

ECONOMIC IMPACT OF THE DEFENSE, AEROSPACE AND AVIATION INDUSTRIES IN KENTUCKY

Date: October 8, 2019

**KENTUCKY CABINET FOR
ECONOMIC DEVELOPMENT &
KENTUCKY COMMISSION ON
MILITARY AFFAIRS**

SUBMITTED BY:



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1. ECONOMIC IMPACT OVERVIEW

Economic impact analysis (EIA) is an important tool for any state agency seeking to understand both the broad and narrow economic impacts of priority industry sectors. Such analysis provides insight on how state and federal investment leads to positive socioeconomic benefits, not only for industries directly invested in, but across the economy in general. On behalf of the Kentucky Commission on Military Affairs (KCMA), TPMA analyzed recent economic impact of two industry groups, namely, Defense Industries, and Aerospace & Aviation. This analysis follows a similar methodology used by TPMA to analyze the economic impact of these two industry groups in the 2017 studies: *The Kentucky Defense Industry Study*, and *The Kentucky Aerospace & Aviation Industry Study* (see Methodology section for further details). One notable difference is that TPMA's 2017 study provided breakout EIA analyses for each of Kentucky's nine economic development regions, whereas this study is only conducted at the state level.

In simple terms, an EIA study quantifies the value of a group of industries on a regional economy by modeling its ripple effect on economic output, job creation, earnings, and value-added (or gross regional product); see sidebar for definitions. Ripple effects are measured using economic impact software according to inter-industry spending patterns, and household spending patterns. As with any economic impact analysis, TPMA measures the rounds of impact using the following three categories:

- Direct- effects within a given industry;
- Indirect- supply chain effects of directly affected industries' spending;
- Induced- household spending effects of income earned during the direct and indirect rounds.

Lastly, it is important to note that with this study TPMA is measuring the *annual impact* of the given industries in 2018.¹ The economic impact of these industries may vary year to year depending on the level of federal contracts awarded, private investment and other factors.

Interpreting Economic Impact

Economic impact is reported using several common metrics:

Economic Output (also known as sales) – the dollar value of increased regional economic transactions due the industries

Jobs – the number of full-time equivalent jobs created or supported due to the industries

Earnings – the earnings of jobs created or supported due to the industries

Value-Added – the earnings of jobs created or supported due to the industries

Tax Revenue – the state, local and federal sales and income tax revenues that can be attributed to the industries

¹ Please note that due to limitations in root data sources, the impact of Defense and A&A are measured for slightly different time periods. Department of Defense contract data are recorded by federal Fiscal Year 2018 (FY18), which ran from October 1, 2017 to September 30, 2018. Alternatively, A&A impacts are measured for calendar year 2018.

2. ECONOMIC IMPACT OF DEFENSE IN KENTUCKY

The economic impact of DoD activities in Kentucky reached \$17.39 billion in FY18, delivering an economic boost to the Bluegrass state comparable to the Automobile manufacturing industry. This economic activity accounts for 3.9% of the state’s total and supports over 109,000 jobs, paying average wages of \$55,900 annually. Activity by these companies and organizations generates an estimated \$406.4 million in proprietor income (i.e. business profits) and creates roughly \$648.3 million in state collected taxes.

In comparison to the EIA completed in 2017, DoD activities are responsible for an additional 7,000 jobs, a 6.9% increase. Top industries impacted by direct, indirect and induced effects include the military; insurance carriers; insurances agencies, brokerages & related services; and other support services.

Table 1: Economic Impact Highlights

Category	Value
Total Jobs Impact	109,385
Total Earnings Impact	\$6.12 billion
Average Income of Jobs Created	\$55,900
Comparable Industries	Wholesale trade (\$19.79 billion); Automobile mfg (\$15.98 billion)
Percent of State Economy	3.93%
Proprietor Income Generated	\$406.44 million
Federal Taxes Generated	\$1.35 billion
State Taxes Generated	\$648.28 million
County & Local Taxes Generated	\$314.06 million

Table 2: Economic Impact of DoD in Kentucky, FY18

Category	Jobs	Earnings (\$M)	Economic Output (\$M)	Gross State Product (\$M)
Direct Impact	59,921	\$3,721	\$10,163	\$6,380
Total Impact	109,385	\$6,123	\$17,388	\$10,228
Multiplier Effect	1.83	1.65	1.71	1.60

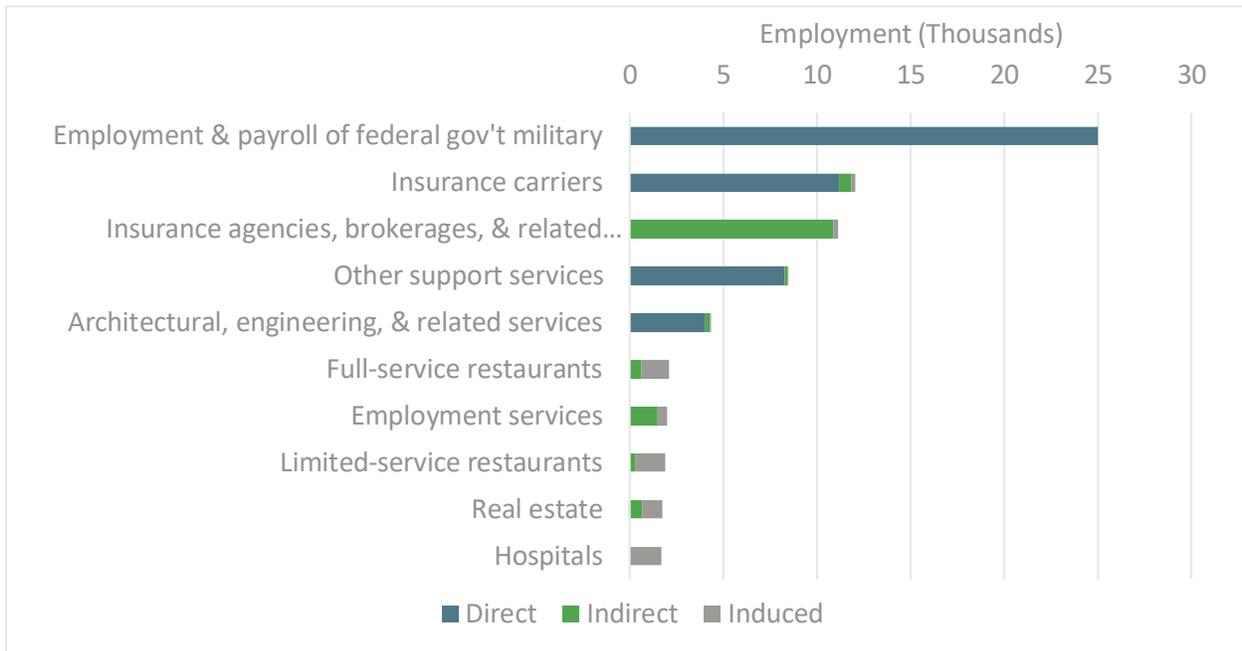
Table 3: Employment Impact Comparison, 2017 to 2018

Category	2016 Direct Jobs	2018 Total Jobs	Change	Percent Change
Direct Impact	49,353	59,921	10,568	21.4%
Total Impact	102,349	109,385	7,036	6.9%

Table 4: Economic Output Impact Comparison, 2017 to 2018²

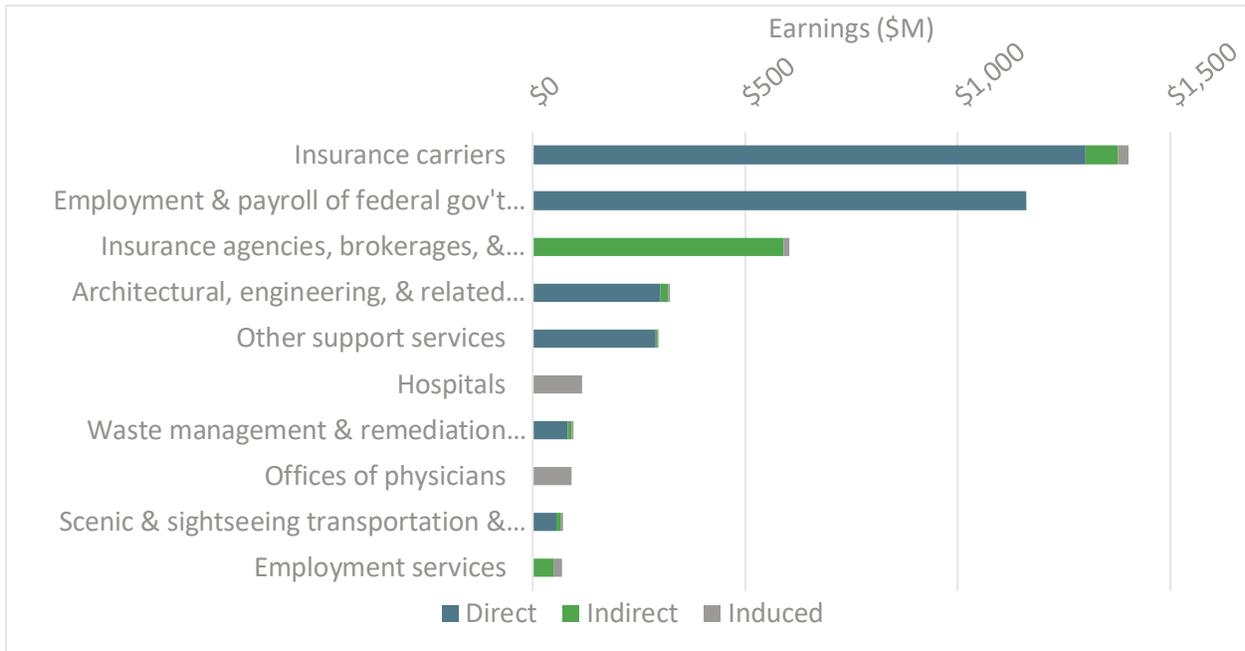
Category	2016 Direct Output (\$M)	2018 Total Output (\$M)	Change	Percent Change
Direct Impact	\$13,112	\$10,163	-2,950	-22.5%
Total Impact	\$19,379	\$17,388	-1,991	-10.3%

Figure 1: Economic Impact on Employment by Industry



² All comparison charts are based on values presented in this report compared the the reports delivered by TPMA in the summer of 2017. It is important to note that with the 2017 EIA TPMA used the Economic Modeling Specialists, Inc.(Emsi) economic impact model rather than the IMPLAN model. The IMPLAN model, by default, treats output for military sectors differently than the Emsi model, which accounts for the decrease in output over the past several years.

Figure 2: Economic Impact on Earnings by Industry



3. ECONOMIC IMPACT OF AEROSPACE & AVIATION IN KENTUCKY

The economic impact of aerospace and aviation (A&A) in Kentucky continued to rise reaching \$4.38 billion in 2018. A&A benefited workers and business owners alike, supporting 20,900 jobs paying averages wages of \$69,600 annually, and generating \$86.80 million in proprietor income (i.e. business profits). The A&A cluster’s effect on output is comparable to that of the Wireless telecommunications carrier industry, and the Motor vehicle steering, suspension component & brake systems manufacturing industry.

All told A&A contributed to nearly 1% of the state’s economic activity and supported the generation of \$125.7 million in state collected taxes. Top industries receiving jobs and earnings impacts include Support activities for transportation; Air transportation; and aircraft manufacturing.

Table 5: Economic Impact Highlights

Category	Value
Total Jobs Impact	20,903
Total Earnings Impact	\$1.46 billion
Average Income of Jobs Created	\$69,600
Comparable Industries	Wireless telecom. carriers (except satellite) (\$4.38 billion); Motor vehicle steering, suspension component & brake systems mfg. (\$3.84 billion)
Percent of State’s Economy	0.99%
Proprietor Income Generated	\$86.80 million
Federal Taxes Generated	\$304.46 million
State Taxes Generated	\$125.66 million
County & Local Taxes Generated	\$59.28 million

Table 6: Economic Impact of A&A in Kentucky, 2018

Category	Jobs	Earnings (\$M)	Economic Output (\$M)	Gross State Product (\$M)
Direct Impact	9,275	\$881	\$2,748	\$1,207
Total Impact	20,903	\$1,456	\$4,382	\$2,110
Multiplier Effect	2.25	1.65	1.59	1.75

Table 7: Employment Impact Comparison, 2017 to 2018

Category	2016 Direct Jobs	2018 Total Jobs	Change	Percent Change
Direct Impact	8,016	9,275	1,259	15.7%
Total Impact	17,518	20,903	3,385	19.3%

Table 8: Economic Output Impact Comparison, 2017 to 2018

Category	2016 Direct Output (\$M)	2018 Total Output (\$M)	Change	Percent Change
Direct Impact	\$2,404	\$2,748	344	14.3%
Total Impact	\$3,423	\$4,382	959	28.0%

Figure 3: Economic Impact on Employment by Industry

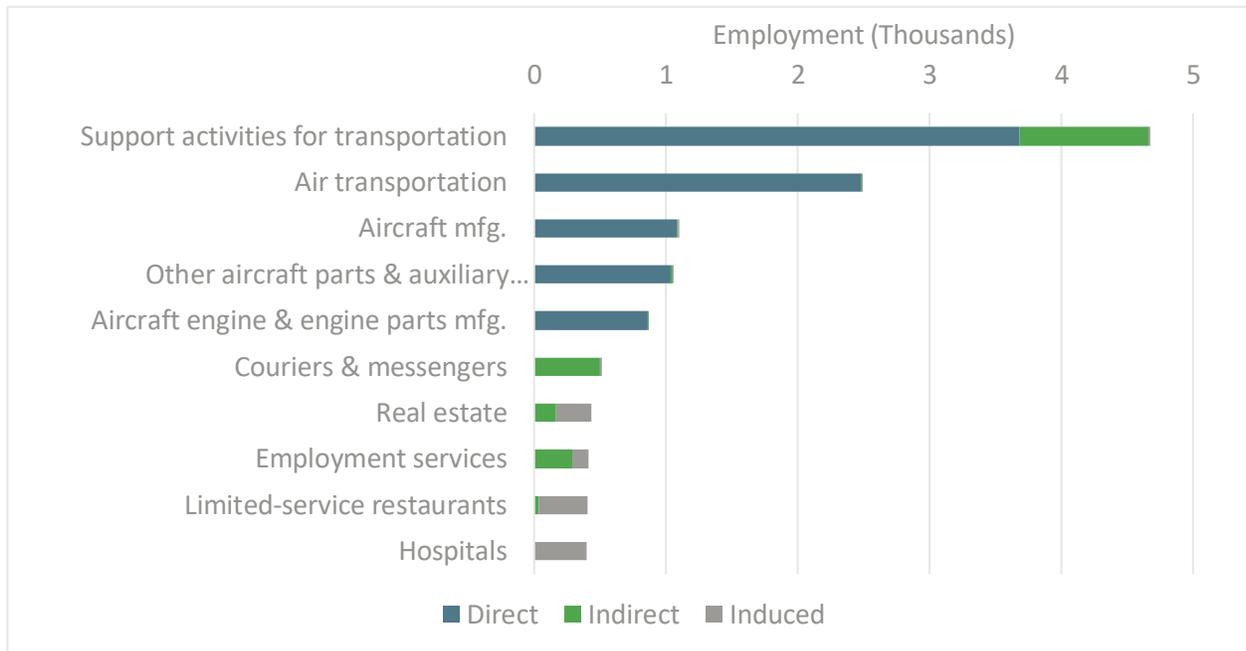
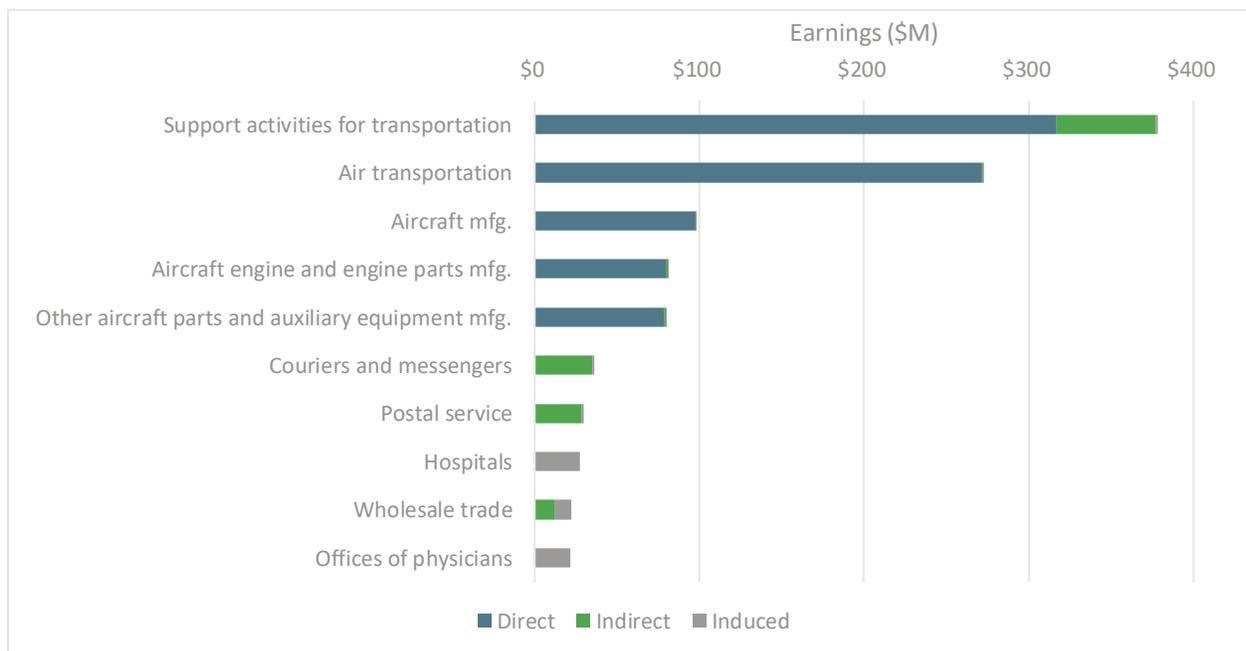


Figure 4: Economic Impact on Earnings by Industry



4. METHODOLOGY

As with any professional economic impact analysis, TPMA's approach focuses on measuring the net (or "but for") impact of the given industries on the state. In this case, this approach manifests primarily in two ways. Firstly, the economic impact model accounts of out of state "leakage," or downstream spending that occurs outside of the state by individual organizations or businesses. Secondly, related to Department of Defense (DoD) contracts, TPMA only counts prime contracts and excludes sub-awards, as the economic impact model provides more accurate and comprehensive estimates of downstream affects than would subaward data from the federal government.

Economic impacts were modeled using the IMPLAN Pro software system. IMPLAN allows users to track the movement of goods and services between every county in the country using a Multi-Regional Input-Output function. IMPLAN's unique model is developed using a variety of federal data sources from the Bureau of Labor Statistics, the Bureau of Economic Analysis, and the United States Census Bureau. IMPLAN is the preferred platform for conducting economic impact analysis for the majority of economists, planners and regional scientists across the United States. In addition to demonstrating labor and earnings metrics, the model also contains a fiscal (or tax) impact function. The IMPLAN model estimates taxes for a broad array of categories including social insurance; sales; income; property; motor vehicle licensing; severance; special assessments; and corporate

To conduct the DoD component of this analysis, TPMA collected DoD prime contracts data from USASpending.gov focusing, in particular, on contracts place of performance occurs within the state of Kentucky in FY18. This data source also displays DoD spending by company headquarters location but best practices within the economic impact industry dictate that place of performance is the more accurate version of data to utilize as it will more appropriately measure geographic location where jobs and earnings are generated. To verify TPMA's synthesis of this data source, total contract values were verified against the GovSpend tool, a proprietary data tool which collects DoD contract information. Once collected, individual contract actions were categorized by dollar value and North American Industrial Classification (NAICS) system. TPMA then conducted some minor data cleaning and recategorization of NAICS codes. Once fully cleaned, NAICS codes were cross walked to the appropriate IMPLAN sector (based on the 536-sector scheme).

It is important to note that in the 2016 EIA conducted by TPMA, the Economic Modeling Specialists, Inc.(Emsi) economic impact model was utilized, which by default treats output for military sectors differently than the IMPLAN model, which accounts for the decrease in output over the past several years.

To conduct the A&A component of this analysis, TPMA collected data on jobs, earnings and output on 18 NAICS codes using the Emsi 2018Q3 data set. These data were transferred into the IMPLAN economic impact model to determine how these direct impacts ripple across other industries.

APPENDIX: DETAILED EIA RESULTS BY INDUSTRY

Table 5: Defense Industries Total Impact on Jobs, Earnings, Output & Value-Added (\$ Millions)

Industry	Jobs	Earnings	Output	Value-Added
536 - * Employment and payroll of federal govt, military	25,014	\$1,160.5	\$1,843.0	\$1,843.0
437 - Insurance carriers	12,049	\$1,402.6	\$5,712.4	\$3,341.0
438 - Insurance agencies, brokerages, and related activities	11,141	\$604.9	\$1,999.7	\$962.6
470 - Other support services	8,462	\$295.4	\$671.6	\$322.8
449 - Architectural, engineering, and related services	4,360	\$323.5	\$664.8	\$335.4
501 - Full-service restaurants	2,084	\$41.8	\$101.0	\$51.0
464 - Employment services	2,013	\$67.8	\$140.2	\$98.2
502 - Limited-service restaurants	1,887	\$33.7	\$150.2	\$78.8
440 - Real estate	1,760	\$14.2	\$330.4	\$232.9
482 - Hospitals	1,692	\$116.1	\$258.3	\$130.2
471 - Waste management and remediation services	1,638	\$94.9	\$323.0	\$138.6
454 - Management consulting services	1,325	\$58.6	\$129.3	\$72.6
414 - Scenic and sightseeing transportation and support activities for transportation	1,140	\$70.5	\$181.8	\$93.1
474 - Other educational services	1,085	\$18.2	\$35.9	\$21.3
503 - All other food and drinking places	1,036	\$25.0	\$45.8	\$28.2
468 - Services to buildings	999	\$17.0	\$45.1	\$28.2
475 - Offices of physicians	960	\$92.2	\$143.2	\$95.5
405 - Retail - General merchandise stores	957	\$27.1	\$68.5	\$40.5
395 - Wholesale trade	891	\$60.0	\$206.0	\$137.4
126 - Cut and sew apparel contractors	854	\$19.9	\$46.4	\$19.5
433 - Monetary authorities and depository credit intermediation	823	\$54.2	\$176.7	\$84.1
415 - Couriers and messengers	810	\$56.9	\$125.5	\$81.4
400 - Retail - Food and beverage stores	801	\$20.5	\$50.2	\$30.0
448 - Accounting, tax preparation, bookkeeping, and payroll services	722	\$37.5	\$70.2	\$55.6
452 - Computer systems design services	703	\$50.2	\$75.1	\$48.3
485 - Individual and family services	632	\$14.6	\$21.1	\$14.2
463 - Facilities support services	559	\$25.5	\$95.5	\$44.2
483 - Nursing and community care facilities	554	\$21.1	\$39.2	\$23.7
447 - Legal services	526	\$24.9	\$78.9	\$50.8
407 - Retail - Nonstore retailers	514	\$5.9	\$59.6	\$25.6
465 - Business support services	514	\$17.3	\$27.4	\$16.2
509 - Personal care services	513	\$3.5	\$18.0	\$12.3

Industry	Jobs	Earnings	Output	Value-Added
55 - Construction of new educational and vocational structures	497	\$15.9	\$93.7	\$37.2
512 - Other personal services	477	\$1.9	\$16.1	\$10.7
469 - Landscape and horticultural services	464	\$9.9	\$26.6	\$15.8
396 - Retail - Motor vehicle and parts dealers	451	\$21.0	\$63.2	\$43.2
473 - Junior colleges, colleges, universities, and professional schools	439	\$14.5	\$30.7	\$15.2
406 - Retail - Miscellaneous store retailers	437	\$5.9	\$15.4	\$8.5
477 - Offices of other health practitioners	435	\$16.9	\$41.5	\$31.5
416 - Warehousing and storage	427	\$21.2	\$39.1	\$24.0
427 - Wired telecommunications carriers	418	\$30.9	\$183.2	\$75.8
436 - Other financial investment activities	414	\$7.8	\$66.9	\$11.6
504 - Automotive repair and maintenance, except car washes	404	\$14.4	\$41.4	\$27.0
58 - Construction of other new nonresidential structures	399	\$16.1	\$55.9	\$29.2
487 - Child day care services	365	\$6.6	\$15.2	\$9.7
513 - Religious organizations	362	\$18.0	\$14.6	\$5.9
467 - Investigation and security services	360	\$9.5	\$16.8	\$11.3
462 - Office administrative services	349	\$17.8	\$22.7	\$17.5
411 - Truck transportation	336	\$14.7	\$52.7	\$23.2
403 - Retail - Clothing and clothing accessories stores	332	\$6.1	\$24.3	\$12.6
412 - Transit and ground passenger transportation	313	\$4.3	\$15.0	\$8.4
480 - Home health care services	307	\$13.3	\$20.4	\$17.0
399 - Retail - Building material and garden equipment and supplies stores	306	\$11.5	\$32.3	\$18.8
476 - Offices of dentists	299	\$15.7	\$37.6	\$26.1
455 - Environmental and other technical consulting services	291	\$13.8	\$20.2	\$11.4
401 - Retail - Health and personal care stores	286	\$11.2	\$25.4	\$15.6
460 - Marketing research and all other miscellaneous professional, scientific, and technical services	286	\$3.7	\$17.9	\$11.4
461 - Management of companies and enterprises	285	\$31.9	\$64.2	\$35.7
434 - Nondepository credit intermediation and related activities	282	\$17.4	\$40.6	\$18.5
439 - Funds, trusts, and other financial vehicles	272	\$8.4	\$82.8	\$16.8
435 - Securities and commodity contracts intermediation and brokerage	268	\$25.4	\$44.3	\$21.1
517 - Private households	267	\$3.6	\$3.6	\$3.6
402 - Retail - Gasoline stores	259	\$5.9	\$19.1	\$10.9
478 - Outpatient care centers	257	\$16.5	\$38.8	\$20.8
313 - Other electronic component manufacturing	255	\$13.3	\$51.9	\$18.5

Industry	Jobs	Earnings	Output	Value-Added
62 - Maintenance and repair construction of nonresidential structures	252	\$9.4	\$39.4	\$18.6
492 - Independent artists, writers, and performers	243	\$0.3	\$5.5	\$1.7
453 - Other computer related services, including facilities management	238	\$15.9	\$31.1	\$19.5
130 - Apparel accessories and other apparel manufacturing	235	\$5.1	\$24.7	\$7.4
518 - Postal service	232	\$19.3	\$22.5	\$19.4
458 - Photographic services	230	\$1.3	\$10.7	\$5.7
259 - Small arms, ordnance, and accessories manufacturing	216	\$23.1	\$97.1	\$56.1
359 - Other aircraft parts and auxiliary equipment manufacturing	214	\$16.6	\$65.9	\$24.4
457 - Advertising, public relations, and related services	213	\$8.4	\$39.2	\$18.7
508 - Personal and household goods repair and maintenance	213	\$3.1	\$18.2	\$12.3
526 - Other local government enterprises	203	\$19.7	\$70.1	\$38.9
127 - Men's and boys' cut and sew apparel manufacturing	200	\$8.6	\$28.4	\$10.1
497 - Fitness and recreational sports centers	182	\$2.5	\$7.4	\$3.8
404 - Retail - Sporting goods, hobby, musical instrument and book stores	179	\$3.3	\$7.5	\$4.3
507 - Commercial and industrial machinery and equipment repair and maintenance	165	\$9.4	\$22.1	\$15.6
154 - Printing	161	\$8.2	\$25.8	\$11.1
496 - Other amusement and recreation industries	161	\$3.4	\$9.8	\$5.2
484 - Residential mental retardation, mental health, substance abuse and other facilities	160	\$6.5	\$7.5	\$5.0
516 - Labor and civic organizations	157	\$2.8	\$11.5	\$8.5
63 - Maintenance and repair construction of residential structures	146	\$5.8	\$24.5	\$10.7
489 - Commercial Sports Except Racing	142	\$2.1	\$7.2	\$3.2
486 - Community food, housing, and other relief services, including rehabilitation services	129	\$4.8	\$11.6	\$6.1
57 - Construction of new commercial structures, including farm structures	122	\$5.6	\$15.8	\$8.5
397 - Retail - Furniture and home furnishings stores	118	\$3.9	\$12.4	\$6.7
506 - Electronic and precision equipment repair and maintenance	110	\$5.3	\$13.1	\$8.0
430 - Data processing, hosting, and related services	109	\$8.2	\$27.7	\$8.8
514 - Grantmaking, giving, and social advocacy organizations	106	\$3.4	\$15.3	\$9.6

Industry	Jobs	Earnings	Output	Value-Added
466 - Travel arrangement and reservation services	106	\$3.9	\$16.7	\$5.8
481 - Other ambulatory health care services	103	\$4.8	\$11.0	\$6.7
472 - Elementary and secondary schools	102	\$3.7	\$4.4	\$3.1
443 - General and consumer goods rental except video tapes and discs	99	\$3.6	\$8.2	\$5.3
524 - Local government passenger transit	99	\$6.6	\$5.2	(\$0.7)
425 - Radio and television broadcasting	98	\$5.2	\$21.1	\$6.1
515 - Business and professional associations	96	\$4.5	\$17.5	\$13.0
450 - Specialized design services	96	\$1.8	\$7.5	\$4.8
398 - Retail - Electronics and appliance stores	94	\$4.3	\$5.8	\$3.2
459 - Veterinary services	93	\$3.9	\$10.3	\$5.0
511 - Dry-cleaning and laundry services	90	\$3.1	\$6.4	\$4.2
417 - Newspaper publishers	90	\$3.6	\$10.6	\$6.0
94 - Bread and bakery product, except frozen, manufacturing	89	\$3.7	\$12.2	\$5.2
54 - Construction of new power and communication structures	89	\$3.4	\$12.5	\$8.1
479 - Medical and diagnostic laboratories	87	\$5.0	\$9.2	\$5.7
495 - Gambling industries (except casino hotels)	85	\$2.1	\$13.2	\$7.2
121 - Textile bag and canvas mills	84	\$3.5	\$13.4	\$5.0
491 - Promoters of performing arts and sports and agents for public figures	72	\$1.4	\$7.9	\$2.3
505 - Car washes	69	\$1.6	\$4.5	\$3.1
56 - Construction of new highways and streets	68	\$2.8	\$11.8	\$5.0
49 - Electric power transmission and distribution	67	\$8.8	\$91.9	\$33.4
442 - Automotive equipment rental and leasing	63	\$2.4	\$14.8	\$9.0
423 - Motion picture and video industries	60	\$1.4	\$7.7	\$3.4
422 - Software publishers	59	\$3.7	\$12.3	\$7.3
20 - Extraction of natural gas and crude petroleum	56	\$0.4	\$7.4	\$1.7
488 - Performing arts companies	52	\$0.9	\$6.1	\$2.2
456 - Scientific research and development services	50	\$3.4	\$10.6	\$4.3
451 - Custom computer programming services	46	\$3.4	\$7.8	\$4.6
10 - All other crop farming	45	\$0.2	\$0.8	\$0.4
428 - Wireless telecommunications carriers (except satellite)	45	\$2.3	\$107.5	\$31.9
493 - Museums, historical sites, zoos, and parks	43	\$1.3	\$3.1	\$1.1
445 - Commercial and industrial machinery and equipment rental and leasing	39	\$2.0	\$11.6	\$8.1
520 - Other federal government enterprises	34	\$1.2	\$5.5	\$0.9
408 - Air transportation	34	\$3.3	\$11.1	\$5.0
499 - Hotels and motels, including casino hotels	34	\$0.9	\$4.0	\$2.6

Industry	Jobs	Earnings	Output	Value-Added
14 - Animal production, except cattle and poultry and eggs	33	\$0.1	\$1.2	\$0.7
432 - Internet publishing and broadcasting and web search portals	33	\$2.2	\$12.6	\$3.0
53 - Construction of new manufacturing structures	30	\$1.5	\$3.6	\$2.1
510 - Death care services	30	\$1.1	\$3.0	\$1.9
250 - Turned product and screw, nut, and bolt manufacturing	29	\$1.9	\$6.8	\$3.0
494 - Amusement parks and arcades	28	\$0.5	\$1.8	\$1.2
51 - Water, sewage and other systems	28	\$1.7	\$6.9	\$4.5
11 - Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	28	\$0.0	\$1.3	\$0.4
274 - Other commercial service industry machinery manufacturing	27	\$1.7	\$9.2	\$2.6
238 - Fabricated structural metal manufacturing	27	\$1.6	\$8.2	\$2.5
375 - Office furniture, except wood, manufacturing	26	\$1.4	\$8.1	\$2.3
246 - Metal barrels, drums and pails manufacturing	26	\$1.7	\$8.1	\$2.0
429 - Satellite, telecommunications resellers, and all other telecommunications	26	\$1.5	\$2.9	\$1.6
301 - Electronic computer manufacturing	23	\$1.6	\$23.0	\$3.8
247 - Hardware manufacturing	21	\$1.5	\$7.2	\$2.6
315 - Search, detection, and navigation instruments manufacturing	21	\$1.8	\$7.6	\$2.8
275 - Air purification and ventilation equipment manufacturing	21	\$2.1	\$6.2	\$2.7
249 - Machine shops	20	\$1.2	\$2.9	\$1.4
525 - Local government electric utilities	19	\$2.0	\$10.5	\$3.3
418 - Periodical publishers	18	\$0.9	\$5.2	\$2.2
42 - Electric power generation - Fossil fuel	18	\$2.4	\$23.9	\$9.5
184 - Explosives manufacturing	17	\$1.4	\$6.2	\$1.7
92 - Poultry processing	17	\$0.8	\$5.1	\$0.9
342 - All other miscellaneous electrical equipment and component manufacturing	16	\$1.4	\$4.6	\$1.7
498 - Bowling centers	16	\$0.3	\$0.9	\$0.5
273 - Photographic and photocopying equipment manufacturing	16	\$0.5	\$4.7	\$1.0
370 - Nonupholstered wood household furniture manufacturing	16	\$0.5	\$1.8	\$0.6
264 - Construction machinery manufacturing	15	\$1.3	\$8.9	\$1.9
237 - Prefabricated metal buildings and components manufacturing	15	\$0.9	\$4.2	\$1.3
206 - Ready-mix concrete manufacturing	15	\$0.9	\$5.9	\$1.4

Industry	Jobs	Earnings	Output	Value-Added
446 - Lessors of nonfinancial intangible assets	15	\$0.2	\$12.6	\$3.3
123 - Other textile product mills	14	\$0.5	\$1.8	\$0.6
377 - Mattress manufacturing	13	\$0.7	\$4.4	\$1.2
305 - Broadcast and wireless communications equipment manufacturing	12	\$0.1	\$2.7	\$0.1
420 - Directory, mailing list, and other publishers	12	\$0.7	\$4.2	\$2.9
346 - Motor vehicle body manufacturing	12	\$0.9	\$4.1	\$1.0
409 - Rail transportation	12	\$2.0	\$4.3	\$2.9
419 - Book publishers	11	\$0.6	\$4.6	\$4.1
21 - Extraction of natural gas liquids	11	\$0.1	\$1.0	\$0.2
133 - Other leather and allied product manufacturing	11	\$0.3	\$1.3	\$0.3
4 - Fruit farming	11	\$0.1	\$0.3	\$0.2
382 - Ophthalmic goods manufacturing	11	\$0.8	\$2.9	\$0.8
13 - Poultry and egg production	11	\$0.2	\$2.8	\$0.6
388 - Sign manufacturing	11	\$0.5	\$1.3	\$0.5
300 - Scales, balances, and miscellaneous general purpose machinery manufacturing	11	\$1.0	\$3.2	\$1.2
113 - Broadwoven fabric mills	11	\$0.6	\$2.6	\$0.9
523 - Other state government enterprises	10	\$1.4	\$2.0	\$1.2
50 - Natural gas distribution	10	\$0.9	\$4.9	\$1.5
134 - Sawmills	10	\$0.4	\$2.7	\$0.5
380 - Surgical appliance and supplies manufacturing	10	\$0.7	\$3.5	\$0.8
106 - Bottled and canned soft drinks & water	10	\$0.7	\$7.0	\$1.2
149 - Paperboard container manufacturing	10	\$0.7	\$4.7	\$1.2
373 - Wood office furniture manufacturing	9	\$0.4	\$1.9	\$0.7
19 - Support activities for agriculture and forestry	9	\$0.3	\$0.4	\$0.3
80 - Frozen specialties manufacturing	9	\$0.5	\$3.3	\$0.6
230 - Nonferrous metal foundries	9	\$0.6	\$2.4	\$1.1
213 - Cut stone and stone product manufacturing	8	\$0.4	\$1.2	\$0.6
519 - Federal electric utilities	8	\$1.5	\$11.7	\$1.7
394 - All other miscellaneous manufacturing	8	\$0.3	\$1.2	\$0.3
141 - Other millwork, including flooring	8	\$0.3	\$1.4	\$0.4
30 - Stone mining and quarrying	8	\$0.5	\$2.0	\$1.3
195 - Other plastics product manufacturing	7	\$0.5	\$2.1	\$0.6
344 - Light truck and utility vehicle manufacturing	7	\$0.7	\$14.4	\$1.7
490 - Racing and Track Operation	7	\$0.4	\$0.5	\$0.5
356 - Other motor vehicle parts manufacturing	7	\$0.5	\$3.6	\$0.7
281 - Machine tool manufacturing	7	\$0.6	\$1.6	\$0.7
192 - Polystyrene foam product manufacturing	7	\$0.3	\$2.2	\$0.6

Industry	Jobs	Earnings	Output	Value-Added
332 - Power, distribution, and specialty transformer manufacturing	6	\$0.7	\$2.6	\$1.0
387 - Office supplies (except paper) manufacturing	6	\$0.4	\$1.4	\$0.4
142 - Wood container and pallet manufacturing	6	\$0.3	\$1.0	\$0.3
248 - Spring and wire product manufacturing	6	\$0.4	\$1.6	\$0.6
343 - Automobile manufacturing	6	\$0.6	\$9.0	\$1.3
209 - Other concrete product manufacturing	6	\$0.3	\$1.3	\$0.5
376 - Showcase, partition, shelving, and locker manufacturing	6	\$0.3	\$1.1	\$0.4
16 - Commercial logging	6	\$0.0	\$0.5	\$0.4
38 - Support activities for oil and gas operations	6	\$0.1	\$0.5	\$0.4
214 - Ground or treated mineral and earth manufacturing	5	\$0.4	\$3.1	\$0.9
90 - Meat processed from carcasses	5	\$0.3	\$2.8	\$0.4
84 - Fluid milk manufacturing	5	\$0.4	\$3.8	\$0.5
207 - Concrete block and brick manufacturing	5	\$0.3	\$1.6	\$0.6
287 - Pump and pumping equipment manufacturing	5	\$0.4	\$2.6	\$0.6
2 - Grain farming	5	\$0.0	\$0.5	(\$0.0)
306 - Other communications equipment manufacturing	5	\$0.4	\$1.6	\$0.6
261 - Other fabricated metal manufacturing	5	\$0.3	\$1.1	\$0.4
413 - Pipeline transportation	5	\$0.7	\$1.5	\$1.2
96 - Cookie and cracker manufacturing	4	\$0.3	\$1.4	\$0.4
241 - Sheet metal work manufacturing	4	\$0.3	\$0.9	\$0.3
3 - Vegetable and melon farming	4	\$0.1	\$0.3	\$0.2
99 - Roasted nuts and peanut butter manufacturing	4	\$0.3	\$2.9	\$0.9
6 - Greenhouse, nursery, and floriculture production	4	\$0.1	\$0.2	\$0.1
156 - Petroleum refineries	4	\$0.8	\$29.7	\$8.5
108 - Breweries	4	\$0.2	\$1.7	\$0.5
303 - Computer terminals and other computer peripheral equipment manufacturing	4	\$0.5	\$2.2	\$0.8
277 - Air conditioning, refrigeration, and warm air heating equipment manufacturing	4	\$0.3	\$1.5	\$0.4
145 - All other miscellaneous wood product manufacturing	4	\$0.2	\$0.7	\$0.2
200 - Brick, tile, and other structural clay product manufacturing	4	\$0.3	\$1.0	\$0.5
140 - Cut stock, resawing lumber, and planing	3	\$0.2	\$0.8	\$0.2
111 - Tobacco product manufacturing	3	\$0.3	\$10.4	\$4.7
352 - Motor vehicle steering, suspension component (except spring), and brake systems manufacturing	3	\$0.3	\$1.6	\$0.4
89 - Animal, except poultry, slaughtering	3	\$0.2	\$2.2	\$0.3

Industry	Jobs	Earnings	Output	Value-Added
12 - Dairy cattle and milk production	3	\$0.0	\$0.6	\$0.2
320 - Analytical laboratory instrument manufacturing	3	\$0.0	\$0.9	\$0.0
444 - Video tape and disc rental	3	\$0.0	\$1.0	\$0.6
389 - Gasket, packing, and sealing device manufacturing	3	\$0.2	\$0.7	\$0.2
7 - Tobacco farming	3	\$0.1	\$0.2	\$0.1
431 - News syndicates, libraries, archives and all other information services	3	\$0.1	\$1.9	\$0.4
174 - Pharmaceutical preparation manufacturing	3	\$0.3	\$3.5	\$1.1
105 - All other food manufacturing	3	\$0.2	\$1.0	\$0.2
194 - Plastics bottle manufacturing	3	\$0.2	\$1.3	\$0.4
410 - Water transportation	3	\$0.3	\$2.2	\$0.7
312 - Printed circuit assembly (electronic assembly) manufacturing	3	\$0.2	\$0.9	\$0.2
256 - Ball and roller bearing manufacturing	3	\$0.2	\$0.8	\$0.3
260 - Fabricated pipe and pipe fitting manufacturing	3	\$0.1	\$0.5	\$0.1
150 - Paper bag and coated and treated paper manufacturing	3	\$0.2	\$1.3	\$0.4
18 - Commercial hunting and trapping	3	\$0.0	\$0.1	\$0.1
139 - Wood windows and door manufacturing	3	\$0.1	\$0.6	\$0.2
316 - Automatic environmental control manufacturing	3	\$0.2	\$0.5	\$0.2
330 - Household laundry equipment manufacturing	2	\$0.3	\$1.7	\$0.5
162 - Industrial gas manufacturing	2	\$0.2	\$1.9	\$0.4
424 - Sound recording industries	2	\$0.1	\$0.7	\$0.5
107 - Manufactured ice	2	\$0.1	\$0.3	\$0.0
386 - Doll, toy, and game manufacturing	2	\$0.1	\$0.6	\$0.1
500 - Other accommodations	2	\$0.0	\$0.2	\$0.1
351 - Motor vehicle electrical and electronic equipment manufacturing	2	\$0.1	\$1.0	\$0.2
293 - Industrial truck, trailer, and stacker manufacturing	2	\$0.2	\$0.8	\$0.2
48 - Electric power generation - All other	2	\$0.3	\$0.6	\$0.4
17 - Commercial fishing	2	\$0.0	\$0.0	\$0.0
40 - Other nonmetallic minerals services	2	\$0.2	\$0.3	\$0.2
284 - Speed changer, industrial high-speed drive, and gear manufacturing	2	\$0.1	\$0.5	\$0.1
272 - Optical instrument and lens manufacturing	2	\$0.1	\$0.6	\$0.1
242 - Ornamental and architectural metal work manufacturing	2	\$0.1	\$0.4	\$0.1
198 - Other rubber product manufacturing	2	\$0.1	\$0.6	\$0.2
136 - Veneer and plywood manufacturing	2	\$0.1	\$0.5	\$0.1

Industry	Jobs	Earnings	Output	Value-Added
211 - Gypsum product manufacturing	2	\$0.2	\$1.1	\$0.3
252 - Metal coating and nonprecious engraving	2	\$0.2	\$0.5	\$0.3
144 - Prefabricated wood building manufacturing	2	\$0.1	\$0.3	\$0.1
328 - Household cooking appliance manufacturing	2	\$0.2	\$1.0	\$0.3
329 - Household refrigerator and home freezer manufacturing	2	\$0.2	\$1.2	\$0.4
353 - Motor vehicle transmission and power train parts manufacturing	2	\$0.1	\$0.9	\$0.2
22 - Coal mining	2	\$0.1	\$1.0	\$0.5
254 - Valve and fittings, other than plumbing, manufacturing	2	\$0.1	\$0.5	\$0.2
193 - Urethane and other foam product (except polystyrene) manufacturing	2	\$0.1	\$0.6	\$0.2
317 - Industrial process variable instruments manufacturing	2	\$0.1	\$0.4	\$0.1
231 - Iron and steel forging	2	\$0.1	\$0.6	\$0.2
309 - Semiconductor and related device manufacturing	2	\$0.2	\$0.8	\$0.3
336 - Storage battery manufacturing	2	\$0.1	\$0.6	\$0.2
426 - Cable and other subscription programming	1	\$0.1	\$1.8	\$0.4
391 - Fasteners, buttons, needles, and pins manufacturing	1	\$0.1	\$0.3	\$0.1
31 - Sand and gravel mining	1	\$0.1	\$0.3	\$0.2
334 - Switchgear and switchboard apparatus manufacturing	1	\$0.1	\$0.6	\$0.2
286 - Other engine equipment manufacturing	1	\$0.1	\$1.0	\$0.1
147 - Paper mills	1	\$0.1	\$1.2	\$0.4
333 - Motor and generator manufacturing	1	\$0.1	\$0.5	\$0.1
188 - Plastics packaging materials and unlaminated film and sheet manufacturing	1	\$0.1	\$0.6	\$0.2
110 - Distilleries	1	\$0.2	\$1.7	\$1.1
179 - Soap and other detergent manufacturing	1	\$0.1	\$1.3	\$0.4
81 - Canned fruits and vegetables manufacturing	1	\$0.1	\$0.7	\$0.1
66 - Other animal food manufacturing	1	\$0.1	\$1.6	\$0.2
240 - Metal window and door manufacturing	1	\$0.1	\$0.3	\$0.1
197 - Rubber and plastics hoses and belting manufacturing	1	\$0.1	\$0.4	\$0.2
253 - Electroplating, anodizing, and coloring metal	1	\$0.1	\$0.2	\$0.1
152 - Sanitary paper product manufacturing	1	\$0.1	\$1.1	\$0.5
177 - Paint and coating manufacturing	1	\$0.1	\$0.8	\$0.2
120 - Curtain and linen mills	1	\$0.1	\$0.3	\$0.1

Industry	Jobs	Earnings	Output	Value-Added
204 - Glass product manufacturing made of purchased glass	1	\$0.1	\$0.3	\$0.1
368 - Wood kitchen cabinet and countertop manufacturing	1	\$0.1	\$0.2	\$0.1
385 - Sporting and athletic goods manufacturing	1	\$0.1	\$0.3	\$0.1
205 - Cement manufacturing	1	\$0.1	\$0.7	\$0.3
234 - Crown and closure manufacturing and metal stamping	1	\$0.1	\$0.2	\$0.1
135 - Wood preservation	1	\$0.1	\$0.6	\$0.1
331 - Other major household appliance manufacturing	1	\$0.1	\$0.6	\$0.2
208 - Concrete pipe manufacturing	1	\$0.1	\$0.3	\$0.1
132 - Footwear manufacturing	1	\$0.0	\$0.1	\$0.0
314 - Electromedical and electrotherapeutic apparatus manufacturing	1	\$0.1	\$0.4	\$0.1
157 - Asphalt paving mixture and block manufacturing	1	\$0.1	\$0.8	\$0.3
1 - Oilseed farming	1	\$0.0	\$0.2	\$0.1
372 - Institutional furniture manufacturing	1	\$0.1	\$0.2	\$0.1
155 - Support activities for printing	1	\$0.1	\$0.1	\$0.1
302 - Computer storage device manufacturing	1	\$0.2	\$1.6	\$0.6
285 - Mechanical power transmission equipment manufacturing	1	\$0.1	\$0.2	\$0.1
137 - Engineered wood member and truss manufacturing	1	\$0.0	\$0.2	\$0.0
363 - Ship building and repairing	1	\$0.1	\$0.2	\$0.1
91 - Rendering and meat byproduct processing	1	\$0.1	\$0.5	\$0.1
355 - Motor vehicle metal stamping	1	\$0.1	\$0.3	\$0.1
262 - Farm machinery and equipment manufacturing	1	\$0.1	\$0.3	\$0.1
97 - Dry pasta, mixes, and dough manufacturing	1	\$0.1	\$0.5	\$0.1
340 - Wiring device manufacturing	1	\$0.1	\$0.4	\$0.2
216 - Miscellaneous nonmetallic mineral products manufacturing	1	\$0.0	\$0.3	\$0.1
369 - Upholstered household furniture manufacturing	1	\$0.0	\$0.2	\$0.0
232 - Nonferrous forging	1	\$0.1	\$0.4	\$0.1
364 - Boat building	1	\$0.0	\$0.2	\$0.0
218 - Iron, steel pipe and tube manufacturing from purchased steel	1	\$0.1	\$0.4	\$0.1
217 - Iron and steel mills and ferroalloy manufacturing	1	\$0.1	\$0.8	\$0.2
350 - Motor vehicle gasoline engine and engine parts manufacturing	1	\$0.1	\$0.4	\$0.1
390 - Musical instrument manufacturing	1	\$0.0	\$0.1	\$0.0

Industry	Jobs	Earnings	Output	Value-Added
354 - Motor vehicle seating and interior trim manufacturing	1	\$0.1	\$0.4	\$0.1
347 - Truck trailer manufacturing	1	\$0.1	\$0.2	\$0.1
299 - Fluid power pump and motor manufacturing	1	\$0.0	\$0.3	\$0.1
393 - Burial casket manufacturing	1	\$0.0	\$0.1	\$0.0
223 - Aluminum sheet, plate, and foil manufacturing	1	\$0.1	\$0.6	\$0.1
175 - In-vitro diagnostic substance manufacturing	1	\$0.1	\$0.3	\$0.1
215 - Mineral wool manufacturing	1	\$0.0	\$0.3	\$0.1
267 - Food product machinery manufacturing	1	\$0.1	\$0.2	\$0.1
187 - Other miscellaneous chemical product manufacturing	1	\$0.1	\$0.4	\$0.1
235 - Cutlery, utensil, pot, and pan manufacturing	1	\$0.0	\$0.3	\$0.1
292 - Overhead cranes, hoists, and monorail systems manufacturing	1	\$0.1	\$0.3	\$0.1
201 - Flat glass manufacturing	1	\$0.1	\$0.3	\$0.1
196 - Tire manufacturing	1	\$0.1	\$0.2	\$0.1
325 - Electric lamp bulb and part manufacturing	1	\$0.1	\$0.2	\$0.1
326 - Lighting fixture manufacturing	1	\$0.0	\$0.2	\$0.1
291 - Conveyor and conveying equipment manufacturing	1	\$0.1	\$0.1	\$0.1
335 - Relay and industrial control manufacturing	1	\$0.1	\$0.2	\$0.1
219 - Rolled steel shape manufacturing	1	\$0.1	\$0.4	\$0.1
93 - Seafood product preparation and packaging	1	\$0.0	\$0.2	\$0.0
87 - Dry, condensed, and evaporated dairy product manufacturing	1	\$0.0	\$0.7	\$0.1
101 - Coffee and tea manufacturing	1	\$0.0	\$0.3	\$0.0
182 - Toilet preparation manufacturing	1	\$0.0	\$0.4	\$0.1
86 - Cheese manufacturing	1	\$0.0	\$0.4	\$0.0
160 additional industries with some level of economic activity				

Table 6: Aerospace & Aviation Industries Total Impact on Jobs, Earnings, Output & Value-Added (\$ Millions)

Industry	Jobs	Earnings	Output	Value-Added
414 - Support activities for transportation	4,677	\$378.4	\$964.7	\$497.9
408 - Air transportation	2,490	\$272.7	\$919.8	\$411.1
357 - Aircraft manufacturing	1,091	\$97.5	\$384.4	\$138.0
359 - Other aircraft parts and auxiliary equipment manufacturing	1,049	\$79.4	\$271.0	\$111.6
358 - Aircraft engine and engine parts manufacturing	868	\$80.5	\$358.3	\$122.0
415 - Couriers and messengers	515	\$36.1	\$79.7	\$51.7
440 - Real estate	431	\$3.5	\$80.9	\$57.0
464 - Employment services	415	\$14.0	\$28.9	\$20.2
502 - Limited-service restaurants	407	\$7.3	\$32.4	\$17.0
482 - Hospitals	401	\$27.5	\$61.2	\$30.8
501 - Full-service restaurants	394	\$7.9	\$19.1	\$9.6
518 - Postal service	357	\$29.8	\$34.7	\$29.8
503 - All other food and drinking places	333	\$8.0	\$14.7	\$9.1
416 - Warehousing and storage	328	\$16.3	\$30.0	\$18.4
395 - Wholesale trade	327	\$22.0	\$75.6	\$50.4
468 - Services to buildings	321	\$5.4	\$14.5	\$9.0
405 - Retail - General merchandise stores	227	\$6.4	\$16.2	\$9.6
475 - Offices of physicians	226	\$21.7	\$33.7	\$22.5
400 - Retail - Food and beverage stores	190	\$4.9	\$11.9	\$7.1
465 - Business support services	179	\$6.0	\$9.6	\$5.7
62 - Maintenance and repair construction of nonresidential structures	173	\$6.5	\$27.0	\$12.8
461 - Management of companies and enterprises	165	\$18.4	\$37.0	\$20.6
433 - Monetary authorities and depository credit intermediation	163	\$10.7	\$35.0	\$16.6
411 - Truck transportation	156	\$6.8	\$24.5	\$10.8
485 - Individual and family services	146	\$3.4	\$4.9	\$3.3
469 - Landscape and horticultural services	134	\$2.8	\$7.7	\$4.6
483 - Nursing and community care facilities	131	\$5.0	\$9.3	\$5.6
407 - Retail - Nonstore retailers	122	\$1.4	\$14.2	\$6.1
447 - Legal services	122	\$5.8	\$18.3	\$11.8
509 - Personal care services	122	\$0.8	\$4.3	\$2.9
467 - Investigation and security services	118	\$3.1	\$5.5	\$3.7
448 - Accounting, tax preparation, bookkeeping, and payroll services	118	\$6.1	\$11.5	\$9.1
474 - Other educational services	116	\$4.2	\$7.8	\$4.9
526 - Other local government enterprises	113	\$11.0	\$39.1	\$21.7

Industry	Jobs	Earnings	Output	Value-Added
396 - Retail - Motor vehicle and parts dealers	110	\$5.1	\$15.5	\$10.6
438 - Insurance agencies, brokerages, and related activities	106	\$5.8	\$19.1	\$9.2
406 - Retail - Miscellaneous store retailers	105	\$1.4	\$3.7	\$2.0
473 - Junior colleges, colleges, universities, and professional schools	101	\$3.3	\$7.1	\$3.5
477 - Offices of other health practitioners	96	\$3.7	\$9.2	\$7.0
512 - Other personal services	95	\$0.4	\$3.2	\$2.1
504 - Automotive repair and maintenance, except car washes	93	\$3.3	\$9.5	\$6.2
487 - Child day care services	87	\$1.6	\$3.6	\$2.3
513 - Religious organizations	86	\$4.2	\$3.4	\$1.4
454 - Management consulting services	83	\$3.7	\$8.1	\$4.6
315 - Search, detection, and navigation instruments manufacturing	81	\$6.4	\$14.6	\$8.2
403 - Retail - Clothing and clothing accessories stores	80	\$1.5	\$5.8	\$3.0
436 - Other financial investment activities	79	\$1.5	\$12.8	\$2.2
445 - Commercial and industrial machinery and equipment rental and leasing	79	\$4.1	\$23.2	\$16.3
399 - Retail - Building material and garden equipment and supplies stores	73	\$2.7	\$7.7	\$4.5
480 - Home health care services	73	\$3.2	\$4.8	\$4.0
437 - Insurance carriers	72	\$8.4	\$34.2	\$20.0
476 - Offices of dentists	71	\$3.7	\$8.9	\$6.2
401 - Retail - Health and personal care stores	69	\$2.7	\$6.1	\$3.8
434 - Nondepository credit intermediation and related activities	64	\$4.0	\$9.3	\$4.2
517 - Private households	63	\$0.9	\$0.9	\$0.9
402 - Retail - Gasoline stores	62	\$1.4	\$4.6	\$2.6
511 - Dry-cleaning and laundry services	61	\$2.1	\$4.3	\$2.8
478 - Outpatient care centers	61	\$3.9	\$9.2	\$4.9
471 - Waste management and remediation services	60	\$3.5	\$11.8	\$5.1
460 - Marketing research and all other miscellaneous professional, scientific, and technical services	59	\$0.8	\$3.7	\$2.4
508 - Personal and household goods repair and maintenance	57	\$0.8	\$4.8	\$3.3
449 - Architectural, engineering, and related services	56	\$4.2	\$8.5	\$4.3
470 - Other support services	53	\$1.9	\$4.2	\$2.0
435 - Securities and commodity contracts intermediation and brokerage	49	\$4.7	\$8.1	\$3.9
462 - Office administrative services	47	\$2.4	\$3.1	\$2.4
452 - Computer systems design services	44	\$3.2	\$4.8	\$3.1
427 - Wired telecommunications carriers	44	\$3.2	\$19.3	\$8.0

Industry	Jobs	Earnings	Output	Value-Added
492 - Independent artists, writers, and performers	44	\$0.1	\$1.0	\$0.3
404 - Retail - Sporting goods, hobby, musical instrument and bookstores	43	\$0.8	\$1.8	\$1.0
457 - Advertising, public relations, and related services	39	\$1.5	\$7.1	\$3.4
63 - Maintenance and repair construction of residential structures	38	\$1.5	\$6.4	\$2.8
484 - Residential mental retardation, mental health, substance abuse and other facilities	38	\$1.5	\$1.8	\$1.2
516 - Labor and civic organizations	37	\$0.7	\$2.7	\$2.0
497 - Fitness and recreational sports centers	37	\$0.5	\$1.5	\$0.8
439 - Funds, trusts, and other financial vehicles	35	\$1.1	\$10.6	\$2.1
430 - Data processing, hosting, and related services	33	\$2.5	\$8.4	\$2.7
496 - Other amusement and recreation industries	32	\$0.7	\$1.9	\$1.0
507 - Commercial and industrial machinery and equipment repair and maintenance	32	\$1.8	\$4.2	\$3.0
450 - Specialized design services	31	\$0.6	\$2.4	\$1.6
486 - Community food, housing, and other relief services, including rehabilitation services	31	\$1.1	\$2.8	\$1.4
443 - General and consumer goods rental except video tapes and discs	29	\$1.1	\$2.4	\$1.6
397 - Retail - Furniture and home furnishings stores	28	\$0.9	\$3.0	\$1.6
412 - Transit and ground passenger transportation	27	\$0.4	\$1.3	\$0.7
489 - Commercial Sports Except Racing	27	\$0.4	\$1.4	\$0.6
453 - Other computer related services, including facilities management	26	\$1.8	\$3.4	\$2.2
20 - Extraction of natural gas and crude petroleum	26	\$0.2	\$3.5	\$0.8
506 - Electronic and precision equipment repair and maintenance	26	\$1.2	\$3.1	\$1.9
514 - Grantmaking, giving, and social advocacy organizations	25	\$0.8	\$3.6	\$2.3
472 - Elementary and secondary schools	24	\$0.9	\$1.0	\$0.7
466 - Travel arrangement and reservation services	23	\$0.9	\$3.7	\$1.3
481 - Other ambulatory health care services	23	\$1.1	\$2.5	\$1.5
154 - Printing	22	\$1.1	\$3.6	\$1.5
398 - Retail - Electronics and appliance stores	22	\$1.0	\$1.4	\$0.8
459 - Veterinary services	22	\$0.9	\$2.4	\$1.2
455 - Environmental and other technical consulting services	21	\$1.0	\$1.5	\$0.8
38 - Support activities for oil and gas operations	20	\$0.5	\$2.0	\$1.4
495 - Gambling industries (except casino hotels)	20	\$0.5	\$3.1	\$1.7
479 - Medical and diagnostic laboratories	19	\$1.1	\$2.0	\$1.3
515 - Business and professional associations	19	\$0.9	\$3.4	\$2.5

Industry	Jobs	Earnings	Output	Value-Added
425 - Radio and television broadcasting	18	\$1.0	\$3.9	\$1.1
417 - Newspaper publishers	17	\$0.7	\$2.0	\$1.1
491 - Promoters of performing arts and sports and agents for public figures	16	\$0.3	\$1.8	\$0.5
49 - Electric power transmission and distribution	16	\$2.0	\$21.4	\$7.8
458 - Photographic services	15	\$0.1	\$0.7	\$0.4
463 - Facilities support services	14	\$0.7	\$2.4	\$1.1
505 - Car washes	14	\$0.3	\$0.9	\$0.6
524 - Local government passenger transit	14	\$0.9	\$0.7	(\$0.1)
21 - Extraction of natural gas liquids	14	\$0.1	\$1.2	\$0.3
442 - Automotive equipment rental and leasing	14	\$0.5	\$3.2	\$1.9
14 - Animal production, except cattle and poultry and eggs	13	\$0.0	\$0.5	\$0.3
493 - Museums, historical sites, zoos, and parks	10	\$0.3	\$0.7	\$0.3
248 - Spring and wire product manufacturing	10	\$0.7	\$2.6	\$1.0
428 - Wireless telecommunications carriers (except satellite)	10	\$0.5	\$23.0	\$6.8
488 - Performing arts companies	9	\$0.2	\$1.1	\$0.4
10 - All other crop farming	8	\$0.0	\$0.1	\$0.1
520 - Other federal government enterprises	7	\$0.2	\$1.2	\$0.2
423 - Motion picture and video industries	7	\$0.2	\$0.9	\$0.4
510 - Death care services	7	\$0.3	\$0.7	\$0.5
50 - Natural gas distribution	7	\$0.6	\$3.3	\$1.0
11 - Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	7	\$0.0	\$0.3	\$0.1
156 - Petroleum refineries	6	\$1.3	\$47.4	\$13.6
499 - Hotels and motels, including casino hotels	6	\$0.2	\$0.7	\$0.4
494 - Amusement parks and arcades	6	\$0.1	\$0.4	\$0.2
429 - Satellite, telecommunications resellers, and all other telecommunications	6	\$0.3	\$0.6	\$0.4
525 - Local government electric utilities	5	\$0.6	\$3.0	\$1.0
413 - Pipeline transportation	5	\$0.7	\$1.6	\$1.2
432 - Internet publishing and broadcasting and web search portals	5	\$0.3	\$1.7	\$0.4
42 - Electric power generation - Fossil fuel	4	\$0.6	\$5.9	\$2.3
409 - Rail transportation	4	\$0.7	\$1.6	\$1.1
92 - Poultry processing	4	\$0.2	\$1.2	\$0.2
446 - Lessors of nonfinancial intangible assets	4	\$0.0	\$3.4	\$0.9
523 - Other state government enterprises	4	\$0.5	\$0.8	\$0.5
498 - Bowling centers	4	\$0.1	\$0.2	\$0.1
418 - Periodical publishers	4	\$0.2	\$1.1	\$0.5
195 - Other plastics product manufacturing	4	\$0.2	\$1.1	\$0.3

Industry	Jobs	Earnings	Output	Value-Added
94 - Bread and bakery product, except frozen, manufacturing	4	\$0.2	\$0.5	\$0.2
149 - Paperboard container manufacturing	3	\$0.2	\$1.7	\$0.4
40 - Other nonmetallic minerals services	3	\$0.2	\$0.4	\$0.3
51 - Water, sewage and other systems	3	\$0.2	\$0.7	\$0.4
4 - Fruit farming	3	\$0.0	\$0.1	\$0.0
249 - Machine shops	3	\$0.1	\$0.4	\$0.2
451 - Custom computer programming services	2	\$0.2	\$0.4	\$0.3
13 - Poultry and egg production	2	\$0.0	\$0.6	\$0.1
519 - Federal electric utilities	2	\$0.5	\$3.5	\$0.5
456 - Scientific research and development services	2	\$0.2	\$0.5	\$0.2
231 - Iron and steel forging	2	\$0.2	\$0.9	\$0.3
106 - Bottled and canned soft drinks & water	2	\$0.2	\$1.6	\$0.3
356 - Other motor vehicle parts manufacturing	2	\$0.2	\$1.2	\$0.2
238 - Fabricated structural metal manufacturing	2	\$0.1	\$0.7	\$0.2
80 - Frozen specialties manufacturing	2	\$0.1	\$0.8	\$0.1
420 - Directory, mailing list, and other publishers	2	\$0.1	\$0.7	\$0.5
422 - Software publishers	2	\$0.1	\$0.4	\$0.2
206 - Ready-mix concrete manufacturing	2	\$0.1	\$0.8	\$0.2
274 - Other commercial service industry machinery manufacturing	2	\$0.1	\$0.7	\$0.2
162 - Industrial gas manufacturing	2	\$0.1	\$1.5	\$0.3
388 - Sign manufacturing	2	\$0.1	\$0.2	\$0.1
19 - Support activities for agriculture and forestry	2	\$0.1	\$0.1	\$0.1
419 - Book publishers	2	\$0.1	\$0.7	\$0.6
490 - Racing and Track Operation	2	\$0.1	\$0.1	\$0.1
344 - Light truck and utility vehicle manufacturing	2	\$0.2	\$3.3	\$0.4
30 - Stone mining and quarrying	2	\$0.1	\$0.4	\$0.3
192 - Polystyrene foam product manufacturing	2	\$0.1	\$0.5	\$0.2
232 - Nonferrous forging	2	\$0.1	\$0.7	\$0.2
142 - Wood container and pallet manufacturing	2	\$0.1	\$0.3	\$0.1
343 - Automobile manufacturing	1	\$0.1	\$2.2	\$0.3
134 - Sawmills	1	\$0.0	\$0.4	\$0.1
90 - Meat processed from carcasses	1	\$0.1	\$0.7	\$0.1
141 - Other millwork, including flooring	1	\$0.1	\$0.2	\$0.1
250 - Turned product and screw, nut, and bolt manufacturing	1	\$0.1	\$0.3	\$0.1
84 - Fluid milk manufacturing	1	\$0.1	\$0.8	\$0.1
252 - Metal coating and nonprecious engraving	1	\$0.1	\$0.3	\$0.1
96 - Cookie and cracker manufacturing	1	\$0.1	\$0.3	\$0.1

Industry	Jobs	Earnings	Output	Value-Added
410 - Water transportation	1	\$0.1	\$0.8	\$0.3
2 - Grain farming	1	\$0.0	\$0.1	(\$0.0)
3 - Vegetable and melon farming	1	\$0.0	\$0.1	\$0.0
6 - Greenhouse, nursery, and floriculture production	1	\$0.0	\$0.1	\$0.0
99 - Roasted nuts and peanut butter manufacturing	1	\$0.1	\$0.7	\$0.2
108 - Breweries	1	\$0.0	\$0.4	\$0.1
223 - Aluminum sheet, plate, and foil manufacturing	1	\$0.1	\$0.8	\$0.2
352 - Motor vehicle steering, suspension component (except spring), and brake systems manufacturing	1	\$0.1	\$0.4	\$0.1
111 - Tobacco product manufacturing	1	\$0.1	\$2.5	\$1.1
16 - Commercial logging	1	\$0.0	\$0.1	\$0.1
89 - Animal, except poultry, slaughtering	1	\$0.0	\$0.5	\$0.1
444 - Video tape and disc rental	1	\$0.0	\$0.2	\$0.1
12 - Dairy cattle and milk production	1	\$0.0	\$0.1	\$0.0
174 - Pharmaceutical preparation manufacturing	1	\$0.1	\$0.8	\$0.3
213 - Cut stone and stone product manufacturing	1	\$0.0	\$0.1	\$0.0
198 - Other rubber product manufacturing	1	\$0.0	\$0.2	\$0.1
253 - Electroplating, anodizing, and coloring metal	1	\$0.0	\$0.1	\$0.0
7 - Tobacco farming	1	\$0.0	\$0.0	\$0.0
105 - All other food manufacturing	1	\$0.0	\$0.2	\$0.0
330 - Household laundry equipment manufacturing	1	\$0.1	\$0.4	\$0.1
354 - Motor vehicle seating and interior trim manufacturing	1	\$0.0	\$0.3	\$0.1
18 - Commercial hunting and trapping	1	\$0.0	\$0.0	\$0.0
351 - Motor vehicle electrical and electronic equipment manufacturing	1	\$0.0	\$0.3	\$0.1
431 - News syndicates, libraries, archives and all other information services	1	\$0.0	\$0.4	\$0.1
340 - Wiring device manufacturing	1	\$0.0	\$0.2	\$0.1
328 - Household cooking appliance manufacturing	1	\$0.1	\$0.3	\$0.1
150 - Paper bag and coated and treated paper manufacturing	1	\$0.0	\$0.3	\$0.1
217 - Iron and steel mills and ferroalloy manufacturing	1	\$0.1	\$0.5	\$0.1
394 - All other miscellaneous manufacturing	1	\$0.0	\$0.1	\$0.0
363 - Ship building and repairing	1	\$0.0	\$0.1	\$0.0
257 additional industries with some level of economic activity				