms that manufacture construction and other materials out of earthen substances such as clay, sand, and rubber at extremely high temperatures. The production processes create goods made of tile, brick, ceramic, glass, and rubber (including refractories and tires).

<i>Number of Industries</i>	17
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	0.942

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
327111	Vitreous China Plumbing Fixture and China and Earthenware Bathroom Accessories Manufacturing	Clay Products and Refractories	2	0.708
327112	Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing	Clay Products and Refractories	2	1.102
327113	Porcelain Electrical Supply Manufacturing	Clay Products and Refractories	2	0.967
327121	Brick and Structural Clay Tile Manufacturing	Clay Products and Refractories	2	0.823
327122	Ceramic Wall and Floor Tile Manufacturing	Clay Products and Refractories	1	0.990
327123	Other Structural Clay Product Manufacturing	Clay Products and Refractories	1	0.997
327124	Clay Refractory Manufacturing	Clay Products and Refractories	1	1.278
327125	Nonclay Refractory Manufacturing	Clay Products and Refractories	1	0.968
327992	Ground or Treated Mineral and Earth Manufacturing	Clay Products and Refractories	1	0.708
327211	Flat Glass Manufacturing	Glass Products	1	0.741
327212	Other Pressed and Blown Glass and Glassware Manufacturing	Glass Products	1	0.919
327215	Glass Product Manufacturing Made of Purchased Glass	Glass Products	1	1.359
326211	Tire Manufacturing (except Retreading)	Rubber Products	1	0.447
326212	Tire Retreading	Rubber Products	1	1.019
326220	Rubber and Plastics Hoses and Belting Manufacturing	Rubber Products	1	0.828
326291	Rubber Product Manufacturing for Mechanical Use	Rubber Products	2	1.008
326299	All Other Rubber Product Manufacturing	Rubber Products	1	1.160

**Cluster Name:**

**Water Transportation**

**Cluster Code:**

**50**

**Description:**

This cluster contains all establishments involved in transporting people and goods over water. The cluster includes boat building, transportation, operations, and other support services.

<i>Number of Industries</i>	12
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.725

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
483112	Deep Sea Passenger Transportation	Water Passenger Transportation	1	1.398
483114	Coastal and Great Lakes Passenger Transportation	Water Passenger Transportation	1	1.683
483212	Inland Water Passenger Transportation	Water Passenger Transportation	1	1.970
483111	Deep Sea Freight Transportation	Marine Transportation Services	1	1.913
483113	Coastal and Great Lakes Freight Transportation	Marine Transportation Services	1	1.975
483211	Inland Water Freight Transportation	Marine Transportation Services	1	1.578
488310 *	Port and Harbor Operations	Marine Transportation Services	1	1.195
488320 *	Marine Cargo Handling	Marine Transportation Services	1	1.210
488330 *	Navigational Services to Shipping	Marine Transportation Services	1	1.508
488390 *	Other Support Activities for Water Transportation	Marine Transportation Services	1	1.511
336611	Ship Building and Repairing	Boat Building and Repair	1	3.368
336612	Boat Building	Boat Building and Repair	1	1.394

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

**Cluster Name:**

**Wood Products**

**Cluster Code:**

**51**

**Description:**

The establishments in this cluster are primarily engaged in making upstream wood materials and manufacturing non-furniture wood products. Upstream establishments include sawmills, plywood and hardwood manufacturers, cut stock manufacturers, and wood preservation services. Downstream establishments produce windows, doors, flooring, wood containers, prefabricated wood buildings, and related products.

<i>Number of Industries</i>	13
<i>Within Cluster Relatedness (WCR<sub>c</sub>)</i>	1.715

NAICS	NAICS Name	Subcluster Name	Within Cluster Relatedness (WCR <sub>ic</sub> )	
			Rank (1 = best)	Score
321113	Sawmills	Wood Processing	1	2.378
321114	Wood Preservation	Wood Processing	1	2.542
321912	Cut Stock, Resawing Lumber, and Planing	Wood Processing	1	1.990
321211	Hardwood Veneer and Plywood Manufacturing	Wood Components and Products	1	1.304
321212	Softwood Veneer & Plywood Manufacturing	Wood Components and Products	1	1.271
321213	Engineered Wood Member (except Truss) Manufacturing	Wood Components and Products	1	1.628
321214	Truss Manufacturing	Wood Components and Products	1	1.566
321219	Reconstituted Wood Product Manufacturing	Wood Components and Products	1	1.435
321911	Wood Window and Door Manufacturing	Wood Components and Products	1	1.641
321918	Other Millwork (including Flooring)	Wood Components and Products	1	1.821
321920 *	Wood Container and Pallet Manufacturing	Wood Components and Products	2	1.551
321999	All Other Miscellaneous Wood Product Manufacturing	Wood Components and Products	1	1.766
321992 *	Prefabricated Wood Building Manufacturing	Prefabricated Wood Building	1	1.397

Note: \* = Marginal industry outlier that was originally assigned to another cluster and moved into the focal cluster.

Summary of Marginal Industry Outliers

NAICS	NAICS Name	Destination Cluster (IN)			Original Cluster (OUT) Cluster Name
		Cluster Name	Cluster Code	WCR <sub>ic</sub> Rank (1 = best)	
115111	Cotton Ginning	<b>Agricultural Inputs and Services</b>	2	2	Forestry
115210	Support Activities for Animal Production	<b>Agricultural Inputs and Services</b>	2	25	Distribution and Electronic Commerce
315221	Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing	<b>Apparel</b>	3	2	Printing Services
315222	Men's and Boys' Cut and Sew Suit, Coat, and Overcoat Manufacturing	<b>Apparel</b>	3	2	Printing Services
315223	Men's and Boys' Cut and Sew Shirt (except Work Shirt) Manufacturing	<b>Apparel</b>	3	2	Printing Services
315224	Men's and Boys' Cut and Sew Trouser, Slack, and Jean Manufacturing	<b>Apparel</b>	3	2	Printing Services
315225	Men's and Boys' Cut and Sew Work Clothing Manufacturing	<b>Apparel</b>	3	2	Printing Services
315228	Men's and Boys' Cut and Sew Other Outerwear Manufacturing	<b>Apparel</b>	3	2	Printing Services
336120	Heavy Duty Truck Manufacturing	<b>Automotive</b>	4	1	Trailers, Motor Homes, and Appliances
336211	Motor Vehicle Body Manufacturing	<b>Automotive</b>	4	1	Trailers, Motor Homes, and Appliances
336992	Military Armored Vehicle, Tank, and Tank Component Manufacturing	<b>Automotive</b>	4	1	Production Technology and Heavy Machinery
336999	All Other Transportation Equipment Manufacturing	<b>Automotive</b>	4	1	Trailers, Motor Homes, and Appliances
485310	Taxi Service	<b>Business Services</b>	6	2	Insurance Services
485320	Limousine Service	<b>Business Services</b>	6	5	Education and Knowledge Creation
485999	All Other Transit and Ground Passenger Transportation	<b>Business Services</b>	6	2	Education and Knowledge Creation
532112	Passenger Car Leasing	<b>Business Services</b>	6	3	Education and Knowledge Creation
533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	<b>Business Services</b>	6	3	Downstream Chemical Products
541199	All Other Legal Services	<b>Business Services</b>	6	3	Marketing, Design, and Publishing
541214	Payroll Services	<b>Business Services</b>	6	6	Education and Knowledge Creation
541930	Translation and Interpretation Services	<b>Business Services</b>	6	1	Education and Knowledge Creation
541990	All Other Professional, Scientific, and Technical Services	<b>Business Services</b>	6	1	Education and Knowledge Creation
551111	Offices of Bank Holding Companies	<b>Business Services</b>	6	5	Downstream Chemical Products
551112	Offices of Other Holding Companies	<b>Business Services</b>	6	6	Downstream Chemical Products
551114	Corporate, Subsidiary, and Regional Managing Offices	<b>Business Services</b>	6	6	Downstream Chemical Products
561311	Employment Placement Agencies	<b>Business Services</b>	6	2	Transportation and Logistics
561312	Executive Search Services	<b>Business Services</b>	6	2	Transportation and Logistics
561330	Professional Employer Organizations	<b>Business Services</b>	6	2	Transportation and Logistics
561421	Telephone Answering Services	<b>Business Services</b>	6	3	Education and Knowledge Creation
561422	Telemarketing Bureaus	<b>Business Services</b>	6	3	Education and Knowledge Creation
561920	Convention and Trade Show Organizers	<b>Business Services</b>	6	2	Distribution and Electronic Commerce
213113	Support Activities for Coal Mining	<b>Coal Mining</b>	7	1	Nonmetal Mining

NAICS	NAICS Name	Destination Cluster (IN)			Original Cluster (OUT) Cluster Name
		Cluster Name	Cluster Code	WCR <sub>it</sub> Rank (1 = best)	
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	<b>Communications Equipment and Services</b>	8	2	Information Technology and Analytical Instruments
334290	Other Communications Equipment Manufacturing	<b>Communications Equipment and Services</b>	8	1	Information Technology and Analytical Instruments
221310	Water Supply and Irrigation Systems	<b>Construction Products and Services</b>	9	1	Education and Knowledge Creation
327310	Cement Manufacturing	<b>Construction Products and Services</b>	9	1	Environmental Services
327331	Concrete Block and Brick Manufacturing	<b>Construction Products and Services</b>	9	1	Environmental Services
327332	Concrete Pipe Manufacturing	<b>Construction Products and Services</b>	9	1	Environmental Services
327410	Lime Manufacturing	<b>Construction Products and Services</b>	9	1	Vulcanized and Fired Materials
327420	Gypsum Product Manufacturing	<b>Construction Products and Services</b>	9	1	Vulcanized and Fired Materials
332410	Power Boiler and Heat Exchanger Manufacturing	<b>Construction Products and Services</b>	9	1	Production Technology and Heavy Machinery
332913	Plumbing Fixture Fitting and Trim Manufacturing	<b>Construction Products and Services</b>	9	1	Lighting and Electrical Equipment
332996	Fabricated Pipe and Pipe Fitting Manufacturing	<b>Construction Products and Services</b>	9	1	Production Technology and Heavy Machinery
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	<b>Distribution and Electronic Commerce</b>	10	1	Food Processing and Manufacturing
424910	Farm Supplies Merchant Wholesalers	<b>Distribution and Electronic Commerce</b>	10	1	Food Processing and Manufacturing
454111	Electronic Shopping	<b>Distribution and Electronic Commerce</b>	10	1	Education and Knowledge Creation
454112	Electronic Auctions	<b>Distribution and Electronic Commerce</b>	10	1	Education and Knowledge Creation
454113	Mail-Order Houses	<b>Distribution and Electronic Commerce</b>	10	1	Education and Knowledge Creation
561499	All Other Business Support Services	<b>Distribution and Electronic Commerce</b>	10	1	Education and Knowledge Creation
324191	Petroleum Lubricating Oil and Grease Manufacturing	<b>Downstream Chemical Products</b>	11	4	Oil and Gas Production and Transportation
332214	Kitchen Utensil, Pot, and Pan Manufacturing	<b>Downstream Metal Products</b>	12	3	Trailers, Motor Homes, and Appliances
541711	Research and Development in Biotechnology	<b>Education and Knowledge Creation</b>	13	2	Water Transportation
541712	Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology)	<b>Education and Knowledge Creation</b>	13	2	Water Transportation
541720	Research and Development in the Social Sciences and Humanities	<b>Education and Knowledge Creation</b>	13	2	Water Transportation
561450	Credit Bureaus	<b>Financial Services</b>	16	5	Education and Knowledge Creation
311111	Dog and Cat Food Manufacturing	<b>Food Processing and Manufacturing</b>	18	3	Vulcanized and Fired Materials
312140	Distilleries	<b>Food Processing and Manufacturing</b>	18	2	Distribution and Electronic Commerce
316110	Leather and Hide Tanning and Finishing	<b>Footwear</b>	19	1	Livestock Processing
337127	Institutional Furniture Manufacturing	<b>Furniture</b>	21	1	Construction Products and Services
337211	Wood Office Furniture Manufacturing	<b>Furniture</b>	21	2	Construction Products and Services
337910	Mattress Manufacturing	<b>Furniture</b>	21	5	Lighting and Electrical Equipment
114210	Hunting and Trapping	<b>Hospitality and Tourism</b>	22	14	Distribution and Electronic Commerce
453920	Art Dealers	<b>Hospitality and Tourism</b>	22	13	Education and Knowledge Creation
487110	Scenic and Sightseeing Transportation, Land	<b>Hospitality and Tourism</b>	22	13	Education and Knowledge Creation
487210	Scenic and Sightseeing Transportation, Water	<b>Hospitality and Tourism</b>	22	9	Water Transportation

NAICS	NAICS Name	Destination Cluster (IN)			Original Cluster (OUT) Cluster Name
		Cluster Name	Cluster Code	WCR <sub>it</sub> Rank (1 = best)	
487990	Scenic and Sightseeing Transportation, Other	<b>Hospitality and Tourism</b>	22	6	Transportation and Logistics
532292	Recreational Goods Rental	<b>Hospitality and Tourism</b>	22	6	Distribution and Electronic Commerce
561510	Travel Agencies	<b>Hospitality and Tourism</b>	22	12	Marketing, Design, and Publishing
561520	Tour Operators	<b>Hospitality and Tourism</b>	22	9	Marketing, Design, and Publishing
561591	Convention and Visitors Bureaus	<b>Hospitality and Tourism</b>	22	9	Marketing, Design, and Publishing
561599	All Other Travel Arrangement and Reservation Services	<b>Hospitality and Tourism</b>	22	7	Marketing, Design, and Publishing
333295	Semiconductor Machinery Manufacturing	<b>Information Technology and Analytical Instruments</b>	23	2	Production Technology and Heavy Machinery
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables	<b>Information Technology and Analytical Instruments</b>	23	1	Downstream Chemical Products
334516	Analytical Laboratory Instrument Manufacturing	<b>Information Technology and Analytical Instruments</b>	23	1	Business Services
334611	Software Reproducing	<b>Information Technology and Analytical Instruments</b>	23	3	Food Processing and Manufacturing
334613	Magnetic and Optical Recording Media Manufacturing	<b>Information Technology and Analytical Instruments</b>	23	2	Food Processing and Manufacturing
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing	<b>Lighting and Electrical Equipment</b>	27	1	Information Technology and Analytical Instruments
424520	Livestock Merchant Wholesalers	<b>Livestock Processing</b>	28	4	Food Processing and Manufacturing
541613	Marketing Consulting Services	<b>Marketing, Design, and Publishing</b>	29	3	Business Services
541910	Marketing Research and Public Opinion Polling	<b>Marketing, Design, and Publishing</b>	29	1	Education and Knowledge Creation
333314	Optical Instrument and Lens Manufacturing	<b>Medical Devices</b>	30	1	Information Technology and Analytical Instruments
212210	Iron Ore Mining	<b>Metal Mining</b>	31	2	Electric Power Generation and Transmission
327910	Abrasive Product Manufacturing	<b>Metalworking Technology</b>	32	2	Vulcanized and Fired Materials
332212	Hand and Edge Tool Manufacturing	<b>Metalworking Technology</b>	32	1	Production Technology and Heavy Machinery
332313	Plate Work Manufacturing	<b>Metalworking Technology</b>	32	3	Production Technology and Heavy Machinery
332811	Metal Heat Treating	<b>Metalworking Technology</b>	32	1	Production Technology and Heavy Machinery
332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	<b>Metalworking Technology</b>	32	1	Production Technology and Heavy Machinery
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	<b>Metalworking Technology</b>	32	1	Production Technology and Heavy Machinery
333512	Machine Tool (Metal Cutting Types) Manufacturing	<b>Metalworking Technology</b>	32	1	Production Technology and Heavy Machinery
333991	Power-Driven Handtool Manufacturing	<b>Metalworking Technology</b>	32	2	Production Technology and Heavy Machinery
333992	Welding and Soldering Equipment Manufacturing	<b>Metalworking Technology</b>	32	1	Production Technology and Heavy Machinery
326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing	<b>Plastics</b>	38	1	Lighting and Electrical Equipment
326160	Plastics Bottle Manufacturing	<b>Plastics</b>	38	1	Food Processing and Manufacturing
339994	Broom, Brush, and Mop Manufacturing	<b>Plastics</b>	38	3	Lighting and Electrical Equipment
333120	Construction Machinery Manufacturing	<b>Production Technology and Heavy Machinery</b>	40	1	Trailers, Motor Homes, and Appliances
333311	Automatic Vending Machine Manufacturing	<b>Production Technology and Heavy Machinery</b>	40	1	Downstream Chemical Products
333312	Commercial Laundry, Drycleaning, and Pressing Machine Manufacturing	<b>Production Technology and Heavy Machinery</b>	40	1	Trailers, Motor Homes, and Appliances
333411	Air Purification Equipment Manufacturing	<b>Production Technology and Heavy Machinery</b>	40	1	Lighting and Electrical Equipment

NAICS	NAICS Name	Destination Cluster (IN)			Original Cluster (OUT) Cluster Name
		Cluster Name	Cluster Code	WCR <sub>10</sub> Rank (1 = best)	
333412	Industrial and Commercial Fan and Blower Manufacturing	<b>Production Technology and Heavy Machinery</b>	40	2	Lighting and Electrical Equipment
333414	Heating Equipment (except Warm Air Furnaces) Manufacturing	<b>Production Technology and Heavy Machinery</b>	40	6	Lighting and Electrical Equipment
333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	<b>Production Technology and Heavy Machinery</b>	40	4	Lighting and Electrical Equipment
333611	Turbine and Turbine Generator Set Units Manufacturing	<b>Production Technology and Heavy Machinery</b>	40	2	Electric Power Generation and Transmission
333921	Elevator and Moving Stairway Manufacturing	<b>Production Technology and Heavy Machinery</b>	40	2	Lighting and Electrical Equipment
333993	Packaging Machinery Manufacturing	<b>Production Technology and Heavy Machinery</b>	40	1	Food Processing and Manufacturing
333315	Photographic and Photocopying Equipment Manufacturing	<b>Recreational and Small Electric Goods</b>	41	3	Distribution and Electronic Commerce
335211	Electric Housewares and Household Fan Manufacturing	<b>Recreational and Small Electric Goods</b>	41	1	Trailers, Motor Homes, and Appliances
336991	Motorcycle, Bicycle, and Parts Manufacturing	<b>Recreational and Small Electric Goods</b>	41	1	Trailers, Motor Homes, and Appliances
313320	Fabric Coating Mills	<b>Textile Manufacturing</b>	42	4	Jewelry and Precious Metals
314991	Rope, Cordage, and Twine Mills	<b>Textile Manufacturing</b>	42	4	Apparel
314992	Tire Cord and Tire Fabric Mills	<b>Textile Manufacturing</b>	42	3	Apparel
325221	Cellulosic Organic Fiber Manufacturing	<b>Textile Manufacturing</b>	42	2	Upstream Chemical Products
484121	General Freight Trucking, Long-Distance, Truckload	<b>Transportation and Logistics</b>	45	1	Environmental Services
484230	Specialized Freight (except Used Goods) Trucking, Long-Distance	<b>Transportation and Logistics</b>	45	1	Environmental Services
485210	Interurban and Rural Bus Transportation	<b>Transportation and Logistics</b>	45	15	Education and Knowledge Creation
485510	Charter Bus Industry	<b>Transportation and Logistics</b>	45	15	Education and Knowledge Creation
488490	Other Support Activities for Road Transportation	<b>Transportation and Logistics</b>	45	2	Environmental Services
325188	All Other Basic Inorganic Chemical Manufacturing	<b>Upstream Chemical Products</b>	46	2	Downstream Chemical Products
325312	Phosphatic Fertilizer Manufacturing	<b>Upstream Chemical Products</b>	46	2	Agricultural Inputs and Services
331314	Secondary Smelting and Alloying of Aluminum	<b>Upstream Metal Manufacturing</b>	47	3	Distribution and Electronic Commerce
334612	Prerecorded Compact Disc (except Software), Tape, and Record Reproducing	<b>Video Production and Distribution</b>	48	3	Food Processing and Manufacturing
488310	Port and Harbor Operations	<b>Water Transportation</b>	50	1	Transportation and Logistics
488320	Marine Cargo Handling	<b>Water Transportation</b>	50	1	Transportation and Logistics
488330	Navigational Services to Shipping	<b>Water Transportation</b>	50	1	Transportation and Logistics
488390	Other Support Activities for Water Transportation	<b>Water Transportation</b>	50	1	Transportation and Logistics
321920	Wood Container and Pallet Manufacturing	<b>Wood Products</b>	51	2	Food Processing and Manufacturing
321992	Prefabricated Wood Building Manufacturing	<b>Wood Products</b>	51	1	Construction Products and Services

**Summary of Cluster Descriptions**

Cluster Code	Cluster Name	Description
1	Aerospace Vehicles and Defense	Establishments in this cluster manufacture aircraft, space vehicles, guided missiles, and related parts. This cluster also contains firms that manufacture the necessary search and navigation equipment used by these products.
2	Agricultural Inputs and Services	This cluster includes establishments primarily engaged in farming and related services. Farming includes soil preparation, planting, cultivation, harvest, fertilizer creation, and post-harvest activities. It also includes services that supply farm labor, support for animal production, and additional operations management.
3	Apparel	The establishments in this cluster are focused on manufacturing clothing and fabric accessories (for example, hats, gloves, and neckties) for men, women, and children.
4	Automotive	This cluster includes establishments along the value chain that are necessary for manufacturing cars, trucks, and other motorized land-based transportation equipment (other than motorcycles). This includes metal mills and foundries, manufacturers of metal automotive parts, and manufacturers of completed automobiles.
5	Biopharmaceuticals	Establishments in this cluster produce complex chemical and biological substances used in medications, vaccines, diagnostic tests, and similar medical applications.
6	Business Services	Firms in this cluster include establishments and services primarily designed to support other aspects of a business or to assist unrelated companies. This includes corporate headquarters. Professional services such as consulting, legal services, facilities support services, computer services, engineering and architectural services, and placement services. All for-hire ground passenger transportation services are also present in this cluster.
7	Coal Mining	This cluster includes establishments that mine coal and provide services to support coal mining.
8	Communications Equipment and Services	This cluster involves goods and services used for communications. This includes cable, wireless, and satellite services, as well as telephone, broadcasting, and wireless communications equipment.
9	Construction Products and Services	The establishments in this cluster supply construction materials, components, products, and services. Construction materials and components include those made of sand, stone, gravel, asphalt, cement, concrete, and other earthen substances. Construction products include pipes and heat exchangers. Construction services include the construction of pipelines for water, sewers, oil and gas, power, and communication, as well as building services for homes and industrial buildings.
10	Distribution and Electronic Commerce	This cluster consists primarily of traditional wholesalers as well as mail order houses and electronic merchants. The companies in this cluster mostly buy, hold, and distribute a wide range of products such as apparel, food, chemicals, gasses, minerals, farm materials, machinery, and other merchandise. The cluster also contains firms that support distribution and electronic commerce operations, including packaging, labeling, and equipment rental and leasing.
11	Downstream Chemical Products	Establishments in this cluster manufacture complex chemical products for end users. These products include adhesives, beauty products, soaps, cleaners, film processing chemicals, dyes, paints, explosives, and lubricating oils.
12	Downstream Metal Products	This cluster contains establishments that manufacture metal containers, prefabricated metal structures, and end user metal products. These end user products include ammunition, kitchenware, hardware, metal bathroom fixtures, and similar metal products used in home finishing such as doors, windows and ornamentation.
13	Education and Knowledge Creation	This cluster contains all educational and training institutions, as well as related supporting establishments. It also includes research and development institutions in biotechnology, physical sciences, engineering, life sciences, and social sciences.
14	Electric Power Generation and Transmission	This cluster contains establishments primarily engaged in generating and distributing electric power. This includes power generated from alternative energy sources such as hydroelectric power, nuclear electric power, and solar and wind generated electric power.
15	Environmental Services	This cluster contains establishments primarily engaged in collection, treatment, processing, and disposal of hazardous and non-hazardous waste.
16	Financial Services	This cluster contains establishments involved in aiding the transaction and growth of financial assets for businesses and individuals. These firms include securities brokers, dealers, and exchanges; credit institutions; and financial investment support. Insurance firms are located in a separate Insurance Services cluster.
17	Fishing and Fishing Products	Establishments in this cluster are engaged primarily in catching fish and other seafood and processing the catch for consumption.
18	Food Processing and Manufacturing	This cluster includes firms involved in the processing of raw food materials and the manufacturing of downstream food products for end users. This includes millers and refineries of rice, flour, corn, sugar, and oilseeds. These upstream products contribute in part to producing specialty foods, animal foods, baked goods, candies, teas, coffees, beers, wines, other beverages, meats, packaged fruits and vegetables, and processed dairy products.
19	Footwear	Establishments in this cluster are those that manufacture men's and women's shoes, boots, slippers, and other footwear (including athletic shoes). This cluster also contains the upstream finished leather used in making footwear.
20	Forestry	Establishments in this cluster are those that involve growing and harvesting trees. It also includes support services for these activities.



## Summary of Cluster Descriptions

Cluster Code	Cluster Name	Description
21	Furniture	This cluster contains establishments that manufacture furniture, cabinets, and shelving for residential homes and offices. It also includes establishments that produce manufactured homes. The products in this cluster can be made of wood, metal, plastic, and/or textiles.
22	Hospitality and Tourism	This cluster contains establishments related to hospitality and tourism services and venues. This includes sport venues, casinos, museums, and other attractions. It also includes hotels and other accommodations, transportation, and services related to recreational travel such as reservation services and tour operators.
23	Information Technology and Analytical Instruments	This cluster consists of information technology and analytical products such as computers, software, audio visual equipment, laboratory instruments, and medical equipment. The cluster also includes the standard and precision electronics used by these products (for example, circuit boards and semiconductor devices).
24	Insurance Services	This cluster consists of firms providing a range of insurance types, as well as support services such as reinsurance and claims adjustment.
25	Jewelry and Precious Metals	Establishments in this cluster manufacture jewelry, silverware, and fine tableware. This cluster also includes the upstream manufacture of jewelry parts and the processing of gemstones.
26	Leather and Related Products	This cluster consists of manufacturers of luggage and handbags made of leather and fabric. It also includes producers of personal and assorted other leather goods, as well as mills that produce textile bags and related products made from canvas.
27	Lighting and Electrical Equipment	This cluster contains firms involved in the manufacture of electrical equipment and electronic components. The companies in this cluster manufacture wire for communications, wiring devices, fiber optic cables, switchboards, lighting fixtures, motors, transformers, and related products.
28	Livestock Processing	This cluster contains establishments engaged in processing meat from livestock and livestock wholesaling.
29	Marketing, Design, and Publishing	This cluster consists of establishments involved in design services (physical and graphical), marketing (including advertising creation, marketing research, media buying, and public relations), and publishing (both in hard copy and on the internet).
30	Medical Devices	Establishments in this cluster primarily manufacture surgical, medical, dental, optical, ophthalmic, and veterinary instruments and supplies.
31	Metal Mining	Establishments in this cluster mine various metals including iron, gold, silver, lead, copper, and uranium. It also includes firms involved in supporting metal mining activities.
32	Metalworking Technology	The establishments in this cluster manufacture machine tools and process metal for use in metal working. The cluster also contains the downstream manufacture of metal fasteners and hand tools.
33	Music and Sound Recording	Establishments in this cluster are primarily involved in the production and distribution of music and other sound recordings.
34	Nonmetal Mining	Establishments in this cluster mine earthen materials other than metals. This includes stone, granite, sand, clay, borate, and other minerals. The cluster also includes support for the nonmetal mining activities.
35	Oil and Gas Production and Transportation	This cluster includes firms involved in locating, extracting, refining, and transporting oil and gas. This includes companies that manufacture the equipment necessary to extract oil and gas, as well as companies that provide support services for oil and gas operations and pipeline transport.
36	Paper and Packaging	This cluster contains the paper mills and manufacturers of paper products used for shipping, packaging, containers, office supplies, personal products, and similar products.
37	Performing Arts	This cluster contains services that produce, promote, and support live artistic performances. Live performances include those by theater companies, dance troupes, musicians, and independent artists.
38	Plastics	Establishments in this cluster manufacture plastic materials, components, and products. The plastics and foams are manufactured for packaging, pipes, floor coverings, and related plastic products. The cluster also includes the upstream manufacturing of plastic materials and resins, as well as the industrial machines used to manufacture plastics.
39	Printing Services	Establishments in this cluster are primarily engaged in commercial printing, digital printing, and binding. The cluster includes upstream products and services necessary for printing (for example, ink and prepress services). It also includes end products such as books, greeting cards, business forms, and related goods.
40	Production Technology and Heavy Machinery	Establishments in this cluster primarily manufacture machines designed to produce parts and devices used in the production of downstream products. This cluster also includes end use heavy machinery such as air and material handling equipment. The machines are used for industrial, agricultural, construction, commercial industry, and related purposes.
41	Recreational and Small Electric Goods	This cluster contains establishments that manufacture end use products for recreational and decorative purposes. These products include games, toys, bicycles, motorcycles, musical instruments, sporting goods, art supplies, office supplies, shades, and home accessories. This cluster also incorporates firms that produce small, simple electric goods like hairdryers, fans, and office machinery.

## Summary of Cluster Descriptions

Cluster Code	Cluster Name	Description
42	Textile Manufacturing	This cluster contains textile mills that primarily produce and finish fabrics for clothing, carpets, upholstery, and similar uses. The textiles include yarn, thread, fibers, hosiery, knits, and other specialty fabrics.
43	Tobacco	The establishments in this cluster manufacture cigarettes and other tobacco products. This also includes upstream tobacco leaf processing.
44	Trailers, Motor Homes, and Appliances	This cluster includes establishments that manufacture trailers, campers, and motor homes, as well as major household appliances.
45	Transportation and Logistics	This cluster contains all air, rail, bus, and freight transportation services. It also includes related operation services and support activities such as inspections, maintenance, repairs, security, and loading/unloading.
46	Upstream Chemical Products	This cluster consists of firms that manufacture basic organic and inorganic chemicals and gases. The chemicals are usually separate elements that could be used as inputs for more complex downstream chemical products.
47	Upstream Metal Manufacturing	The establishments in this cluster manufacture upstream metal products such as pipes, tubes, metal closures, wires, springs, and related products. The cluster includes iron and steel mills and foundries, as well as related metal processing techniques.
48	Video Production and Distribution	The establishments in this cluster are primarily involved with the production and distribution of motion pictures and other video. This includes specialized viewing venues such as drive-in theaters.
49	Vulcanized and Fired Materials	This cluster contains firms that manufacture construction and other materials out of earthen substances such as clay, sand, and rubber at extremely high temperatures. The production processes create goods made of tile, brick, ceramic, glass, and rubber (including refractories and tires).
50	Water Transportation	This cluster contains all establishments involved in transporting people and goods over water. The cluster includes boat building, transportation, operations, and other support services.
51	Wood Products	The establishments in this cluster are primarily engaged in making upstream wood materials and manufacturing non-furniture wood products. Upstream establishments include sawmills, plywood and hardwood manufacturers, cut stock manufacturers, and wood preservation services. Downstream establishments produce windows, doors, flooring, wood containers, prefabricated wood buildings, and related products.

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