# **Input-Output Scenario**

21 Industries in Oklahoma

Emsi Q1 2021 Data Set

March 2021

## Southwestern Oklahoma State University



100 Campus Drive Weatherford, Oklahoma 73096 580.772.6611

# **Parameters**

#### Regions:

Code	Description
40	Oklahoma

#### Industry Scenario:

236115 New Single-Family Housing Construction (except For-Sale Builders)  311811 Retail Bakeries  Jobs  323113 Commercial Screen Printing  Jobs  332999 All Other Miscellaneous Fabricated Metal Product Manufacturing  Jobs  77  423690 Other Electronic Parts and Equipment Merchant Wholesalers  Jobs  442110 Furniture Stores  Jobs  442210 Floor Covering Stores  Jobs  445120 Convenience Stores  Jobs  445120 Convenience Stores  Jobs  2453310 Beer, Wine, and Liquor Stores  Jobs  453310 Used Merchandise Stores  Jobs  25  484110 General Freight Trucking, Local  Jobs  56  562991 Septic Tank and Related Services  Jobs  62  62  62  61111 Offices of Physicians (except Mental Health Specialists)  Jobs  62  62  62  62  62  62  63  64  65  66  65  66  66  67  66  67  67  67	Code	Description	Change Type	Change Value
311811 Retail Bakeries Jobs 8 323113 Commercial Screen Printing Jobs 13 323919 All Other Miscellaneous Fabricated Metal Product Manufacturing Jobs 77 423690 Other Electronic Parts and Equipment Merchant Wholesalers Jobs 13 442110 Furniture Stores Jobs 3 442210 Floor Covering Stores Jobs 444130 Hardware Stores Jobs 2 445120 Convenience Stores Jobs 3 445120 Convenience Stores Jobs 3 445310 Beer, Wine, and Liquor Stores Jobs 3 445310 Used Merchandise Stores Jobs 3 484110 General Freight Trucking, Local Jobs 5 484220 Specialized Freight (except Used Goods) Trucking, Local Jobs 3 562991 Septic Tank and Related Services Jobs 2 621111 Offices of Physicians (except Mental Health Specialists) Jobs 3 621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists Jobs 7	115113	Crop Harvesting, Primarily by Machine	Jobs	3
323113 Commercial Screen Printing  332999 All Other Miscellaneous Fabricated Metal Product Manufacturing  423690 Other Electronic Parts and Equipment Merchant Wholesalers  442110 Furniture Stores  Jobs  442210 Floor Covering Stores  Jobs  444130 Hardware Stores  Jobs  445120 Convenience Stores  Jobs  445310 Beer, Wine, and Liquor Stores  Jobs  453310 Used Merchandise Stores  Jobs  484110 General Freight Trucking, Local  Jobs  562991 Septic Tank and Related Services  Jobs  621330 Offices of Physicians (except Mental Health Specialists)  Jobs  5621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists  Jobs  77  78  78  79  70  70  70  70  70  70  70  70  70	236115	New Single-Family Housing Construction (except For-Sale Builders)	Jobs	3
332999 All Other Miscellaneous Fabricated Metal Product Manufacturing  423690 Other Electronic Parts and Equipment Merchant Wholesalers  Jobs  442110 Furniture Stores  Jobs  442210 Floor Covering Stores  Jobs  444130 Hardware Stores  Jobs  445120 Convenience Stores  Jobs  445310 Beer, Wine, and Liquor Stores  Jobs  453310 Used Merchandise Stores  Jobs  484110 General Freight Trucking, Local  Jobs  562991 Septic Tank and Related Services  Jobs  621330 Offices of Physicians (except Mental Health Specialists)  Jobs  621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists  Jobs  77  78  78  78  78  78  78  78  78  7	311811	Retail Bakeries	Jobs	8
423690 Other Electronic Parts and Equipment Merchant Wholesalers  442110 Furniture Stores  Jobs  442210 Floor Covering Stores  Jobs  444130 Hardware Stores  Jobs  445120 Convenience Stores  Jobs  453310 Beer, Wine, and Liquor Stores  Jobs  453310 Used Merchandise Stores  Jobs  484110 General Freight Trucking, Local  Jobs  562991 Septic Tank and Related Services  Jobs  621310 Offices of Physicians (except Mental Health Specialists)  Jobs  621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists  Jobs  7621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists	323113	Commercial Screen Printing	Jobs	1
442110 Furniture Stores  442110 Floor Covering Stores  Jobs  444210 Floor Covering Stores  Jobs  444130 Hardware Stores  Jobs  445120 Convenience Stores  Jobs  445310 Beer, Wine, and Liquor Stores  Jobs  453310 Used Merchandise Stores  Jobs  484110 General Freight Trucking, Local  Jobs  562991 Septic Tank and Related Services  Jobs  621111 Offices of Physicians (except Mental Health Specialists)  Jobs  621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists  Jobs  7621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	Jobs	77
442210Floor Covering StoresJobs6444130Hardware StoresJobs2445120Convenience StoresJobs2445310Beer, Wine, and Liquor StoresJobs3453310Used Merchandise StoresJobs2484110General Freight Trucking, LocalJobs5484220Specialized Freight (except Used Goods) Trucking, LocalJobs2562991Septic Tank and Related ServicesJobs8621111Offices of Physicians (except Mental Health Specialists)Jobs2621330Offices of Mental Health Practitioners (except Physicians)Jobs5621340Offices of Physical, Occupational and Speech Therapists, and AudiologistsJobs7	423690	Other Electronic Parts and Equipment Merchant Wholesalers	Jobs	13
444130 Hardware Stores  Jobs  445120 Convenience Stores  Jobs  445310 Beer, Wine, and Liquor Stores  Jobs  453310 Used Merchandise Stores  Jobs  484110 General Freight Trucking, Local  Jobs  562991 Septic Tank and Related Services  Jobs  621111 Offices of Physicians (except Mental Health Specialists)  Jobs  621330 Offices of Mental Health Practitioners (except Physicians)  Jobs  621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists  Jobs	442110	Furniture Stores	Jobs	3
445120 Convenience Stores  445310 Beer, Wine, and Liquor Stores  Jobs  453310 Used Merchandise Stores  Jobs  484110 General Freight Trucking, Local  Jobs  562991 Septic Tank and Related Services  Jobs  621111 Offices of Physicians (except Mental Health Specialists)  Jobs  621330 Offices of Physical, Occupational and Speech Therapists, and Audiologists  Jobs  7621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists	442210	Floor Covering Stores	Jobs	6
445310Beer, Wine, and Liquor StoresJobs453310Used Merchandise StoresJobs484110General Freight Trucking, LocalJobs484220Specialized Freight (except Used Goods) Trucking, LocalJobs562991Septic Tank and Related ServicesJobs621111Offices of Physicians (except Mental Health Specialists)Jobs621330Offices of Mental Health Practitioners (except Physicians)Jobs621340Offices of Physical, Occupational and Speech Therapists, and AudiologistsJobs	444130	Hardware Stores	Jobs	4
453310 Used Merchandise Stores  484110 General Freight Trucking, Local  484220 Specialized Freight (except Used Goods) Trucking, Local  562991 Septic Tank and Related Services  521111 Offices of Physicians (except Mental Health Specialists)  Jobs  621330 Offices of Mental Health Practitioners (except Physicians)  Jobs  520  621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists  Jobs	445120	Convenience Stores	Jobs	2
484110 General Freight Trucking, Local Jobs 484220 Specialized Freight (except Used Goods) Trucking, Local Jobs 562991 Septic Tank and Related Services Jobs 621111 Offices of Physicians (except Mental Health Specialists) Jobs 621330 Offices of Mental Health Practitioners (except Physicians) Jobs 621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists Jobs	445310	Beer, Wine, and Liquor Stores	Jobs	3
484220 Specialized Freight (except Used Goods) Trucking, Local Jobs 562991 Septic Tank and Related Services Jobs 621111 Offices of Physicians (except Mental Health Specialists) Jobs 621330 Offices of Mental Health Practitioners (except Physicians) Jobs 621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists Jobs	453310	Used Merchandise Stores	Jobs	2
562991Septic Tank and Related ServicesJobs621111Offices of Physicians (except Mental Health Specialists)Jobs621330Offices of Mental Health Practitioners (except Physicians)Jobs621340Offices of Physical, Occupational and Speech Therapists, and AudiologistsJobs	484110	General Freight Trucking, Local	Jobs	5
621111 Offices of Physicians (except Mental Health Specialists)  621330 Offices of Mental Health Practitioners (except Physicians)  621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists  7	484220	Specialized Freight (except Used Goods) Trucking, Local	Jobs	2
621330 Offices of Mental Health Practitioners (except Physicians) Jobs 5 621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists Jobs 7	562991	Septic Tank and Related Services	Jobs	8
621340 Offices of Physical, Occupational and Speech Therapists, and Audiologists Jobs 7	621111	Offices of Physicians (except Mental Health Specialists)	Jobs	20
	621330	Offices of Mental Health Practitioners (except Physicians)	Jobs	5
722515 Snack and Nonalcoholic Beverage Bars Jobs 3	621340	Offices of Physical, Occupational and Speech Therapists, and Audiologists	Jobs	7
	722515	Snack and Nonalcoholic Beverage Bars	Jobs	3
812112 Beauty Salons Jobs 1	812112	Beauty Salons	Jobs	1
903622 Hospitals (Local Government) Jobs 5	903622	Hospitals (Local Government)	Jobs	5

Model Type: Type Emsi

Input-Output Year: 2020

## Aggregate Changes using Type Emsi Model

\$18,579,693

Change in Earnings
1.69 Multiplier

348

Change in Jobs 1.92 Multiplier \$1,221,397

Change in Taxes on Production and Imports (TPI)

## Scenario Results - Industry

NAICS	Industry	Change in Jobs	
11	Agriculture, Forestry, Fishing and Hunting	3	1
21	Mining, Quarrying, and Oil and Gas Extraction	0	I
22	Utilities	1	L
23	Construction	9	-
31	Manufacturing	91	
42	Wholesale Trade	18	_
44	Retail Trade	34	
48	Transportation and Warehousing	16	_
51	Information	3	1
52	Finance and Insurance	10	-
53	Real Estate and Rental and Leasing	11	-
54	Professional, Scientific, and Technical Services	13	-
55	Management of Companies and Enterprises	5	•
56	Administrative and Support and Waste Management and Remediation Services	25	_
61	Educational Services	3	1
62	Health Care and Social Assistance	55	
71	Arts, Entertainment, and Recreation	4	•
72	Accommodation and Food Services	21	
81	Other Services (except Public Administration)	15	_
90	Government	10	-

## Scenario Results - Occupation

		in Jobs	
11-0000 N	Management Occupations	22	
13-0000 E	Business and Financial Operations Occupations	14	
15-0000	Computer and Mathematical Occupations	4	•
17-0000 A	Architecture and Engineering Occupations	4	•
19-0000 L	Life, Physical, and Social Science Occupations	3	•
21-0000	Community and Social Service Occupations	4	•
23-0000 L	Legal Occupations	2	•
25-0000 E	Educational Instruction and Library Occupations	4	•
27-0000 A	Arts, Design, Entertainment, Sports, and Media Occupations	7	-
29-0000 H	Healthcare Practitioners and Technical Occupations	26	
31-0000 H	Healthcare Support Occupations	14	_
33-0000 F	Protective Service Occupations	2	•
35-0000 F	Food Preparation and Serving Related Occupations	20	
37-0000 E	Building and Grounds Cleaning and Maintenance Occupations	9	_
39-0000 F	Personal Care and Service Occupations	10	_
41-0000	Sales and Related Occupations	45	
43-0000	Office and Administrative Support Occupations	42	
45-0000 F	Farming, Fishing, and Forestry Occupations	1	T.
47-0000	Construction and Extraction Occupations	12	_
49-0000 I	Installation, Maintenance, and Repair Occupations	12	
51-0000 F	Production Occupations	57	
53-0000	Transportation and Material Moving Occupations	32	
55-0000 N	Military-only occupations	0	I
99-0000 l	Unclassified Occupation	1	L

# Scenario Results - Demographics

Demographics	Change in Jobs	
Female 14-18	4	-
Male 14-18	3	•
Female 19-21	7	_
Male 19-21	7	_
Female 22-24	9	_
Male 22-24	8	_
Female 25-34	32	
Male 25-34	36	
Female 35-44	35	
Male 35-44	39	
Female 45-54	29	
Male 45-54	38	
Female 55-64	28	
Male 55-64	38	
Female 65-99	13	
Male 65-99	22	

### **Aggregate Effect on Earnings**

\$11.0M

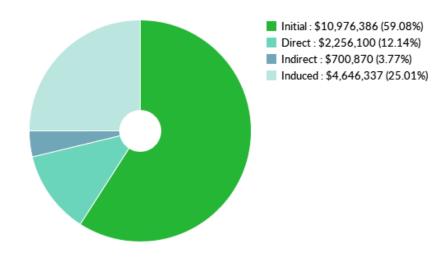
Initial 1.00 Multiplier \$2.3M

**Direct** 0.21 Multiplier

\$700,870

Indirect 0.06 Multiplier \$4.6M

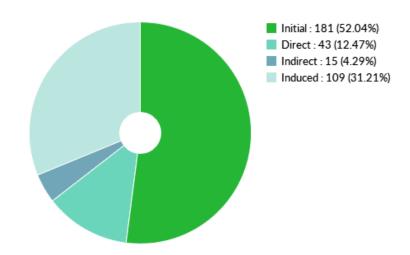
Induced 0.42 Multiplier



### Aggregate Effect on Jobs

181 Initial 1.00 Multiplier

43 Direct 0.24 Multiplier 15 Indirect 0.08 Multiplier 109 Induced 0.60 Multiplier



### Aggregate Effect on Taxes on Production and Imports

\$536,767

Local

\$463,008

State

\$221,621

Federal

# **Appendix A - Data Sources and Calculations**

#### Input-Output Data

The input-output model in this report is Emsi's gravitational flows multi-regional social account matrix model (MR-SAM). It is based on data from the Census Bureau's Current Population Survey and American Community Survey; as well as the Bureau of Economic Analysis' National Income and Product Accounts, Input-Output Make and Use Tables, and Gross State Product data. In addition, several Emsi in-house data sets are used, as well as data from Oak Ridge National Labs on the cost of transportation between counties.

#### **State Data Sources**

This report uses state data from the following agencies: Oklahoma Employment Security Commission