



# Regional Data SnapShot

## *Target Industry Clusters*

SET Session 2

**Forest Country Region, Texas**



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# 01 overview

Forest Country Region, TX

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## Overview

# Forest Country Region

The Forest Country Region is comprised of 12 Texas counties. State Highway 59 connects the region to I-69 and Houston to the south, while State Highway 190 connects the region to I-45 to the west.

- Angelina
- Houston
- Jasper
- Nacogdoches
- Newton
- Polk
- Sabine
- San Augustine
- San Jacinto
- Shelby
- Trinity
- Tyler



# 02 target industry clusters

**Advanced Materials**

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**Arts, Entertainment,  
Recreation and Visitor  
Industries**

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**Forest and Wood Products**

# Regional Job Growth:

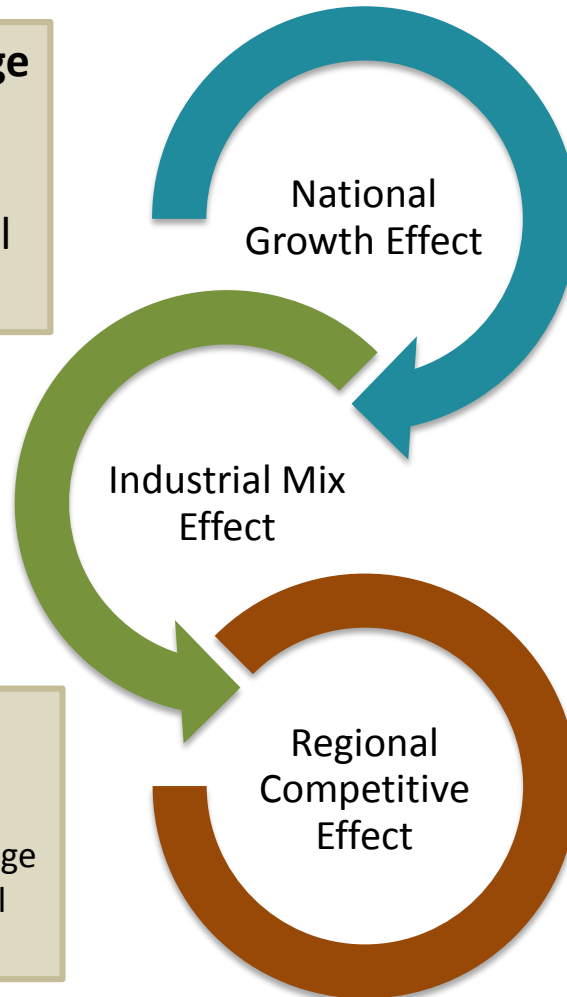
## *Three Key Components of the Shift-Share Analysis*

### **Expected Change**

The sum of the industrial mix and the national growth effects

### **Note:**

The calculations ensure no double counting of job change effects from national to regional levels



Explains how much of the regional industry's growth is explained by the overall growth of the national economy

Share of regional industry growth explained by the growth of the specific industry sector at the national level

Explains how much of the change in a given industry is due to some unique competitive advantage that the region possesses

## Shift-Share Analysis (Regional Performance) by Top Industry Sectors

### Advanced Materials

Industries	Jobs 2014	National Trend, 2009-2014	Industry Trend, 2009-2014	Cumulative Expected Growth	Actual Job Growth, 2009-2014	Regional Performance, 2009-2014
		A	B	C=A+B	D	D-C
Machine Shops	446	16	35	51	204	↑ 153
Iron Foundries	398	25	-13	12	11	-1
Gasket, Packing, and Sealing Device Manufacturing	296	11	11	22	130	↑ 108
Electroplating, Plating, Polishing, Anodizing, and Coloring	151	3	2	5	103	↑ 98
Other Fabricated Wire Product Manufacturing	135	11	-30	-19	-33	-14
Plastics Material and Resin Manufacturing	85	7	-3	4	-30	-34
Testing Laboratories	82	4	6	10	20	↑ 10
Aluminum Sheet, Plate, and Foil Manufacturing	62	0	0	0	62	↑ 62
Paper Bag and Coated and Treated Paper Manufacturing	58	2	-4	-2	25	↑ 27
Aluminum Foundries (except Die-Casting)	58	2	1	3	21	↑ 18
All Other Basic Organic Chemical Manufacturing	45	1	0	1	34	↑ 33
Polystyrene Foam Product Manufacturing	43	2	0	2	15	↑ 13
Adhesive Manufacturing	43	1	1	2	24	↑ 22


Note: Upward arrow (↑) indicates regional competitiveness.

#### section 02

## Shift-Share Analysis

# Advanced Materials Regional Performance

### Industries that Outperformed

- 
- Machine Shops
  - Gasket, Packing, and Sealing Device Manufacturing
  - Electroplating, Plating, Polishing, Anodizing, and Coloring
  - Testing Laboratories
  - Aluminum Sheet, Plate, and Foil Manufacturing
  - Paper Bag and Coated and Treated Paper Manufacturing
  - Aluminum Foundries (except Die-Casting)
  - All Other Basic Organic Chemical Manufacturing
  - Polystyrene Foam Product Manufacturing
  - Adhesive Manufacturing

### Industries that Underperformed

- 
- Other Fabricated Wire Product Manufacturing
  - Plastics Material and Resin Manufacturing
  - Iron Foundries



## Top Industry Sectors

### Advanced Materials

Industries	Exports 2013 (\$ Millions)	Jobs 2013	Export per job 2013 (\$)	LQ 2014
Machine Shops	\$41.3	423	\$97,603	1.6
Iron Foundries	\$122.8	516	\$238,131	10.9
Gasket, Packing, and Sealing Device Manufacturing	\$55.9	228	\$245,450	10.3
Electroplating, Plating, Polishing, Anodizing, and Coloring	\$10.6	55	\$190,956	2.6
Other Fabricated Wire Product Manufacturing	\$28.8	186	\$154,676	5.6
Plastics Material and Resin Manufacturing	\$62.4	79	\$791,891	1.7
Testing Laboratories	\$7.8	83	\$93,643	0.5
Aluminum Sheet, Plate, and Foil Manufacturing	\$36.8	46	\$805,829	4.4
Paper Bag and Coated and Treated Paper Manufacturing	\$17.9	66	\$270,125	1.1
Aluminum Foundries (except Die-Casting)	\$9.5	46	\$205,362	3.7
All Other Basic Organic Chemical Manufacturing	\$156.5	54	\$2,898,098	1.4
Polystyrene Foam Product Manufacturing	\$19.8	51	\$392,266	1.7
Adhesive Manufacturing	\$12.9	27	\$479,570	2.2

Note: Sorted similarly as the shift-share analysis slide

#### section 02

## Top 15 Inputs by Dollars

### Advanced Materials

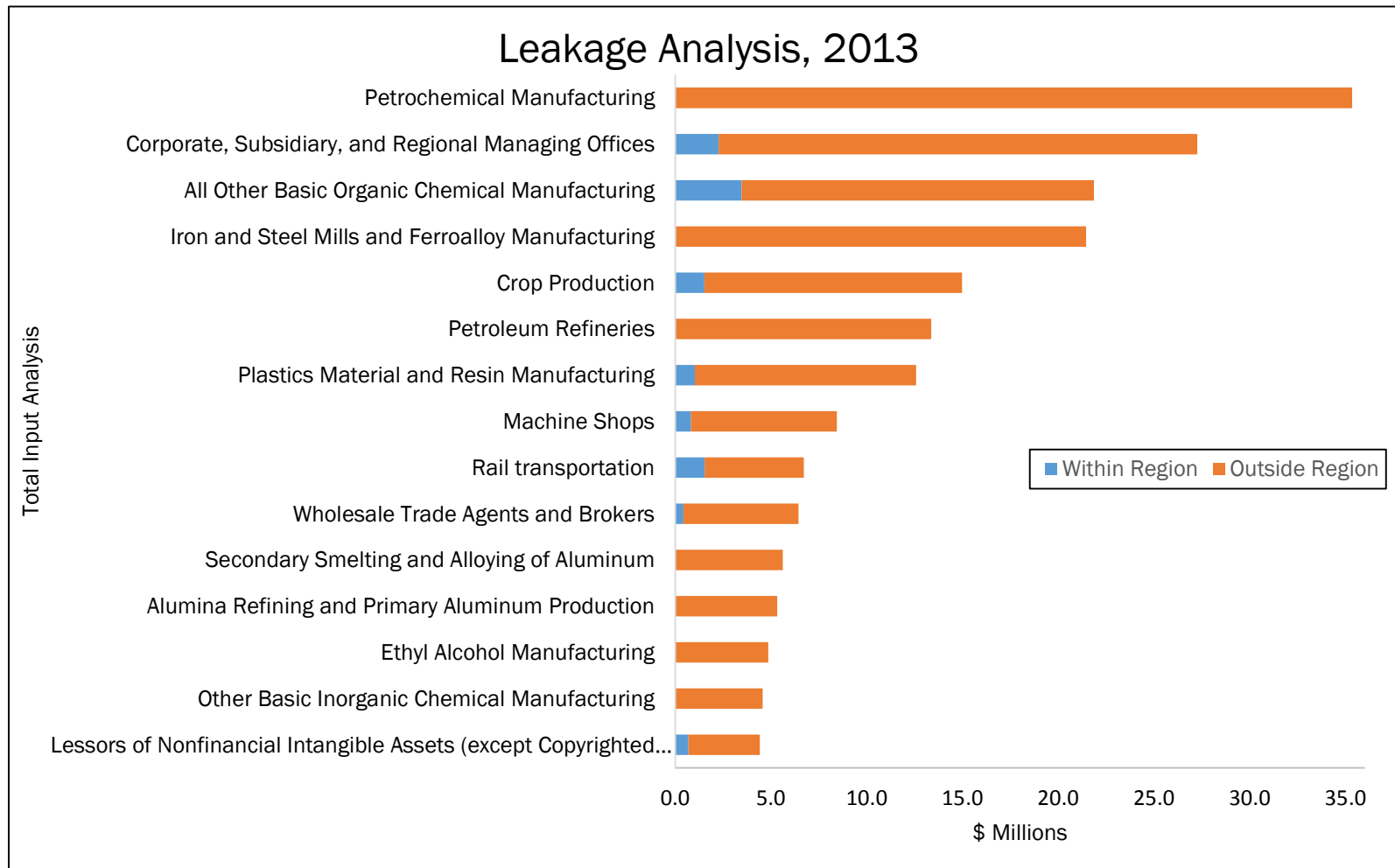
Industries	Estimated Input (\$ Millions), 2013	% In-Region	% Out of Region
Petrochemical Manufacturing	\$35.35	0.0%	100.0%
Corporate, Subsidiary, and Regional Managing Offices	\$27.26	8.3%	91.7%
All Other Basic Organic Chemical Manufacturing	\$21.87	15.9%	84.1%
Iron and Steel Mills and Ferroalloy Manufacturing	\$21.45	0.2%	99.8%
Crop Production	\$14.98	10.2%	89.8%
Petroleum Refineries	\$13.37	0.0%	100.0%
Plastics Material and Resin Manufacturing	\$12.57	8.1%	91.9%
Machine Shops	\$8.44	9.7%	90.3%
Rail transportation	\$6.71	22.8%	77.2%
Wholesale Trade Agents and Brokers	\$6.44	6.7%	93.3%
Secondary Smelting and Alloying of Aluminum	\$5.61	0.0%	100.0%
Alumina Refining and Primary Aluminum Production	\$5.32	0.0%	100.0%
Ethyl Alcohol Manufacturing	\$4.85	0.0%	100.0%
Other Basic Inorganic Chemical Manufacturing	\$4.56	0.0%	100.0%
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	\$4.41	15.6%	84.4%

Note: \*\* industry sector is not present in the region.

#### section 02

## Top 15 Inputs by Dollars

# Advanced Materials



### section 02

## Top Occupations

# Advanced Materials

Occupations	Jobs 2014	% Change, 2009-2014	Median Hourly Earnings	Entry Level Education
Machinists	143	44%	\$17.9	High school diploma or equivalent
First-Line Supervisors of Production and Operating Workers	85	5%	\$23.8	Postsecondary non-degree award
Foundry Mold and Coremakers	81	8%	\$14.3	High school diploma or equivalent
Inspectors, Testers, Sorters, Samplers, and Weighers	79	13%	\$13.8	High school diploma or equivalent
Team Assemblers	67	-8%	\$12.7	High school diploma or equivalent
Welders, Cutters, Solderers, and Brazers	60	-35%	\$17.4	High school diploma or equivalent
Office Clerks, General	57	27%	\$12.7	High school diploma or equivalent
General and Operations Managers	54	15%	\$33.9	Bachelor's degree
Maintenance and Repair Workers, General	53	18%	\$14.3	High school diploma or equivalent
Managers, All Other	50	6%	\$16.2	High school diploma or equivalent
Helpers--Production Workers	50	16%	\$10.8	Less than high school
Computer-Controlled Machine Tool Operators, Metal and Plastic	49	44%	\$17.5	High school diploma or equivalent
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	49	11%	\$24.2	High school diploma or equivalent
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	47	52%	\$16.0	High school diploma or equivalent
Pourers and Casters, Metal	41	14%	\$13.5	High school diploma or equivalent

Note: SOC (Standard Occupation Classification) 5-digit occupations are included by jobs in 2014. Extended proprietors include estimates for underreported self employment, proprietorships, trusts, partnerships and cooperatives.

### section 02

## Shift-Share Analysis (Regional Performance) by Top Industry Sectors

### Arts and Entertainment, Recreation and Visitor Industries

Industries	Jobs 2014	National Trend, 2009-2014	Industry Trend, 2009-2014	Cumulative Expected Growth	Actual Job Growth, 2009-2014	Regional Performance, 2009-2014
		A	B	C=A+B	D	D-C
Hotels (except Casino Hotels) and Motels	717	54	21	75	-118	-193
Independent Artists, Writers, and Performers	418	25	20	45	31	-14
Golf Courses and Country Clubs	341	17	-5	12	81	↑ 69
Fitness and Recreational Sports Centers	315	21	17	38	-9	-47
Recreational and Vacation Camps (except Campgrounds)	216	8	10	18	89	↑ 71
RV (Recreational Vehicle) Parks and Campgrounds	185	7	10	17	80	↑ 63
All Other Amusement and Recreation Industries	126	7	19	26	16	-10
Other Spectator Sports	87	6	-3	3	-10	-13
Radio Stations	84	6	-6	0	-3	-3
Television Broadcasting	63	1	0	1	41	↑ 40
Motion Picture Theaters (except Drive-Ins)	60	3	-4	-1	9	↑ 10
Bowling Centers	52	3	-5	-2	8	↑ 10
Musical Groups and Artists	37	2	3	5	13	↑ 8

Note: Upward arrow (↑) indicates regional competitiveness.

#### section 02

## Shift-Share Analysis

# Arts and Entertainment, Recreation and Visitor Industries Regional Performance

### Industries that Outperformed

- Golf Courses and Country Clubs
- Recreational and Vacation Camps (except Campgrounds)
- RV (Recreational Vehicle) Parks and Campgrounds
- Television Broadcasting
- Motion Picture Theaters (except Drive-Ins)
- Bowling Centers
- Musical Groups and Artists

### Industries that Underperformed

- Hotels (except Casino Hotels) and Motels
- Independent Artists, Writers, and Performers
- Fitness and Recreational Sports Centers
- All Other Amusement and Recreation Industries
- Other Spectator Sports
- Radio Stations

## Top Industry Sectors

# Arts and Entertainment, Recreation and Visitor Industries

Industries	Exports 2013 (\$ Millions)	Jobs 2013	Export per job 2013 (\$)	LQ 2014
Hotels (except Casino Hotels) and Motels	\$19.1	827	\$23,140	0.5
Independent Artists, Writers, and Performers	\$7.6	397	\$19,128	0.4
Golf Courses and Country Clubs	\$12.6	323	\$39,187	1.0
Fitness and Recreational Sports Centers	\$4.8	275	\$17,335	0.5
Recreational and Vacation Camps (except Campgrounds)	\$15.4	203	\$75,923	6.1
RV (Recreational Vehicle) Parks and Campgrounds	\$8.5	169	\$50,307	4.9
All Other Amusement and Recreation Industries	\$0.7	138	\$4,827	0.5
Other Spectator Sports	\$0.7	82	\$8,361	0.5
Radio Stations	\$2.2	51	\$42,879	1.0
Television Broadcasting	\$1.2	53	\$23,295	0.5
Motion Picture Theaters (except Drive-Ins)	\$2.0	53	\$37,895	0.5
Bowling Centers	\$0.8	58	\$13,430	0.8
Musical Groups and Artists	\$1.0	38	\$26,140	0.4

Note: Sorted similarly as the shift-share analysis slide

### section 02

## Top 15 Inputs by Dollars

# Arts and Entertainment, Recreation and Visitor Industries

Industries	Estimated Input (\$ Millions), 2013	% In-Region	% Out of Region
Corporate, Subsidiary, and Regional Managing Offices	\$6.62	4.4%	95.6%
Motion Picture and Video Production	\$5.38	1.7%	98.3%
Cable and Other Subscription Programming	\$3.07	39.2%	60.8%
Lessors of Residential Buildings and Dwellings	\$2.75	33.4%	66.6%
Independent Artists, Writers, and Performers	\$2.68	24.7%	75.3%
Lessors of Nonresidential Buildings (except Miniwarehouses)	\$2.40	24.6%	75.4%
Offices of Real Estate Agents and Brokers	\$2.07	33.7%	66.3%
Sports Teams and Clubs	\$2.06	8.2%	91.8%
Television Broadcasting	\$1.78	21.4%	78.6%
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	\$1.62	12.4%	87.6%
Offices of Lawyers	\$1.60	18.4%	81.6%
Advertising Agencies	\$1.55	9.6%	90.4%
Other Activities Related to Real Estate	\$1.41	36.1%	63.9%
Petroleum Refineries	\$1.16	0.0%	100.0%
Internet Publishing and Broadcasting and Web Search Portals	\$1.03	0.5%	99.5%

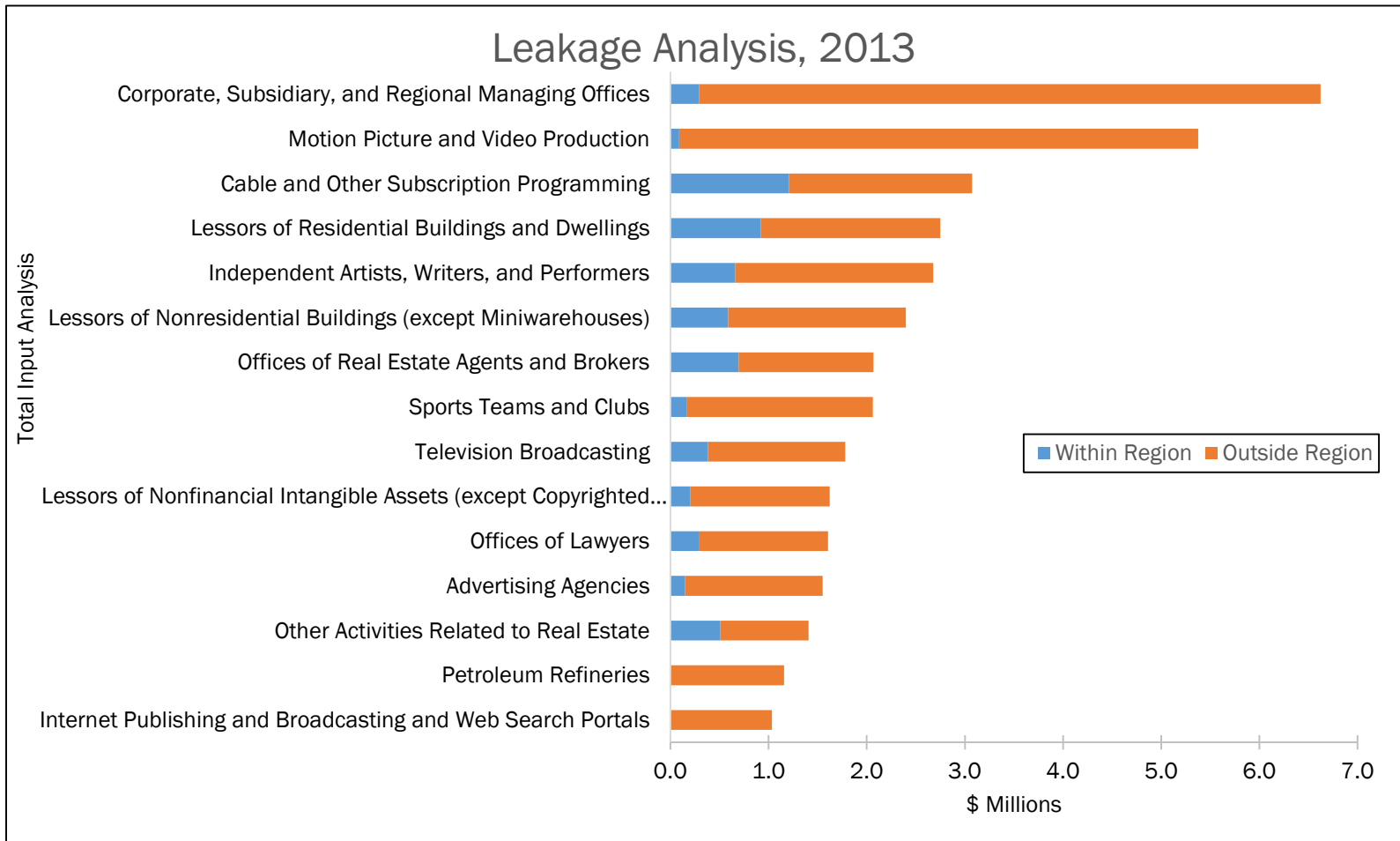
Note: \*\* industry sector is not present in the region.

### section 02



## Top 15 Inputs by Dollars

# Arts and Entertainment, Recreation and Visitor Industries



Note: \*\* industry sector is not present in the region.

### section 02

Source: EMSI Class of Worker 2015.4 (QCEW, non-QCEW, self-employed and extended proprietors).

## Top Occupations

# Arts and Entertainment, Recreation and Visitor Industries

Occupations	Jobs 2014	% Change, 2009-2014	Median Hourly Earnings	Entry Level Education
Maids and Housekeeping Cleaners	206	-12.7%	\$8.6	Less than high school
Lodging Managers	167	1.8%	\$14.3	High school diploma or equivalent
Hotel, Motel, and Resort Desk Clerks	165	-8.3%	\$8.5	High school diploma or equivalent
Fitness Trainers and Aerobics Instructors	156	8.3%	\$13.8	High school diploma or equivalent
Musicians and Singers	139	13.9%	\$16.8	High school diploma or equivalent
Writers and Authors	119	11.2%	\$17.6	Bachelor's degree
Maintenance and Repair Workers, General	89	12.7%	\$14.3	High school diploma or equivalent
Landscaping and Groundskeeping Workers	86	28.4%	\$9.4	Less than high school
Waiters and Waitresses	77	-6.1%	\$9.1	Less than high school
Tour Guides and Escorts	75	63.0%	\$14.5	High school diploma or equivalent
Fine Artists, Including Painters, Sculptors, and Illustrators	69	1.5%	\$8.5	High school diploma or equivalent
Coaches and Scouts	67	31.4%	\$17.5	Bachelor's degree
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	57	14.0%	\$10.1	Less than high school
Managers, All Other	53	96.3%	\$16.2	High school diploma or equivalent
Recreation Workers	53	17.8%	\$9.8	Bachelor's degree

Note: SOC (Standard Occupation Classification) 5-digit occupations are included by jobs in 2014. Extended proprietors include estimates for underreported self employment, proprietorships, trusts, partnerships and cooperatives.

### section 02

## Shift-Share Analysis (Regional Performance) by Top Industry Sectors

### Forest and Wood Products

Industries	Jobs 2014	National Trend, 2009-2014	Industry Trend, 2009-2014	Cumulative Expected Growth	Actual Job Growth, 2009-2014	Regional Performance, 2009-2014
		A	B	C=A+B	D	D-C
Logging	1,576	109	197	306	-116	-422
Sawmills	1,333	93	18	111	-121	-232
Softwood Veneer and Plywood Manufacturing	983	74	-116	-42	-170	-128
Paperboard Mills	652	58	-117	-59	-253	-194
Finish Carpentry Contractors	335	24	-33	-9	-33	-24
Reconstituted Wood Product Manufacturing	307	11	-5	6	131	↑ 125
Wood Preservation	251	12	-13	-1	70	↑ 71
Timber Tract Operations	226	16	48	64	-21	-85
Roofing Contractors	176	10	-4	6	27	↑ 21
Support Activities for Forestry	165	18	-24	-6	-111	-105
Other Millwork (including Flooring)	142	24	-43	-19	-231	-212
Framing Contractors	138	5	-9	-4	54	↑ 58
Flooring Contractors	127	10	-15	-5	-34	-29


Note: Upward arrow (↑) indicates regional competitiveness.

#### section 02

## Shift-Share Analysis

# Forest and Wood Products Regional Performance

### Industries that Outperformed

- 
- Reconstituted Wood Product Manufacturing
  - Wood Preservation
  - Roofing Contractors
  - Framing Contractors

### Industries that Underperformed

- 
- Logging
  - Sawmills
  - Softwood Veneer and Plywood Manufacturing
  - Paperboard Mills
  - Finish Carpentry Contractors
  - Timber Tract Operations
  - Support Activities for Forestry
  - Other Millwork (including Flooring)
  - Flooring Contractors

## Top Industry Sectors

### Forest and Wood Products

Industries	Exports 2013 (\$ Millions)	Jobs 2013	Export per job 2013 (\$)	LQ 2014
Logging	\$98.4	1,591	\$61,851	14.3
Sawmills	\$240.6	1,239	\$194,175	16.4
Softwood Veneer and Plywood Manufacturing	\$347.3	1,146	\$303,094	81.7
Paperboard Mills	\$653.2	684	\$955,405	24.8
Finish Carpentry Contractors	\$8.4	334	\$25,177	1.0
Reconstituted Wood Product Manufacturing	\$105.1	323	\$325,699	25.6
Wood Preservation	\$78.3	241	\$324,317	26.9
Timber Tract Operations	\$39.9	267	\$149,551	30.3
Roofing Contractors	\$6.9	164	\$42,127	0.8
Support Activities for Forestry	\$8.7	168	\$51,733	5.5
Other Millwork (including Flooring)	\$39.9	149	\$268,715	3.6
Framing Contractors	\$6.7	142	\$47,321	1.3
Flooring Contractors	\$4.0	131	\$30,800	0.8

Note: Sorted similarly as the shift-share analysis slide

#### section 02

## Top 15 Inputs by Dollars

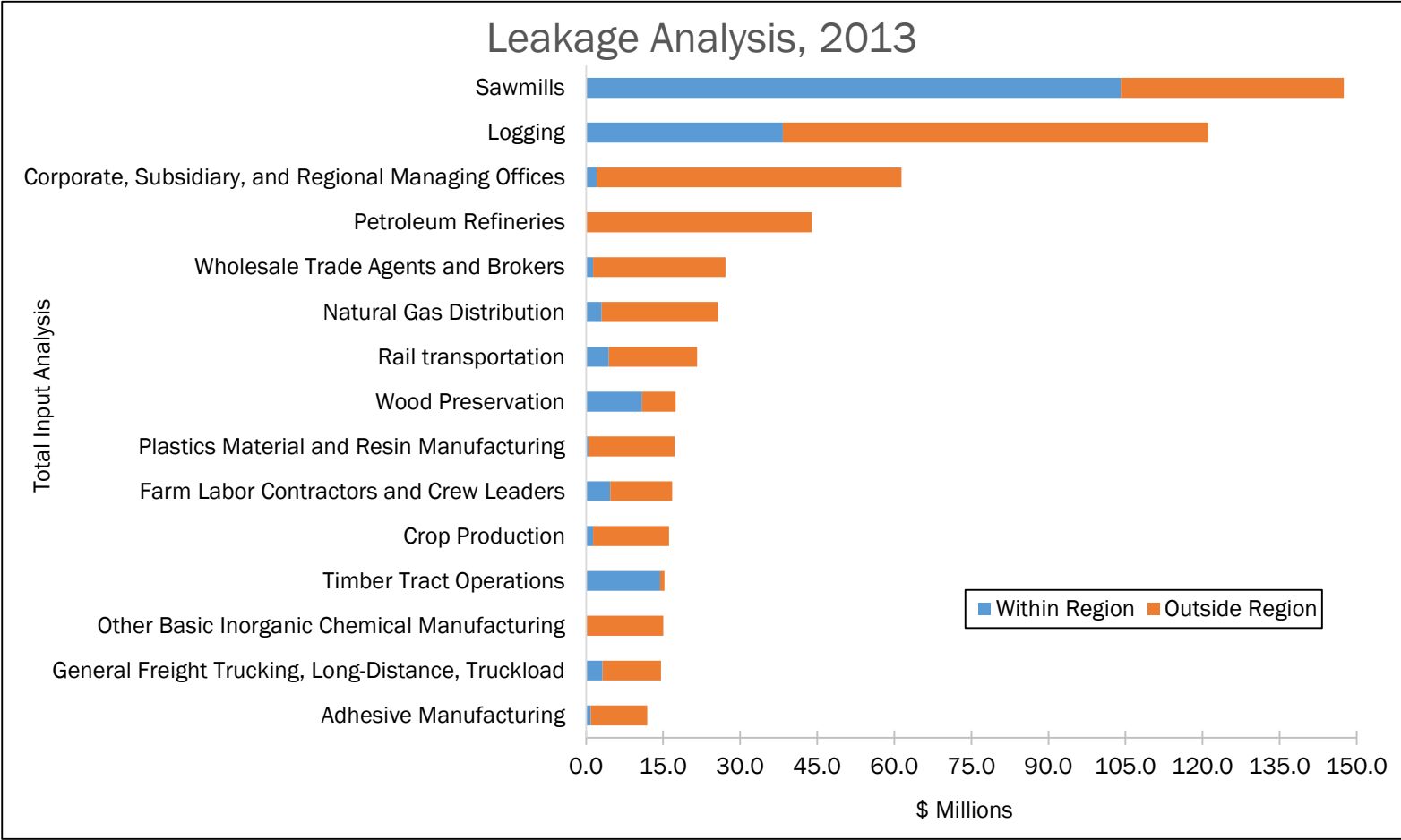
### Forest and Wood Products

Industries	Estimated Input (\$ Millions), 2013	% In-Region	% Out of Region
Sawmills	\$147.49	70.6%	29.4%
Logging	\$121.11	31.6%	68.4%
Corporate, Subsidiary, and Regional Managing Offices	\$61.38	3.4%	96.6%
Petroleum Refineries	\$43.93	0.0%	100.0%
Wholesale Trade Agents and Brokers	\$27.13	5.0%	95.0%
Natural Gas Distribution	\$25.71	11.8%	88.2%
Rail transportation	\$21.63	20.4%	79.6%
Wood Preservation	\$17.45	62.4%	37.6%
Plastics Material and Resin Manufacturing	\$17.28	2.7%	97.3%
Farm Labor Contractors and Crew Leaders	\$16.74	28.1%	71.9%
Crop Production	\$16.16	8.3%	91.7%
Timber Tract Operations	\$15.26	94.4%	5.6%
Other Basic Inorganic Chemical Manufacturing	\$15.02	0.0%	100.0%
General Freight Trucking, Long-Distance, Truckload	\$14.61	21.8%	78.2%
Adhesive Manufacturing	\$11.93	7.7%	92.3%

Note: \*\* industry sector is not present in the region.

# Top 15 Inputs by Dollars

## Forest and Wood Products



Note: \*\* industry sector is not present in the region.

**section 02**

Source: EMSI Class of Worker 2015.4 (QCEW, non-QCEW, self-employed and extended proprietors).

## Top Occupations

### Forest and Wood Products

Occupations	Jobs 2014	% Change, 2009-2014	Median Hourly Earnings	Entry Level Education
Logging Equipment Operators	855	-4%	\$15.1	High school diploma or equivalent
Sawing Machine Setters, Operators, and Tenders, Wood	795	-7%	\$10.7	High school diploma or equivalent
Heavy and Tractor-Trailer Truck Drivers	315	-7%	\$16.5	Postsecondary non-degree award
Industrial Truck and Tractor Operators	278	-16%	\$14.8	Less than high school
Laborers and Freight, Stock, and Material Movers, Hand	228	-16%	\$11.7	Less than high school
Fallers	200	-13%	\$17.3	High school diploma or equivalent
Paper Goods Machine Setters, Operators, and Tenders	178	-24%	\$18.1	High school diploma or equivalent
Helpers--Production Workers	173	-16%	\$10.8	Less than high school
Carpenters	167	-20%	\$13.8	High school diploma or equivalent
First-Line Supervisors of Farming, Fishing, and Forestry Workers	165	-14%	\$22.0	High school diploma or equivalent
Construction Laborers	155	5%	\$12.8	Less than high school
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	143	-23%	\$11.4	High school diploma or equivalent
Team Assemblers	143	-26%	\$12.7	High school diploma or equivalent
First-Line Supervisors of Production and Operating Workers	134	-18%	\$23.8	Postsecondary non-degree award
Machine Feeders and Offbearers	125	-12%	\$14.4	Less than High school

Note: SOC (Standard Occupation Classification) 5-digit occupations are included by jobs in 2014. Extended proprietors include estimates for underreported self employment, proprietorships, trusts, partnerships and cooperatives.

#### section 02



# 03 Cluster Comparisons

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**Advanced Materials**

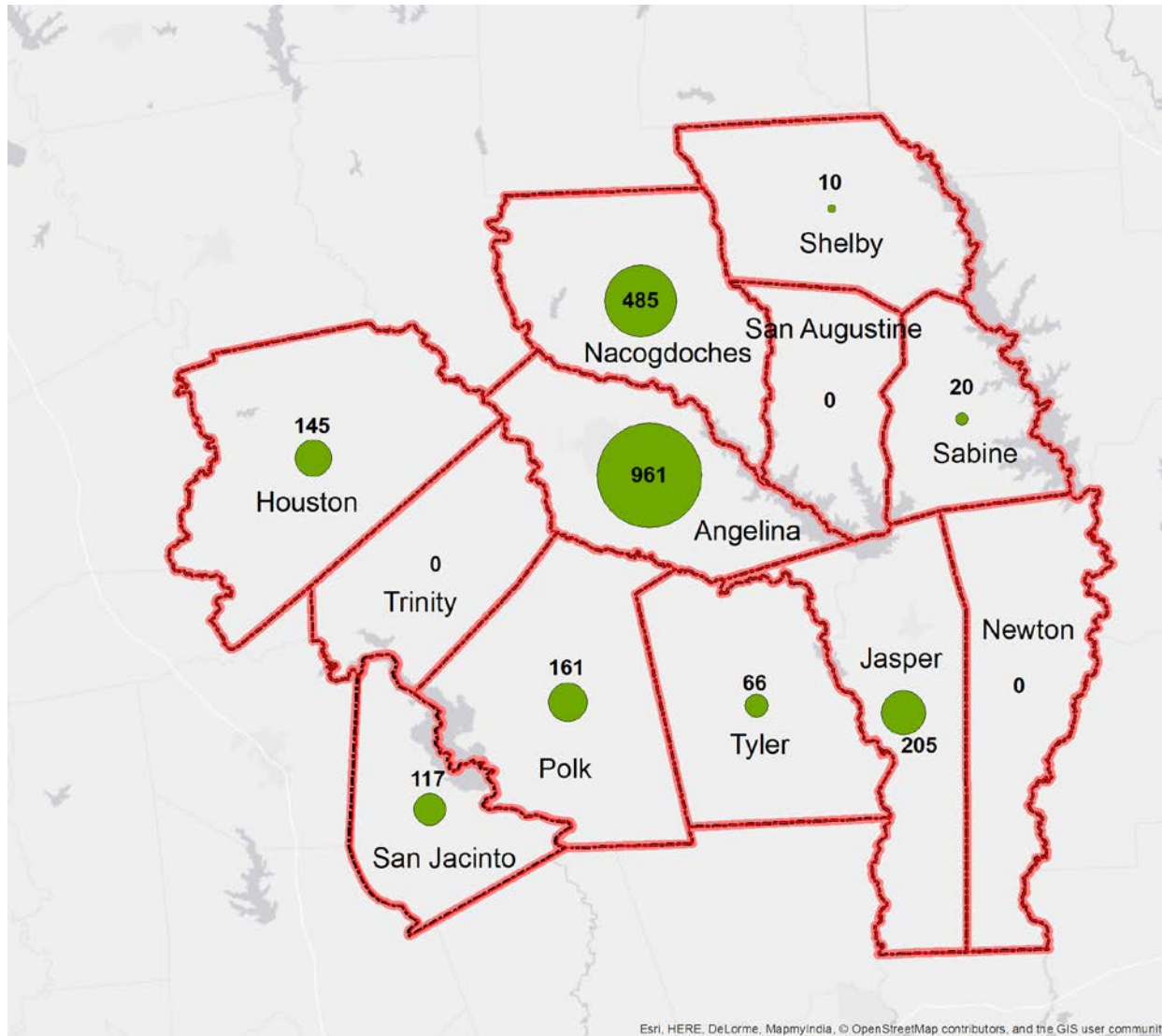
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**Arts, Entertainment,  
Recreation and Visitor  
Industries**

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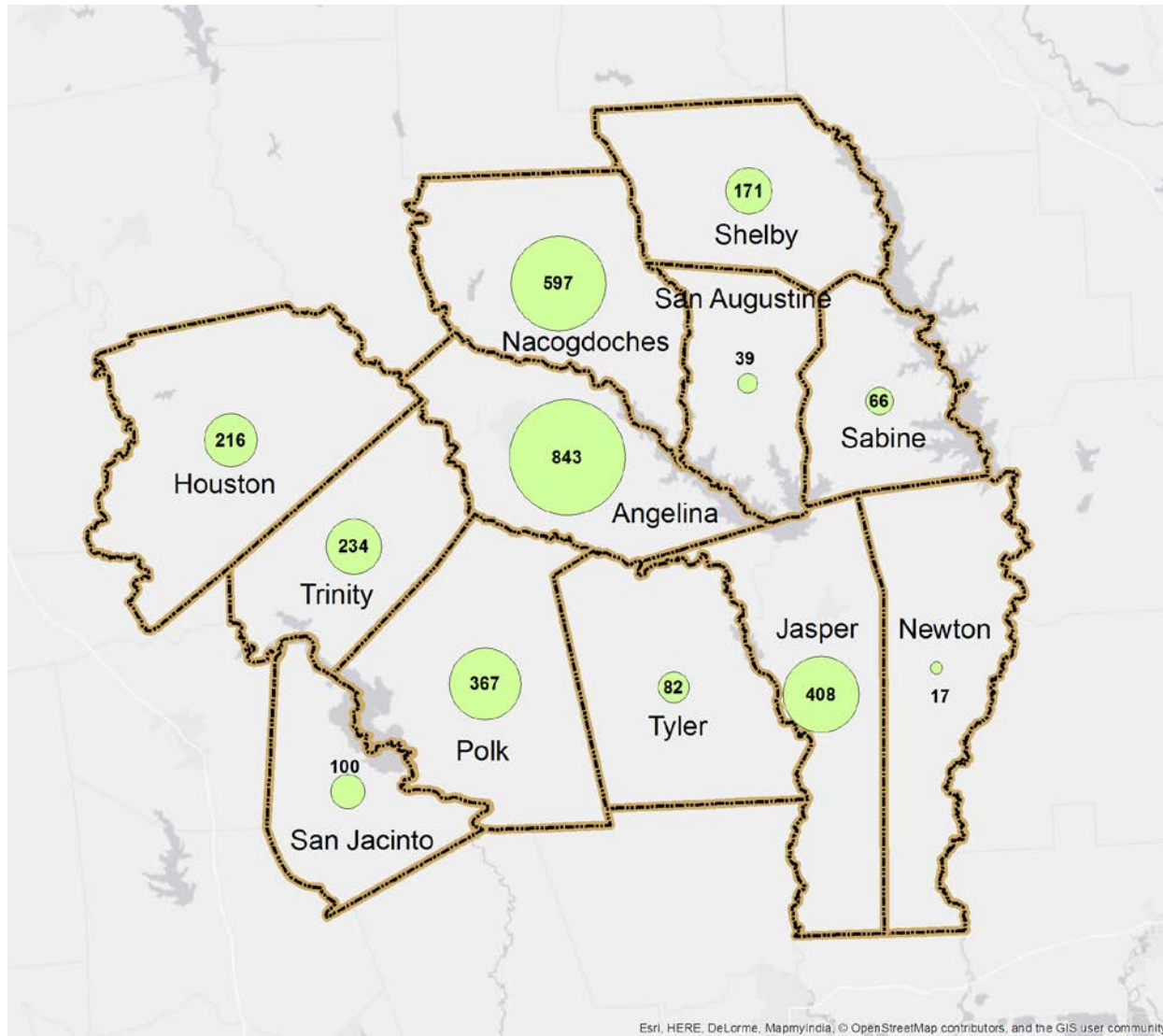
**Forest and Wood Products**

## Advanced Materials: Contribution by Counties (Jobs 2014)



### section 03

## Arts, Entertainment, Recreation, and Visitor Industries: Contribution by Counties (Jobs 2014)

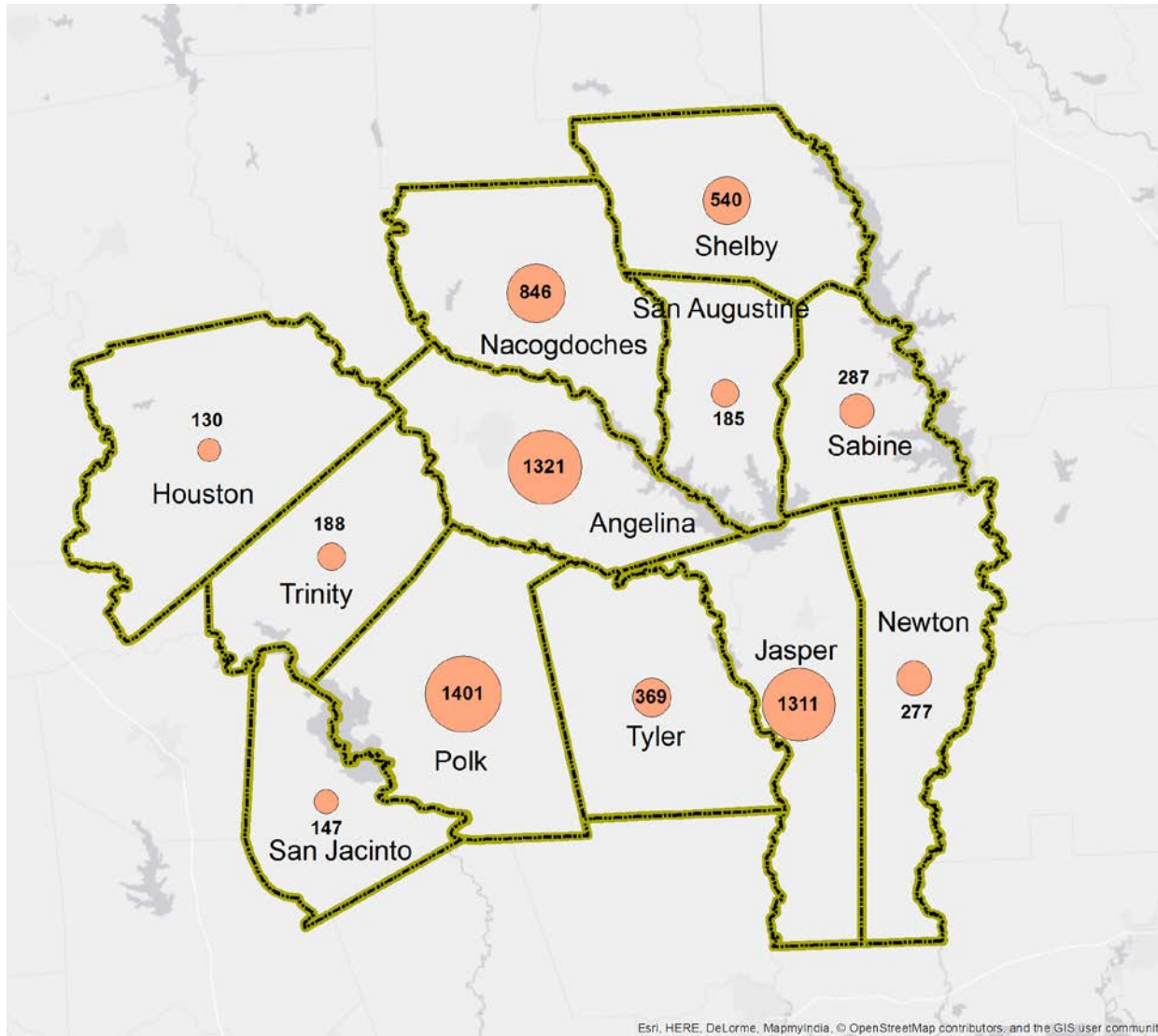


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### section 03

Source: EMSI 2015.4 (QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors); Industry cluster definitions by PCRD

## Forest and Wood Products: Contribution by Counties (Jobs 2014)



### section 03

## Industry Clusters: Components to Assess

	<b>Advanced Materials</b>	<b>Arts, Entertainment, Recreation and Visitor Industries</b>	<b>Forest &amp; Wood Products</b>
Regional Performance, 2009-2014 (Shift-share analysis)	-25 (negative value)	-381 (negative value)	-1,520 (negative value)
Export value, 2013	\$689,815,497	\$142,629,912	\$1,768,558,210
Leakage, 2013	\$363,474,743	\$78,461,826	\$885,144,548
Number of establishments	81	175	259
Contribution by counties	9	12	12
Business input	Seek input from businesses on how they can strengthen their connections to the key clusters, especially providing products and services now being imported from outside the region.		
Resident's value	Review Civic Forum Input from Residents		

### section 03