



## Business Development Series: *Location Quotient*

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### *What Is It?*

Location quotient (LQ) is used to assess industry concentration by dividing the employment shares of each industry in a particular region to employment shares of the same industry based on a larger reference region such as a state or nation. However, it is important to bear in mind that this analysis does not take into consideration disparities between productivity, technology, output, demand, etc. Table I consists of location quotient figures (by region) for the state of Oklahoma.

### *How Are They Interpreted?*

A location quotient is used to determine a local region's degree of self-sufficiency in a given industry. In general, the location quotient is used to suggest whether an industry's goods or services is being exported or imported within a region. Exporting industries usually produce more than enough goods and services to satisfy local demands. Any additional amount produced will then be exported to non-local regions. Importing industries usually do not produce sufficient goods or services to meet local demand, thus additional goods and services need to be imported into its region to meet the local market demands.

The following newsletter indicates location quotient for sixteen major industries in 4-digits NAICS code. The industries are listed as below:

NAICS	Industry	NAICS	Industry
2361- 2389	Construction	5411- 5419	Professional, Scientific & Technical Service
3111- 3399	Manufacturing	5511- 5511	Management of Companies & Enterprises
4231- 4251	Wholesale Trade	5611- 5629	Administration, Support, Waste Management & Remediation Services
4411- 4543	Retail Trade	6111- 6117	Education Services
4811- 4931	Transportation & Warehousing	6211- 6244	Health Care & Social Assistance
5111- 5191	Information	7111- 7139	Arts, Entertainment & Recreation
5221- 5251	Finance & Insurance	7211- 7224	Accommodation & Food Services
5311- 5331	Real Estate, Rental & Leasing	8111- 8141	Other Services (except Public Administration)

A location quotient greater than 1.00 indicates that a region has greater proportion of employment concentrated in a particular industry than does the state of Oklahoma in the same industry. It is important to note that location quotient greater than 1.25 usually suggests that an industry has met local demands and implying some export activities. *For example*, Basic Chemical Manufacturing (NAICS 3251) in northwest region of Oklahoma has a location quotient of 6.79, which suggests that the Basic Chemical Manufacturing business is strong in the northwest region. It further suggests that this industry has met local demand and is able to export its additional goods and services produced to serve demand in non-local regions. However, in some cases, location quotient figures may not always suggest export activities with a LQ value higher than usual when compare to the state's or national's LQ value. *For instance*, other factors such as low productivity or technology deficiency in local region may in turns be reflected in high LQ value, where the local labor force is less productive compared to the state or national level on average. Yet, a location quotient may suggest there are some export activities.

A location quotient equal to 1.00 signifies that both the region and the state of Oklahoma have same proportion of employment concentrated in a particular industry. *For example*, on average, there are 0.10 percent shares of employment in Specialty Food Stores (NAICS 4452) for both the northeast

region and for the state of Oklahoma. This would result in a location quotient equal to 1.00, which indicates that Specialty Food Stores in the northeast region has produced just enough to support local demand but none of the goods and services is exported outside from or imported into its own local market.

Similarly, a location quotient less than 1.00 suggests that a region has less than the proportion of employment concentrated in a particular industry than does the entire state of Oklahoma. Likewise, for an industry with a location quotient less than 0.75 implies that it has not produced enough goods and services to meet local demands and suggests some import activities into its region. *For example*, if Sawmills and Wood Preservation (NAICS 3211) in the southeast region has a location quotient of 0.01, then it may suggest that the southeast region does not specialize in the Sawmills and Wood Preservation sector. With a location quotient of 0.01, it further indicates that it has not produced enough to allocate local demands. Thus, additional goods and services need to be imported from other regions to meet local region demand.

However, some industries themselves can be referred to as exporting industries no matter what their location quotient figures would be. These industries, such as hotels, usually serve a wide majority of non-locals demand with goods and services produced.

Location quotient analysis assumes that any industry that generates additional exporting and importing activities within its region is known as 'basic', and usually has a LQ less than 0.75 or greater than 1.25. An industry with location quotient ranged between 0.75 - 1.24, assumes that most local demands are met and consists of minor importing and or exporting activities within a region. This is known as 'non-basic' employment type.

### *How Are the Numbers Calculated?*

Location quotient figures are computed by dividing the proportion of employment in a given industry within a region by the proportion of employment in the same industry upon the state of Oklahoma.

### *What Time Period is Used?*

The location quotient analysis used 2005 employment figures from the Oklahoma Employment Security Commission.

### *Who Benefits from Them?*

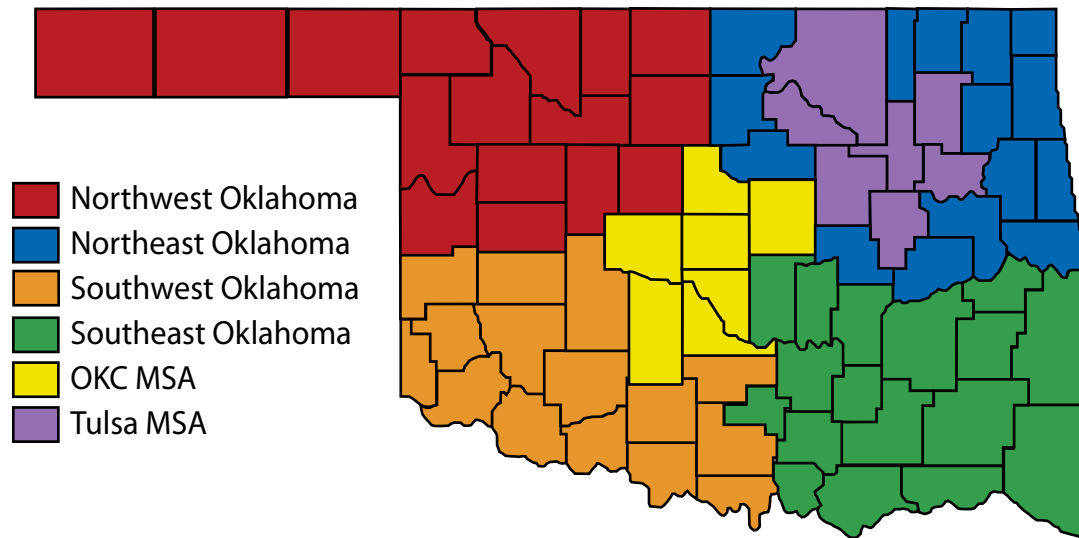
Local economists, regional developers, geographers, local governments, economic analysts and researchers can benefit from using these figures to identify exporting and importing industries. In other words, location quotient can be used to monitor how closely a regional economy's composition is reflected in the state's economy structure or the national economy (if the reference region is based on national data) as a whole.

#### Reference:

Hustedde, J. Ronald, Shaffer, Ron & Pulver (1993) 'Community Economic Analysis: A How To Manual'. Iowa State University.

## What Is the Geographic Area?

The location quotient figures (Table 1) in this newsletter are computed for the state of Oklahoma and six sub-state regions identified in the accompanying map:



Alfalfa	Adair	Beckham	Atoka	Canadian	Creek
Beaver	Cherokee	Caddo	Bryan	Cleveland	Okmulgee
Blaine	Craig	Carter	Choctaw	Grady	Osage
Cimarron	Delaware	Comanche	Coal	Lincoln	Pawnee
Custer	Kay	Cotton	Haskell	Logan	Rogers
Dewey	McIntosh	Garvin	Hughes	McClain	Tulsa
Ellis	Mayes	Greer	Johnston	Oklahoma	Wagoner
Garfield	Muskogee	Harmon	Latimer		
Grant	Noble	Jackson	Le Flore		
Harper	Nowata	Jefferson	McCurtain		
Kingfisher	Okfuskee	Kiowa	Marshall		
Major	Ottawa	Love	Murray		
Roger Mills	Payne	Stephens	Pittsburg		
Texas	Sequoyah	Tillman	Pontotoc		
Woods	Washington	Washita	Pottawatomie		
Woodward			Pushmataha		
			Seminole		

**Table 1: Location Quotient (By Region)**

NAICS	Description	NW	NE	SW	SE	OKC MSA	TULSA MSA
2361	Residential Building Construction	0.46	1.45	0.95	1.55	1.04	0.78
2362	Nonresidential Building Construction	0.61	1.09	1.57	1.30	1.03	0.79
2371	Utility System Construction	2.52	1.21	1.07	1.22	0.75	0.94
2372	Land Subdivision	0.15	0.88	0.79	0.58	1.12	1.17
2373	Highway, Street & Bridge Construction	1.70	1.50	0.71	0.89	0.96	0.88
2379	Other Heavy & Civil Engineering Construction	0.25	1.18	1.12	2.40	0.46	1.40
2381	Foundation, Structure & Building Exterior Contractors	0.63	1.14	0.99	0.68	0.96	1.15
2382	Building Equipment Contractors	0.89	0.83	1.01	0.53	1.14	1.00
2383	Building Finishing Contractors	0.33	0.54	0.38	0.33	1.11	1.42
2389	Other Specialty Trade Contractors	2.82	1.28	1.50	1.31	0.75	0.74
3111	Animal Food Manufacturing	2.56	3.61	0.29	2.70	0.71	0.09
3112	Grain & Oilseed Milling	3.58	N/A	0.02	9.61	0.23	N/A
3113	Sugar & Confectionery Product Manufacturing	N/A	N/A	8.95	0.87	0.66	N/A
3114	Fruit, Vege Preserving & Specialty Food Manufacturing	1.86	4.37	N/A	N/A	1.26	N/A
3115	Dairy Product Manufacturing	0.04	0.15	N/A	N/A	0.87	2.07
3116	Animal Slaughtering & Processing	13.51	0.20	0.73	2.25	0.10	0.10
3118	Bakeries & Tortilla Manufacturing	0.38	0.11	0.08	1.28	0.67	1.96
3119	Bread & Bakery Product Manufacturing	0.13	2.57	N/A	N/A	1.39	0.67
3121	Beverage Manufacturing	0.21	0.69	0.22	0.84	1.43	0.90
3122	Tobacco Manufacturing	1.16	10.21	N/A	N/A	N/A	0.19
3132	Fabric Mills	N/A	N/A	N/A	N/A	N/A	1.95
3133	Textile & Fabric Finishing Mills (except Broadwoven Fabric)	N/A	N/A	3.54	2.51	0.87	0.65
3141	Textile Furnishings Mills	0.13	5.21	0.91	1.90	0.64	0.15
3149	Other Textile Product Mills	0.06	2.74	1.73	0.23	1.00	0.64
3151	Apparel Knitting Mills	N/A	N/A	N/A	N/A	N/A	3.25
3152	Cut & Sew Apparel Manufacturing	0.00	0.76	0.19	9.14	0.36	0.28
3159	Apparel Accessories & Other Apparel Manufacturing	N/A	4.28	N/A	0.65	0.96	0.57
3162	Footwear Manufacturing	1.63	N/A	N/A	9.96	N/A	0.54
3169	Other Leather & Allied Product Manufacturing	N/A	1.78	0.87	3.23	0.09	1.60
3211	Sawmills & Wood Preservation	0.07	0.05	0.01	13.08	0.01	0.01
3212	Veneer, Plywood & Engineered Wood Product Manufacturing	0.56	2.31	0.49	8.76	0.03	0.16
3219	Other Wood Product Manufacturing	0.26	2.71	3.30	3.00	0.54	0.15
3221	Pulp, Paper & Paperboard Mills	N/A	5.86	1.39	0.08	0.00	1.13
3222	Converted Paper Product Manufacturing	N/A	5.55	0.05	0.08	0.76	0.58
3231	Printing & Related Support Activities	0.34	1.42	0.44	0.37	1.16	1.06
3241	Petroleum & Coal Products Manufacturing	0.64	0.46	3.28	0.09	0.22	1.90
3251	Basic Chemical Manufacturing	6.79	2.04	0.29	0.53	0.26	0.98
3252	Resin, Synthetic Rubber Manufacturing	N/A	3.53	N/A	0.42	0.92	0.89
3253	Pesticide, Fertilizer & other Agricultural Chem. Manufacturing	5.85	1.78	N/A	N/A	N/A	1.75

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NAICS	Description	NW	NE	SW	SE	OKC MSA	TULSA MSA
3254	Pharmaceutical & Medicine Manufacturing	N/A	0.04	0.10	0.14	2.11	0.45
3255	Paint, Coating & Adhesive Manufacturing	N/A	1.36	0.10	N/A	1.22	1.24
3256	Soap, Cleaning Compound & Toilet Preparation Manufacturing	3.24	1.04	3.30	N/A	0.85	0.49
3259	Other Chemical Product & Preparation Manufacturing	2.81	2.02	N/A	0.35	1.32	0.39
3261	Plastics Product Manufacturing	0.10	0.71	0.82	4.10	0.86	0.70
3262	Rubber Product Manufacturing	N/A	0.02	9.21	0.03	0.69	0.09
3271	Clay Product & Refractory Manufacturing	N/A	1.14	0.48	1.96	0.14	2.14
3272	Glass & Glass Product Manufacturing	0.00	0.85	0.02	0.43	0.05	2.81
3273	Cement & Concrete Product Manufacturing	0.75	1.08	1.61	2.54	0.99	0.51
3274	Lime & Gypsum Product Manufacturing	N/A	N/A	12.75	N/A	0.01	0.12
3279	Other Nonmetallic Mineral Product Manufacturing	N/A	3.05	N/A	0.94	0.71	1.19
3311	Iron, Steel Mills & Ferroalloy Manufacturing	N/A	0.06	N/A	0.36	0.38	2.65
3312	Steel Product Manufacturing from Purchased Steel	0.50	2.34	N/A	0.15	0.43	1.88
3313	Alumina, Aluminum Production & Processing	N/A	4.63	N/A	N/A	0.25	1.54
3315	Foundries	N/A	2.97	3.79	0.14	0.04	1.35
3321	Forging & Stamping	N/A	1.03	N/A	0.27	0.93	1.68
3322	Cutlery & Hand tool Manufacturing	0.54	0.56	N/A	6.82	0.84	0.23
3323	Architectural & Structural Metals Manufacturing	0.56	1.55	0.31	0.37	0.64	1.70
3324	Boiler, Tank & Shipping Container Manufacturing	0.01	0.14	0.22	0.11	0.19	2.87
3325	Hardware Manufacturing	N/A	N/A	N/A	N/A	2.11	0.52
3326	Spring & Wire Product Manufacturing	N/A	0.07	0.40	5.88	0.08	1.59
3327	Machine Shops, Turned Product & Screw, Nut & Bolt Manufacturing	3.01	0.83	0.80	0.46	0.50	1.54
3328	Coating, Engraving, Heat Treating & Allied Activities	N/A	0.76	0.46	0.59	0.75	1.79
3329	Other Fabricated Metal Product Manufacturing	0.64	1.08	0.43	0.83	1.19	0.97
3331	Agriculture, Construction & Mining Machinery Manufacturing	1.37	1.32	4.64	1.12	0.50	0.56
3332	Industrial Machinery Manufacturing	N/A	0.35	2.99	0.90	1.29	0.52
3333	Commercial and Service Industry Machinery Manufacturing	N/A	1.95	N/A	0.23	0.04	2.56
3334	Ventilation, Heating, Air-Conditioning & Commercial Refrigeration Equip.	0.88	1.45	N/A	0.07	1.52	0.69
3335	Metalworking Machinery Manufacturing	N/A	3.06	0.03	5.38	0.26	0.67
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	0.12	9.35	0.09	0.10	0.05	0.32
3339	Other General Purpose Machinery Manufacturing	0.10	0.26	0.15	0.78	0.48	2.30
3341	Computer and Peripheral Equipment Manufacturing	2.13	N/A	N/A	N/A	2.21	0.04
3342	Communications Equipment Manufacturing	N/A	1.24	0.35	N/A	1.72	0.57
3343	Audio and Video Equipment Manufacturing	N/A	10.26	N/A	N/A	0.14	N/A
3344	Semiconductor and Other Electronic Component Manufacturing	N/A	3.55	0.43	0.27	1.36	0.26
3345	Navigational, Measuring, Electromedical & Instruments Manufacturing	0.21	1.92	0.02	N/A	0.39	2.13
3346	Manufacturing, Reproducing Magnetic & Optical Media	15.05	0.71	N/A	N/A	0.21	0.27
3351	Electric Lighting Equipment Manufacturing	N/A	3.22	4.15	N/A	0.04	1.22
3352	Household Appliance Manufacturing	N/A	0.01	N/A	0.00	0.00	3.24

*Table 1: Location Quotient (By Region)*

NAICS	Description	NW	NE	SW	SE	OKC MSA	TULSA MSA
3353	Electrical Equipment Manufacturing	0.03	4.71	0.00	0.06	0.11	1.68
3359	Other Electrical Equipment & Component Manufacturing	N/A	0.52	N/A	0.11	0.86	1.96
3361	Motor Vehicle Manufacturing	0.26	N/A	N/A	N/A	2.04	0.57
3362	Motor Vehicle Body & Trailer Manufacturing	0.25	0.88	0.01	5.15	1.19	0.15
3363	Motor Vehicle Parts Manufacturing	N/A	2.16	0.63	1.36	1.17	0.60
3364	Aerospace Product & Parts Manufacturing	0.15	0.13	0.45	0.35	0.45	2.40
3365	Railroad Rolling Stock Manufacturing	N/A	N/A	N/A	N/A	2.51	N/A
3366	Ship & Boat Building	N/A	10.76	N/A	N/A	0.02	N/A
3369	Other Transportation Equipment Manufacturing	N/A	N/A	N/A	0.65	1.16	1.59
3371	Household & Institutional Furniture & Kitchen Cabinet Manufacturing	0.46	2.66	0.08	1.52	0.83	0.91
3372	Office Furniture (including Fixtures) Manufacturing	0.08	0.41	0.82	0.27	0.54	2.15
3379	Other Furniture Related Product Manufacturing	N/A	2.37	N/A	0.05	1.92	0.05
3391	Medical Equipment & Supplies Manufacturing	0.11	0.16	1.58	0.83	1.15	1.11
3399	Other Miscellaneous Manufacturing	0.32	0.27	1.51	0.17	1.06	1.33
4231	Motor Vehicle & Motor Vehicle Parts & Supplies Merchant Wholesalers	0.20	0.27	0.31	0.64	1.48	0.99
4232	Furniture & Home Furnishing Merchant Wholesalers	N/A	1.80	N/A	0.10	0.68	1.80
4233	Lumber & Other Construction Materials Merchant Wholesalers	0.16	0.48	0.49	0.48	0.85	1.75
4234	Professional & Commercial Equipment & Supplies Merchant Wholesalers	0.19	0.07	0.36	0.50	1.44	1.12
4235	Metal & Mineral Merchant Wholesaler (except Petroleum)	2.51	1.01	0.39	0.22	0.60	1.60
4236	Electrical & Electronic Goods Merchant Wholesalers	0.24	0.54	0.66	0.23	1.48	0.92
4237	Hardware, Plumbing, Heating Equip & Suppl (Hydronics) Merchant W.	0.24	0.37	0.31	0.08	1.21	1.43
4238	Machinery, Equipment, Supplies Merchant Wholesalers	1.22	0.89	0.95	0.57	0.87	1.28
4239	Miscellaneous Durable Goods Merchant Wholesalers	0.12	1.16	0.65	1.05	1.05	1.11
4241	Paper & Paper Product Merchant Wholesalers	0.80	0.22	0.28	0.23	1.65	0.80
4242	Drugs & Druggists' Sundries Merchant Wholesalers	0.57	0.05	0.25	N/A	1.70	0.88
4243	Apparel, Piece Good & Notions Merchant Wholesalers	N/A	0.02	N/A	N/A	0.83	2.17
4244	Grocery & Related Product Wholesalers	0.29	0.19	0.66	0.30	1.68	0.74
4245	Farm Product Raw Material Merchant Wholesalers	7.80	1.14	2.34	2.13	0.23	0.23
4246	Chemical & Allied Products Merchant Wholesalers	1.19	0.54	1.18	0.50	0.60	1.70
4247	Petroleum & Petroleum Products Merchant Wholesalers	0.79	1.47	1.85	0.95	0.37	1.51
4248	Beer, Wine & Distilled Alcoholic Beverage Merchant Wholesalers	1.46	1.43	0.54	0.70	0.80	1.24
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	0.37	0.82	0.68	1.92	1.39	0.50
4251	Wholesale Electronic Markets & Agents & Brokers	1.27	0.92	0.55	0.57	1.19	0.94
4411	Automobile Dealers	1.40	1.16	1.35	1.20	0.94	0.83
4412	Other Motor Vehicle Dealers	0.55	2.15	0.64	0.68	0.75	1.23
4413	Automotive Parts, Accessories & Tire Stores	1.09	1.03	0.82	0.93	1.22	0.75
4421	Furniture Stores	0.85	1.08	1.18	1.53	0.91	0.95
4422	Home Furnishing Stores	0.59	1.48	0.66	0.26	0.88	1.34
4431	Electronics & Appliance Stores	0.50	0.73	0.35	0.54	1.15	1.24

**Table 1: Location Quotient (By Region)**

NAICS	Description	NW	NE	SW	SE	OKC MSA	TULSA MSA
4441	Building Material & Supplies Dealers	1.85	0.99	0.94	1.11	1.06	0.77
4442	Lawn & Garden Equipment & Supplies Stores	1.53	1.74	1.20	0.95	0.97	0.69
4451	Grocery Stores	1.09	1.14	0.80	0.86	0.81	1.28
4452	Specialty Food Stores	0.49	1.00	2.80	0.79	0.92	0.80
4453	Beer, Wine & Liquor Stores	1.02	1.05	1.50	0.62	1.27	0.61
4461	Health & Personal Care Stores	0.89	1.07	0.88	0.73	0.65	1.55
4471	Gasoline Stations	1.96	1.33	1.69	2.00	0.74	0.67
4481	Clothing Stores	0.30	1.09	0.53	0.36	1.40	0.85
4482	Shoe Stores	0.54	0.71	1.25	0.29	1.36	0.81
4483	Jewelry, Luggage & Leather Goods Stores	0.67	1.26	0.84	0.33	0.97	1.22
4511	Sporting Goods, Hobby & Musical Instrument Stores	0.38	0.92	0.28	0.24	1.55	0.77
4512	Book, Periodical & Music Stores	0.85	1.12	0.92	0.31	1.30	0.80
4521	Department Stores	0.47	1.28	0.75	1.14	0.94	1.11
4529	Other General Merchandise Stores	0.99	1.81	1.55	1.52	0.84	0.71
4531	Florists	0.97	1.10	1.16	0.78	1.02	0.96
4532	Office Supplies, Stationery & Gift Stores	0.86	0.78	0.74	0.47	1.29	0.91
4533	Used Merchandise Stores	0.24	0.42	0.75	0.39	1.46	0.91
4539	Other Miscellaneous Store Retailers	0.52	1.15	0.51	0.70	1.15	1.04
4541	Electronic Shopping & Mail-Order Houses	N/A	0.13	0.10	N/A	2.16	0.39
4542	Vending Machine Operators	1.87	1.57	1.36	1.88	0.35	1.23
4543	Direct Selling Establishments	1.34	1.89	2.22	3.23	0.40	0.61
4811	Scheduled Air Transportation	N/A	0.00	0.04	N/A	0.29	2.86
4812	Nonscheduled Air Transportation	N/A	0.16	0.09	0.47	0.27	2.71
4841	General Freight Trucking	1.05	0.63	0.77	0.75	1.12	1.06
4842	Specialized Freight Trucking	2.36	0.86	2.21	1.67	0.90	0.49
4852	Interurban and Rural Bus Transportation	N/A	N/A	N/A	N/A	2.51	N/A
4853	Taxi & Limousine Service	0.53	N/A	3.57	0.90	0.43	1.51
4854	School & Employee Bus Transportation	N/A	10.85	N/A	N/A	N/A	N/A
4855	Charter Bus Industry	N/A	N/A	0.59	N/A	1.78	0.80
4859	Other Transit & Ground Passenger Transportation	N/A	0.10	N/A	N/A	2.49	N/A
4861	Pipeline Transportation of Crude Oil	5.76	0.54	0.22	0.08	0.02	2.03
4862	Pipeline Transportation of Natural Gas	2.84	0.02	0.56	1.60	1.63	0.13
4869	Other Pipeline Transportation	N/A	N/A	N/A	N/A	1.56	1.24
4871	Scenic & Sightseeing Transportation, Land	N/A	6.20	N/A	N/A	N/A	1.39
4872	Scenic & Sightseeing Transportation, Water	N/A	N/A	N/A	N/A	2.51	N/A
4881	Support Activities for Air Transportation	0.74	0.10	0.30	0.14	1.26	1.36
4882	Support Activities for Rail Transportation	2.66	N/A	0.84	0.24	1.43	0.70
4883	Support Activities for Water Transportation	N/A	2.26	1.26	N/A	N/A	2.26
4884	Support Activities for Road Transportation	0.96	0.13	1.38	0.83	1.34	0.77



*Table 1: Location Quotient (By Region)*

NAICS	Description	NW	NE	SW	SE	OKC MSA	TULSA MSA
4885	Freight Transportation Arrangement	N/A	0.39	0.15	0.03	0.92	1.90
4889	Other Support Activities for Transportation	N/A	0.52	0.74	1.33	1.07	1.20
4911	Postal Service	2.62	N/A	1.04	N/A	1.50	0.61
4921	Couriers	0.68	0.46	0.39	30.05	1.74	0.56
4922	Local Messengers & Local Delivery	N/A	0.03	N/A	0.33	2.06	0.49
4931	Warehousing & Storage	0.33	1.04	5.63	0.74	0.38	0.84
5111	Newspaper, Periodical, Book & Directory Publishers	0.94	0.74	0.88	1.20	1.05	1.01
5112	Software Publisher	N/A	0.16	N/A	0.32	1.48	1.20
5121	Motion Picture & Video Industries	0.55	0.96	0.51	0.78	1.12	1.10
5122	Sound Recording Industries	N/A	N/A	1.18	N/A	0.96	1.72
5151	Radio & Television Broadcasting	0.71	0.63	0.88	0.30	1.43	0.80
5152	Cable & Other Subscription Programming	0.02	1.30	N/A	0.04	0.04	2.79
5161	Internet Publishing & Broadcasting	N/A	N/A	0.00	N/A	1.84	0.87
5171	Wired Telecommunications Carriers	2.27	0.30	0.25	0.39	1.09	1.21
5172	Wireless Telecommunication Carriers	0.63	0.36	0.27	1.00	0.63	1.91
5173	Telecommunications Resellers	0.37	0.45	0.49	1.95	1.65	0.32
5174	Satellite Telecommunications	N/A	2.34	3.07	N/A	0.58	1.05
5175	Cable & Other Program Distribution	0.17	N/A	0.28	0.13	2.39	0.03
5179	Other Telecommunications	0.27	N/A	N/A	0.18	1.16	1.66
5181	Internet Service Providers & Web Search Portals	0.00	0.16	0.10	0.14	2.31	0.15
5182	Data Processing, Hosting & Related Services	N/A	0.00	0.31	0.28	1.02	1.79
5191	Other Information Services	N/A	N/A	0.00	N/A	2.24	0.35
5221	Depository Credit Intermediation	1.20	1.25	1.66	1.26	0.75	1.00
5222	Non-depository Credit Intermediation	0.81	0.93	0.92	1.39	1.37	0.49
5223	Activities Related To Credit Intermediation	0.05	0.15	0.15	0.10	0.75	2.16
5231	Securities, Commodity Contracts Intermediation & Brokerage	0.55	0.63	0.32	0.28	0.73	1.87
5232	Securities & Commodity Exchanges	N/A	N/A	N/A	0.00	N/A	N/A
5239	Other Financial Investment Activities	0.54	0.79	0.72	0.56	1.32	0.91
5241	Insurance Carriers	0.07	0.05	0.15	0.71	1.13	1.55
5242	Agencies, Brokerage & Other Insurance Related Activities	1.59	0.96	0.79	0.66	1.20	0.79
5251	Insurance & Employee Benefit Funds	N/A	2.13	N/A	0.24	0.93	1.34
5259	Other Investment Pools & Funds	0.24	0.32	0.13	0.95	1.36	1.08
5311	Lessors of Real Estate	0.96	0.88	0.66	0.34	1.16	1.08
5312	Offices of Real Estate Agents & Brokers	0.75	0.86	1.07	0.45	0.76	1.51
5313	Activities Related To Real Estate	0.41	0.58	0.41	0.49	1.18	1.26
5321	Automotive Equipment Rental & Leasing	0.03	0.12	0.22	0.04	1.75	0.88
5322	Consumer Goods Rental	0.69	0.89	0.75	0.74	1.09	1.09
5323	General Rental Centers	0.26	1.47	1.46	1.04	1.10	0.73
5324	Commercial & Industrial	3.09	0.33	1.93	0.42	0.96	0.82



**Table 1: Location Quotient (By Region)**

NAICS	Description	NW	NE	SW	SE	OKC MSA	TULSA MSA
5331	Lessors of Non-financial Intangible Assets (except Copyrighted Works)	0.12	0.43	0.35	0.58	1.90	0.41
5411	Legal Services	0.57	0.68	0.65	0.58	1.21	1.08
5412	Accounting, Tax Preparation, Bookkeeping & Payroll Svcs.	0.64	1.04	0.49	1.53	0.86	1.22
5413	Architectural Services	2.03	0.47	0.40	0.08	1.14	1.18
5414	Specialized Design Services	0.32	0.34	0.12	2.27	1.15	1.02
5415	Computer Systems Design & Related Services	0.07	0.76	1.42	0.15	1.50	0.69
5416	Management, Scientific & Technical Consulting Svcs.	0.26	0.32	0.90	0.29	1.47	0.92
5417	Scientific Research & Development Services	0.11	1.32	0.26	0.56	0.61	1.84
5418	Advertising & Related Services	0.10	0.45	0.04	0.25	1.43	1.17
5419	Other Professional, Scientific & Technical Svcs.	1.64	1.37	0.81	0.76	1.02	0.86
5511	Management of Companies & Enterprises	0.43	0.54	0.35	0.18	0.71	1.96
5611	Office Administrative Services	0.07	1.19	0.15	1.22	1.43	0.70
5612	Facilities Support Services	N/A	0.01	2.98	0.56	1.40	0.58
5613	Employment Services	0.28	0.77	0.40	0.92	1.36	0.89
5614	Business Support Services	0.75	0.39	0.44	0.79	1.60	0.64
5615	Travel Arrangement & Reservation Svcs.	0.14	0.68	0.52	0.18	0.75	1.87
5616	Investigation & Security Services	0.12	0.51	0.27	0.43	1.05	1.55
5617	Services to Buildings & Dwellings	0.56	0.67	0.64	0.34	1.33	0.99
5619	Other Support Services	0.49	0.39	1.32	1.48	1.10	0.95
5621	Waste Collection	2.83	0.96	0.44	0.52	1.26	0.63
5622	Waste Treatment & Disposal	4.42	1.27	0.60	0.36	1.20	0.35
5629	Remediation & Other Waste Management Svcs.	1.89	1.63	1.36	0.77	0.49	1.29
6111	Elementary & Secondary Schools	0.87	0.64	0.76	0.05	0.96	1.47
6112	Junior Colleges	N/A	45.46	0.05	N/A	0.17	3.01
6113	Colleges, Universities, & Professional Schools	N/A	N/A	N/A	4.49	0.43	0.19
6114	Business Schools, Computer & Management Training	0.14	0.05	0.98	N/A	1.62	0.88
6115	Technical & Trade Schools	0.21	0.05	2.20	0.06	1.47	0.74
6116	Other Schools & Instruction	0.14	0.77	0.97	1.12	1.16	0.98
6117	Educational Support Services	50.53	3.27	1.48	0.41	1.07	0.43
6211	Offices of Physicians	0.60	0.96	0.79	1.02	1.10	0.99
6212	Offices of Dentists	N/A	1.30	1.12	0.88	1.01	0.89
6214	Outpatient Care Centers	0.26	0.60	0.65	0.32	1.56	0.77
6215	Medical & Diagnostic Laboratories	0.59	0.60	0.25	0.22	1.23	1.26
6216	Home Health Care Services	0.29	1.80	0.69	2.85	0.72	0.87
6219	Other Ambulatory Health Care Services	0.83	0.24	1.38	0.60	1.40	0.74
6221	General Medical & Surgical Hospitals	1.80	0.33	3.83	1.35	0.96	0.49
6222	Psychiatric & Substance Abuse Hospitals	0.09	6.37	0.61	4.83	N/A	N/A
6223	Specialty Hospitals (except Psychiatric & Substance Abuse)	N/A	N/A	N/A	N/A	0.02	3.22
6231	Nursing Care Facilities	1.26	1.80	1.44	3.60	0.54	0.57

*Table 1: Location Quotient (By Region)*

NAICS	Description	NW	NE	SW	SE	OKC MSA	TULSA MSA
6232	Residential Mental Retardation, Mental Health & Substance Abuse Facilities	0.17	2.17	0.99	0.76	0.38	1.65
6233	Community Care Facilities for the Elderly	0.81	1.91	1.22	0.52	0.84	1.02
6239	Other Residential Care Facilities	0.45	1.51	0.37	0.67	1.71	0.26
6241	Individual & Family Services	0.46	0.99	1.81	3.15	0.48	1.04
6242	Community Food, Housing, Emergency & Other Relief Services	3.35	2.85	0.90	1.28	0.62	0.51
6243	Vocational Rehabilitation Services	1.34	2.74	2.31	1.26	0.77	0.34
6244	Child Day Care Services	0.41	1.14	0.86	0.97	1.23	0.80
7111	Performing Arts Companies	N/A	0.34	0.11	2.50	1.30	0.83
7112	Spectator Sports	0.11	N/A	0.13	0.31	2.14	0.35
7113	Promoters of Performing Arts, Sports & Similar Events	N/A	N/A	N/A	0.40	1.98	0.59
7114	Agents, Managers for Artists, Athletes, Entertainers & Others Public Figures	N/A	N/A	N/A	1.66	1.73	0.61
7115	Independent Artists, Writers & Performers	N/A	0.51	1.51	0.42	1.30	0.94
7121	Museums, Historical Sites & Similar Institutions	1.20	0.78	1.09	0.61	1.69	0.21
7131	Amusement Parks & Arcades	N/A	0.17	0.46	0.52	1.42	1.12
7132	Gambling Industries	1.66	0.97	0.11	N/A	1.84	0.27
7139	Other Amusement Park & Recreation Industries	0.84	1.07	0.62	0.84	1.27	0.78
7211	Traveler Accommodation	0.77	1.17	1.17	0.67	1.04	0.97
7212	Recreational Vehicle Parks & Recreational Camps	0.00	4.92	1.88	1.25	0.49	0.38
7213	Rooming & Boarding Houses	3.38	3.41	N/A	0.21	1.11	0.18
7221	Full-Services Restaurants	0.53	1.05	0.90	0.70	1.26	0.83
7222	Limited-Service Eating Places	0.88	1.10	1.13	1.13	1.01	0.91
7223	Special Food Services	0.47	1.22	1.73	0.17	1.35	0.59
7224	Drinking Places (Alcoholic Beverages)	1.13	1.48	1.47	1.25	0.91	0.78
8111	Automotive Repair & Maintenance	1.08	0.80	0.82	0.71	1.15	0.96
8112	Electronic, Precision Equipment Repair & Maintenance	0.17	0.65	1.09	0.04	1.42	0.92
8113	Commercial, Industr. Machine., Equip R & M (except Automobile & Electr.)	1.92	0.33	1.29	0.75	1.23	0.74
8114	Personal, Household Goods Repair & Maintenance	0.54	2.08	1.08	0.11	1.07	0.86
8121	Personal Care Services	0.54	0.86	0.58	0.41	1.50	0.71
8122	Death Care Services	1.32	1.60	1.45	1.41	0.79	0.82
8123	Dry-cleaning & Laundry Services	0.77	1.27	0.60	0.65	0.96	1.19
8129	Other Personal Services	0.41	0.21	0.43	0.20	1.49	1.04
8131	Religious Organizations	N/A	1.12	N/A	N/A	1.05	1.56
8132	Grantmaking & Giving Services	0.33	1.14	3.17	2.79	0.31	0.61
8133	Social Advocacy Organizations	3.28	2.24	1.31	2.86	0.34	0.58
8134	Civic & Social Organizations	0.92	1.93	1.45	0.97	0.83	0.85
8139	Business, Professional, Labor, Political & Similar Organizations	0.40	0.96	0.61	0.53	1.35	0.87
8141	Private Households	1.62	1.60	1.21	0.70	0.85	0.93