# Appendix with details on the coding of interest groups and the creation of employment categories from Department of Labor data

The interest group data comes from the National Institute for Money in State Politics ("the Institute).\(^1\) The Institute, in turn, gathered it from the agencies in each state responsible for registering entities lobbying government from 2006 to 2015, making the data available through their website under the heading of "Lobbyist and Clients," the interest groups and corporations being the clients.\(^2\) There is, of course, only limited comparability between lists of interest groups from state to state, though the Institute claims to have been as systematic as possible in its collection of the data. Mindful of these concerns, the Institute has twice had their data evaluated by researchers at the RAND Corporation, and twice RAND has validated the way the data was collected and audited by the Institute. RAND did note, though, that each state has different registration and disclosure requirements, and different levels of rigor when it comes to ensuring compliance, making some cross-state comparisons difficult (see McGovern and Greenberg 2014, pp. 6-8).\(^3\)

The overall number of original observations received was 1,806,218, but this raw data suffered from three serious problems. First, it was full of duplicate entries, often because multiple lobbyists represented the same organizations or corporations during the same year. Indeed, as Benz et al. (2011, p. 445) note in their article using state PAC contributions data from the Institute, needless duplication is a recurring problem with the Institute's data and a great deal of "cleaning" of the data is required before it can be used. Fortunately, it was relatively simple to use STATA statistical software to identify and delete all of the duplicative entries, which reduced the data set to 577,686 observations where each organization or corporation was entered once for each year in each state rather than multiple entries in the same year.

Second, each organization or corporation was originally coded by the Institute using three columns of information, which are in order of specificity: sector, industry, and business. Presumably these were developed to clearly identify types of organizations lobbying state governments and the issues of concern to them. Yet the majority of the observations were actually not coded at all. Third, many of those that were coded were coded incorrectly. When the Institute staff were asked about this in a private communication, they claimed that they were not aware of the problem, and that there had not been any change in their coding rules or loss of internal funds dedicated to this project that might account for the growing number of un-coded entries.<sup>4</sup> Because other scholars have made some use of this data for one or two specific years (see Gray et al. 2015; Holyoke 2015), this problem with the Institute's data has become known in the community of scholars working on state interest group politics.

To solve these problems we embarked on a massive coding project. The focus on the coding is on the "sectors" category rather than the more specific categories of "industry" and "business" for two reasons. First, since "sector" is the broadest category, it is the easiest to code and have that coding be valid and reliable. Second, with just a little adjustment these sector codes correspond to National Association Industry Classification Codes (NAICS) used by the U.S. Department of Commerce, which makes it possible to link other variables (such as sector employment) to these codes.

In terms of coding the uncoded observations for group sector, a few tricks allowed us to quickly and significantly reduce their numbers. It turned out that a large number of organizations or corporations not coded in one year were coded by sector in other years. Since there is no reason to believe a group or corporation would change sector from one year to another, it was relatively simple to command statistical software to automatically find a code for a group or corporation

based on its name and then apply that same code to all other observations with the same name. This reduced the number of uncoded observations from 62% to 35%. A second technique was to use software to pick out words in a group or corporation's name that identified it as belonging in a sector category. For example, we were able to pick out all organization names containing words like "bank," "insurance," "hospital," "labor union," and "doctor" and categorize them, respectively, as "finance," "finance," "health," "union," and "health." After spending time using this technique, the number of uncoded observations fell to 26%. Along the way we discovered that there were a few thousand entries where there was no organization name, or for some reason the original coders had done such a poor job entering the name that the entry was unreadable. All of these observations were removed, reducing the total number of usable observations for the tenyear period to 532,518.

After that we spent two and a half years slogging through a process of looking up uncoded group or corporation names on the internet and assigning a code when possible. Fortunately we had the entire list sorted alphabetically, so after assigning a code to one organization in one year, we could immediately assign the same code to the same organization in all other states and years. At the same time, we eyeballed the codes originally assigned by the Institute to see whether they intuitively matched the name of the organization. If they did not, we looked them and recoded as needed. If we could not tell by just looking, we again looked up the organization.

Since the majority of the coding was done by graduate assistants, all trained with the exact same instructions, the supervising professor randomly sampled 10% of each graduate student's work and recoded them to check and see how well each student was doing. For five of the six graduate students employed, the professor's coding and the students matched in over 90% of cases. In one sad instance, however, the graduate student was found to not only be frequently miscoding,

but in a few instances had invented entirely new categories. This student was fired and the supervising professor personally recoded all 20,000 (or so) of that student's entries. It is for reasons such as these that this coding process has taken so long.

The following are the types of organizations placed into distinct policy sector categories based on the NAICS.

### Agriculture

- Agricultural services and products
- Crop production and basic processing
- Dairy
- Food processing and wholesale
- Livestock
- Miscellaneous agriculture
- Poultry and eggs
- Tobacco growers (but not cigars or other tobacco products)
- Fish and fisheries
- NOT forests and forestry

#### **Business**

- Business services
- Cemeteries and funeral services
- Chemical and related manufacturing
- Defense and aerospace
- General contractors
- Management consulting
- Marketing and advertising
- Miscellaneous distributing
- Miscellaneous business services
- Manufacturing (all kinds)
- Retail sales
- Large pharmacy corporations (like CVS)
- Waste management services
- Recycling services
- Otherwise unidentifiable business organizations

### **Communication Industry**

- Telecommunications services and equipment
- Cable television
- Media (print and video) such as magazines and newspapers (and therefore journalism), but not fiction or academic publishing
- Telephone utilities
- Wireless internet and fiber-optics

### Construction

- Industry and business
- Home building
- Development of land for construction
- Landscaping
- Architecture
- Roads and highway building
- Relevant unions
- People who do AC / heating systems and electrical wiring for houses and buildings
- NOT raw materials used in building or real estate related services

### Education

- K-12 education
- Charter schools, private schools, religious schools, and home schooling
- Higher education
- Teachers' unions
- Private school education and management companies
- Education professionals associations
- Does NOT include boards of education and education departments, which are classified as "government," but does include their associations
- Academic publishing
- School libraries and librarians
- School transportation and health

### **Electronics**

• Computer and electronics manufacturing

- Computer equipment and services
- Other electronics services
- Software development and service

### **Energy and Natural Resources**

- Utilities
- Mining of all kinds of minerals
- Distribution of all types of power
- Forest management and logging
- Environmental services
- Hunting
- Water services and water quality
- Land use issues
- Conservation
- Environmental activism

### **Entertainment**

- Live theater and acting
- Live music (orchestras, jazz, rock, etc.)
- Musician and actors' unions
- Theater and concert venue management
- Fictional publishing
- Convention centers (but not visitors' bureaus)
- Sports and sport teams
- TV and movie filming and production

#### **Finance**

- Accounting
- Banking
- Insurance (including health insurance and vehicle insurance)
- Pay-day lending and check cashing
- Investing and finance
- Financial management
- Tax services
- Securities investing

### Government

- All state and local government agencies
- Includes school districts, economic development agencies, and other special districts
- Includes associations representing government agencies
- Most "commissions" and all "authorities"
- Public sector unions

### Health

- Advocates for health care and home health care services
- Medical unions (especially nurses' unions)
- Hospitals
- Medical service providers (doctors, dentists, nurses, etc.)
- Nursing homes
- Medical technology research companies
- Pharmaceuticals (production and pharmacies), but not big pharmacy chains
- Health care management systems
- Does NOT include health insurance providers or health insurance plans, which are classified as "finance"
- Health and medical certification boards
- NOT colleges and university medical teaching schools, but includes university hospitals

### Lawyers and Lobbyists

- All law firms (usually identified by a string of names followed by LLC)
- Lobbying firms may appear like law firms, but also may include words "consultants,"
   "public affairs," or "advocates"
- Also includes all associations of lawyers involved with the judicial system, like groups representing judges, defense attorneys, prosecutors, and so forth (but not judicial administrative offices or associations)

### Leisure, Food, Spirits, and Gambling

- Hotels and resorts (and cruises)
- All alcohol production and distribution
- All forms of gambling (including horse and dog racing)
- Anything to do with beaches
- Anything to do with auto racing

- Food catering (but not food production or wholesale, or even retail supermarkets)
- Tourism industry (including travel agents)
- Hunting
- Art centers and museums
- Visitors' bureaus
- Libraries (except government libraries and university libraries)
- Outdoor outfitting / clothing / outdoor gear industry

#### **Real Estate**

- Realtors and associations
- Realtor certification boards
- Title services (but not title insurance)
- Home inspection services
- Other home-selling and buying services

### **Social Service**

- General nonprofit organizations
- Welfare and social policy organizations
- · Organizations involved with helping marginalized populations
- Organizations dealing with social problems like drugs and alcoholism
- Counseling services
- Veterans groups
- Religious organizations (non-activist)

### **Transportation**

- Air travel and air cargo
- Truck transportation
- Railroad transportation (people and cargo)
- Automotive industry (manufacture and sales)
- Anything in support of car travel
- Water transportation (oceans, lakes, and rivers)"
- Relevant unions

### **Interest Group Categories and Employee Categories**

Testing the paper's hypotheses required the development of a variable counting the number of people working in the various industries these groups claim to represent for each state and year. The U.S. Department of Labor has developed a large number of very precise employment categories and annually collects data from the states on how many people were employed in each category for each year.<sup>5</sup> We collected this data for the relevant years and then decided which of the Labor Department's employment categories connected to the Commerce Department's NAICS classifications. It is worth noting that Labor refined its coding scheme during these years, retiring a few categories and breaking apart a few others into narrower, more refined categories.

Below are the names of our interest group industry categories and the corresponding Labor Department employment categories. We added up the number of people employed in each category associated with each industry classification to create a final measure of the total number of people employed in that industry and thus potentially represented by those interest groups and corporations (more or less representing the workers it employs). A few categories did not have names, but since they were within bundles of categories all from the same category, they were included in that category.

### Agriculture

13-1021 Buyers and Purchasing Agents, Farm Products

13-1074 Farm Labor Contractors

17-2021 Agricultural Engineers

19-1010

19-1011 Animal Scientists

19-1012 Food Scientists and Technologists

19-1013 Soil and Plant Scientists

19-4011 Agricultural and Food Science Technicians

25-9021 Farm and Home Management Advisors
37-3012 Pesticide Handlers, Sprayers, and Applicators, Vegetation
45-1011 First-Line Supervisors of Farming, Fishing, and Forestry Workers
45-1012
45-2011 Agricultural Inspectors
45-2021 Animal Breeders
45-2041 Graders and Sorters, Agricultural Products
45-2091 Agricultural Equipment Operators
45-2092 Farmworkers and Laborers, Crop, Nursery, and Greenhouse
45-2093 Farmworkers, Farm, Ranch, and Aquacultural Animals
45-2099 Agricultural Workers, All Other
45-3011 Fishers and Related Fishing Workers
49-3041 Farm Equipment Mechanics and Service Technicians
51-3021 Butchers and Meat Cutters
51-3022 Meat, Poultry, and Fish Cutters and Trimmers
51-3023 Slaughterers and Meat Packers
51-3091 Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders
51-3092 <u>Food Batchmakers</u>

### Communication Industry (telephones, internet, cable TV)

51-3099 Food Processing Workers, All Other

15-1011 Computer and Information Scientists, Research
15-1021 Computer Programmers
15-1031
15-1032
15-1041
15-1051
15-1061
15-1071
15-1081
15-1099
15-1111 Computer and Information Research Scientists
15-1121 Computer Systems Analysts

15-1122 <u>Information Security Analysts</u>
15-1131 Computer Programmers
15-1132 Software Developers, Applications
15-1133 Software Developers, Systems Software
15-1134 Web Developers
15-1141 <u>Database Administrators</u>
15-1142 Network and Computer Systems Administrators
15-1143 Computer Network Architects
15-1150
15-1151 Computer User Support Specialists
15-1152 Computer Network Support Specialists
15-1179
15-1199 Computer Occupations, All Other
15-1799
27-3012 Public Address System and Other Announcers
27-3091 <u>Interpreters and Translators</u>
27-3099 Media and Communication Workers, All Other
27-4012 Broadcast Technicians
27-4013 Radio Operators
27-4014 <u>Sound Engineering Technicians</u>
27-4099 Media and Communication Equipment Workers, All Other
43-2011 Switchboard Operators, Including Answering Service
43-2021 <u>Telephone Operators</u>
43-2099 Communications Equipment Operators, All Other
49-2011 Computer, Automated Teller, and Office Machine Repairers
49-2021 Radio, Cellular, and Tower Equipment Installers and Repairers
49-2022 <u>Telecommunications Equipment Installers and Repairers, Except Line Installers</u>
49-9052 <u>Telecommunications Line Installers and Repairers</u>

### Entertainment (performers, sports, and media)

- 13-1011 Agents and Business Managers of Artists, Performers, and Athletes
- 13-1121 Meeting, Convention, and Event Planners
- 27-1012 Craft Artists

27-1013 Fine Artists, Including Painters, Sculptors, and Illustrators 27-1014 Multimedia Artists and Animators 27-1019 Artists and Related Workers, All Other 27-1027 Set and Exhibit Designers 27-2011 Actors 27-2012 Producers and Directors 27-2021 Athletes and Sports Competitors 27-2022 Coaches and Scouts 27-2023 Umpires, Referees, and Other Sports Officials 27-2031 <u>Dancers</u> 27-2032 Choreographers 27-2041 Music Directors and Composers 27-2042 Musicians and Singers 27-2099 Entertainers and Performers, Sports and Related Workers, All Other 27-3020 News Analysts, Reporters, and Correspondants 27-3021 Broadcast News Analysts 27-3022 Reporters and Correspondents 27-3041 Editors 27-3043 Writers and Authors 27-4011 Audio and Video Equipment Technicians 27-4021 Photographers 27-4031 Camera Operators, Television, Video, and Motion Picture 27-4032 Film and Video Editors 29-9091 Athletic Trainers 39-2011 Animal Trainers 39-2021 Nonfarm Animal Caretakers 39-3021 Motion Picture Projectionists 39-5091 Makeup Artists, Theatrical and Performance 43-9031 Desktop Publishers 43-9081 Proofreaders and Copy Markers 49-9061 Camera and Photographic Equipment Repairers 49-9063 Musical Instrument Repairers and Tuners

51-5111 Prepress Technicians and Workers

- 51-5112 Printing Press Operators
- 51-5113 Print Binding and Finishing Workers

### Electronics

- 17-2061 Computer Hardware Engineers
- 17-2072 Electronics Engineers, Except Computer
- 17-3012 Electrical and Electronics Drafters
- 17-3023 Electrical and Electronics Engineering Technicians
- 17-3024 Electro-Mechanical Technicians
- 27-3042 Technical Writers
- 43-9011 Computer Operators
- 49-2094 Electrical and Electronics Repairers, Commercial and Industrial Equipment
- 49-2095 Electrical and Electronics Repairers, Powerhouse, Substation, and Relay
- 49-2097 Electronic Home Entertainment Equipment Installers and Repairers
- 49-9062 Medical Equipment Repairers
- 51-2021 Coil Winders, Tapers, and Finishers
- 51-2022 Electrical and Electronic Equipment Assemblers
- 51-2023 Electromechanical Equipment Assemblers
- 51-4012 Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic
- 51-9141 Semiconductor Processors

### Construction

- 17-1011 Architects, Except Landscape and Naval
- 17-1012 Landscape Architects
- 17-1022 Surveyors
- 17-2051 Civil Engineers
- 17-2131 Materials Engineers
- 17-3011 Architectural and Civil Drafters
- 17-3013 Mechanical Drafters
- 17-3019 Drafters, All Other
- 17-3022 <u>Civil Engineering Technicians</u>
- 17-3026 Industrial Engineering Technicians

- 17-3031 Surveying and Mapping Technicians
- 19-2032 Materials Scientists
- 27-1021 Commercial and Industrial Designers
- 27-1025 <u>Interior Designers</u>
- 47-1011 First-Line Supervisors of Construction Trades and Extraction Workers
- 47-2011 Boilermakers
- 47-2021 Brickmasons and Blockmasons
- 47-2022 Stonemasons
- 47-2031 Carpenters
- 47-2041 Carpet Installers
- 47-2042 Floor Layers, Except Carpet, Wood, and Hard Tiles
- 47-2043 Floor Sanders and Finishers
- 47-2044 Tile and Marble Setters
- 47-2051 Cement Masons and Concrete Finishers
- 47-2053 Terrazzo Workers and Finishers
- 47-2061 Construction Laborers
- 47-2071 Paving, Surfacing, and Tamping Equipment Operators
- 47-2072 Pile-Driver Operators
- 47-2073 Operating Engineers and Other Construction Equipment Operators
- 47-2081 Drywall and Ceiling Tile Installers
- 47-2082 <u>Tapers</u>
- 47-2111 Electricians
- 47-2121 <u>Glaziers</u>
- 47-2130 Insulation workers
- 47-2131 Insulation Workers, Floor, Ceiling, and Wall
- 47-2132 <u>Insulation Workers, Mechanical</u>
- 47-2141 Painters, Construction and Maintenance
- 47-2142 Paperhangers
- 47-2151 Pipelayers
- 47-2152 Plumbers, Pipefitters, and Steamfitters
- 47-2161 Plasterers and Stucco Masons
- 47-2171 Reinforcing Iron and Rebar Workers
- 47-2181 Roofers

- 47-2231 Solar Photovoltaic Installers 47-3011 Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters 47-3012 Helpers--Carpenters 47-3013 Helpers--Electricians 47-3014 Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons 47-3015 Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters 47-3016 Helpers--Roofers 47-3019 Helpers, Construction Trades, All Other 47-4011 Construction and Building Inspectors 47-4021 Elevator Installers and Repairers 47-4031 Fence Erectors 47-4051 Highway Maintenance Workers 47-4061 Rail-Track Laying and Maintenance Equipment Operators 47-4071 Septic Tank Servicers and Sewer Pipe Cleaners 47-4091 Segmental Pavers 47-4099 Construction and Related Workers, All Other 47-4799 Construction and Related Workers 49-1011 First-Line Supervisors of Mechanics, Installers, and Repairers 49-2098 Security and Fire Alarm Systems Installers 49-9011 Mechanical Door Repairers 49-9012 Control and Valve Installers and Repairers, Except Mechanical Door 49-9021 Heating, Air Conditioning, and Refrigeration Mechanics and Installers 49-9042 Maintenance and Repair Workers 49-9071 Maintenance and Repair Workers, General 49-9095 Manufactured Building and Mobile Home Installers 49-9098 Helpers--Installation, Maintenance, and Repair Workers 49-9099 Installation, Maintenance, and Repair Workers, All Other 49-9799 Insulation, Maintenance, and Repair Workers, All Others 51-4011 Computer-Controlled Machine Tool Operators, Metal and Plastic 51-4031 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
- Metal and Plastic

51-4033 Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders,

51-4034 Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic

- 51-4035 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic
- 51-9022 Grinding and Polishing Workers, Hand
- 51-9023 Mixing and Blending Machine Setters, Operators, and Tenders
- 51-9121 Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
- 51-9123 Painting, Coating, and Decorating Workers
- 53-7021 Crane and Tower Operators
- 53-7032 Excavating and Loading Machine and Dragline Operators
- 53-7041 Hoist and Winch Operators

### Energy Production and Natural Resources

- 17-2071 Electrical Engineers
- 17-2081 Environmental Engineers
- 17-2151 Mining and Geological Engineers, Including Mining Safety Engineers
- 17-2161 Nuclear Engineers
- 17-2171 Petroleum Engineers
- 17-3025 Environmental Engineering Technicians
- 19-1023 Zoologists and Wildlife Biologists
- 19-1031 Conservation Scientists
- 19-1032 Foresters
- 19-2041 Environmental Scientists and Specialists, Including Health
- 19-2042 Geoscientists, Except Hydrologists and Geographers
- 19-2043 <u>Hydrologists</u>
- 19-4041 Geological and Petroleum Technicians
- 19-4051 Nuclear Technicians
- 19-4091 Environmental Science and Protection Technicians, Including Health
- 19-4093 Forest and Conservation Technicians
- 43-5041 Meter Readers, Utilities
- 45-4011 Forest and Conservation Workers
- 45-4021 Fallers
- 45-4022 Logging Equipment Operators
- 45-4023 Log Graders and Scalers
- 45-4029 Logging Workers, All Other
- 47-4041 Hazardous Materials Removal Workers

- 47-5011 Derrick Operators, Oil and Gas
- 47-5012 Rotary Drill Operators, Oil and Gas
- 47-5013 Service Unit Operators, Oil, Gas, and Mining
- 47-5021 Earth Drillers, Except Oil and Gas
- 47-5031 Explosives Workers, Ordnance Handling Experts, and Blasters
- 47-5041 Continuous Mining Machine Operators
- 47-5042 Mine Cutting and Channeling Machine Operators
- 47-5049 Mining Machine Operators, All Other
- 47-5051 Rock Splitters, Quarry
- 47-5061 Roof Bolters, Mining
- 47-5071 Roustabouts, Oil and Gas
- 47-5081 Helpers--Extraction Workers
- 47-5099 Extraction Workers, All Other
- 49-9051 Electrical Power-Line Installers and Repairers
- 49-9081 Wind Turbine Service Technicians
- 49-9096 Riggers
- 51-4032 Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
- 51-8011 Nuclear Power Reactor Operators
- 51-8012 Power Distributors and Dispatchers
- 51-8013 Power Plant Operators
- 51-8031 Water and Wastewater Treatment Plant and System Operators
- 51-8092 Gas Plant Operators
- 51-8093 Petroleum Pump System Operators, Refinery Operators, and Gaugers
- 51-9021 Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders
- 53-7031 <u>Dredge Operators</u>
- 53-7033 Loading Machine Operators, Underground Mining
- 53-7073 Wellhead Pumpers
- 53-7111 Mine Shuttle Car Operators

### Real Estate

- 13-2021 Appraisers and Assessors of Real Estate
- 41-9021 Real Estate Brokers
- 41-9022 Real Estate Sales Agents

### Finance and Insurance

13-1031 Claims Adjusters, Examiners, and Investigators 13-1032 Insurance Appraisers, Auto Damage 13-1072 Compensation, Benefits, and Job Analyst Specialists 13-1141 Compensation, Benefits, and Job Analysis Specialists 13-2011 Accountants and Auditors 13-2031 Budget Analysts 13-2041 Credit Analysts 13-2051 Financial Analysts 13-2052 Personal Financial Advisors 13-2053 <u>Insurance Underwriters</u> 13-2061 Financial Examiners 13-2071 Credit Counselors 13-2072 Loan Officers 13-2081 Tax Examiners and Collectors, and Revenue Agents 13-2082 Tax Preparers 13-2099 Financial Specialists, All Other 15-2011 Actuaries 19-3011 Economists 41-3021 Insurance Sales Agents 41-3031 Securities, Commodities, and Financial Services Sales Agents 43-3071 <u>Tellers</u> 43-3099 Financial Clerks, All Other 43-4011 Brokerage Clerks 43-4041 Credit Authorizers, Checkers, and Clerks 43-4111 Interviewers, Except Eligibility and Loan 43-4131 Loan Interviewers and Clerks 43-4141 New Accounts Clerks 43-9041 Insurance Claims and Policy Processing Clerks

### Leisure and Entertainment

25-4010 Archivists, Curators, and Museum Technicians 25-4011 Archivists 25-4012 <u>Curators</u> 25-4013 Museum Technicians and Conservators 25-4021 Librarians 25-4031 Library Technicians 25-9011 Audio-Visual and Multimedia Collections Specialists 27-1011 Art Directors 27-3010 Announcers 27-3011 Radio and Television Announcers 33-9092 Lifequards, Ski Patrol, and Other Recreational Protective Service Workers 35-1011 Chefs and Head Cooks 35-1012 First-Line Supervisors of Food Preparation and Serving Workers 35-2011 Cooks, Fast Food 35-2012 Cooks, Institution and Cafeteria 35-2013 Cooks, Private Household 35-2014 Cooks, Restaurant 35-2015 Cooks, Short Order 35-2019 Cooks, All Other 35-2021 Food Preparation Workers 35-3011 Bartenders 35-3021 Combined Food Preparation and Serving Workers, Including Fast Food 35-3022 Counter Attendants, Cafeteria, Food Concession, and Coffee Shop 35-3031 Waiters and Waitresses 35-3041 Food Servers, Nonrestaurant 35-9011 Dining Room and Cafeteria Attendants and Bartender Helpers 35-9021 Dishwashers 35-9031 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop 35-9099 Food Preparation and Serving Related Workers, All Other 37-2012 Maids and Housekeeping Cleaners 39-1011 Gaming Supervisors 39-1012 Slot Supervisors

39-3011 <u>Gaming Dealers</u>
39-3012 Gaming and Sports Book Writers and Runners
39-3019 Gaming Service Workers, All Other
39-3031 <u>Ushers, Lobby Attendants, and Ticket Takers</u>
39-3091 Amusement and Recreation Attendants
39-3092 Costume Attendants
39-3093 Locker Room, Coatroom, and Dressing Room Attendants
39-3099 Entertainment Attendants and Related Workers, All Other
39-6011 <u>Baggage Porters and Bellhops</u>
39-6012 Concierges
39-6021 Tour Guides and Escorts
39-6022 Travel Guides
39-7011 <u>Tour Guides and Escorts</u>
39-7012 <u>Travel Guides</u>
39-9031 Fitness Trainers and Aerobics Instructors
39-9032 Recreation Workers
41-2012 Gaming Change Persons and Booth Cashiers
41-3041 <u>Travel Agents</u>
43-3041 Gaming Cage Workers
43-4081 Hotel, Motel, and Resort Desk Clerks
43-4121 Library Assistants, Clerical
43-4181 Reservation and Transportation Ticket Agents and Travel Clerks
45-3021 Hunters and Trappers
49-9091 Coin, Vending, and Amusement Machine Servicers and Repairers
49-9092 <u>Commercial Divers</u>
51-3011 <u>Bakers</u>
51-3093 Food Cooking Machine Operators and Tenders

### Business (including Manufacturing, Sales, and Services)

13-1022 Wholesale and Retail Buyers, Except Farm Products
13-1023 Purchasing Agents, Except Wholesale, Retail, and Farm Products
13-1041 Compliance Officers
13-1051 Cost Estimators

- 13-1071 <u>Human Resources Specialists</u>
- 13-1073 Training and Development Specialists
- 13-1075 Labor Relations Specialists
- 13-1079
- 13-1081 Logisticians
- 13-1111 Management Analysts
- 13-1151 Training and Development Specialists
- 13-1161 Market Research Analysts and Marketing Specialists
- 13-1199 Business Operations Specialists, All Other
- 15-2031 Operations Research Analysts
- 15-2091 Mathematical Technicians
- 17-1021 Cartographers and Photogrammetrists
- 17-2011 Aerospace Engineers
- 17-2041 Chemical Engineers
- 17-2111 Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
- 17-2112 Industrial Engineers
- 17-2121 Marine Engineers and Naval Architects
- 17-2141 Mechanical Engineers
- 17-2199 Engineers, All Other
- 17-3021 Aerospace Engineering and Operations Technicians
- 17-3027 Mechanical Engineering Technicians
- 17-3029 Engineering Technicians, Except Drafters, All Other
- 19-2031 Chemists
- 19-3021
- 19-3032 Industrial-Organizational Psychologists
- 19-4031 Chemical Technicians
- 19-4099 Life, Physical, and Social Science Technicians, All Other
- 21-1798
- 27-1022 Fashion Designers
- 27-1023 Floral Designers
- 27-1024 Graphic Designers
- 27-1026 Merchandise Displayers and Window Trimmers
- 27-1029 Designers, All Other

27-3031 Public Relations Specialists 33-9021 Private Detectives and Investigators 33-9032 Security Guards 37-1011 First-Line Supervisors of Housekeeping and Janitorial Workers 37-1012 First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers 37-2011 Janitors and Cleaners, Except Maids and Housekeeping Cleaners 37-2019 Building Cleaning Workers, All Other 37-2021 Pest Control Workers 37-3011 Landscaping and Groundskeeping Workers 37-3013 Tree Trimmers and Pruners 37-3019 Grounds Maintenance Workers, All Other 39-1021 First-Line Supervisors of Personal Service Workers 39-4011 Embalmers 39-4021 Funeral Attendants 39-4031 Morticians, Undertakers, and Funeral Directors 39-4831 Funeral Service Managers, Directors, Morticians, and Undertakers 39-5011 Barbers 39-5012 Hairdressers, Hairstylists, and Cosmetologists 39-5092 Manicurists and Pedicurists 39-5093 Shampooers 39-5094 Skincare Specialists 39-9021 Personal Care Aides 39-9099 Personal Care and Service Workers, All Other 41-1011 First-Line Supervisors of Retail Sales Workers 41-1012 First-Line Supervisors of Non-Retail Sales Workers 41-2011 <u>Cashiers</u> 41-2021 Counter and Rental Clerks 41-2022 Parts Salespersons 41-2031 Retail Salespersons 41-3011 Advertising Sales Agents 41-3099 Sales Representatives, Services, All Other

41-4011 Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products

41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific
<u>Products</u>	
41-9011	<u>Demonstrators and Product Promoters</u>
41-9012	<u>Models</u>
41-9031	Sales Engineers
41-9041	<u>Telemarketers</u>
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers
41-9099	Sales and Related Workers, All Other
41-9799	Sales and Related Workers, All Others
43-1011	First-Line Supervisors of Office and Administrative Support Workers
43-3011	Bill and Account Collectors
43-3021	Billing and Posting Clerks
43-3031	Bookkeeping, Accounting, and Auditing Clerks
43-3051	Payroll and Timekeeping Clerks
43-3061	Procurement Clerks
43-4021	<u>Correspondence Clerks</u>
43-4051	<u>Customer Service Representatives</u>
43-4071	<u>File Clerks</u>
43-4161	Human Resources Assistants, Except Payroll and Timekeeping
43-5061	Production, Planning, and Expediting Clerks
43-5081	Stock Clerks and Order Fillers
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping
43-6011	Executive Secretaries and Executive Administrative Assistants
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
43-9799	Office and Administrative Support Workers, All Others
43-4151	<u>Order Clerks</u>
43-4171	Receptionists and Information Clerks
43-4199	<u>Information and Record Clerks, All Other</u>
43-5021	<u>Couriers and Messengers</u>
43-9021	<u>Data Entry Keyers</u>
43-9022	Word Processors and Typists
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service
43-9061	Office Clerks General

43-9071 Office Machine Operators, Except Computer 43-9111 Statistical Assistants 43-9199 Office and Administrative Support Workers, All Other 47-2211 Sheet Metal Workers 47-2221 Structural Iron and Steel Workers 49-2092 Electric Motor, Power Tool, and Related Repairers 49-3021 Automotive Body and Related Repairers 49-3022 Automotive Glass Installers and Repairers 49-3023 Automotive Service Technicians and Mechanics 49-3051 Motorboat Mechanics and Service Technicians 49-3052 Motorcycle Mechanics 49-3053 Outdoor Power Equipment and Other Small Engine Mechanics 49-3091 Bicycle Repairers 49-3092 Recreational Vehicle Service Technicians 49-3093 Tire Repairers and Changers 49-9031 Home Appliance Repairers 49-9041 Industrial Machinery Mechanics 49-9043 Maintenance Workers, Machinery 49-9044 Millwrights 49-9045 Refractory Materials Repairers, Except Brickmasons 49-9064 Watch Repairers 49-9069 Precision Instrument and Equipment Repairers, All Other 49-9093 Fabric Menders, Except Garment 49-9094 Locksmiths and Safe Repairers 51-1011 First-Line Supervisors of Production and Operating Workers 51-2031 Engine and Other Machine Assemblers 51-2041 Structural Metal Fabricators and Fitters 51-2091 Fiberglass Laminators and Fabricators 51-2092 Team Assemblers 51-2093 Timing Device Assemblers and Adjusters 51-2099 Assemblers and Fabricators, All Other 51-4021 Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic

51-4022 Forging Machine Setters, Operators, and Tenders, Metal and Plastic

51-4023 Rolling Machine Setters, Operators, and Tenders, Metal and Plastic 51-4041 Machinists 51-4051 Metal-Refining Furnace Operators and Tenders 51-4052 Pourers and Casters, Metal 51-4061 Model Makers, Metal and Plastic 51-4062 Patternmakers, Metal and Plastic 51-4071 Foundry Mold and Coremakers 51-4072 Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic 51-4081 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic 51-4111 Tool and Die Makers 51-4121 Welders, Cutters, Solderers, and Brazers 51-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders 51-4191 Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic 51-4192 Layout Workers, Metal and Plastic 51-4193 Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic 51-4194 Tool Grinders, Filers, and Sharpeners 51-4199 Metal Workers and Plastic Workers, All Other 51-5011 Bindery Workers 51-5012 Bookbinders 51-5021 Job Printers 51-5022 Prepress Technicians and Workers 51-5023 Printing Machine Operators 51-6011 Laundry and Dry-Cleaning Workers 51-6021 Pressers, Textile, Garment, and Related Materials 51-6031 Sewing Machine Operators 51-6041 Shoe and Leather Workers and Repairers 51-6042 Shoe Machine Operators and Tenders 51-6051 Sewers, Hand 51-6052 Tailors, Dressmakers, and Custom Sewers 51-6061 Textile Bleaching and Dyeing Machine Operators and Tenders 51-6062 Textile Cutting Machine Setters, Operators, and Tenders 51-6063 Textile Knitting and Weaving Machine Setters, Operators, and Tenders

51-6064 Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders 51-6091 Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass **Fibers** 51-6092 <u>Fabric and Apparel Patternmakers</u> 51-6093 Upholsterers 51-6099 Textile, Apparel, and Furnishings Workers, All Other 51-7011 Cabinetmakers and Bench Carpenters 51-7021 Furniture Finishers 51-7031 Model Makers, Wood 51-7032 Patternmakers, Wood 51-7041 Sawing Machine Setters, Operators, and Tenders, Wood 51-7042 Woodworking Machine Setters, Operators, and Tenders, Except Sawing 51-7099 Woodworkers, All Other 51-8021 Stationary Engineers and Boiler Operators 51-8091 Chemical Plant and System Operators 51-8099 Plant and System Operators, All Other 51-9011 Chemical Equipment Operators and Tenders 51-9012 Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and **Tenders** 51-9031 Cutters and Trimmers, Hand 51-9032 Cutting and Slicing Machine Setters, Operators, and Tenders 51-9041 Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders 51-9051 Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders 51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers 51-9071 Jewelers and Precious Stone and Metal Workers 51-9111 Packaging and Filling Machine Operators and Tenders 51-9131 Photographer Process Workers 51-9132 Photographer Processing Machine Operators 51-9151 Photographic Process Workers and Processing Machine Operators 51-9191 Adhesive Bonding Machine Operators and Tenders 51-9192 Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders 51-9193 Cooling and Freezing Equipment Operators and Tenders 51-9194 Etchers and Engravers

- 51-9195 Molders, Shapers, and Casters, Except Metal and Plastic
- 51-9196 Paper Goods Machine Setters, Operators, and Tenders
- 51-9197 Tire Builders
- 51-9198 Helpers--Production Workers
- 51-9199 Production Workers, All Other
- 51-9399 Production Workers, All Others
- 53-1021 First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand
- 53-7011 Conveyor Operators and Tenders
- 53-7063 Machine Feeders and Offbearers
- 53-7064 Packers and Packagers, Hand
- 53-7071 Gas Compressor and Gas Pumping Station Operators
- 53-7072 Pump Operators, Except Wellhead Pumpers
- 53-7081 Refuse and Recyclable Material Collectors

### **Education**

- 15-2021 Mathematicians
- 15-2041 Statisticians
- 15-2099 Mathematical Science Occupations, All Other
- 19-1029 Biological Scientists, All Other
- 19-2011 Astronomers
- 19-2012 Physicists
- 19-2021 Atmospheric and Space Scientists
- 19-2099 Physical Scientists, All Other
- 19-3022 Survey Researchers
- 19-3041 Sociologists
- 19-3091 Anthropologists and Archeologists
- 19-3092 Geographers
- 19-3093 Historians
- 19-3094 Political Scientists
- 19-3099 Social Scientists and Related Workers, All Other
- 19-4061 Social Science Research Assistants
- 21-1091 Health Educators
- 25-1011 Business Teachers, Postsecondary

- 25-1021 <u>Computer Science Teachers, Postsecondary</u>
- 25-1022 Mathematical Science Teachers, Postsecondary
- 25-1031 Architecture Teachers, Postsecondary
- 25-1032 Engineering Teachers, Postsecondary
- 25-1041 Agricultural Sciences Teachers, Postsecondary
- 25-1042 Biological Science Teachers, Postsecondary
- 25-1043 Forestry and Conservation Science Teachers, Postsecondary
- 25-1051 Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary
- 25-1052 Chemistry Teachers, Postsecondary
- 25-1053 Environmental Science Teachers, Postsecondary
- 25-1054 Physics Teachers, Postsecondary
- 25-1061 Anthropology and Archeology Teachers, Postsecondary
- 25-1062 Area, Ethnic, and Cultural Studies Teachers, Postsecondary
- 25-1063 Economics Teachers, Postsecondary
- 25-1064 Geography Teachers, Postsecondary
- 25-1065 Political Science Teachers, Postsecondary
- 25-1066 Psychology Teachers, Postsecondary
- 25-1067 Sociology Teachers, Postsecondary
- 25-1069 Social Sciences Teachers, Postsecondary, All Other
- 25-1071 Health Specialties Teachers, Postsecondary
- 25-1072 Nursing Instructors and Teachers, Postsecondary
- 25-1081 Education Teachers, Postsecondary
- 25-1082 <u>Library Science Teachers, Postsecondary</u>
- 25-1111 Criminal Justice and Law Enforcement Teachers, Postsecondary
- 25-1112 Law Teachers, Postsecondary
- 25-1113 Social Work Teachers, Postsecondary
- 25-1121 Art, Drama, and Music Teachers, Postsecondary
- 25-1122 Communications Teachers, Postsecondary
- 25-1123 English Language and Literature Teachers, Postsecondary
- 25-1124 Foreign Language and Literature Teachers, Postsecondary
- 25-1125 History Teachers, Postsecondary
- 25-1126 Philosophy and Religion Teachers, Postsecondary
- 25-1191 Graduate Teaching Assistants

25-1192 Home Economics Teachers, Postsecondary 25-1193 Recreation and Fitness Studies Teachers, Postsecondary 25-1194 Vocational Education Teachers, Postsecondary 25-1199 Postsecondary Teachers, All Other 25-2011 Preschool Teachers, Except Special Education 25-2012 Kindergarten Teachers, Except Special Education 25-2021 Elementary School Teachers, Except Special Education 25-2022 Middle School Teachers, Except Special and Career/Technical Education 25-2023 Career/Technical Education Teachers, Middle School 25-2031 Secondary School Teachers, Except Special and Career/Technical Education 25-2032 Career/Technical Education Teachers, Secondary School 25-2041 Special Education Teachers, Preschool, Kindergarten, and Elementary School 25-2042 Special Education Teachers, Middle School 25-2043 Special Education Teachers, Secondary School 25-2051 Special Education Teachers, Preschool 25-2052 Special Education Teachers, Kindergarten and Elementary School 25-2053 Special Education Teachers, Middle School 25-2054 Special Education Teachers, Secondary School 25-2059 Special Education Teachers, All Other 25-3011 Adult Basic and Secondary Education and Literacy Teachers and Instructors 25-3021 Self-Enrichment Education Teachers 25-3098 Substitute Teachers 25-3099 Teachers and Instructors, All Other, Except Substitute Teachers 25-3999 Teachers, All Others 25-9031 <u>Instructional Coordinators</u> 25-9041 Teacher Assistants 25-9099 Education, Training, and Library Workers, All Other 53-3022 Bus Drivers, School or Special Client

### Nonprofit / social services

- 13-1131 <u>Fundraisers</u>
- 19-3031 Clinical, Counseling, and School Psychologists
- 21-1011 Substance Abuse and Behavioral Disorder Counselors

- 21-1012 Educational, Guidance, School, and Vocational Counselors
- 21-1013 Marriage and Family Therapists
- 21-1014 Mental Health Counselors
- 21-1015 Rehabilitation Counselors
- 21-1019 Counselors, All Other
- 21-1021 Child, Family, and School Social Workers
- 21-1022 Healthcare Social Workers
- 21-1023 Mental Health and Substance Abuse Social Workers
- 21-1029 Social Workers, All Other
- 21-1092 Probation Officers and Correctional Treatment Specialists
- 21-1093 Social and Human Service Assistants
- 21-1094 Community Health Workers
- 21-1099 Community and Social Service Specialists, All Other
- 21-2011 Clergy
- 21-2021 Directors, Religious Activities and Education
- 21-2099 Religious Workers, All Other
- 39-9041 Residential Advisors
- 39-9011 Childcare Workers
- 43-4061 Eligibility Interviewers, Government Programs

### Health

- 17-2031 Biomedical Engineers
- 19-1021 Biochemists and Biophysicists
- 19-1022 Microbiologists
- 19-1041 Epidemiologists
- 19-1042 Medical Scientists, Except Epidemiologists
- 19-1099 Life Scientists, All Other
- 19-3039 Psychologists, All Other
- 19-4021 Biological Technicians
- 29-1011 Chiropractors
- 29-1020 Dentists
- 29-1021 Dentists, General
- 29-1022 Oral and Maxillofacial Surgeons

- 29-1023 Orthodontists
- 29-1024 Prosthodontists
- 29-1029 Dentists, All Other Specialists
- 29-1031 Dietitians and Nutritionists
- 29-1041 Optometrists
- 29-1051 Pharmacists
- 29-1061 Anesthesiologists
- 29-1062 Family and General Practitioners
- 29-1063 Internists, General
- 29-1064 Obstetricians and Gynecologists
- 29-1065 Pediatricians, General
- 29-1066 Psychiatrists
- 29-1067 <u>Surgeons</u>
- 29-1069 Physicians and Surgeons, All Other
- 29-1071 Physician Assistants
- 29-1081 Podiatrists
- 29-1111 Registered Nurses
- 29-1121 Audiologists
- 29-1122 Occupational Therapists
- 29-1123 Physical Therapists
- 29-1124 Radiation Therapists
- 29-1125 Recreational Therapists
- 29-1126 Respiratory Therapists
- 29-1127 Speech-Language Pathologists
- 29-1128 Exercise Physiologists
- 29-1129 Therapists, All Other
- 29-1131 Veterinarians
- 29-1141 Registered Nurses
- 29-1151 Nurse Anesthetists
- 29-1161 Nurse Midwives
- 29-1171 Nurse Practitioners
- 29-1181 Audiologists
- 29-1199 Health Diagnosing and Treating Practitioners, All Other

- 29-2011 Medical and Clinical Laboratory Technologists29-2012 Medical and Clinical Laboratory Technicians
- 29-2021 Dental Hygienists
- 29-2031 Cardiovascular Technologists and Technicians
- 29-2032 <u>Diagnostic Medical Sonographers</u>
- 29-2033 Nuclear Medicine Technologists
- 29-2034 Radiologic Technologists
- 29-2035 Magnetic Resonance Imaging Technologists
- 29-2037 Radiologic Technicians
- 29-2041 Emergency Medical Technicians and Paramedics
- 29-2051 <u>Dietetic Technicians</u>
- 29-2052 Pharmacy Technicians
- 29-2053 Psychiatric Technicians
- 29-2054 Respiratory Therapy Technicians
- 29-2055 Surgical Technologists
- 29-2056 Veterinary Technologists and Technicians
- 29-2057 Ophthalmic Medical Technicians
- 29-2061 <u>Licensed Practical and Licensed Vocational Nurses</u>
- 29-2071 Medical Records and Health Information Technicians
- 29-2081 Opticians, Dispensing
- 29-2091 Orthotists and Prosthetists
- 29-2092 Hearing Aid Specialists
- 29-2099 Health Technologists and Technicians, All Other
- 29-2799 Health Technologists and Technicians, All Others
- 29-9010 Occupational Health and Safety Specialists
- 29-9011 Occupational Health and Safety Specialists
- 29-9012 Occupational Health and Safety Technicians
- 29-9092 Genetic Counselors
- 29-9099 Healthcare Practitioners and Technical Workers, All Other
- 29-9799 Health Care Practitioners and Technical Workers, All Other
- 31-1011 Home Health Aides
- 31-1012 Nursing Aides, Orderlies, and Attendants
- 31-1013 Psychiatric Aides

- 31-1014 Nursing Assistants
- 31-1015 Orderlies
- 31-2011 Occupational Therapy Assistants
- 31-2012 Occupational Therapy Aides
- 31-2021 Physical Therapist Assistants
- 31-2022 Physical Therapist Aides
- 31-9011 Massage Therapists
- 31-9091 Dental Assistants
- 31-9092 Medical Assistants
- 31-9093 Medical Equipment Preparers
- 31-9094 Medical Transcriptionists
- 31-9095 Pharmacy Aides
- 31-9096 Veterinary Assistants and Laboratory Animal Caretakers
- 31-9097 Phlebotomists
- 31-9099 Healthcare Support Workers, All Other
- 31-9799 Health Care Support Workers, All Others
- 43-6013 Medical Secretaries
- 51-9081 Dental Laboratory Technicians
- 51-9082 Medical Appliance Technicians
- 51-9083 Ophthalmic Laboratory Technicians

### <u>Lawyers and Lobbyists</u>

- 19-4092 Forensic Science Technicians
- 23-1011 <u>Lawyers</u>
- 23-1012 Judicial Law Clerks
- 23-1021 Administrative Law Judges, Adjudicators, and Hearing Officers
- 23-1022 Arbitrators, Mediators, and Conciliators
- 23-1023 Judges, Magistrate Judges, and Magistrates
- 23-2011 Paralegals and Legal Assistants
- 23-2091 Court Reporters
- 23-2092
- 23-2093 Title Examiners, Abstractors, and Searchers
- 23-2099 Legal Support Workers, All Other
- 43-4031 Court, Municipal, and License Clerks

### 43-6012 Legal Secretaries

### <u>Transportation</u>

20 6021 Elight Attendants
39-6031 Flight Attendants
39-6032 Transportation Attendants
43-5011 <u>Cargo and Freight Agents</u>
43-5071 Shipping, Receiving, and Traffic Clerks
49-2091 Avionics Technicians
49-2093 <u>Electrical and Electronics Installers and Repairers, Transportation Equipment</u>
49-2096 <u>Electronic Equipment Installers and Repairers, Motor Vehicles</u>
49-3011 Aircraft Mechanics and Service Technicians
49-3031 Bus and Truck Mechanics and Diesel Engine Specialists
49-3042 Mobile Heavy Equipment Mechanics, Except Engines
49-3043 Rail Car Repairers
49-9097 Signal and Track Switch Repairers
51-2011 Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
51-9122 Painters, Transportation Equipment
53-1011 Aircraft Cargo Handling Supervisors
53-1031 First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle
<u>Operators</u>
53-2011 Airline Pilots, Copilots, and Flight Engineers
53-2012 <u>Commercial Pilots</u>
53-2021 Air Traffic Controllers
53-2022 Airfield Operations Specialists
53-2031 Flight Attendants
53-3011 Ambulance Drivers and Attendants, Except Emergency Medical Technicians
53-3021 Bus Drivers, Transit and Intercity
53-3031 <u>Driver/Sales Workers</u>
53-3032 <u>Heavy and Tractor-Trailer Truck Drivers</u>
53-3033 <u>Light Truck or Delivery Services Drivers</u>
53-3041 <u>Taxi Drivers and Chauffeurs</u>
53-3099 Motor Vehicle Operators, All Other
53-4011 Locomotive Engineers
53-4012 Locomotive Firers

- 53-4013 Rail Yard Engineers, Dinkey Operators, and Hostlers
- 53-4021 Railroad Brake, Signal, and Switch Operators
- 53-4031 Railroad Conductors and Yardmasters
- 53-4041 <u>Subway and Streetcar Operators</u>
- 53-4099 Rail Transportation Workers, All Other
- 53-5011 Sailors and Marine Oilers
- 53-5021 Captains, Mates, and Pilots of Water Vessels
- 53-5022 Motorboat Operators
- 53-5031 Ship Engineers
- 53-6011 Bridge and Lock Tenders
- 53-6021 Parking Lot Attendants
- 53-6031 Automotive and Watercraft Service Attendants
- 53-6041 <u>Traffic Technicians</u>
- 53-6051 <u>Transportation Inspectors</u>
- 53-6061 Transportation Attendants, Except Flight Attendants
- 53-6099 Transportation Workers, All Other
- 53-7051 Industrial Truck and Tractor Operators
- 53-7061 Cleaners of Vehicles and Equipment
- 53-7062 Laborers and Freight, Stock, and Material Movers, Hand
- 53-7121 Tank Car, Truck, and Ship Loaders
- 53-7199 Material Moving Workers, All Other

### Government

- 13-1061 Emergency Management Specialists
- 19-3051 Urban and Regional Planners
- 33-1011 First-Line Supervisors of Correctional Officers
- 33-1012 First-Line Supervisors of Police and Detectives
- 33-1021 First-Line Supervisors of Fire Fighting and Prevention Workers
- 33-1099 First-Line Supervisors of Protective Service Workers, All Other
- 33-2011 Firefighters
- 33-2021 Fire Inspectors and Investigators
- 33-2022 Forest Fire Inspectors and Prevention Specialists
- 33-3011 Bailiffs
- 33-3012 Correctional Officers and Jailers

33-3021 Detectives and Criminal Investigators
33-3031 Fish and Game Wardens
33-3041 Parking Enforcement Workers
33-3051 Police and Sheriff's Patrol Officers
33-3052 Transit and Railroad Police
33-9011 Animal Control Workers
33-9031 Gaming Surveillance Officers and Gaming Investigators
33-9091 Crossing Guards
33-9093 Transportation Security Screeners
33-9099 Protective Service Workers, All Other
43-5031 Police, Fire, and Ambulance Dispatchers
43-5032 Dispatchers, Except Police, Fire, and Ambulance
43-5051 Postal Service Mail Carriers
43-5052 Postal Service Mail Carriers

## Dependent and Independent Variable Descriptions

Variable Name	Mean	Standard Deviation	Minimum Value	Maximum Value
Percentage change in annual per capita state spending	0.01	0.08	-0.23	0.66
Percentage change in annual per capita state debt	0.01	0.07	-0.24	0.36
Ranney index of state party competition	0.60	0.24	0	0.99
Interest group policy diversity	48.84	39.08	0	208.69
Interest group competition for members	1.32	0.88	0	9.21
Major industry dominates potential members	0.96	0.59	0	3.89
Per capita gross state product	6.88	2.27	3.00	49.97
Per capita income	31,435	6,869	19,096	56,245
Lagged state debt in millions of 2000 dollars	16.61	21.44	0.67	117.65
Great recession (2008 and 2009)	0.20	0.40	0	1
Index of gubernatorial budget powers	3.47	1.00	1	5
Index of legislative professionalism	0.20	0.11	0.03	0.63
Ranking of state tax and spending laws	9.01	8.31	0	30
State political ideology	48.28	28.35	2.58	92.45
Legislature controlled by Democrats	0.49	0.50	0	1
Governor is a Democrat	0.45	0.50	0	1
State labor unions	28.14	23.00	0	151

### Alternative analysis

Before drawing conclusions, though, there is another potential concern we ought to address. Some interest group scholars argue that it is policy activity by governments that drives interest group formation, rather than more groups driving more policy making (Gray et al. 2005; Leech et al. 2005), and this may be true of state spending as well. To test this counter-argument, we estimate a model where the dependent variable is the percentage year-to-year change in the number of interest groups per capita in each state. Our percent change in spending, the dependent variable in the spending model in Table 2, is the key independent variable here, and should exhibit a positive and significant effect on increases in group numbers if there is a relationship between greater government spending and group mobilization. We also include many of the other control variables, as seen in the table below, along with our measures of group competition over policy and for members, since these might also contribute to greater increases in the overall number of state interest groups. Indeed, the interest group measures do, as seen in the results in the table below, being both positive and significant. Yet they are the only significant variables. Increases in state spending fails to have any effect on growing numbers of organized interests, helping us feel more secure in drawing conclusions from the results in Table 1 in the paper.

Estimates of Spending on Percentage Increase in State Interest Groups, 2006 – 2015 Maximum likelihood estimates (robust standard errors)

Explanatory variable	Change in group population
Percentage change in per capita state spending	0.10 (0.36)
Interest group competition for members	0.16*** (0.03)
Interest group competition over policy	0.01***

	(0.01)
Party competition (Ranney index)	0.41
	(0.33)
Per capita gross state product	-0.00
	(0.01)
Per capita income	-0.00
	(0.01)
Recession years (2008 and 2009)	-0.06
	(0.09)
State political ideology	-0.00
	(0.00)
Governor's budget powers	-0.05
	(0.03)
State has laws restricting taxes and spending	0.00
	(0.00)
Squire's index of legislative professionalism	-0.38
	(0.41)
Constant	-0.34
	(0.34)
Wald $\chi^2$ of model fit	33.69***
N x p < 0.05	441

#### References

- Benz, Jennifer, Justin H. Kirkland, Virginia Gray, David Lowery, Jennifer Sykes, and Mary Deason. 2011. "Mediated Density: The Indirect Relationship between U.S. State Public Policy and PACs." *State Politics & Policy Quarterly* 11(December): 440-459.
- Gray, Virginia, John Cluverius, Jeffrey J. Harden, Boris Shor, and David Lowery. 2015. "Party Competition, Party Polarization, and the Changing Demand for Lobbying in the American States." *American Politics Research* 43(2): 175-204.
- Holyoke, Thomas T. 2015. "Challenges of Integrating Levels of Analysis in Interest Group Research." In *The Organization Ecology of Interest Communities: Assessment and Agenda*, eds. David Lowery, Darren Halpin, and Virginia Gray, pp. 79-97. London: Palgrave-Macmillan.
- Leech, Beth L., Frank R. Baumgartner, Timothy M. LaPira, and Nicholas A. Semanko. 2005. "Drawing Lobbyists to Washington: Government Activity and the Demand for Advocacy." *Political Research Quarterly* 58(March): 19 – 30.
- McGovern, Geoffrey and Michael D. Greenberg. 2014. "Shining a Light on State Campaign Finance: An Evaluation of the Impact of the National Institute on Money in State Politics." Evaluation Report by the Institute for Civil Justice at the RAND Corporation. See <a href="http://www.followthemoney.org/assets/press/RAND-report-Aug-2014/RAND-NIMSP-Report.pdf">http://www.followthemoney.org/assets/press/RAND-report-Aug-2014/RAND-NIMSP-Report.pdf</a>.

<sup>&</sup>lt;sup>1</sup> The organization's current website is <a href="http://www.followthemoney.org/">http://www.followthemoney.org/</a>. Overall it can be perhaps best described as a state-level counterpart to the better known Center for Responsive Politics, which tracks interests groups, lobbying, and campaign spending in Washington, DC.

<sup>2</sup> After 2012 the Institute stopped making this data available, at least for a time. We received it for 203 to 2015 by special request.

<sup>3</sup> The McGovern and Greenberg reference is to the second, 2014, evaluation report. The first report is not available, though the Institute published a summary paragraph from the report on its website at <a href="http://www.followthemoney.org/our-data/rand-evaluations/">http://www.followthemoney.org/our-data/rand-evaluations/</a>. In the summary paragraph RAND researchers summed by writing "Overall, NIMSP is a professional, well-managed institution that can be proud of its processes and people, and of the integrity and validity of the valuable research data and products they make available to the world in a useful form."

<sup>&</sup>lt;sup>4</sup> Even so, it is not entirely clear that this project is still ongoing at the Institute.

<sup>&</sup>lt;sup>5</sup> Information on these employment classifications, as well as the actual data, can be found at http://www.bls.gov/oes/tables.htm.