

Target Industry Snapshot

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The Texarkana Economy

TexAmericas Center is a state of Texas Local Redevelopment Authority, and one of the largest industrial centers in the Americas. Current tenants include, among others, companies in the defense, MRO, transportation equipment, transportation, warehousing, construction, and supplement manufacturing industries.

TexAmericas Center was chartered as the Red River Redevelopment Authority, a Special Purpose District by the Texas Legislature in 1997, with the objective of transforming former military land and buildings, into a successful, privately-held industrial park. The Authority then rebranded itself and all of its real estate assets under the banner of the TexAmericas Center in 2010. The remaining active military assets in the Red River Army Depot (RRAD) are adjacent to the TexAmericas Center, and several of the Center’s tenants are suppliers to the Depot and other defense-related companies.

Texarkana is a twin-city located in both Bowie County, TX, and Miller County, AR. It is the central city in the Texarkana MSA. The greater metropolitan service area’s largest employers serve customers beyond the region and include: the RRAD and the Defense Logistics Agency (DLA); AECOM, a major defense contractor of combat and tactical vehicles; Cooper Tires with over 1,700 employees; and Southern Refrigerated Transport serving North America from a 100,000+ square foot office building and service center. Beyond defense and logistics, Texarkana is home to North America’s largest integrated producer of uncoated free-sheet paper, Domtar, which also manufactures paper grade pulp. The region also hosts the International Paper Company, operating under Graphics Packaging as part of one of the largest producers of folding cartons and paper-based foodservice products in the United States, as well as Harte-Hanks, a call center for outsourced customer support, and Truman Arnold Companies, a petroleum marketing company. Other regional anchor companies include among others, Tyson Foods, Georgia-Pacific Corporation (Koch Industries, Inc.) – plywood and lumber, Pilgrims Pride, Husqvarna Forestry Products, Firestone Building Products, and Big Trex Trailer.

Table 1 - Top Non-Government Employers in Texarkana

Company	Primary / Local function	Employees
Red River Army Depot & Tenants	Manufacturer/ Processors	3,238
CHRISTUS St. Michael Health System	General Medical Hospital	1,800
Cooper Tire & Rubber	Manufacturer of Passenger Tires	1,900
VSE/AECOM	Combat and Tactical Vehicles	955
Southern Refrigerated Transport	Refrigerated Trucking	1,235
Wal-Mart Department Stores	Discount Stores	1,200
Domtar, Inc.	Fine Finished Papers	955
Wadley Regional Medical	General Medical Hospital	755
Truman Arnold Companies	Petroleum Marketing	700
DLA Distribution-Red River Army Depot	Distribution of Supplies & Equipment	623

Source: TexAmericas Center

The region is situated in the northeast of Texas and southwest of Arkansas, approximately halfway between Dallas, Texas, and Little Rock, Arkansas, with about 160 miles on either side. On a broader scale, it is located within 500-miles of 23 MSA’s with populations of over 450,000 as well as 10 of the fastest-growing metro areas in the US.

The greater Texarkana MSA is presently serviced by five railroads: Amtrak’s Texas Eagle, Kansas City Southern Railway, Texas Northeastern Railroad, Kiamichi Railway, and Union Pacific Railroad. It also

lies on the crossroads of seven major interstates and highways, particularly I-30, the soon-to-be-completed I-49 and the under construction I-369. Texarkana has its own regional airport and is within three hours of one international airport and three national airports.

TexAmericas Center's extensive land, infrastructure and utility assets make it suitable for a variety of industries, that span a variety of manufacturing, services, and transportation and warehousing sectors. This study takes previous work on workforce assessment and industry suitability conducted for the Texarkana metro area and TexAmericas Center and focuses on national growth sectors and industries that have shown notable expansion activity and potential in recent years across the US and internationally. These trends are then linked back to existing assets in the region as well as taking into account our market experience for the competitiveness of the region for specific industries. If there are a lot of regions and sites that could attract a certain industry, it becomes more important to filter out what unique value proposition can be offered and if it is strong enough to make a primary target industry for outreach.

KEY CLUSTERS

The analysis profiles the wider regional assets, taking into account drive time and commuting patterns to get a better sense of the resources available to prospective new companies entering the region. After review, the region within the radius of a typical 1-hour drive was determined to be within the scope of the regional economy, both in terms of labor market access as well as proximity to supply chains and potential customers. From a site selection perspective, this is a common cut-off for assessing industry assets, while workforce assets might be evaluated as far as 75-90 miles out.

The counties that fall within reach of a 1-hour drive of TexAmericas Center beyond the MSA of Bowie County, TX, Little River County, AR and Miller County, AR, are Cass County, TX and Hempstead County, AR. These regions have also been noted to be commuter destinations of Texarkana MSA residents. The Texas counties of Red River, Morris and Titus, could be considered as well, although only Titus County received notable numbers of Texarkana commuters in 2017 (Census, LEHD). On the other hand, commuters are travelling as far as Little Rock, AR and Dallas, TX for employment, which is further discussed in the workforce asset section. For the remainder of the analysis, the 8-county region of the MSA, together with Cass County, TX, Hempstead County, AR, Red River, Morris and Titus County, TX will be referred to as the Texarkana Economic Area unless otherwise indicated.

Manufacturing jobs in the Texarkana Economic Region represented 16% of the workforce in 2019, with no significant job growth between 2014 and 2019 for the aggregated industries (self-employed included). However, counties and subsectors have experienced very diverse trends (Table 2). **Food** manufacturing has seen some of the strongest growth, supported by a strong agricultural sector. **Wood** and **paper** industries were noted to be highly concentrated within the region, with statistics showing employment being eleven times higher for forestry and logging workers than the national average. The region is also highly specialized in **metal** manufacturing, though the primary metal sector has experienced a substantial decline over the past five years due to job cuts at the Lone Star US Steel plant. These numbers are expected to improve 2020 onwards with US Steel restarting its activity later this year. **Plastics and rubber** manufacturing with companies such as Cooper Tires and Red River Army Depot employ almost four times as many people in the region than the national

average, while **transportation** and **wholesale** employ over 4,700 workers. Finally, **transportation equipment** manufacturing has been one of the stronger growth sectors. Also of note, the Texarkana region is home to over 4,500 workers employed through the federal government, including the Red River Army Depot.

Table 2 – Key Traded Industries in the Texarkana Economic Region

NAICS	Description	2019 Jobs	2014 - 2019 % Change	2019 Location Quotient	2019 Payrolled Establishments	Establishment Growth, 2014-2019
311	Food Manufacturing	5,596	10%	5.4	27	6
423	Merchant Wholesalers, Durable Goods	2,484	3%	1.2	183	10
484	Truck Transportation	2,226	-9%	2.3	145	1
326	Plastics and Rubber Products Manufacturing	1,788	-5%	3.8	7	-1
322	Paper Manufacturing	1,755	-1%	7.5	8	2
332	Fabricated Metal Product Manufacturing	1,741	3%	1.8	51	-7
336	Transportation Equipment Manufacturing	1,656	9%	1.5	17	-1
321	Wood Product Manufacturing	775	-1%	3.0	34	-4
488	Support Activities for Transportation	770	5%	1.7	32	4
331	Primary Metal Manufacturing	623	-51%	2.5	4	-2
112	Animal Production and Aquaculture	383	18%	2.2	70	10
113	Forestry and Logging	382	3%	11.1	51	3

Source: Emsi, www.economicmodeling.com, 2019.4

NICHE INDUSTRIES

Aggregate nationally defined clusters can often hide unique niche areas of a region, as shown with the fabricated metal sector. A heavy machinery cluster in one region, for example, could be a grouping of agricultural equipment manufacturers that would be more appropriately grouped with an agri-food cluster. Understanding which 6-digit NAICS are thriving in a region in the context of its production profile makes sure these niche sectors are uncovered.

Specialization is thus an important feature to quantify and assess. The use of location quotients gives a measure of specialization and helps highlight both the size and export-orientation of certain sectors; this helps pinpoint the industries bringing money into the region. Used in conjunction with an understanding of the industry, this paints a clearer picture for analysis and decision making.

The smaller the geographical scope, the more likely it is that you see high location quotients. At a zip code level in a non-metro area, you would see many more traded industries with a location quotient over 1, as there is most likely not a sufficient level of local consumption to support the supply. As a starting point, we are therefore looking at traded industries in the wider Texarkana Economic Region that are represented by more than one company, with at least 100 jobs and with a location quotient of two or higher (Table 3).

Table 3 – Texarkana Area High Specialization Industries Sorted by NAICS

NAICS	Description	2019 Jobs	2014 - 2019 % Change	2019 Location Quotient	2019 Payrolled Establishments	2014-2019 Establ. Growth
112000	Animal Production	383	17.8%	2.2	70	10
221121	Electric Bulk Power Transmission and Control	110	-9.8%	6.4	2	0
311111	Dog and Cat Food Manufacturing	124	235.1%	6.9	3	0
311352	Confectionery Manufacturing from Purchased Chocolate	130	120.3%	6.1	2	1
311613	Rendering and Meat Byproduct Processing	170	2.4%	33.9	2	0
311615	Poultry Processing	4,355	10.4%	28.0	3	0
311812	Commercial Bakeries	411	-21.6%	4.6	2	0
321113	Sawmills	310	33.0%	5.8	16	0
321219	Reconstituted Wood Product Manufacturing	100	8.7%	10.8	2	0
321920	Wood Container and Pallet Manufacturing	158	-45.9%	4.0	4	0
322121	Paper (except Newsprint) Mills	763	-17.4%	22.0	2	1
322130	Paperboard Mills	916	18.7%	44.9	2	1
327310	Cement Manufacturing	132	-22.4%	14.6	2	1
331110	Iron and Steel Mills and Ferroalloy Manufacturing	621	-49.8%	11.4	2	-2
332312	Fabricated Structural Metal Manufacturing	414	14.7%	7.0	7	0
332313	Plate Work Manufacturing	107	62.1%	3.4	4	-1
332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	121	-9.0%	3.1	6	0
332996	Fabricated Pipe and Pipe Fitting Manufacturing	292	6.6%	13.8	7	0
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	322	68.6%	6.1	5	2
335929	Other Communication and Energy Wire Manufacturing	138	51.6%	17.3	2	0
336211	Motor Vehicle Body Manufacturing	120	300.0%	3.2	2	1
336214	Travel Trailer and Camper Manufacturing	1,083	-8.1%	35.6	11	-1
339950	Sign Manufacturing	125	-2.3%	2.5	7	1
423510	Metal Service Centers and Other Metal Merchant Wholesalers	327	4.5%	3.8	13	2
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	119	4.4%	2.0	7	-1
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	138	22.1%	2.1	13	2
424910	Farm Supplies Merchant Wholesalers	249	31.1%	3.3	11	1
484121	General Freight Trucking, Long-Distance, Truckload	1,177	-26.6%	3.5	50	3
484230	Specialized Freight (except Used Goods) Trucking, Long-Distance	336	32.8%	3.8	12	-6
522390	Other Activities Related to Credit Intermediation	125	52.4%	2.3	14	-2
561210	Facilities Support Services	224	-29%	2.2	5	0

Source: Emsi, www.economicmodeling.com, 2019.4, not including self-employed

The industries that stand out are:

- Food processing, especially for **meat processing** linked to the high concentration of animal production in the economic region; **dog and cat food** manufacturing and **confectionary** have seen tremendous job growth.
- The wood and paper sectors, **particularly sawmills** and **paperboard mills**, have experienced strong job growth, as well as reconstituted wood products, which benefit from key supply chain synergies.

- Several fabricated metal industries, especially **structural metal, plate work, fabricated pipes,** and niche fabricated metal products such as industrial equipment frames and storage units.
- Transportation equipment, specifically **motor vehicle bodies and trailer manufacturing.**
- **Industrial and agricultural equipment wholesale.**
- Logistics and transportation, particularly **specialized freight trucking.**

WORKFORCE ASSETS

As of September 2019, Texarkana’s metro civilian laborforce stood at 64,720, while the 8-county Economic region is home to a laborforce of over 106,337. Across the Texarkana metro area, unemployment stands at around 4%. Over 8,700 workers commute from the Texarkana Economic Region to outside jobs, particularly to Dallas-Forth Worth metro and the Tyler and Longview metros, a labor pool that could be tapped into with additional local job opportunities.

The wider region’s labor shed shows industry specializations in **logging** and **meat** processing but also a stronger emphasis on **oil and gas** extraction skills, which are some of the few highly concentrated occupations expected to see growth over the next 10 years. There is currently a small but declining specialization in chemical plant operators, which are a key occupation for chemical manufacturing. However, occupations such as service unit operators in the oil and gas sector, have a high transferability to chemical manufacturing occupations.

Table 4 – Occupational Specializations within 75 Mile radius

SOC	Occupation	Current, Q3, 2019 (4-quarter moving avg)			5-Year History	10-Year Forecast
		Empl.	LQ	Unempl. Rate	Ann % Growth	Ann % Growth
45-4029	Logging Workers, All Other	175	9.65	6.8%	0.3%	-2.5%
45-4022	Logging Equipment Operators	855	7.64	7.0%	2.6%	-2.4%
47-5011	Derrick Operators, Oil and Gas	269	7.11	5.5%	-10.7%	1.2%
47-5013	Service Unit Operators, Oil, Gas, and Mining	1,141	6.83	5.3%	-0.6%	1.0%
47-5012	Rotary Drill Operators, Oil and Gas	400	6.62	5.4%	-7.1%	1.0%
47-5071	Roustabouts, Oil and Gas	1,181	6.34	8.0%	-4.8%	1.1%
53-7072	Pump Operators, Except Wellhead Pumpers	236	6.18	2.4%	0.9%	0.5%
45-4021	Fallers	120	5.79	7.4%	-2.4%	-3.3%
45-4023	Log Graders and Scalers	82	5.64	7.3%	1.7%	-1.4%
51-3023	Slaughterers and Meat Packers	1,177	5.15	4.9%	-1.6%	-0.3%
47-5081	Helpers--Extraction Workers	265	5.08	6.0%	-7.8%	1.0%
51-7041	Sawing Machine Setters, Operators, & Tenders, Wood	842	5.04	5.5%	2.2%	-1.0%
51-9197	Tire Builders	376	4.90	5.0%	2.9%	-1.6%
51-3099	Food Processing Workers, All Other	683	4.62	4.0%	3.4%	-0.6%
53-4013	Rail Yard Engineers, Dinkey Operators, & Hostlers	79	4.49	n/a	1.9%	-0.4%
47-5099	Extraction Workers, All Other	96	4.45	9.4%	-4.2%	1.0%
53-6011	Bridge and Lock Tenders	47	4.35	3.9%	1.3%	-0.6%
49-3043	Rail Car Repairers	321	4.06	2.2%	0.3%	-0.4%
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	1,986	4.03	4.7%	1.6%	-0.4%
19-4041	Geological and Petroleum Technicians	188	3.71	3.7%	-5.7%	0.4%
51-8091	Chemical Plant and System Operators	337	3.69	1.3%	-0.1%	-2.0%
17-2171	Petroleum Engineers	426	3.57	3.4%	-2.5%	0.1%
51-8092	Gas Plant Operators	162	3.57	1.3%	0.1%	-1.6%
51-9193	Cooling and Freezing Equipment Operators & Tenders	101	3.52	7.0%	0.2%	-0.3%
53-7073	Wellhead Pumpers	155	3.44	2.4%	-8.0%	0.2%

Source: JobsEQ®

Another look at employment within the 75-mile radius (Table 5), now towards broader, less specialized occupational groups, highlights a strong presence of customer service and sales representatives that can support wholesale and technical service. There also exists a strong pool of **laborers and assemblers** with a high enough unemployment rate to have the slack to accommodate the entry of additional businesses. Over 3,100 **welders** are working in the region, as well as close to 2,400 **industrial machinery mechanics** distributed over repair and maintenance, manufacturing, wholesale, government, and utility sectors. Over 15% of **Inspectors, Testers, Sorters, Samplers, and Weighers** are employed in food processing, but the rest are distributed across various precision manufacturing and materials sectors.

Table 5 – Largest Occupational Groups within 75 Mile radius

SOC	Occupation	Empl
53-3032	Heavy and Tractor-Trailer Truck Drivers	9,785
43-9061	Office Clerks, General	9,715
11-9013	Farmers, Ranchers, and Other Agricultural Managers	8,742
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	8,432
43-4051	Customer Service Representatives	6,690
11-1021	General and Operations Managers	6,476
43-5081	Stock Clerks and Order Fillers	6,024
49-9071	Maintenance and Repair Workers, General	4,969
43-3031	Bookkeeping, Accounting, and Auditing Clerks	4,749
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	4,368
43-1011	First-Line Supervisors of Office and Administrative Support Workers	4,268
51-2092	Team Assemblers	3,923
51-1011	First-Line Supervisors of Production and Operating Workers	3,113
51-4121	Welders, Cutters, Solderers, and Brazers	3,112
13-1199	Business Operations Specialists, All Other	2,789
11-9199	Managers, All Other	2,721
47-1011	First-line Supervisors of Construction Trades and Extraction Workers	2,691
53-7051	Industrial Truck and Tractor Operators	2,600
49-3023	Automotive Service Technicians and Mechanics	2,440
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	2,440
49-9041	Industrial Machinery Mechanics	2,398
41-3099	Sales Representatives, Services, All Other	2,274
47-2031	Carpenters	2,261
47-2073	Operating Engineers and Other Construction Equipment Operators	2,256
51-9198	Helpers--Production Workers	2,178
43-5071	Shipping, Receiving, and Traffic Clerks	2,096
47-2111	Electricians	2,030

Source: JobsEQ®

Another way to look at the wider labor shed is to evaluate estimates of commuting patterns by occupations (Table 6). Workers that are currently leaving the Texarkana Economic Region and are within the current or potential industry targets of the region, could be retained with additional job opportunities. Based on typical staffing patterns and current industry and workforce assets, Table 6 highlights key occupational groups relevant for industry targeting that are leaving the Texarkana

Economic Region. There are over 170 estimated **material handling** laborers commuting to outside the area despite a high concentration of existing jobs, as well as notable numbers of **computer occupations, sales representatives** and **woodworkers**.

Table 6 - Key Occupations Commuting out of the Texarkana Economic Region

SOC	Description	2019 Jobs	2019 Net Commuters	2014 - 2019 % Change
53-7000	Material Moving Workers	3,435	-178	1%
15-1100	Computer Occupations	763	-143	5%
13-1000	Business Operations Specialists	1,902	-118	4%
41-4000	Sales Representatives, Wholesale and Manufacturing	854	-87	(5%)
41-3000	Sales Representatives, Services	991	-61	5%
51-7000	Woodworkers	315	-53	13%

Source: Emsi, 2019.4

The continued supply of new skilled workers from educational institutions supports the continuity of local businesses, while also improving the value proposition of the region due to the availability of relevant workforce solutions for newcomers. Texarkana College has been a key workforce development support for the TexAmericas Center with its campus providing a specialized Diesel Technology and **Welding** programs. At its main campus, **mechanic repair technologies** are one of its strongest programs in terms of completions (outside liberal arts, business and health programs). Within the 8-county area (Table 7), there exists a larger growing pool of precision manufacturing and engineering technology graduates from subject areas such as **precision metalworking, electrical engineering, and industrial production technologies**.

Table 7 – Educational Completions in the Texarkana Economic Region

CIP	Description	2018 Completions
24	LIBERAL ARTS AND SCIENCES, GENERAL STUDIES AND HUMANITIES	685
51	HEALTH PROFESSIONS AND RELATED PROGRAMS	644
52	BUSINESS, MANAGEMENT, MARKETING, AND RELATED SUPPORT SERVICES	401
47	MECHANIC AND REPAIR TECHNOLOGIES/TECHNICIANS	281
12	PERSONAL AND CULINARY SERVICES	139
30	MULTI/INTERDISCIPLINARY STUDIES	105
48	PRECISION PRODUCTION	104
15	ENGINEERING TECHNOLOGIES AND ENGINEERING-RELATED FIELDS	101
13	EDUCATION	57
11	COMPUTER AND INFORMATION SCIENCES AND SUPPORT SERVICES	54
43	HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING AND RELATED PROTECTIVE SERVICES	51

Source: Emsi, 2019.4

SUPPLY CHAIN LEAKAGES

One way to support existing regional businesses is to strengthen their regional supply chain. Supply chain analysis focuses on industries that can serve both local companies in a more cost or time-efficient manner as well as creating new local assets to supply national growth sectors. By understanding the leakages from the region, as well as trends in supply chains across the nation, the region can begin to make strategic decisions about the types of industries it should seek to attract, retain, and help expand.

As an almost iron-clad rule, the more complex the product or service, and the more service and maintenance it requires, the more valuable physical proximity to the supply chain company becomes. At the same time, not all supply chain companies fit well within a region and have their locational needs considered. For smaller local markets, supply chain companies also have to explore opportunities in the wider region or be heavily export-oriented, seeing the local market instead as a testbed than a major customer. Alternatively, there might be opportunities with younger companies that are offering products or services with less widespread adoption or market reach. These would also be considered good targets for "grow your own supply chain" initiatives. With the right support, these local companies can turn into growth companies supplying a much wider or international market.

Across the Texarkana Economic Region, based on its current industry mix and typical purchasing patterns across industries, is estimated to have additional demand for **iron and steel mills** and ferroalloy manufacturing beyond the Lone Star facility (Table 8). **Agricultural equipment manufacturing and wholesale**, as well as **fertilizer** mixing manufacturing, is another potential opportunity, as well as further **metal and machinery wholesale**. Fabricated **structural metal and plate work** manufacturing typically mostly serve local construction markets and rely on proximity to primary metal providers for cost competitiveness. Related to existing vehicle manufacturing, additional **motor vehicle parts** manufacturing could be expanded.

Table 8 – Notable Supply Chain Leakages for Key Clusters

NAICS	Description	Demand met by Imports	2014 - 2019 % Job Change	2019 Location Quotient	2019 Payrolled Establishments
331110	Iron and Steel Mills and Ferroalloy Manufacturing	\$69,075,374	(50%)	11.26	2
336390	Other Motor Vehicle Parts Manufacturing	\$37,806,269	2%	0.90	2
541990	All Other Professional, Scientific, and Technical Services	\$28,280,367	68%	0.29	3
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$25,191,171	4%	3.73	13
333111	Farm Machinery and Equipment Manufacturing	\$13,309,889	5%	17.23	1
424910	Farm Supplies Merchant Wholesalers	\$8,570,580	32%	3.27	11
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	\$8,073,240	(2%)	1.44	31
332312	Fabricated Structural Metal Manufacturing	\$7,872,369	15%	6.89	7
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	\$6,075,030	4%	1.99	7
332313	Plate Work Manufacturing	\$3,721,864	62%	3.40	4
325314	Fertilizer (Mixing Only) Manufacturing	\$3,690,681	124%	11.13	3

Source: Emsi, www.economicmodeling.com, 2019.4

SUMMARY

The Texarkana Economic Region and the wider 75-mile laborshed have strengths in various processed materials, particularly wood/paper and fabricated metal. The region's workforce is also specialized in food processing, wholesale and transportation, and transportation equipment and parts manufacturing. The latter is especially due to the unique local military activities. The wider region also offers a larger labor pool of oil and gas sector skills with many transferability opportunities along with laborers, mechanics, precision manufacturing workers, as well as sales and customer service expertise.

Taking this into account, target sectors are identified based on the review of national and regional growth industries and opportunities, while accounting for the target sector's workforce suitability given current labor and educational assets. Targets that show a strong and growing labor pool of key occupations will be prioritized, but others with high potential will be highlighted for consideration in future workforce development.

GROWTH INDUSTRIES ACROSS THE NATION

Each region starts with existing assets, often based on historical endowments, which inclines them towards some industries more than others. However, that is not to say that a region cannot evolve through direct involvement or participation within a wider supply chain for national and international growth sectors. When reviewing the strongest growth industries in the US, past trends, current sectoral forecasts, and investment trends paint a broader picture that points to possible opportunities and priorities for the TexAmericas Center and Texarkana.

Business, Financial, and ICT services constitute the top investment sectors by non-resident companies (with headquarters outside of a region) in terms of the sheer number of new projects. Healthcare (doctor’s offices, outpatient centers, as well as life sciences) and Creative Industries were also front runners in terms of their volume of projects between 2014 and 2019.¹ However, due to its relevance to the region, the manufacturing sector is analyzed in more detail separately from the other sectors. Manufacturing related clusters that have trended in FDI projects to the US in the past years (Table 8) were: **transportation equipment**, led by the automotive sector; a variety of industrial sectors, from **machinery** and engineering services to instruments, and **plastics packaging; agribusiness**, including food and agricultural chemicals; and **environmental technology**, including biofuels.

Table 8 – Relevant FDI trends to the US, 2014-2019

Clusters & Top Sectors	# of Projects	Clusters & Top Sectors	# of Projects
Transport Equipment	1,307	Transportation & Warehousing	972
Other motor vehicle parts	136	Freight/Distribution Services	457
Aircraft	96	Warehousing & storage	134
Tires	83	Air transportation	64
Automobiles	80	Truck transportation	60
Heavy duty trucks	66	Software publishers, except video games	45
Aircraft engines, other parts & auxiliary equipment	65		
Industrial	1,268	Environmental Technology	805
General purpose machinery	228	Solar electric power	333
Architectural, engineering, & related services	110	Wind electric power	119
Measuring & control instruments	75	All other electrical equipment & components	61
Metalworking machinery	67	Biomass power	51
Other fabricated metal products	59	Environmental consulting services	26
Plastics packaging materials & unlaminated film & sheets	54	Waste management & remediation services	26
Agribusiness	941		
Fruits & vegetables & specialist foods	87		
Other (Food & Beverages)	60		
Soft drinks & ice	53		
Food & beverage stores	51		
Pesticide, fertilizers & other agricultural chemicals	44		
Crop production	40		
Animal slaughtering & processing	39		

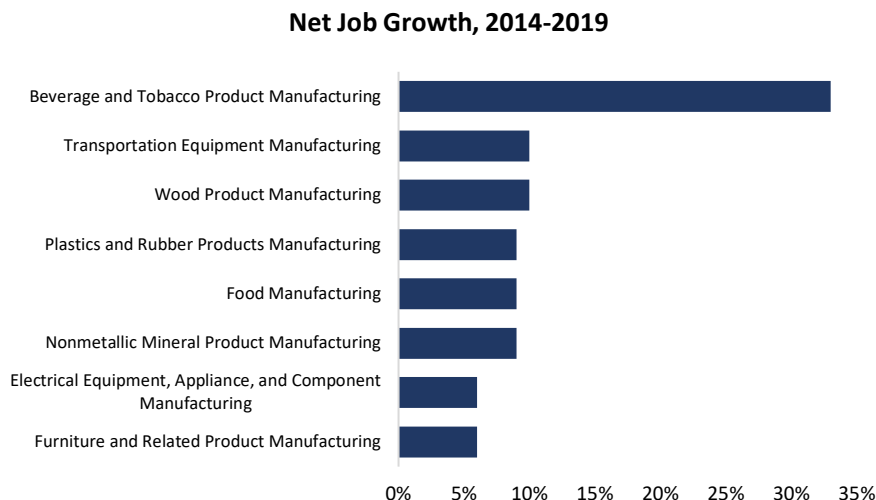
Source: fDi Markets

Since 2014, the sectors with the highest net job growth have overlapped with many of Texarkana’s Economic Region’s key industries, such as **food** manufacturing, **transportation equipment**, **wood**

¹ Sector and Cluster definitions by fDi Markets are proprietary definitions that do not have a clear crosswalk to NAICS classifications and therefore should be seen more as representative larger sectors.

products, and **plastics and rubber** products (Figure 1). High-growth industries such as beverage and transportation equipment manufacturing, in addition, have substantial supply chain needs to support their growth.

Figure 1 – US Manufacturing Growth Sectors



Source: Emsi, www.economicmodeling.com, 2019.4

Within these sectors, some niche industries have fared better than others. Highlighted in Table 9 are some of the niche high-growth sectors across the US categorized by industry groups. Several **food and beverage** industries stand out as well as a surge in **biomass** power. Most prominent is the surge in employment in breweries and distilleries within the past 5 years. A subsector in the food industry that is not captured well with public data is the surging sector of **greenhouses**, together with a rising trend in vertical farming. Highly energy-intensive, the global commercial greenhouse market was valued at over 29 billion USD in 2018 (MarketWatch) and is expected to grow at an annual equivalent of over 8% between 2019 and 2025.

In the material sectors, **plastics packaging**, including as a supply chain for the food and beverage market, has seen strong growth in jobs and business locations. Wood products, especially **engineered wood and truss manufacturing**, have experienced the strongest job and location growth, with an emerging market, especially in cross-laminated timber (CLT) products, especially from European companies. Another emerging market that can take advantage of the region’s natural wood resources are new **biomaterials** that combine wood fibers with, for example, thermoplastics with applications in construction, automotive, electronics and others. For regions or sites that can provide competitive raw material and utility costs, **paper products** still have growth opportunities as well.

Table 9 - Niche US Growth Sectors

Cluster	NAICS	Description	2014 - 2019 % Job Change	2019 Payrolled Establishments	2014-2019 Establ. Growth
Agribusiness	221117	Biomass Electric Power Generation	47%	146	16%
	311111	Dog and Cat Food Mfg	23%	598	34%
	311351	Chocolate and Confectionery Mfg from Cacao Beans	15%	269	31%
	311423	Dried and Dehydrated Food Mfg	18%	249	30%
	311941	Mayonnaise, Dressing, and Other Prepared Sauce Mfg	27%	392	17%
	312120	Breweries	100%	4,293	160%
	312140	Distilleries	55%	998	129%
	424470	Meat and Meat Product Merchant Wholesalers	21%	2,918	17%
	493120	Refrigerated Warehousing and Storage	23%	1,405	10%
Plastics	326111	Plastics Bag and Pouch Mfg	16%	470	7%
	326112	Plastics Packaging Film and Sheet (incl. Laminated) Mfg	24%	420	36%
Wood	3212	Veneer, Plywood, and Engineered Wood Product Mfg	15%	1,651	3%
	321999	All Other Miscellaneous Wood Product Mfg	17%	2,182	12%
Paper	322299	All Other Converted Paper Product Manufacturing	12%	516	-2%
	322219	Other Paperboard Container Manufacturing	4%	393	4%
Chemicals	325110	Petrochemical Mfg	8%	195	23%
	325194	Cyclic Crude, Intermediate, and Gum and Wood Chemical Mfg	33%	96	3%
	325199	All Other Basic Organic Chemical Mfg	10%	860	17%
	325520	Adhesive Mfg	11%	673	6%
	325620	Toilet Preparation Mfg	8%	1,363	23%
Metal	332117	Powder Metallurgy Part Mfg	17%	160	16%
	332321	Metal Window and Door Mfg	21%	1,360	4%
	332323	Ornamental and Architectural Metal Work Mfg	15%	2,970	6%
	332994	Small Arms, Ordnance, and Ordnance Accessories Manufacturing	9%	598	25%
	331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	13%	274	3%
	331315	Aluminum Sheet, Plate, and Foil Manufacturing	8%	138	14%
Machinery	33392	Material Handling Equipment Mfg	13%	1,860	9%
Transportation Equipment	336120	Heavy Duty Truck Mfg	27%	168	14%
	336112	Light Truck and Utility Vehicle Manufacturing	39%	81	8%
	335911	Storage Battery Mfg	85%	249	34%
	336999	All Other Transportation Equipment Mfg	19%	538	16%
Transportation, Distribution	423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	16%	16,661	27%
	4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	18%	24,670	18%
	424610	Plastics Materials and Basic Forms and Shapes Merchant Wholesalers	36%	4,835	90%
	493110	General Warehousing and Storage (incl. fulfillment centers)	63%	13,457	15%
	488510	Freight Transportation Arrangement	19%	19,284	6%
	561910	Packaging and Labeling Services	16%	2,543	1%

Source: Emsi, www.economicmodeling.com, 2019.4, incl. selfemployed

The chemicals sector has seen the strongest growth in locations in **petrochemicals, toilet preparations** and niche **basic organic chemicals**, such as fatty acids, plasticizers, or wood chemicals.

The metal sector, already a diverse mix in the Texarkana region, has fared particularly well in recent years in **construction-related metal products** such as metal windows and architectural metal. **Nonferrous metal** processing and products are smaller, but energy demanding industries that have shown both job and location growth over the past 5 years. A last fabricated metal industry which has increased its locations by 25% is the **small arms and ordnance** industry.

Several relevant **transportation equipment** sectors saw exceptional job growth, with the industry-wide shift towards electric vehicles likely being the key driver behind the 85% employment hike in Storage Battery Manufacturing. **Truck and utility vehicle manufacturing** has fared better than the personal motor vehicle segment, but in terms of machinery and heavy equipment, what stands out is **material moving equipment** such as Conveyor and Conveying Equipment Manufacturing or Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing.

Major relevant growth was also seen in **General Warehousing and Storage**, spurred by developments in retail supply chain logistics brought on by companies such as Amazon, with employment increasing by 63%. **Durable goods wholesale**, especially for industrial customers, can offer growth opportunities.

TOP NATIONAL GROWTH SECTORS

The national growth sectors and supply chain opportunities that have links to existing Texarkana regional assets are:

- **Industrial Equipment**
- **Wood and wood-based products**
- **Food manufacturing**
- **Warehousing and distribution**
- **Transportation Equipment supply chain**
- **Plastics and rubber products**

Workforce Suitability

Across the previously mentioned growth sectors, Appendix Table 1 reviews the size and concentration of the Texarkana 75-mile radius labor pool for the top occupations required in these sectors based on national staffing patterns. It also includes estimated unemployment rates by occupation as a preliminary indicator of labor shortages.

Across the sectors highlighted in the previous section, the region has good availability and slack in the labor market but several subsectors stand out:

- Wholesale and warehousing has a strong labor pool and room to grow.
- Transportation equipment shows good availability except for industrial engineers, but this would be less relevant for assembly projects which would focus more on machinists and mechanics. There are currently no dedicated industrial engineering programs in the region (at a Bachelor's level and above).
- Fabricated metal can continue to grow its base in the region in so far as demand for new machinists can be addressed with the new CNC program.
- Food manufacturing shows strong suitability, currently concentrated in Hempstead and Howard County, AR.
- Wood product and related manufacturing shows a strong suitability and slack in the labor market.
- Industrial machinery mechanics have a strong pool but an estimated unemployment rate of only 1% in the region, indicating a tight labor market. This could impact the success not only of potential paper and chemical companies but also food processing, motor vehicle parts and even industrial MRO and wholesale businesses.
- Specifically for the small arms and ammunition niche sector, not listed in the Appendix, the region can offer a high concentration of key occupations, especially in welding, Cutting, Punching, and Press Machine Setters/Operators, and assembly.
- In addition, the region has a high concentration of facilities support services (Table 3) that are linked to the existing government activities and could provide a supply chain strength for further defense contractors.

Two industry sectors stand out as more challenging:

- Machinery manufacturing relies both on machinists and mechanical engineers, both of which have a below-average unemployment rate. To drive this industry forward, beyond the CNC program, a stronger focus on mechanical engineering completions in the region could attract a wider variety of business activities. The new Bachelor of Science in Mechanical Engineering program by TAMUT to be launched Fall 2020 is an important step in this direction.
- Molding and casting machine setters are critical for plastics/rubber and primary metal manufacturing and are still underrepresented in the region. However, at a 6% unemployment rate, there is still some slack in the labor market.

Target Industry Recommendations

Cluster definitions group industries together that have shown significant inter-industry linkages based on shared inputs or outputs, similar staffing profiles, and the co-location patterns of jobs and businesses. The mapping and interactions represent typical industries and their strength of linkages. However, this does not take unique local activities and assets into account. Three areas for cluster potential have been identified as the promising core and emerging business attraction target sectors.

Cluster Potential 1: Defense-related industries

TexAmericas Center can uniquely capitalize not just on unique workforce skills and defense contracting knowledge related to the RRAD but also its supply chain both in terms of RRAD supplier recruitment and for similar companies that act as primary contractors as subcontractors as well as in the private market. Expal and Loc Performance Products would represent this cluster's existing activities.

All non-aerospace defense-related activities could be of interest, especially in energetics, including for the private sector, but also vehicles and parts manufacturing. Explosives manufacturing, currently represented by less than 100 business locations in the US, saw a 12% job growth in the past five years and a 6% location growth. It is expected to see further growth driven by demand in the construction and mining sectors and has very specific location needs. However, there is also competition from the former Louisiana Army Ammunition Plant east of Shreveport, where three explosive companies have located around Camp Minden.

Although the military armored vehicle segment in the US has experienced consolidation and hence a decrease in business locations (while increasing employment), the global market, especially Asia Pacific has growth potential. This cluster would also include private, non-defense industries in firearms and ammunition that require testing facilities.

Cluster Potential 2: Heavy equipment

Beyond military vehicles and heavy equipment, the workforce assets in fabricated metal and the skills from the federal workforce in heavy equipment are a strong value proposition for anything from oil and gas, mining, emergency or other larger specialty vehicles, as well as metal and plastic components. Material handling equipment stood out as well as a growth sector and could be supported with the region's strength in welders, industrial machinery mechanics and inspectors. Due to a limited regional supply of engineers, the focus would be on assembly activities. Growth segments include cranes and lifting equipment, especially for the construction and mining industries. There is also the potential to add supply chain companies to this cluster by targeting metal processing plants, such as electric arc furnace mini-mills, as well as machinery parts.

Cluster Potential 3: Distribution

With its central location, highway, rail access and existing industry base, industrial product wholesale and fulfillment centers can continue to expand successfully in the region. The focus would be on distributors that do not require intermodal facilities. Those requiring refrigerated warehousing with substantially higher electricity needs could find the Center's site attractive as well. Potential supply

chain additions to this cluster could include e technical customer service centers that require industry knowledge or training in the products.

Niche Clusters:

There are several other niche industries that are smaller targets but can uniquely benefit from the TexAmericas Center and regional assets.

- Although **food** processing has come up both in terms of industry strengths and workforce availability, the data results are mainly driven by a handful of companies in poultry processing. Further business attraction for a more diverse industry base will need to show prospects competitive water and wastewater rates that are a significant cost factor for food and especially beverage companies. However, given the competitive electricity rate and the substantial market growth, greenhouses and vertical farms could be a current good fit for the Center.
- It is always easiest to tell a region's story if it has notable natural resources or historic industries. The Texarkana wider regional access to hardwood and softwood, existing industry concentrations in **wood and paper** products, provide further business growth opportunities, should be further pursued. This includes investigating opportunities to bring in companies that can use waste products from existing mills for value-added processing. This would allow the sector to diversify away from its ties to the construction and pure paper product sector. Biomass production opportunities could be investigated as well, such as the Drax Biomass wood pellet facility in Monroe, Louisiana. European-based wood pellet companies are continuously looking to access US-based raw materials.
- The RRAD **vulcanization** program could attract companies that fabricate pipes, pumps, valves or even metal tanks, linking to the existing metal expertise in the area, but are looking to add rubber linings to their products. This includes applications in the oil and gas, mining and food processing sectors.

Recommended Priorities & Recruitment Zones

Based on recent project successes, the existing Texarkana economic area’s industry strengths and workforce assets, and ROI in-market knowledge, the below table highlights a recommended order of priority of the four target sectors. The most promising US and international lead generation recruitment zones are highlighted based on FDI trends, growth hotspots, and ROI in-market experience. These recommendations should be seen as a starting point, with the most established existing cluster being prioritized, while precision manufacturing might require further workforce development, and the third sector being a smaller emerging niche opportunity.

Priority Group	Industry
1	Defense
2	Heavy Equipment
3	Distribution
4	Wood & Paper

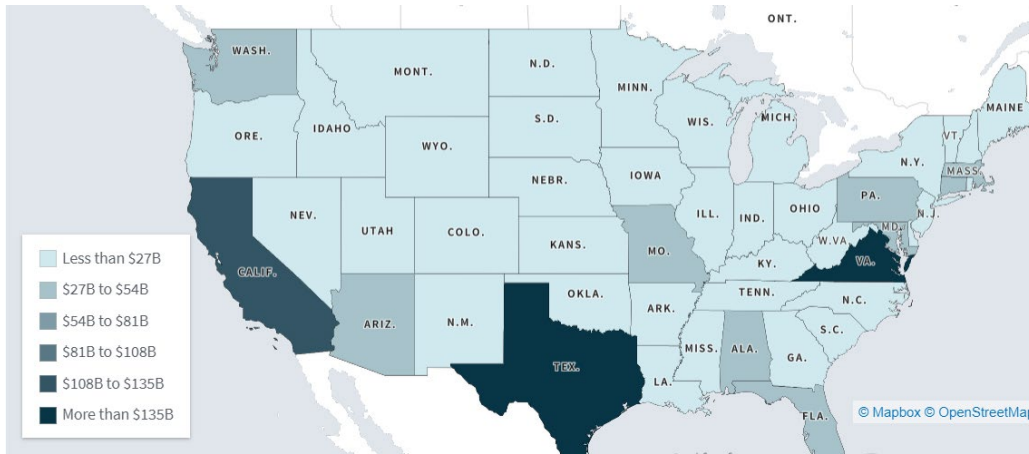
Defense

Prime and recurring federal contractors register on the System for Award Management (SAM) website with full company information. Based on these registrations, the largest companies active or interested in defense contracts are located in California, Florida, Virginia, Texas, New York, Maryland, Pennsylvania and Illinois. States that have attracted a notable amount of primary defense contracts and often be driven by large established defense businesses such as Lockheed Martin in Texas or Raytheon in Massachusetts. However, they are also often hubs of smaller contractors developing around that ecosystem.



Source: sam.gov

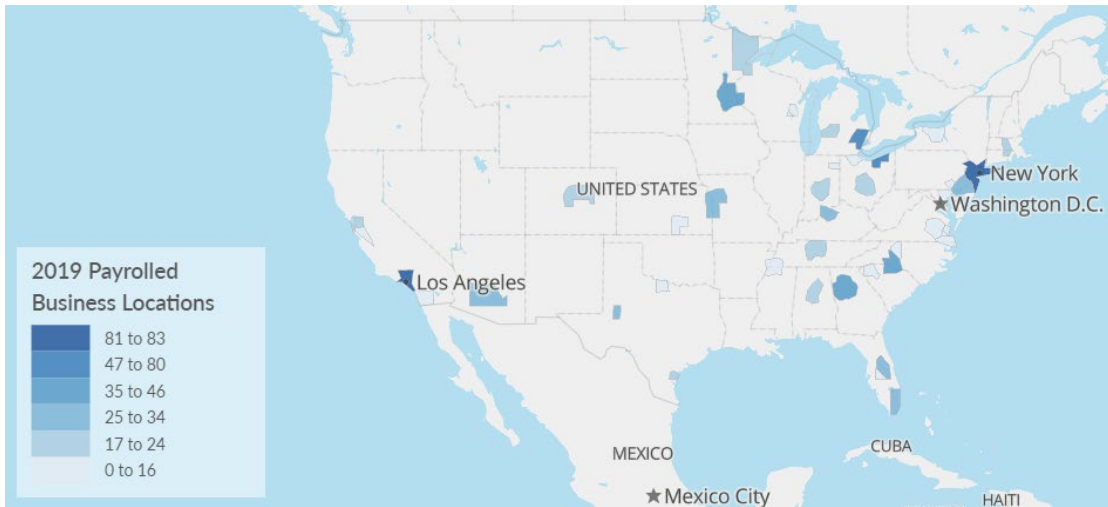
Additional states that show a high concentration of defense contract money include Washington (Boeing stronghold), Missouri, Alabama, Arizona, and Pennsylvania.



Source: usapending.gov

Heavy Equipment

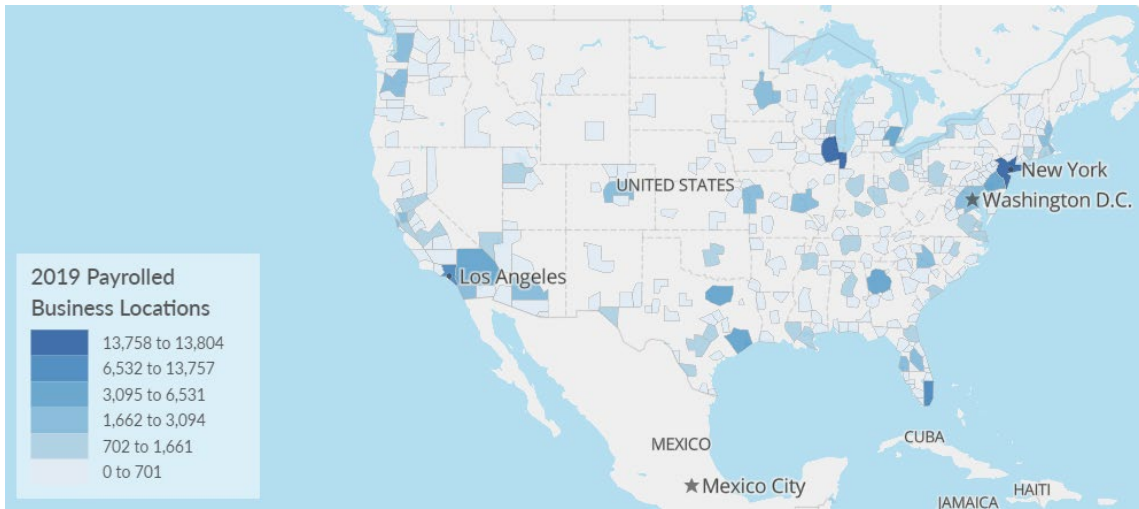
Heavy equipment manufacturers are found to be most concentrated in the Great Lakes/Rust Belt states but previous outreach also suggest good traction in California markets. In the US, Michigan, Ohio, California, Illinois, Texas, and Pennsylvania have the most material handling equipment manufacturing establishments. Internationally, Germany and Japan have been strong investors in the US as well.



Source: Emsi, www.economicmodeling.com, 2019.4

Distribution

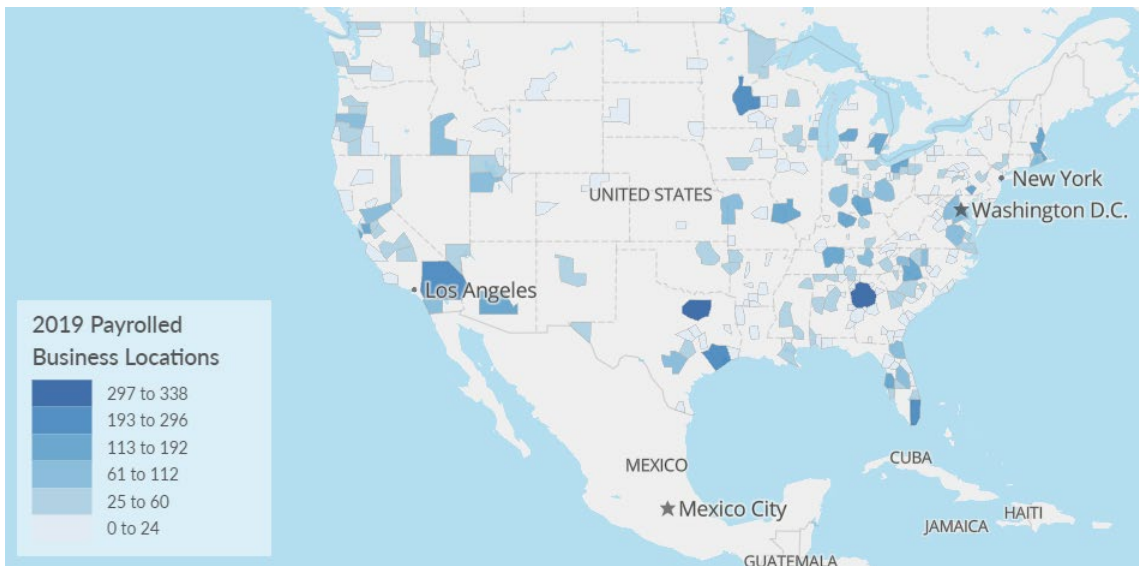
Cities were most transportation, warehousing and logistics investments to other US states have originated have concentrated in Tennessee, Texas, Seattle (WA), Chicago (IL), Omaha (NE) and the Los Angeles metro. With smaller profit margins in the logistics sector relative to product manufacturing, regions with high concentration of establishments that have seen some job losses and higher wages could provide more effective target regions. These include especially high wage areas such as Pittsburgh, (PA), Omaha/Lincoln (NE), and the south of the Bay Area (CA). Other high concentration areas are New York, Miami, Philadelphia and Detroit.



Source: Emsi, www.economicmodeling.com, 2019.4

Wood & Paper Products

Outside Texas, wood and paper product manufacturing was identified to be most concentrated in the the metro areas of Minneapolis, MN, Southern California, Miami, Boston, Charlotte NC/SC, Detroit, MI, Cincinnati, OH, and Phoenix, AZ.



Source: Emsi, www.economicmodeling.com, 2019.4

Appendix

Appendix Table x – Industrial Key Workforce Availability by Major Sector

Sector	SOC	Occupation	Texarkana 75 mile radius		
			Jobs, 2019 (Q3)	Job LQ, 2019 (Q3)	Unemployment Rate, 2019 (Q3)
Wholesale & Warehousing	41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	4,368	1.0	3%
	53-7062	Laborers and Freight, Stock, and Material Movers, Hand	8,432	0.9	9%
	43-5081	Stock Clerks and Order Fillers	6,024	1.0	7%
	53-3032	Heavy and Tractor-Trailer Truck Drivers	9,785	1.6	4%
	53-7051	Industrial Truck and Tractor Operators	2,600	1.3	6%
Food Manufacturing	51-9111	Packaging and Filling Machine Operators and Tenders	1,224	1.0	7%
	51-3092	Food Batchmakers	558	1.1	3%
	51-3022	Meat, Poultry, and Fish Cutters and Trimmers	1,986	4.0	5%
	53-7064	Packers and Packagers, Hand	1,311	0.6	10%
	51-3023	Slaughterers and Meat Packers	1,177	5.2	5%
Wood Product Mfg	51-2092	Team Assemblers	3,923	1.1	6%
	51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	605	2.4	5%
	51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	842	5.0	6%
	53-7062	Laborers and Freight, Stock, and Material Movers, Hand	8,432	0.9	9%
	53-7051	Industrial Truck and Tractor Operators	2,600	1.3	6%
Paper Mfg	51-9196	Paper Goods Machine Setters, Operators, and Tenders	802	2.7	5%
	51-9198	Helpers--Production Workers	2,178	2.0	6%
	51-1011	First-Line Supervisors of Production and Operating Workers	3,113	1.6	3%
	53-7062	Laborers and Freight, Stock, and Material Movers, Hand	8,432	0.9	9%
	49-9041	Industrial Machinery Mechanics	2,398	2.0	1%
Petroleum & Coal Products	51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	410	3.3	1%
	51-1011	First-Line Supervisors of Production and Operating Workers	3,113	1.6	3%
	51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	546	1.4	4%
	49-9041	Industrial Machinery Mechanics	2,398	2.0	1%
	17-2171	Petroleum Engineers	426	3.6	3%
Chemical Mfg	51-9011	Chemical Equipment Operators and Tenders	672	2.6	1%
	51-9111	Packaging and Filling Machine Operators and Tenders	1,224	1.0	7%
	51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	546	1.4	4%
	51-1011	First-Line Supervisors of Production and Operating Workers	3,113	1.6	3%
	19-2031	Chemists	195	0.7	3%
Plastics & Rubber Mfg	51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	419	0.8	6%

	51-2092	Team Assemblers	3,923	1.1	6%
	51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	253	1.1	5%
	51-1011	First-Line Supervisors of Production and Operating Workers	3,113	1.6	3%
	51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	2,440	1.4	3%
Primary Metal Mfg	51-1011	First-Line Supervisors of Production and Operating Workers	3,113	1.6	3%
	51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	419	0.8	6%
	51-4051	Metal-Refining Furnace Operators and Tenders	65	1.2	2%
	51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	253	1.1	5%
	51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	2,440	1.4	3%
Fabricated Metal	51-4041	Machinists	1,633	1.3	2%
	51-4121	Welders, Cutters, Solderers, and Brazers	3,112	2.4	5%
	51-2092	Team Assemblers	3,923	1.1	6%
	51-1011	First-Line Supervisors of Production and Operating Workers	3,113	1.6	3%
	51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	672	1.1	4%
Machinery	51-2092	Team Assemblers	3,923	1.1	6%
	51-4041	Machinists	1,633	1.3	2%
	51-4121	Welders, Cutters, Solderers, and Brazers	3,112	2.4	5%
	17-2141	Mechanical Engineers	665	0.7	2%
	51-1011	First-Line Supervisors of Production and Operating Workers	3,113	1.6	3%
Transportation Equipment	51-2092	Team Assemblers	3,923	1.1	6%
	51-4121	Welders, Cutters, Solderers, and Brazers	3,112	2.4	5%
	51-1011	First-Line Supervisors of Production and Operating Workers	3,113	1.6	3%
	51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	2,440	1.4	3%
	17-2112	Industrial Engineers	680	0.8	3%