



THE UNIVERSITY OF
SOUTHERN
MISSISSIPPI.

Jackson County Economic Development Foundation Regional Impact Study



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THE TRENT LOTT NATIONAL CENTER FOR EXCELLENCE IN
ECONOMIC DEVELOPMENT AND ENTREPRENEURSHIP

DEPARTMENT OF ECONOMIC AND WORKFORCE DEVELOPMENT
THE UNIVERSITY OF SOUTHERN MISSISSIPPI

MAY 2013

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Abstract

The Jackson County Economic Development Foundation's (JCEDF) mission is to serve as a cooperative public-private catalyst for Jackson County's sustainable economic growth through the identification of planned industrial property, attraction of capital investment, quality job growth, and continuous industry support and expansion. JCEDF commissioned The University of Southern Mississippi's Trent Lott National Center for Excellence in Economic Development and Entrepreneurship to conduct an economic impact study of the outcomes of major projects worked on by the foundation in the last five years. The multi-phase impact study sought to define numeric indicators representing outcomes of the foundations services, programs, and performance results. This report represents phase one which includes the recommended performance measures and the economic impact analysis. Phase two possible will consist of a bench marking study comparing Jackson County to other comparable counties in the United States.

Introduction

Jackson County Economic Development Foundation (JCEDF) requested that The University of Southern Mississippi (USM) conduct a study to estimate the overall economic impact of the organization in Jackson County, MS over the past five years. This study involved two separate phases. The first phase was an examination of the broad spectrum of economic indicators commonly used by economic development organizations. Among these indicators, typical measures of performance included output measures, quality measures, outcome measures, and efficiency measures.

Any organization, especially one tasked with providing a public good, must have reliable metrics to measure the success or failure of its operations. The metrics for economic development organizations vary widely across the field, and each organization must give due consideration into measurements that best fit the overall mission and goals of the organization. The overall various types of indicators for this study was narrowed down from a broad spectrum of indicators to the most relevant measures needed to establish regular and continuous data collection and reporting of JCEDF's services.

An impact analysis using two different economic modeling software packages was conducted to estimate the total effect of job creation and investment in the county. Two of the most relevant performance measures included the number of new jobs created and the amount of capital expenditures invested in the projects. New jobs and capital investments create a ripple effect in the local economy, and an understanding of this multiplier effect is vital to the organizations performance measures. Using reliable economic modeling, organizations can reasonably estimate the overall impact of a project in the region.

Methodology

The first step in defining how to measure an organization's success is aligning the outcome measures with the organization's mission and goals. Early economic development practitioners measured success in terms of their activities more so than focusing on outcomes. The "number of requests for information received" and the "number of business visits made" are important to track, but they should not be the primary focus of performance measurement. Measuring outcomes can be more difficult to track if the information is not available through internal sources. Another challenge in measuring outcomes is isolating the impact that other organization's activities have on the results. Also, when measuring outcomes, it must be understood that factors other than the organizations' activities affect the results. A more effective set of metrics measures not only the direct impact to the organization but also its impact in the overall state of the area's economy (Ammons & Morgan, 2011; Derek Walker Consultancy; Matthew Fischer and Associates Inc, 2011; Sharkey & Fricker, 2009; and Washington Economic Development Commission, 2012).

Table 1 lists several performance measures commonly used by economic development organizations. For example, common outputs measure the dollar amount of investment created through economic development efforts; the number of jobs created through economic development efforts; or the number of jobs safeguarded through business retention efforts.

<i>Table 1. Organization Performance Measures</i>	
<u>Organizational Outputs</u>	<u>Overall Area Economy</u>
Dollar amount of investment created through economic development efforts	Number of jobs
Number of new jobs created through economic development efforts	Percentage increase in business tax base
Number of jobs safeguarded through business retention efforts	Unemployment rate
Mean hourly wage of jobs created/retained through incentive programs	Percentage above the average wage for all new jobs created
Dollars of private investment leveraged per dollar of public investment	Number of business licenses issued
Percentage of active business leads that choose to locate in area	New business registrations in current year as a percentage of all active taxpayer businesses
Organizational cost per job created	Rates of vacancy and occupancy
Client satisfaction	Retail occupancy rate
Percentage of potential jobs at risk that are retained	Number of people who are chronically homeless
Ratio of jobs to employed residents	Number of small businesses per 1000 residents
	Office space vacancy rate
<i>Organizational Activities</i>	Occupancy of existing and available industrial space
Percentage of site searches completed within two business days	Percentage of residents living below the poverty level
Percentage of information packets mailed within 24 hours of request	Median household income
Number of business visits completed	Population growth
	Business closures
<i>Quality of Life Measurements</i>	Median number of business years (average number of years businesses operating in community)
Percentage of workers who commute less than 15 minutes to work, minus the percentage who commute more than 45 minutes	Output per capita (Total output created in a community divided by the number of employees of that community)
Ratio of house value per \$1,000 of median household income	
Ratio of real-estate taxes per \$1,000 of median household income	<i>Targeted areas (i.e. Downtown or Industrial Park)</i>
College Bound Percentage	Value of new construction downtown
College Education Percentage	Downtown office/retail vacancy rate
	Growth in appraised value of downtown

While this list highlights common measures, there may be additional metrics beneficial for JCEDF such as benchmarks used in national rankings as indicated in Table 2.

<i>Table 2. National Benchmark Performance Measures</i>		
<u>Ranking</u>	<u>Compiled By</u>	<u>Description</u>
Best-Performing Cities Index	Milken Institute and Greenstreet Real Estate Partners	Ranks U.S. metropolitan areas according to their performance in creating and sustaining jobs and economic growth
State of Metro America	Brookings Institution	Focuses beyond economic development alone, but it includes individual rankings of metro areas on such indicators as median household income and hourly wages
Economic Strength Rankings	POLICOM	Features economic stability and consistency of growth among a variety of other factors in gauging economic strength

For example, Best Performing Cities Index compiled by Milken Institute and Greenstreet Real Estate Partners ranks U.S. metropolitan areas according to their performance in creating and sustaining jobs and economic growth. USM faculty and student researchers collaborated with JCEDF to narrow the list of outcome measures to those most aligned with the organizations mission and goals. USM developed a recommended list of outcome measures that help capture changes in economic activity in Jackson County from 2008 to 2012 that were directly influenced by JCEDF.

Factual performance measures were obtained from various external sources of which JCEDF can develop trend data over time to measure future project outcomes. Table 3 provides the source from which the statistics were gathered, and where possible, the trend over a five year period of time.

Metric	2008	2009	2010	2011	2012	Source
General Economy Measures						
County Unemployment Rate	5.9%	8.2%	9.7%	11.2%	9.8%	Bureau of Labor Statistics
State Unemployment Rate	6.8%	6.8%	9.4%	10.5%	9.2%	Bureau of Labor Statistics
National Unemployment Rate	5.8%	9.3%	9.6%	8.9%	8.1%	Bureau of Labor Statistics
County Employment	61,103	58,737	57,827	58,291	No data available	U.S. Census Bureau
Total Jobs	51,728	50,858	51,510	48,336	47,969	
County Workforce	65,375	65,158	66,735	65,756	No data available	U.S. Census Bureau
County Population	137,788	139,172	139,661	139,903	141,072	EMSI
County Median Household Income	\$51,034	\$48,197	\$45,766	\$47,672	No data available	U.S. Census Bureau
State Median Household Income	\$37,818	\$36,764	\$36,992	\$36,963	No data available	U.S. Census Bureau
Economic Development Outcome Measures						
Dollar amount of investment created through economic development efforts	2.83 billion since 2004					JCEDF
Number of new jobs created through economic development efforts	580	18	27	95	528	JCEDF
Corporate Income and Franchise tax revenue after credits/percentage change	\$2,567,215 25.3%	\$2,264,418 -11.8%	\$1,661,245 -26.7%	\$3,257,905 96.1%	\$6,490,630 99.2%	Mississippi Department of Revenue
Average earnings of jobs created/retained through incentive programs	\$81,759 34% higher than the county average (\$60,743)					EMSI and JCEDF
Dollars of private investment leveraged per dollar of public investment	<i>Total all years:</i> \$21.01					JCEDF
Ratio of jobs to employed residents	.90	.90	.89	.87	.92	U.S. Census Bureau and EMSI
Number of small businesses per 1000 residents	17.3	16.8	16.3	Data not available	Data not available	U.S. Census Bureau
Output per capita (GRP per capita)	\$91,951	\$109,583	\$95,241	\$101,551	\$101,592	EMSI

Benchmark Measures (Pascagoula MSA)						
Best-Performing Cities Index (of 179)	45	11	26	40	56	Milken Institute
POLICOM-Economic Strength Rankings (of 366)	360	364	292	252	245	Policom
Current Employment Statistics: Job Growth from 2011-2012	1 st in Mississippi (of 5)		72 of 372 MSAs Nationally			Bureau of Labor Statistics
Construction Job Growth 03/11-03/12	1 st in Mississippi (of 5)		1 st Nationally			Association of General Contractors
"Backcasting" Metrics Using EMSI & REMI						
	Number	Avg Earnings		State Earnings		
"Good Jobs" Created	1,684	\$88,414.93		\$84,046.35		EMSI
Total Jobs created through JCEDF Projects	1,997	\$81,759.47		\$79,046.39		JCEDF/EMSI
Direct jobs	481					EMSI
In-Direct jobs	99					
Induced Jobs	1,371					
Total Impact on Jobs	3,948					
Change in Earnings	231,974,650					EMSI
Change in State Tax revenue	13,593,714					EMSI and Mississippi Tax Commissions
Average Earnings Per Jobs	\$58,763					EMSI
County Unemployment Rate Minus These Jobs	14.4% in 2012					BLS and EMSI

JCEDF supplied USM with the amount of capital investment and the number of new jobs. Table 4 shows the data supplied by JCEDF.

Company	Jobs	NAICS	Date	Private Investment	Public Investments
Signal International	340	33611	2008	\$10 million Cap Ex	\$8M grant from state
Sunplex Park	400			\$50 million Cap Ex	See original attachment
Singing River Island	10	541430	2008	\$4 million Cap Ex	\$1.8M grant from state
Singing River Island	30	541330	2008		
Singing River Island	40	926120	2008		
Tindal	200	327390	2008	\$25 million Cap Ex	
Rolls Royce	50	331529	2005	\$15 million Cap Ex	
BP	30	486210	2004	\$50 million Cap Ex	
VT Halter	400	336611	2012	\$32 million Cap Ex	\$20 in state funds
VT Halter	180	336611	2007	\$8 million Cap Ex	\$5 million in state funds
Northrop Grumman	75	336411	2006	\$30 million Cap Ex	\$300,000 in DIP
H-I Maritime Training	50	336611	2012	\$25 million Cap Ex	\$20 million grant from state
Signet Maritime	50	336611	2012	\$7.2 million Cap Ex	\$3.6 million grant from state
Zachry	63	331210	2012	\$5 million Cap Ex	
Gulf LNG	50	486210	2011	\$1.1 billion Cap Ex	
Hwy 611 Expansion	60	324110	2013		\$35 million in DOT \$35 million in CDBG
Chevron Expansion	20	324100	2013	\$1.4 billion Cap Ex	

USM validated these numbers by examining the historical labor force data and industry data from which the jobs were created or retained. Two economic modeling software packages, EMSI and REMI, were used to analyze the economic impact of a five county region (Jackson, Harrison, George, Stone, and Mobile, AL). See Appendix A and B. Using a “backcasting” approach, USM simulated a scenario in which the jobs would not have existed if the projects had not been undertaken. The software generated results in terms of negative numbers, showing the hypothetical negative impact on the region if the jobs were not present. The impact analysis was performed using two separate scenarios. The first estimated the impact of the permanent jobs created or retained and the second estimated the impact of the capital and construction investments. The EMSI Input/Output Model was the primary software used, and REMI was used to validate the results.

Discussion

While many metrics are straightforward and easily understood, there were a few that require some explanation. For example, the unemployment rate for the county is volatile over the five years. Part of this can be attributed to the national economy and the recession that began in 2008. The unemployment rate changed by an average of 1.68% each year from 2008 to 2011. By 2012, the unemployment rate had dropped back to its 2010 level. Jackson County's unemployment rate may be particularly volatile due to shifts in employment demand in the shipbuilding industry. Shipbuilding companies are some of the largest employers in the county and follow a cyclical pattern of employment.

Another metric that may require further explanation is the "number of jobs to employed residents ratio". This number indicates whether more residents work outside county or within the county. If the ratio is greater than one, then more people commute into the county for work. If the ratio is less than one, then more residents commute to jobs outside of the county.

"Good Jobs Created" was defined by comparing the average earnings for jobs in the particular industries in which they were created or retained. If the average earnings for the newly created or retained jobs were ten percent higher than Jackson County's overall average for that particular industry, then the job was considered "good" or high quality. See Appendix C.

The project studied by the USM team estimated the negative affect of higher unemployment rates that would have most likely existed if the projects had not been undertaken. The EMSI software allowed the team to evaluate job loss as a multiplier effect in the local economy. In other words, if the 1,997 total direct jobs had not been created, the multiplier effect or "ripple effect" of the lack of 3,948 jobs would have also been negatively affected. The

unemployment rate for the county would have more likely been around 14.4% instead of 9.8% as of 2012.

The *initial* effect is comprised of those 1,784 jobs that JCEDF helped create and we are removing them from the economy. The direct, indirect, and induced effects all result in the spinoff jobs.

The *direct* effect flows out of the initial impact. Those 1,784 less jobs means those industries become less active. This is supply chain activity. As the supply chain industries decrease their production, they lower their employment. This results in that loss of 355 jobs listed there.

The *indirect* effect is really a secondary supply chain effect — these jobs are lost from the supply chains of companies that JCEDF assisted. This happens when those industries lowered activity prompts job loss in an industry, which sets off the same kind of reaction in its own supply chain. Those 61 indirect jobs result from this process.

The *induced* effect is a much broader effect, as evidenced by the number of jobs represented there. Think of this as the grocery store effect. The community lost 1,784 jobs due to the initial effect, 355 due to the direct effect, and 61 due to the indirect effect, for a total of 2,200 jobs. Those 2,200 jobs are lost to the region. They represent 2,200 *less paychecks* and those paychecks get spent. They get spent on whatever the employee spends on his/her paycheck. This increase in economic activity results in grocery stores hiring more workers, or new grocery stores moving into the area. As the region grows, more restaurants flow in. The mall expands to meet the needs of new shoppers, and so on. These 2,200 jobs result in 876 additional jobs, due to the induced effect.

In general, performance outcomes that are aligned with national indicators provide more robust information for decision-making purposes. This is particularly effective when the outcomes can be compared to other similar counties. For example, “small businesses per 1,000 residents” is not as beneficial of a performance measure without knowing how it compares to others.

One key observation that may warrant further analysis is why the overall job growth, such as “total jobs” and “unemployment”, generally decline over the five-year period despite the work of JCEDF. On the other hand, productivity growth, such as GRP per capita and tax revenues, increased during that time. Further analysis may help the foundation determine whether these indicators are relevant for future decisions.

Limitations

For the purpose of this study, the USM team isolated the types of information that would be relevant for JCEDF that was most likely to align with the organization’s mission and goals. The study did not examine the performance outcomes of the five-county region as compared to the detailed performance measures defined for Jackson County. The input/output economic impact analyses did include the five-county region. Some metrics was measured by the team at the Metropolitan Statistical Area (MSA) level. For example, the Pascagoula MSA extends farther than Jackson County without covering the whole study region.

JCEDF assisted with other projects and services not included in this study because their leadership could not be isolated from decisions made by other entities. Regarding the performance measures that evaluated tax-related outcomes, the study only evaluated the effect on state taxes and did not examine the impact on local taxes.

Recommendations

Upon completion of this study, USM will have completed phase one of the multi-phased project for JCEDF. Phase one included defining numeric indicators for performance outcomes that could be used for reporting the organizations services, programs, and results. Phase one also included an economic impact study on jobs created or retained and on capital investments of projects undertaken from 2008 through 2012. USM recommends beginning phase two of the study to conduct a benchmark study comparing these outcome measures to other comparable counties. Comparisons would provide even more insight into the strengths and weaknesses of the organization.

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Appendix A

Report

Aggregate Changes

-\$231,974,650 Change in Earnings 1.48 Multiplier	-3,948 Change in Jobs 1.98 Multiplier	\$58,763 Average Earnings Per Job (2012)
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Scenario Results - Industry

NAICS	Industry	Change in Jobs
11	Agriculture, Forestry, Fishing and Hunting	-2
21	Mining, Quarrying, and Oil and Gas Extraction	-7
22	Utilities	-8
23	Construction	-409 
31	Manufacturing	-1,401 
42	Wholesale Trade	-84 
44	Retail Trade	-264 
48	Transportation and Warehousing	-144 
51	Information	-25
52	Finance and Insurance	-102 
53	Real Estate and Rental and Leasing	-83 
54	Professional, Scientific, and Technical Services	-274 
55	Management of Companies and Enterprises	-36
56	Administrative and Support and Waste Management and Remediation Services	-209 
61	Educational Services (Private)	-55 
62	Health Care and Social Assistance	-259 
71	Arts, Entertainment, and Recreation	-36
72	Accommodation and Food Services	-193 
81	Other Services (except Public Administration)	-179 
90	Government	-176 

Scenario Results - Occupation

SOC	Occupation	Change in Jobs
11-0000	Management Occupations	-215
13-0000	Business and Financial Operations Occupations	-158
15-0000	Computer and Mathematical Occupations	-38
17-0000	Architecture and Engineering Occupations	-184
19-0000	Life, Physical, and Social Science Occupations	-28
21-0000	Community and Social Service Occupations	-20
23-0000	Legal Occupations	-16
25-0000	Education, Training, and Library Occupations	-90
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	-69
29-0000	Healthcare Practitioners and Technical Occupations	-105
31-0000	Healthcare Support Occupations	-64
33-0000	Protective Service Occupations	-48
35-0000	Food Preparation and Serving Related Occupations	-168
37-0000	Building and Grounds Cleaning and Maintenance Occupations	-138
39-0000	Personal Care and Service Occupations	-120
41-0000	Sales and Related Occupations	-327
43-0000	Office and Administrative Support Occupations	-443
45-0000	Farming, Fishing, and Forestry Occupations	-4
47-0000	Construction and Extraction Occupations	-617
49-0000	Installation, Maintenance, and Repair Occupations	-216
51-0000	Production Occupations	-643
53-0000	Transportation and Material Moving Occupations	-217
55-0000	Military occupations	0
99-0000	Unclassified Occupation	-20

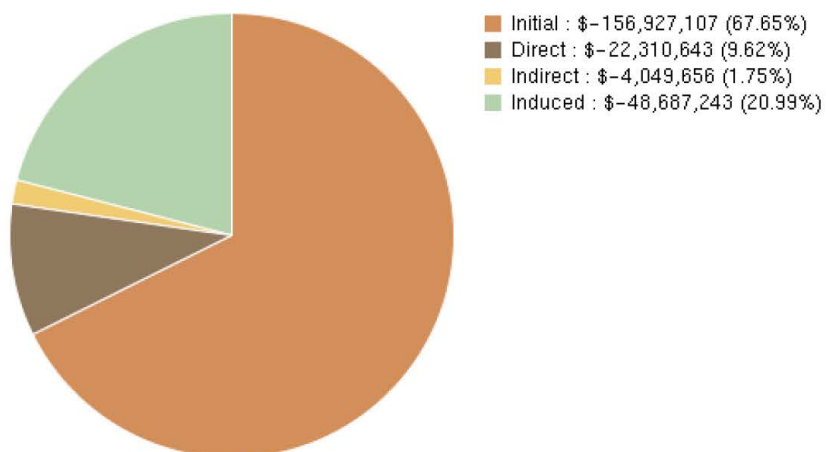
Scenario Results - Demographic

Demographic	Change in Jobs
Male 14-18	-30
Female 14-18	-30
Male 19-21	-96
Female 19-21	-73
Male 22-24	-127
Female 22-24	-83
Male 25-34	-511
Female 25-34	-285
Male 35-44	-574
Female 35-44	-311
Male 45-54	-636
Female 45-54	-335
Male 55-64	-441
Female 55-64	-222
Male 65-99	-125
Female 65-99	-68

* Scenario Results Summary - Settings

test 4 | Aggregate Effect on Earnings

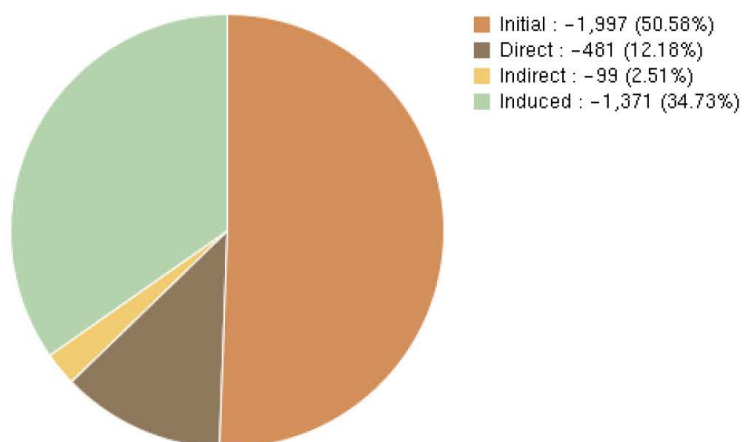
\$-156,927,107	\$-22,310,643	\$-4,049,656	\$-48,687,243
Initial	Direct	Indirect	Induced
1.00 Multiplier	0.14 Multiplier	0.03 Multiplier	0.31 Multiplier



* Scenario Effect on Earnings - Settings

test 4 | Aggregate Effect on Jobs

-1,997 Initial 1.00 Multiplier	-481 Direct 0.24 Multiplier	-99 Indirect 0.05 Multiplier	-1,371 Induced 0.69 Multiplier
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* Scenario Effect on Jobs - Settings

Scenario Results Summary - Settings

Region Name: test 4

Region Areas:

County Areas: Mobile, AL (1097), George, MS (28039), Harrison, MS (28047), Jackson, MS (28059), Stone, MS (28131)

Timeframe: 2012

Selection Type: 6 Digit Industry Scenario

Selection:

100	Industry Name	Change
236210	Industrial Building Construction	Jobs -200
236220	Commercial and Institutional Building Construction	Jobs -60
237130	Power and Communication Line and Related Structures Construction	Jobs -35
238210	Electrical Contractors and Other Wiring Installation Contractors	Jobs -10
324110	Petroleum Refineries	Jobs -80
327390	Other Concrete Product Manufacturing	Jobs -4
331210	Iron and Steel Pipe and Tube Manufacturing from Purchased Steel	Jobs -63
331525	Copper Foundries (except Die-Casting)	Jobs -44
332912	Fluid Power Valve and Hose Fitting Manufacturing	Jobs -18
333314	Optical Instrument and Lens Manufacturing	Jobs -37
336611	Ship Building and Repairing	Jobs -1095
337110	Wood Kitchen Cabinet and Countertop Manufacturing	Jobs -7
423830	Industrial Machinery and Equipment Merchant Wholesalers	Jobs -3
424210	Drugs and Druggists' Sundries Merchant Wholesalers	Jobs -29
454210	Vending Machine Operators	Jobs -23
485510	Charter Bus Industry	Jobs -15
486210	Pipeline Transportation of Natural Gas	Jobs -80
541330	Engineering Services	Jobs -70

100	Industry Name	Change
541380	Testing Laboratories	Jobs -17
541430	Graphic Design Services	Jobs -10
541620	Environmental Consulting Services	Jobs -18
551114	Corporate, Subsidiary, and Regional Managing Offices	Jobs -27
561730	Landscaping Services	Jobs -15
623110	Nursing Care Facilities	Jobs -37

Dataset Version: QCEW Employees - EMSI 2013.1 Class of Worker

Scenario Effect on Earnings - Settings

Region Name: test 4

Region Areas:

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541380	Testing Laboratories	Jobs -17
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561730	Landscaping Services	Jobs -15
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Dataset Version: QCEW Employees - EMSI 2013.1 Class of Worker

Scenario Effect on Jobs - Settings

Region Name: test 4

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332912	Fluid Power Valve and Hose Fitting Manufacturing	Jobs -18
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561730	Landscaping Services	Jobs -15
623110	Nursing Care Facilities	Jobs -37

Dataset Version: QCEW Employees - EMSI 2013.1 Class of Worker

Data Sources and Calculations

Input-Output Data

The input-output model in this report is created using the national Input-Output matrix provided by the federal Bureau of Economic Analysis. This is combined with the national Total Gross Output, the regional Total Gross Output, the land area of the subject region, regional DIRT data and regional in/out commuter patterns in order to calculate regional requirements, imports and exports. After using matrix algebra to calculate the regional multiplier, the resulting matrix is multiplied by the sales vector and converted back to jobs or earnings. Specifically, this data comes from the U.S. Department of Commerce, Bureau of Economic Analysis, Industry Economic Accounts: Benchmark & Annual Input-Output (I-O) Accounts.

State Data Sources

This report uses state data from the following agencies: Alabama Department of Industrial Relations; Mississippi Department of Employment Security








Appendix B

966.77m in construction sales

























Changes to Industrial Building Construction (236210)

\$621,468,417 Change in Earnings 1.35 Multiplier	11,512 Change in Jobs 1.60 Multiplier	\$53,982 Average Earnings Per Job (2012)
---	--	--

















Scenario Results - Industry

NAICS	Industry	Change in Jobs
11	Agriculture, Forestry, Fishing and Hunting	6
21	Mining, Quarrying, and Oil and Gas Extraction	13
22	Utilities	13
23	Construction	7,340 
31	Manufacturing	180
42	Wholesale Trade	87
44	Retail Trade	830 
48	Transportation and Warehousing	97
51	Information	53
52	Finance and Insurance	145
53	Real Estate and Rental and Leasing	199
54	Professional, Scientific, and Technical Services	368 
55	Management of Companies and Enterprises	7
56	Administrative and Support and Waste Management and Remediation Services	308 
61	Educational Services (Private)	135
62	Health Care and Social Assistance	549 
71	Arts, Entertainment, and Recreation	76
72	Accommodation and Food Services	426 
81	Other Services (except Public Administration)	443 
90	Government	238

Scenario Results - Occupation

SOC	Occupation	Change in Jobs
11-0000	Management Occupations	987 
13-0000	Business and Financial Operations Occupations	379 
15-0000	Computer and Mathematical Occupations	53 
17-0000	Architecture and Engineering Occupations	271 
19-0000	Life, Physical, and Social Science Occupations	27 
21-0000	Community and Social Service Occupations	43 
23-0000	Legal Occupations	35 
25-0000	Education, Training, and Library Occupations	148 
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	101 
29-0000	Healthcare Practitioners and Technical Occupations	228 
31-0000	Healthcare Support Occupations	124 
33-0000	Protective Service Occupations	63 
35-0000	Food Preparation and Serving Related Occupations	365 
37-0000	Building and Grounds Cleaning and Maintenance Occupations	262 
39-0000	Personal Care and Service Occupations	278 
41-0000	Sales and Related Occupations	853 
43-0000	Office and Administrative Support Occupations	1,114 
45-0000	Farming, Fishing, and Forestry Occupations	9 
47-0000	Construction and Extraction Occupations	5,181 
49-0000	Installation, Maintenance, and Repair Occupations	321 
51-0000	Production Occupations	255 
53-0000	Transportation and Material Moving Occupations	396 
55-0000	Military occupations	0 
99-0000	Unclassified Occupation	21 

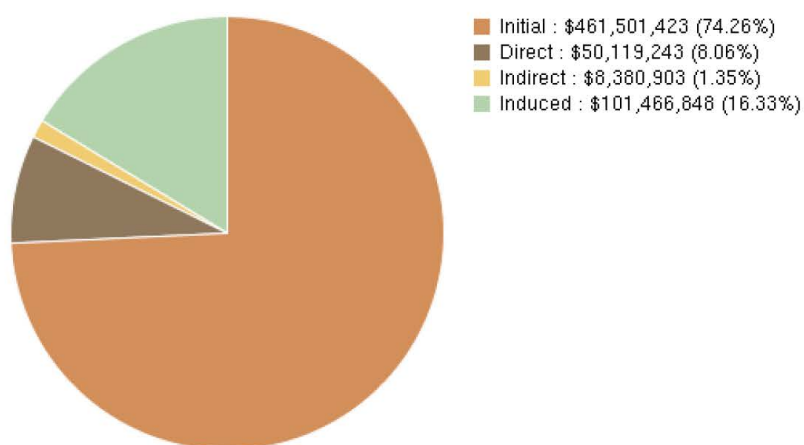
Scenario Results - Demographic

Demographic	Change in Jobs	
Male 14-18	159	
Female 14-18	83	
Male 19-21	712	
Female 19-21	235	
Male 22-24	667	
Female 22-24	221	
Male 25-34	2,131	
Female 25-34	628	
Male 35-44	1,794	
Female 35-44	678	
Male 45-54	1,486	
Female 45-54	722	
Male 55-64	983	
Female 55-64	444	
Male 65-99	380	
Female 65-99	191	

* Scenario Results Summary - Settings

test 4 | Effect on Earnings from adding \$966,770,000 in Sales to Industrial Building Construction

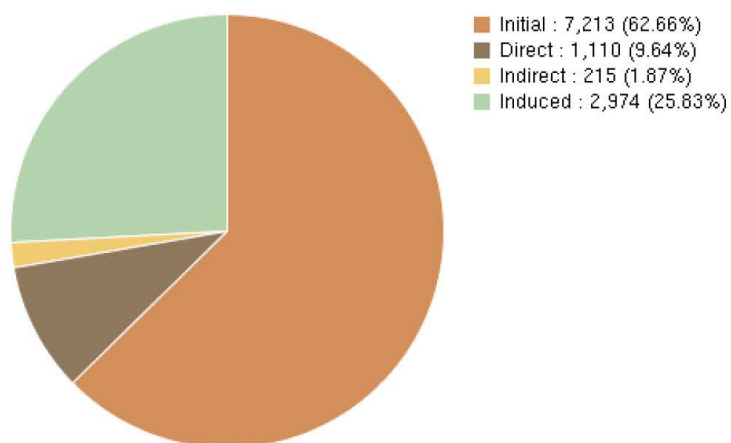
\$461,501,423	\$50,119,243	\$8,380,903	\$101,466,848
Initial	Direct	Indirect	Induced
1.00 Multiplier	0.11 Multiplier	0.02 Multiplier	0.22 Multiplier



* Scenario Effect on Earnings - Settings

test 4 | Effect on Jobs from adding \$966,770,000 in Sales to Industrial Building Construction

7,213 Initial 1.00 Multiplier	1,110 Direct 0.15 Multiplier	215 Indirect 0.03 Multiplier	2,974 Induced 0.41 Multiplier
--	---	---	--



* Scenario Effect on Jobs - Settings

Scenario Results Summary - Settings

Region Name: test 4

Region Areas:

County Areas: Mobile, AL (1097), George, MS (28039), Harrison, MS (28047), Jackson, MS (28059), Stone, MS (28131)

Timeframe: 2012

Selection Type: 6 Digit Industry Scenario

Selection:

100	Industry Name	Change
236210	Industrial Building Construction	Sales 966770000

Dataset Version: QCEW Employees - EMSI 2013.1 Class of Worker

Scenario Effect on Earnings - Settings

Region Name: test 4

Region Areas:

County Areas: Mobile, AL (1097), George, MS (28039), Harrison, MS (28047), Jackson, MS (28059), Stone, MS (28131)

Timeframe: 2012

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100	Industry Name	Change
236210	Industrial Building Construction	Sales 966770000

Dataset Version: QCEW Employees - EMSI 2013.1 Class of Worker

Scenario Effect on Jobs - Settings

Region Name: test 4

Region Areas:

County Areas: Mobile, AL (1097), George, MS (28039), Harrison, MS (28047), Jackson, MS (28059), Stone, MS (28131)

Timeframe: 2012

Selection Type: 6 Digit Industry Scenario

Selection:

100	Industry Name	Change
236210	Industrial Building Construction	Sales 966770000

Dataset Version: QCEW Employees - EMSI 2013.1 Class of Worker

Data Sources and Calculations

Input-Output Data

The input-output model in this report is created using the national Input-Output matrix provided by the federal Bureau of Economic Analysis. This is combined with the national Total Gross Output, the regional Total Gross Output, the land area of the subject region, regional DIRT data and regional in/out commuter patterns in order to calculate regional requirements, imports and exports. After using matrix algebra to calculate the regional multiplier, the resulting matrix is multiplied by the sales vector and converted back to jobs or earnings. Specifically, this data comes from the U.S. Department of Commerce, Bureau of Economic Analysis, Industry Economic Accounts: Benchmark & Annual Input-Output (I-O) Accounts.

State Data Sources

This report uses state data from the following agencies: Alabama Department of Industrial Relations; Mississippi Department of Employment Security

Appendix C

Jobs	NAICS	Industry Description	County Salary	State Salary	National Salary	Compared to State	Compared to Nation
1,095	336611	Ship Building and Repairing	\$80,507	\$78,829	\$79,626	2%	1%
10	541430	Graphic Design Services	\$50,528	\$46,560	\$67,379	9%	-25%
70	541330	Engineering Services	\$83,228	\$78,307	\$101,394	6%	-18%
200	236210	Industrial Building Construction	\$67,338	\$71,735	\$87,709	-6%	-23%
50	331525	Copper Foundries (except Die-Casting)	\$87,992	\$87,992	\$63,695	0%	38%
80	486210	Pipeline Transportation of Natural Gas	\$167,962	\$100,622	\$157,185	67%	7%
63	237310	Highway, Street, and Bridge Construction	\$59,332	\$50,709	\$72,785	17%	-18%
80	324110	Petroleum Refineries	\$199,031	\$197,333	\$238,167	1%	-16%
3	423830	Industrial Machinery and Equipment Merchant Wholesalers	\$70,371	\$60,241	\$79,956	17%	-12%
27	551114	Corporate, Subsidiary, and Regional Managing Offices	\$77,636	\$90,929	\$122,468	-15%	-37%
15	561730	Landscaping Services	\$34,315	\$30,719	\$35,109	12%	-2%
18	541620	Environmental Consulting Services	\$33,483	\$66,730	\$80,985	-50%	-59%
37	333314	Optical Instrument and Lens Manufacturing	\$50,137	\$50,137	\$93,347	0%	-46%
60	236220	Commercial and Institutional Building Construction	\$65,143	\$56,601	\$77,951	15%	-16%
23	454210	Vending Machine Operators	\$28,778	\$29,926	\$37,696	-4%	-24%
7	337110	Wood Kitchen Cabinet and Countertop Manufacturing	\$43,566	\$33,479	\$44,170	30%	-1%
17	541380	Testing Laboratories	\$60,401	\$67,174	\$79,086	-10%	-24%

17	541611	Administrative Management and General Management Consulting Services	\$96,332	\$73,975	\$114,618	30%	-16%
29	424210	Drugs and Druggists' Sundries Merchant Wholesalers	\$61,020	\$103,421	\$116,657	-41%	-48%
35	237130	Power and Communication Line and Related Structures Construction	\$45,441	\$63,279	\$77,746	-28%	-42%
18	332912	Fluid Power Valve and Hose Fitting Manufacturing	\$55,283	\$64,734	\$78,047	-15%	-29%
37	623110	Nursing Care Facilities	\$35,456	\$31,282	\$36,298	13%	-2%
10	238210	Electrical Contractors and Other Wiring Installation Contractors	\$73,538	\$55,598	\$67,122	32%	10%
15	485510	Charter Bus Industry	\$27,062	\$27,508	\$34,362	-2%	-21%
4	327390	Other Concrete Product Manufacturing	\$62,519	\$48,520	\$55,585	29%	12%

Appendix D



Jackson County Economic
Development Foundation
Projects Impact Study

May 30, 2013
Spring Investors Meeting

Chad R. Miller, Ph.D.

Alex Pickle

Shannon Campbell, Ph.D.

Mark Miller, Ph.D.



Trent Lott National Center
for Excellence in Economic
Development and
Entrepreneurship

- A thought-leader and resource for economic development
- Main contact for outreach at Southern Miss
- Applying university knowledge and expertise to the economic needs of Mississippi
- Dr. Shannon Campbell, Director



Economic Development and Tourism Department

- Now part of the College of Business
- Degrees
 - Hotel, Restaurant & Tourism Mgmt B.S.
 - Tourism B.S.B.A.
 - Casino & Resort Mgmt BS
 - Masters of Science in Economic Development
- Certificates
 - Casino Management Certificate
 - Graduate Certificate in Economic Development



Masters of Science in Economic Development Program

- Leading graduate program for preparing generalist in the practice of US-based local/regional economic development
- First of its kind program founded in 1982
- 30 hr Hybrid-In-Person Format
- Students required to do real world projects

Research Question

What was the regional economic development impact that resulted from the collaborative JCEDF, Port, County, and Airport assistance given to a number of companies in the last five years?

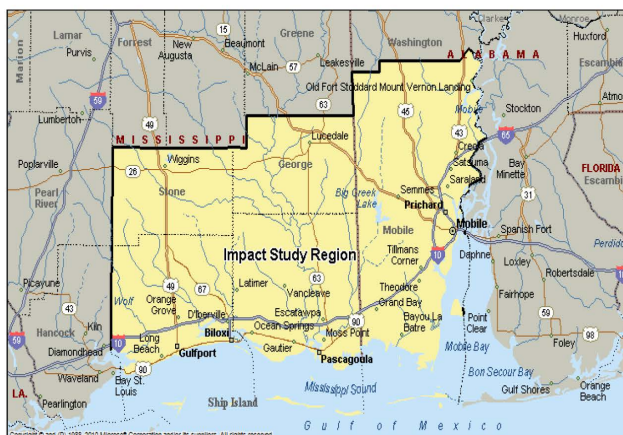
Limitations

- Did not examine the overall regional economy
- Did not examine the overall impact from the companies that JCEDF assisted
- Did not examine the impact on local taxes

Supply chains and workers do not recognize county lines

Study Region

- Jackson County
- Harrison County
- Stone County
- George County
- Mobile County





What is economic development?

Economic development (ED) is the management of public-private investment collaborations to facilitate sustainable growth in the economy as typically measured by job creation, increased citizen wealth, a greater tax base, and improved quality-of-life.



Different Organizations have Different Approaches to Economic Development

- JCEDF leverages the resources of the Port of Pascagoula, Jackson County, Chamber of Commerce, Airport Authority, municipalities, and private companies for industrial retention, expansion, and recruitment
- The Area Development Partnership in Hattiesburg
 - Business Development, but also Community Development and Chamber of Commerce
- Convention & Visitor Bureau
 - Tourism
- Trend is toward regional organizations that combines the function of the chamber of commerce, tourism, community development and business development into a single entity
- Best approach depends on the context, but takes a community working together to improve overall economic development indicators



What does academic research show are the best approaches to economic development?

- Investments in activities that are the bedrock of local governments appear to make significant contributions to the economic health of communities.
- Policies and activities that make the community a better place to live: good local schools, safe streets, parks, public buildings, and spaces
- A balanced economic development approach then builds on this

Reese, L. A. and Y. Minting "Policy Versus Place Luck: Achieving Local Economic Prosperity." [Economic Development Quarterly](#) 25(3): 221-236



Methodology

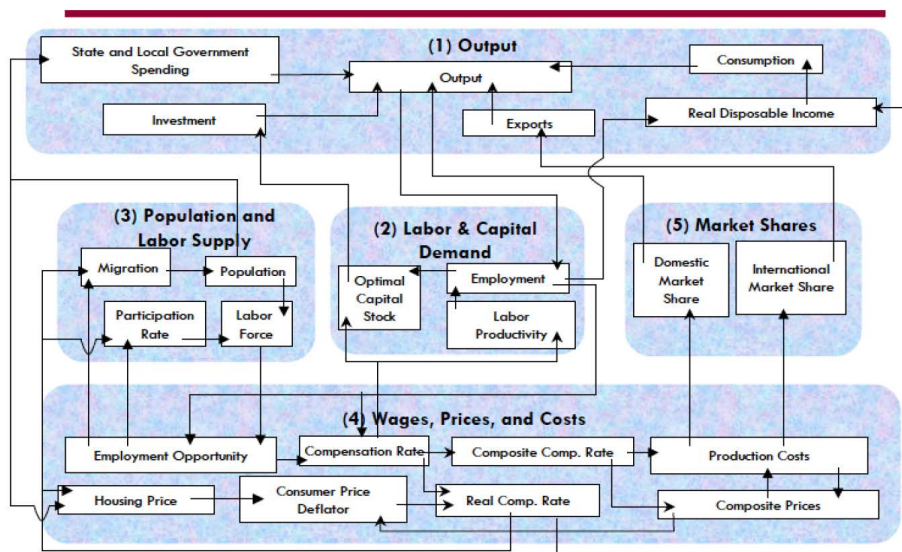
1. USM along with JCEDF developed measures that help capture changes in economic activity for Jackson County from 2007 to 2012 that were potentially influenced by JCEDF
 - Examined national best practices in measurement
2. JCEDF supplied USM with the amount of investment and number of jobs that they helped attract, retain, or expand
 - USM verified these numbers were plausible by examining the historical labor force data
 - Collected EMSI salary data on the NAICS codes of the jobs created/retained

3. USM utilized two economic impact models (e.g., EMSI and REMI) to analyze the economic impact to the region
 - Utilized a “backcasting” approach
 - Pulled the jobs and investment out of the regional economy
 - Ran two scenarios in each model
 - Removed the permanent jobs attracted, retained, or expanded
 - Removed the one time capital and construction investment controlling for Regional Purchase Coefficient (RPC)
 - Principally used the EMSI Input/Output Model with REMI used to compare the results
 - REMI package does not include Alabama

EMSI Input/Output Model

Sector	Commodity	Total	Pct. of	U.S.	Pct. of	Imports	Production
		Inputs	Production	Inputs	Production		
283	Motor vehicle parts manufacturing	41,573.98	47.6%	28,370.62	32.5%	13,203.36	15.1%
319	Wholesale trade businesses	5,730.49	6.6%	5,730.49	6.6%	-	0.0%
381	Management of companies and enter	2,303.96	2.6%	2,303.96	2.6%	-	0.0%
279	Motor vehicle body manufacturing	1,723.08	2.0%	1,630.65	1.9%	92.43	0.1%
243	Semiconductor and related device	1,312.27	1.5%	876	1.0%	436.27	0.5%
225	Other engine equipment manufactur	1,210.06	1.4%	973.89	1.1%	236.17	0.3%
150	Tire manufacturing	1,057.35	1.2%	614.95	0.7%	442.40	0.5%
159	Glass product manufacturing made	979.88	1.1%	738.78	0.8%	241.10	0.3%
240	Audio and video equipment manufac	950.49	1.1%	212.97	0.2%	737.52	0.8%
335	Transport by truck	889.32	1.0%	881.24	1.0%	8.08	0.0%

REMI Econometric Model



Multiplier Effect

• *Initial* jobs are comprised of those jobs that JCEDF helped create. The direct, indirect, and induced effects all result in spinoff jobs.

• The *direct* effect flows out of the initial impact. Those created/retained jobs mean those industries become *more active*. This is supply chain activity. As the supply chain industries increase their production, they increase their employment.

• The *indirect* effect is really a secondary supply chain effect — these jobs are created by the supply chains of companies that JCEDF assisted. This happens when those industries increased activity prompts job creation in an industry, which sets off the same kind of reaction in its own supply chain.

• The *induced* effect is a much broader effect, as evidenced by the number of jobs represented there. The increase in employment in the region increases the number of paychecks being spent in the area. Induced jobs are created to satisfy the increase in demand for groceries, entertainment, local services, etc



National Best Practices in Economic Development Measurement

Performance Metric	JCDEF Measure
Dollar amount of investment created through economic development efforts	\$2.83b
Number of new jobs created through economic development efforts	1,997
Corporate Income and Franchise tax revenue after credits/percentage change	\$6,490,630 99.2%
Average earnings of jobs created/retained through incentive programs	\$81,759
Dollars of private investment leveraged per dollar of public investment	\$21.01
Output per capita (GRP per capita)	\$101,592 -2012 \$91,951-2008

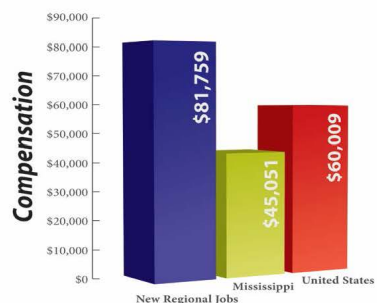


The jobs supported by the efforts of JCEDF are high paying jobs

Petroleum Refineries

Industrial Machinery and Equipment
Merchant Wholesalers

Corporate, Subsidiary, and Regional Managing Offices



Ship Building and Repairing

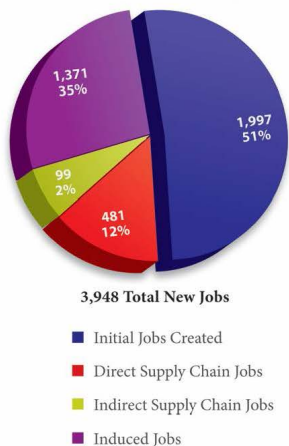
Copper Foundries

Pipeline Transportation of Natural Gas

34% higher than the county average (\$60,743)



Initial Job Creation Spurs Additional Jobs in Region



The jobs created have a multiplier of 1.98

Architecture & Engineering (184)

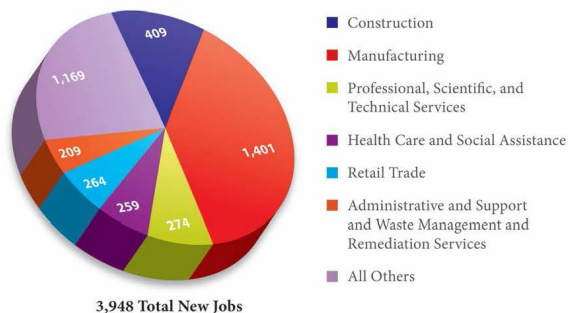
Healthcare Practitioners and Technical Occupations (105)

Office and Administrative Support (443)

Installation, Maintenance, and Repair (216)



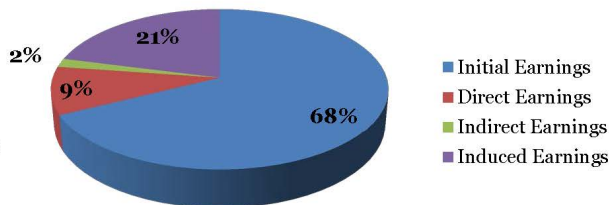
Job Creation in the Region by Industry





Initial Earnings	\$156,927,107
Direct Earnings	\$22,310,643
Indirect Earnings	\$4,049,565
Induced Earnings	\$48,687,243

Total Effect on Earnings

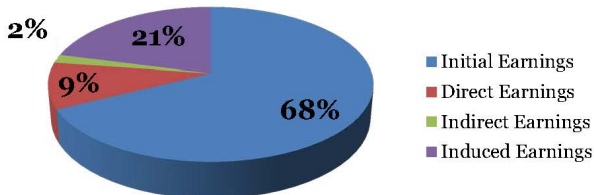


\$231M per year ripple effect on earnings through the regional economy



Initial Earnings	\$156,927,107
Direct Earnings	\$22,310,643
Indirect Earnings	\$4,049,565
Induced Earnings	\$48,687,243

Total Effect on Earnings



\$231M per year ripple effect on earnings through the regional economy

Significant Impact on the Regional Construction Industry

Ranked 1st Nationally in construction job growth from 2012-2013

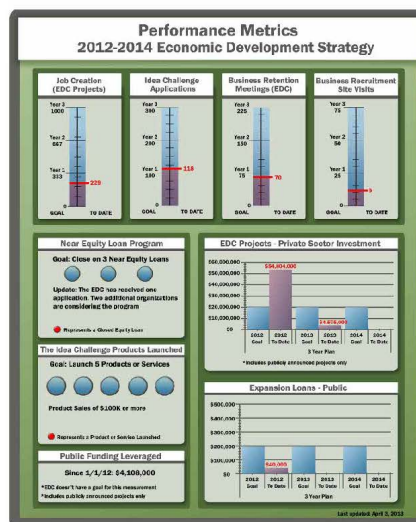
Association of General Contractors



Change in Earnings	Job Years	Average Earnings per Job
\$621m	11,512	\$53,982

Possible Next Steps

1. Benchmark the performance of JCEDF against comparable “best practice” economic development organizations
2. Development an economic development “dashboard”



Source: Eau Claire Area EDC <http://www.eauclaire-wi.com/threeyearplan/>



For Questions or Concerns

Chad R. Miller, Ph.D.

Masters of Science in Economic Development
Program

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Harry J. Schmidt

Director, Expansion and Asset Development
Jackson County Economic Development
Foundation, Inc.

3033 Pascagoula Street
P.O. Drawer 1558
Pascagoula, Mississippi 39568
228-769-6263

Services Offered by The University of Southern Mississippi Economic Development Outreach

In addition to providing graduate education in economic development through the [Master of Science in Economic Development program \(MSED\)](#) and the [Graduate Certificate in Economic Development](#), the Department of Economic and Workforce Development provides assistance to economic developers across the state through four main approaches:

1. Graduate students can work on class projects involving research for a community (e.g., retail pull factor analysis).
2. Each student is required to do a thesis or capstone project. The capstone project involves completing an actual economic development research study (e.g., feasibility study).
3. Each student is required to do an internship in an economic development organization.
4. Communities can do sponsored research projects and tap into the faculty expertise and university data sources (e.g., EMSI and REMI).

Examples of class projects involving research for communities:

- Retail Analysis for the City of Greenwood
- Feasibility of a Livability Court for the City of Hattiesburg
- Economic Impacts of a Native American Casino in Jones County, Mississippi
- Ecotourism Development in Noxubee County
- Strategic Plans for Stone County, Sunflower County, Bolivar County and Historic Downtown Development Association
- Community Study for the Hattiesburg Mid-Town District
- Entrepreneurial Development Plan for the Area Development Partnership

The University of Southern Mississippi offers economic development training through the following programs:

- True South Economic Development Course—This introductory course is accredited by the International Economic Development Council. It fulfills one of the prerequisites for those who wish to take the examinations for the Certified Economic Developer (CEcD) designation.
- Basic Community Economic Development: Practical Tools for Elected Officials—This course covers key components for attracting new business and industry into a community. It is important for economic developers and elected officials to understand their roles of building a successful economic development team.