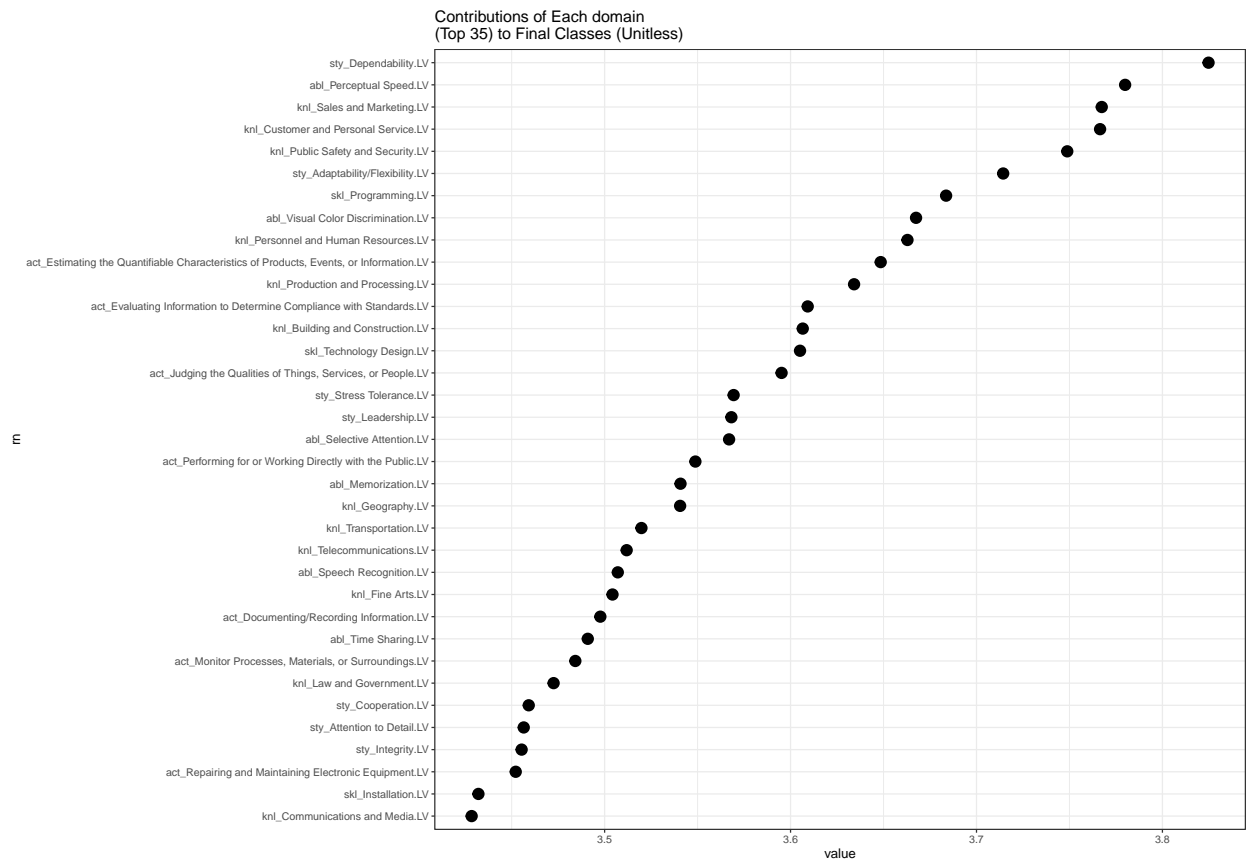


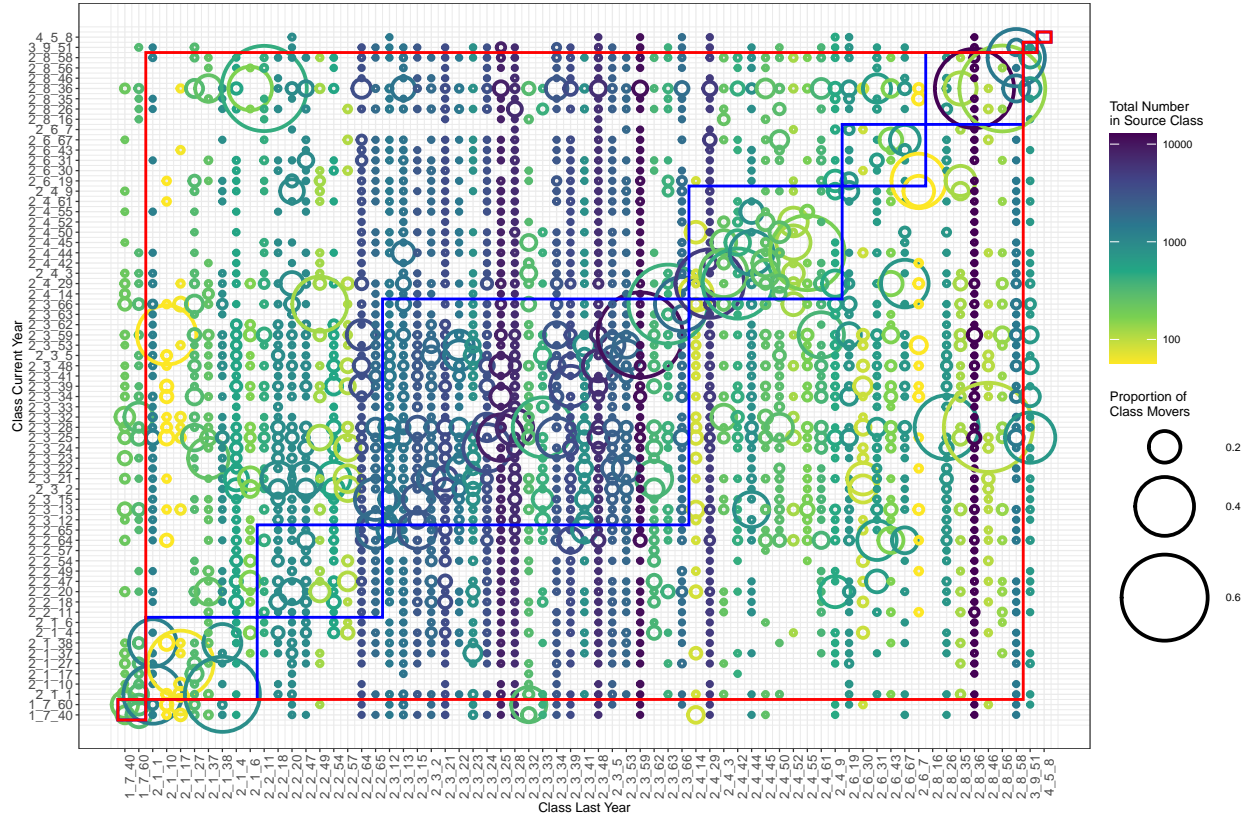
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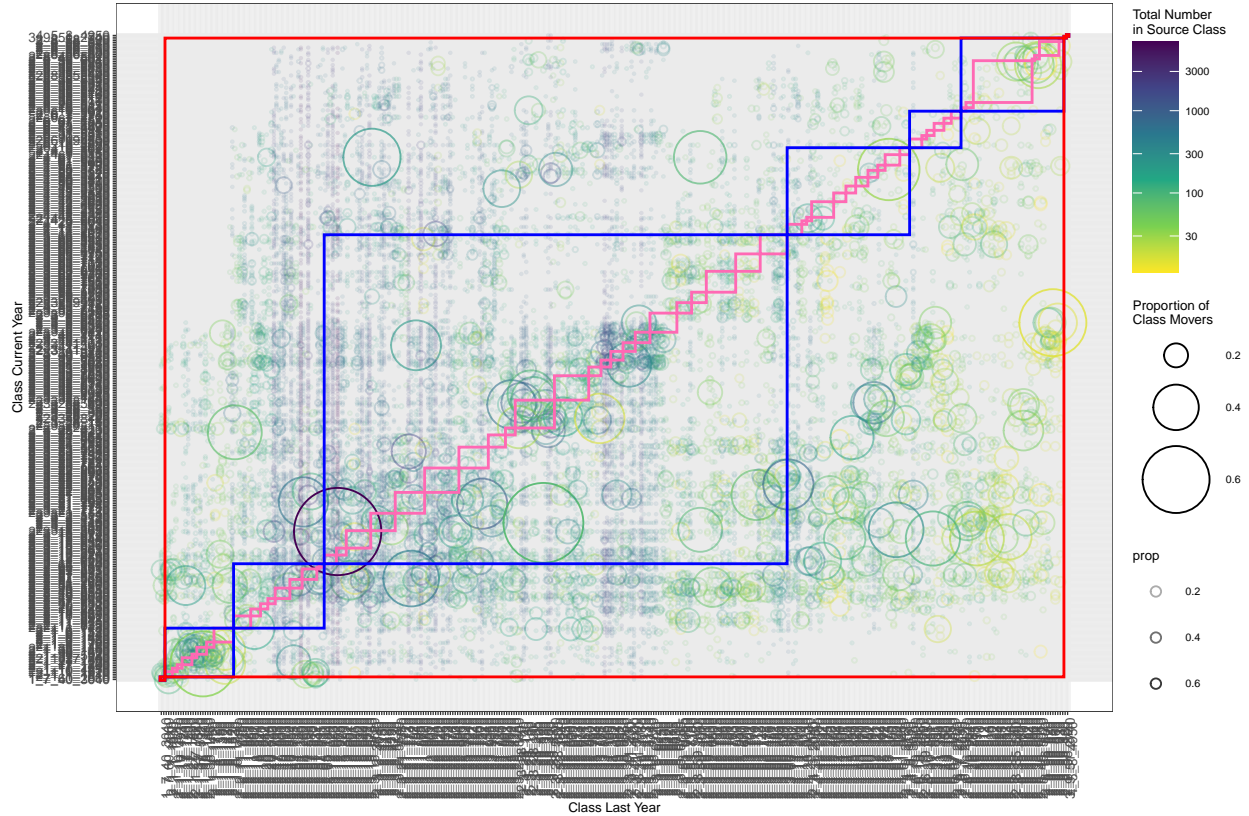
12/24/2020



Source and Sink Classes (K = 67)
Superimposed with K=9 and K=4 Groupings



Source and Sink Classes (K = 67)
Superimposed with K=9 and K=4 Groupings



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## [1] 0.2790895
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## [1] 0.6785933
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## [1] 0.9908027
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1

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2

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3

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4

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5

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6

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7

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8

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% latex table generated in R 4.0.2 by xtable 1.8-4 package % Sun Dec 27 11:23:43 2020
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	Title	Class_67	Class_9	Class_4
1	Miscellaneous media and commun	1_7_60	1_7	1
2	Optometrists	1_7_40	1_7	1
3	Biological scientists	2_1_1	2_1	2
4	Biological technicians	2_1_1	2_1	2
5	Chemical technicians	2_1_1	2_1	2
6	Materials engineers	2_1_4	2_1	2
7	Chemists and materials scienti	2_1_4	2_1	2
8	Physical scientists, all other	2_1_4	2_1	2
9	Chemical engineers	2_1_6	2_1	2
10	Civil engineers	2_1_6	2_1	2
11	Environmental engineers	2_1_6	2_1	2
12	Industrial engineers, includin	2_1_6	2_1	2
13	Marine engineers and naval arc	2_1_6	2_1	2
14	Petroleum engineers	2_1_6	2_1	2
15	Engineers, all other, includin	2_1_6	2_1	2
16	Environmental scientists and g	2_1_6	2_1	2
17	Atmospheric and space scientis	2_1_10	2_1	2
18	Sales engineers	2_1_10	2_1	2
19	Mathematicians, statisticians	2_1_17	2_1	2
20	Astronomers and physicists	2_1_17	2_1	2
21	Actuaries	2_1_27	2_1	2
22	Operations research analysts	2_1_27	2_1	2
23	Economists	2_1_27	2_1	2
24	Logisticians	2_1_27	2_1	2
25	Drafters	2_1_37	2_1	2
26	Statistical assistants	2_1_37	2_1	2
27	Aerospace engineers	2_1_38	2_1	2
28	Computer hardware engineers	2_1_38	2_1	2
29	Electrical and electronic engi	2_1_38	2_1	2
30	Mechanical engineers	2_1_38	2_1	2
31	Precision instrument and equip	2_2_11	2_2	2
32	Prepress technicians and worke	2_2_11	2_2	2
33	Tailors, dressmakers, and sewe	2_2_11	2_2	2
34	Jewelers and precious stone an	2_2_11	2_2	2
35	Photographic process workers a	2_2_11	2_2	2
36	Etchers and engravers	2_2_11	2_2	2
37	Molders, shapers, and casters,	2_2_11	2_2	2
38	Office machine operators, exce	2_2_18	2_2	2
39	Tool grinders, filers, and sha	2_2_18	2_2	2
40	Textile cutting machine setter	2_2_18	2_2	2
41	Textile winding, twisting, and	2_2_18	2_2	2
42	Library technicians	2_2_20	2_2	2
43	File Clerks	2_2_20	2_2	2
44	Library assistants, clerical	2_2_20	2_2	2
45	Grinding, lapping, polishing,	2_2_49	2_2	2
46	Machinists	2_2_49	2_2	2
47	Tool and die makers	2_2_49	2_2	2
48	Cabinetmakers and bench carpen	2_2_49	2_2	2
49	Woodworking machine setters, o	2_2_49	2_2	2

	Title	Class_67	Class_9	Class_4
1	Miscellaneous woodworkers, inc	2_2_49	2_2	2
2	Surveyors, cartographers, and	2_2_54	2_2	2
3	Surveying and mapping technici	2_2_54	2_2	2
4	Archivists, curators, and muse	2_2_54	2_2	2
5	Artists and related workers	2_2_54	2_2	2
6	Designers	2_2_54	2_2	2
7	Postal service mail sorters, p	2_2_57	2_2	2
8	Mail clerks and mail machine o	2_2_57	2_2	2
9	Molders and molding machine se	2_2_57	2_2	2
10	Sewing machine operators	2_2_57	2_2	2
11	Textile knitting and weaving m	2_2_57	2_2	2
12	Helpers—production workers	2_2_57	2_2	2
13	Architects, except naval	2_2_65	2_2	2
14	Urban and regional planners	2_2_65	2_2	2
15	Bakers	2_2_47	2_2	2
16	Shoe and leather workers and r	2_2_47	2_2	2
17	Painting workers	2_2_47	2_2	2
18	Pressers, textile, garment, an	2_2_64	2_2	2
19	Massage therapists	2_3_2	2_3	2
20	Bartenders	2_3_2	2_3	2
21	Hosts and hostesses, restauran	2_3_2	2_3	2
22	Gaming services workers	2_3_2	2_3	2
23	Miscellaneous entertainment at	2_3_2	2_3	2
24	Embalmers and funeral attendan	2_3_2	2_3	2
25	Baggage porters, bellhops, and	2_3_2	2_3	2
26	Cashiers	2_3_2	2_3	2
27	Gaming cage workers	2_3_2	2_3	2
28	Postal service clerks	2_3_2	2_3	2
29	Brickmasons, blockmasons, and	2_3_5	2_3	2
30	Carpet, floor, and tile instal	2_3_5	2_3	2
31	Cement masons, concrete finish	2_3_5	2_3	2
32	Drywall installers, ceiling ti	2_3_5	2_3	2
33	Glaziers	2_3_5	2_3	2
34	Painters, construction and mai	2_3_5	2_3	2
35	Plasterers and stucco masons	2_3_5	2_3	2
36	Roofers	2_3_5	2_3	2
37	Helpers, construction trades	2_3_5	2_3	2
38	Fence erectors	2_3_5	2_3	2
39	Miscellaneous construction and	2_3_5	2_3	2
40	First-line supervisors/manager	2_3_12	2_3	2
41	Carpenters	2_3_12	2_3	2
42	Reinforcing iron and rebar wor	2_3_12	2_3	2
43	Structural iron and steel work	2_3_12	2_3	2
44	Material moving workers, inclu	2_3_12	2_3	2
45	Postsecondary teachers	2_3_13	2_3	2
46	Security guards and gaming sur	2_3_13	2_3	2
47	Dispatchers	2_3_13	2_3	2
48	Agricultural inspectors	2_3_13	2_3	2
49	Boilermakers	2_3_15	2_3	2
50	Construction laborers	2_3_15	2_3	2

	Title	Class_67	Class_9	Class_4
1	Paving, surfacing, and tamping	2_3_15	2_3	2
2	Construction equipment operato	2_3_15	2_3	2
3	Insulation workers	2_3_15	2_3	2
4	Pipelayers, plumbers, pipefitt	2_3_15	2_3	2
5	Sheet metal workers	2_3_15	2_3	2
6	Hazardous materials removal wo	2_3_15	2_3	2
7	Highway maintenance workers	2_3_15	2_3	2
8	Water and liquid waste treatme	2_3_15	2_3	2
9	Industrial and refractory mach	2_3_21	2_3	2
10	Aircraft structure, surfaces,	2_3_21	2_3	2
11	Electrical, electronics, and e	2_3_21	2_3	2
12	Engine and other machine assem	2_3_21	2_3	2
13	Structural metal fabricators a	2_3_21	2_3	2
14	Extruding and drawing machine	2_3_21	2_3	2
15	Rolling machine setters, opera	2_3_21	2_3	2
16	Cutting, punching, and press m	2_3_21	2_3	2
17	Crushing, grinding, polishing,	2_3_21	2_3	2
18	Extruding, forming, pressing,	2_3_21	2_3	2
19	Packaging and filling machine	2_3_21	2_3	2
20	Cementing and gluing machine o	2_3_21	2_3	2
21	Lathe and turning machine tool	2_3_22	2_3	2
22	Metal furnace and kiln operato	2_3_22	2_3	2
23	Welding, soldering, and brazin	2_3_22	2_3	2
24	Plating and coating machine se	2_3_22	2_3	2
25	Metalworkers and plastic worke	2_3_22	2_3	2
26	Miscellaneous textile, apparel	2_3_22	2_3	2
27	Sawing machine setters, operat	2_3_22	2_3	2
28	Furnace, kiln, oven, drier, an	2_3_22	2_3	2
29	Inspectors, testers, sorters,	2_3_22	2_3	2
30	Medical, dental, and ophthalmi	2_3_22	2_3	2
31	Paper goods machine setters, o	2_3_22	2_3	2
32	Tire builders	2_3_22	2_3	2
33	Production workers, including	2_3_22	2_3	2
34	Machine feeders and offbearers	2_3_22	2_3	2
35	Meter readers, utilities	2_3_23	2_3	2
36	Electric motor, power tool, an	2_3_23	2_3	2
37	Bus and truck mechanics and di	2_3_23	2_3	2
38	Heavy vehicle and mobile equip	2_3_23	2_3	2
39	Small engine mechanics	2_3_23	2_3	2
40	Miscellaneous vehicle and mobi	2_3_23	2_3	2
41	Control and valve installers a	2_3_23	2_3	2
42	Home appliance repairers	2_3_23	2_3	2
43	Electrical power-line installe	2_3_23	2_3	2
44	Locksmiths and safe repairers	2_3_23	2_3	2
45	Service station attendants	2_3_23	2_3	2
46	Pumping station operators	2_3_23	2_3	2
47	Engineering technicians, excep	2_3_24	2_3	2
48	Aircraft mechanics and service	2_3_24	2_3	2
49	Maintenance workers, machinery	2_3_24	2_3	2
50	Power plant operators, distrib	2_3_24	2_3	2

	Title	Class_67	Class_9	Class_4
1	Stationary engineers and boiler	2_3_24	2_3	2
2	Miscellaneous plant and system	2_3_24	2_3	2
3	Chemical processing machine se	2_3_24	2_3	2
4	Food servers, nonrestaurant	2_3_25	2_3	2
5	Janitors and building cleaners	2_3_25	2_3	2
6	Maids and housekeeping cleaner	2_3_25	2_3	2
7	Laundry and dry-cleaning worke	2_3_25	2_3	2
8	Chief executives	2_3_28	2_3	2
9	Computer and information syste	2_3_28	2_3	2
10	Industrial production managers	2_3_28	2_3	2
11	Purchasing managers	2_3_28	2_3	2
12	Transportation, storage, and d	2_3_28	2_3	2
13	General and operations manager	2_3_28	2_3	2
14	Farmers, ranchers, and other a	2_3_28	2_3	2
15	Construction managers	2_3_28	2_3	2
16	Engineering managers	2_3_28	2_3	2
17	Gaming managers	2_3_28	2_3	2
18	Medical and health services ma	2_3_28	2_3	2
19	Natural sciences managers	2_3_28	2_3	2
20	Social and community service m	2_3_28	2_3	2
21	Managers, all other	2_3_28	2_3	2
22	Production, planning, and expe	2_3_28	2_3	2
23	Cost estimators	2_3_28	2_3	2
24	Conservation scientists and fo	2_3_32	2_3	2
25	Pest control workers	2_3_32	2_3	2
26	Grounds maintenance workers	2_3_32	2_3	2
27	Animal trainers	2_3_32	2_3	2
28	First-line supervisors of farm	2_3_32	2_3	2
29	Miscellaneous agricultural wor	2_3_32	2_3	2
30	Forest and conservation worker	2_3_32	2_3	2
31	Logging workers	2_3_32	2_3	2
32	Rail-track laying and maintena	2_3_32	2_3	2
33	Other extraction workers, incl	2_3_32	2_3	2
34	Coin, vending, and amusement m	2_3_32	2_3	2
35	Driver/sales workers and truck	2_3_32	2_3	2
36	Industrial truck and tractor o	2_3_32	2_3	2
37	Laborers and freight, stock, a	2_3_32	2_3	2
38	Agricultural and food scientis	2_3_34	2_3	2
39	Medical scientists and life sc	2_3_34	2_3	2
40	Dietitians and nutritionists	2_3_34	2_3	2
41	Opticians, dispensing	2_3_34	2_3	2
42	Mining machine operators	2_3_39	2_3	2
43	Crane and tower operators	2_3_39	2_3	2
44	Dredge, excavating, and loadin	2_3_39	2_3	2
45	Hoist and winch operators, and	2_3_39	2_3	2
46	Refuse and recyclable material	2_3_39	2_3	2
47	Education administrators	2_3_41	2_3	2
48	Property, real estate, and com	2_3_41	2_3	2
49	Real estate brokers and sales	2_3_41	2_3	2
50	First-line supervisors/manager	2_3_41	2_3	2

	Title	Class_67	Class_9	Class_4
1	Management analysts	2_3_41	2_3	2
2	Food preparation workers	2_3_48	2_3	2
3	Waiters and waitresses	2_3_48	2_3	2
4	Food preparation and serving r	2_3_48	2_3	2
5	Dishwashers	2_3_48	2_3	2
6	Counter and rental clerks	2_3_48	2_3	2
7	Butchers and other meat, poult	2_3_48	2_3	2
8	Electricians	2_3_53	2_3	2
9	Construction and building insp	2_3_53	2_3	2
10	Security and fire alarm system	2_3_53	2_3	2
11	Automotive body and related re	2_3_53	2_3	2
12	Automotive glass installers an	2_3_53	2_3	2
13	Other transportation workers,	2_3_53	2_3	2
14	Food service managers	2_3_59	2_3	2
15	Chefs and head cooks	2_3_59	2_3	2
16	First-line supervisors/manager	2_3_59	2_3	2
17	First-line supervisors/manager	2_3_59	2_3	2
18	First-line supervisors/manager	2_3_59	2_3	2
19	First-line supervisors/manager	2_3_59	2_3	2
20	Derrick, rotary drill, and ser	2_3_62	2_3	2
21	First-line supervisors/manager	2_3_62	2_3	2
22	Heating, air conditioning, and	2_3_62	2_3	2
23	Maintenance and repair workers	2_3_62	2_3	2
24	Millwrights	2_3_62	2_3	2
25	Manufactured building and mobi	2_3_62	2_3	2
26	Riggers	2_3_62	2_3	2
27	Helpers—installation, mainten	2_3_62	2_3	2
28	Other installation, maintenanc	2_3_62	2_3	2
29	First-line supervisors/manager	2_3_62	2_3	2
30	Sailors and marine oilers, and	2_3_62	2_3	2
31	Ship and boat captains and ope	2_3_62	2_3	2
32	Broadcast and sound engineerin	2_3_63	2_3	2
33	Elevator installers and repair	2_3_63	2_3	2
34	Computer, automated teller, an	2_3_63	2_3	2
35	Radio and telecommunications e	2_3_63	2_3	2
36	Avionics technicians	2_3_63	2_3	2
37	Electrical and electronics rep	2_3_63	2_3	2
38	Electronic equipment installer	2_3_63	2_3	2
39	Electronic home entertainment	2_3_63	2_3	2
40	Automotive service technicians	2_3_63	2_3	2
41	Telecommunications line instal	2_3_63	2_3	2
42	Parts salespersons	2_3_66	2_3	2
43	Retail salespersons	2_3_66	2_3	2
44	Insurance sales agents	2_3_66	2_3	2
45	Securities, commodities, and f	2_3_66	2_3	2
46	Travel agents	2_3_66	2_3	2
47	Sales representatives, wholesa	2_3_66	2_3	2
48	Telemarketers	2_3_66	2_3	2
49	Hotel, motel, and resort desk	2_3_66	2_3	2
50	Reservation and transportation	2_3_66	2_3	2

	Title	Class_67	Class_9	Class_4
1	Cargo and freight agents	2_3_66	2_3	2
2	Shipping, receiving, and traff	2_3_66	2_3	2
3	Food and tobacco roasting, bak	2_3_33	2_3	2
4	Food batchmakers	2_3_33	2_3	2
5	Food cooking machine operators	2_3_33	2_3	2
6	Cutting workers	2_3_33	2_3	2
7	Cleaning, washing, and metal p	2_3_33	2_3	2
8	Clergy	2_4_3	2_4	2
9	Directors, religious activitie	2_4_3	2_4	2
10	Psychologists	2_4_14	2_4	2
11	Counselors	2_4_14	2_4	2
12	Social workers	2_4_14	2_4	2
13	Lawyers, Judges, magistrates,	2_4_14	2_4	2
14	Audiologists	2_4_14	2_4	2
15	Speech-language pathologists	2_4_14	2_4	2
16	Aircraft pilots and flight eng	2_4_29	2_4	2
17	Air traffic controllers and ai	2_4_29	2_4	2
18	Preschool and kindergarten tea	2_4_42	2_4	2
19	Elementary and middle school t	2_4_42	2_4	2
20	Secondary school teachers	2_4_42	2_4	2
21	Other teachers and instructors	2_4_42	2_4	2
22	Other education, training, and	2_4_42	2_4	2
23	Athletes, coaches, umpires, an	2_4_42	2_4	2
24	Child care workers	2_4_42	2_4	2
25	Recreation and fitness workers	2_4_42	2_4	2
26	Residential advisors	2_4_42	2_4	2
27	Chiropractors	2_4_44	2_4	2
28	Dentists	2_4_44	2_4	2
29	Pharmacists	2_4_44	2_4	2
30	Veterinarians	2_4_44	2_4	2
31	Other healthcare practitioners	2_4_44	2_4	2
32	Special education teachers	2_4_45	2_4	2
33	Radiation therapists	2_4_45	2_4	2
34	Recreational therapists	2_4_45	2_4	2
35	Licensed practical and license	2_4_45	2_4	2
36	First-line supervisors/manager	2_4_50	2_4	2
37	First-line supervisors/manager	2_4_50	2_4	2
38	Bailiffs, correctional officer	2_4_50	2_4	2
39	Detectives and criminal invest	2_4_50	2_4	2
40	Private detectives and investi	2_4_50	2_4	2
41	Physician assistants	2_4_52	2_4	2
42	Respiratory therapists	2_4_52	2_4	2
43	Diagnostic related technologis	2_4_52	2_4	2
44	Dental assistants	2_4_52	2_4	2
45	Animal control workers	2_4_61	2_4	2
46	Flight attendants	2_4_61	2_4	2
47	Locomotive engineers and opera	2_4_61	2_4	2
48	Railroad brake, signal, switch	2_4_61	2_4	2
49	Subway, streetcar, and other r	2_4_61	2_4	2
50	Transportation inspectors	2_4_61	2_4	2

	Title	Class_67	Class_9	Class_4
1	Occupational therapists	2_4_9	2_4	2
2	Physical therapists	2_4_9	2_4	2
3	Occupational therapist assista	2_4_9	2_4	2
4	Physical therapist assistants	2_4_9	2_4	2
5	First-line supervisors/manager	2_4_55	2_4	2
6	Fire fighters	2_4_55	2_4	2
7	Fire inspectors	2_4_55	2_4	2
8	Actors	2_6_7	2_6	2
9	Musicians, singers, and relate	2_6_7	2_6	2
10	Photographers	2_6_7	2_6	2
11	Television, video, and motion	2_6_7	2_6	2
12	Announcers	2_6_19	2_6	2
13	Public relations specialists	2_6_19	2_6	2
14	Writers and authors	2_6_19	2_6	2
15	Advertising sales agents	2_6_19	2_6	2
16	Agents and business managers o	2_6_19	2_6	2
17	Upholsterers	2_6_30	2_6	2
18	Furniture finishers	2_6_30	2_6	2
19	Couriers and messengers	2_6_31	2_6	2
20	Postal service mail carriers	2_6_31	2_6	2
21	Parking lot attendants	2_6_31	2_6	2
22	Crossing guards	2_6_43	2_6	2
23	Ushers, lobby attendants, and	2_6_43	2_6	2
24	Barbers	2_6_43	2_6	2
25	Models, demonstrators, and pro	2_6_43	2_6	2
26	Nonfarm animal caretakers	2_6_67	2_6	2
27	Hairdressers, hairstylists, an	2_6_67	2_6	2
28	Miscellaneous personal appeara	2_6_67	2_6	2
29	Cleaners of vehicles and equip	2_8_16	2_8	2
30	Packers and packagers, hand	2_8_16	2_8	2
31	Technical writers	2_8_26	2_8	2
32	Procurement clerks	2_8_26	2_8	2
33	Proofreaders and copy markers	2_8_26	2_8	2
34	Bill and account collectors	2_8_35	2_8	2
35	Billing and posting clerks and	2_8_35	2_8	2
36	Bookkeeping, accounting, and a	2_8_35	2_8	2
37	Payroll and timekeeping clerks	2_8_35	2_8	2
38	Tellers	2_8_35	2_8	2
39	Brokerage clerks	2_8_35	2_8	2
40	Court, municipal, and license	2_8_35	2_8	2
41	Credit authorizers, checkers,	2_8_35	2_8	2
42	Customer service representativ	2_8_35	2_8	2
43	Eligibility interviewers, gove	2_8_35	2_8	2
44	Interviewers, except eligibili	2_8_35	2_8	2
45	Loan interviewers and clerks	2_8_35	2_8	2
46	New accounts clerks	2_8_35	2_8	2
47	Correspondence clerks and orde	2_8_35	2_8	2
48	Human resources assistants, ex	2_8_35	2_8	2
49	Claims adjusters, appraisers,	2_8_35	2_8	2
50	Receptionists and information	2_8_35	2_8	2

	Title	Class_67	Class_9	Class_4
1	Weighers, measurers, checkers,	2_8_35	2_8	2
2	Secretaries and administrative	2_8_35	2_8	2
3	Data entry keyers	2_8_35	2_8	2
4	Word processors and typists	2_8_35	2_8	2
5	Insurance claims and policy pr	2_8_35	2_8	2
6	Office clerks, general	2_8_35	2_8	2
7	Office and administrative supp	2_8_35	2_8	2
8	Graders and sorters, agricultu	2_8_36	2_8	2
9	Switchboard operators, includi	2_8_46	2_8	2
10	Telephone operators	2_8_46	2_8	2
11	Accountants and auditors	2_8_56	2_8	2
12	Budget analysts	2_8_56	2_8	2
13	Credit analysts	2_8_56	2_8	2
14	Personal financial advisors	2_8_56	2_8	2
15	Insurance underwriters	2_8_56	2_8	2
16	Loan counselors and officers	2_8_56	2_8	2
17	Tax examiners, collectors, and	2_8_56	2_8	2
18	Tax preparers	2_8_56	2_8	2
19	Financial managers	2_8_58	2_8	2
20	Financial examiners	2_8_58	2_8	2
21	Dancers and choreographers	3_9_51	3_9	3
22	Door-to-door sales workers, ne	4_5_8	4_5	4
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