OHIO STATE UNIVERSITY EXTENSION

Economic Impact Analysis Wyandot County, OH

July 2014























Wyandot County, OH

Economic Impact Analysis
Of High Output Industry Sectors
July 2014

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Introduction

The Wyandot County Office of Economic Development (WCOED), being comprised of multiple local municipalities and private-sector businesses, is the primary entity involved in analyzing, and helping to maintain and expand the county economy. The WCOED in conjunction with Ohio State University Extension Community Development embarked on an effort to use the best resources available to look at the overall economy and local industry sector composition to help guide the WCOED's future strategic planning.

To carry out this task, OSU Extension Community Development utilized IMPLAN, an input-output modeling and economic analysis data tool. IMPLAN can provide both current economic snapshots and analysis modeling tools for entire states, regions, and even down to the county-level. When analyzing an economic profile, or snapshot, of an analysis area, the IMPLAN software displays the total employment, labor income, and total output of local industry sectors as well as the total gross regional product (GRP), total personal income, and total employment for the entire analysis area.

Even more valuable to local communities and economic development organizations is IMPLAN's ability to determine the effects that a change in any of the industry sectors will have on all of the other industry sectors and analysis area as a whole. The results of a positive change in one sector may lead to an even greater impact on a local economy as a whole than if that same change took place in a different industry sector. These analyses provide valuable information in assisting development officials when they formalize local strategies and attraction efforts. Recognizing the county strengths, WCOED leadership is interested in

helping to influence and build on the assets of the current economy in order to maximize growth and retention opportunities. The WCOED decided to analyze its top five industries in terms of output, which in order include:

- Other Animal Food Manufacturing
- Motor Vehicle Parts Manufacturing
- Other Plastics Product Manufacturing
- Glass Product Manufacturing of Purchased Glass
- Other Rubber Product Manufacturing

The WCOED supports a portion of the Ohio State University Extension Community Development Educator's time in Wyandot County. As a result of this commitment, this individual provides leadership to the local economic development organization by serving as its Executive Director. Therefore, the WCOED worked with OSU Extension for assistance in facilitating the analysis effort, which included using the IMPLAN software to perform the various analyses, and a local workshop to both share results of the Economic Impact Analysis and further explore information gleaned from the results.

Although this analysis was performed in July 2014, the most recent IMPLAN data sets used were from 2012. This implies that the employment, labor income, and output figures for each industry sector were derived from calendar year 2012, but the resulting effects are converted to 2014 U.S. dollar values.

Program Goals

Goals of the Wyandot County Economic Impact Analysis are:

- To identify which industry sectors contribute most to the county's GRP
- To identify the industry sectors that create the greatest economic gains when positively affected
- To increase the effectiveness of WCOED strategies by identifying the best industry sectors to target for recruitment
- To build on Wyandot county assets by encouraging growth produced in related industry sectors

Methodology

As mentioned previously, the local economic development organization comprised of local public and private stakeholders made the decision to analyze the effects that a positive change/event would have in each of the top five county industry sectors in terms of total output. Since each of the top five output industry sectors in Wyandot County were in manufacturing, local development leaders chose to focus on these industries in the analysis. WCOED staff determined there was greater potential to influence positive growth in these sectors due to county history, local workforce skills, and available assistance programs at the state and local levels.

To provide the best comparison of the effects an event would have in the five industries, the WCOED used the same event metrics in each scenario based on recent events seen over the past two years in Wyandot County. These events were expansion projects at local manufacturing facilities that involved both job creation and capital investment. The WCOED took the average figures for these two items based on four expansion projects. Therefore the event used to analyze each of the five top Wyandot County industry sectors in terms of output included:

- 35 New full-time jobs
- \$6 million in capital investment

The IMPLAN software was used to process an analysis for the above event in the five identified industry sectors. The software then returned the effects of that impact in each individual sector as well as the 'ripple' effects on other existing industry sectors within Wyandot County. Specifically the net effect on the items below was calculated for each of the impacted industries as a result of the event:

- Employment
- Labor Income
- Value Added
- Output

These values are also represented in terms of direct effect, indirect effect, and induced effect. These three effect categories distinguish effects directly related to the event itself, those that supply and consume goods and services essential to the event industry, and those areas where newly created income will be used as a result of the event.

In addition to the above, IMPLAN also calculates new taxes created as a result of the event.

Definitions

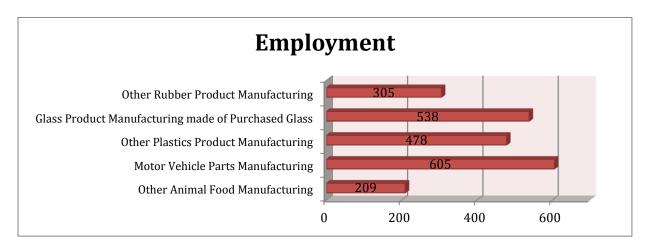
The table below serves as a reference to the common outcome indicators used by IMPLAN:

Term	Definition
Direct Effect	The initial changes that are a result of the activity or policy that takes place only in
	the industry immediately affected.
Indirect Effect	The impact of local industries buying goods and services from other local
	industries (inter-industry transactions).
Induced Effect	The effects of changes in household income. The response by an economy to an
	initial change (direct effect) that occurs through re-spending of income received.
Total Value	The difference between an industry or establishment's total output and the cost of
Added	its intermediate inputs. Value added consists of compensation of employees,
	taxes on production and imports less subsidies, and gross operating surplus.
Output	The sum of intermediate purchases (purchases of products consumed in
	production) and Value Added.

Current Industry Profile Report

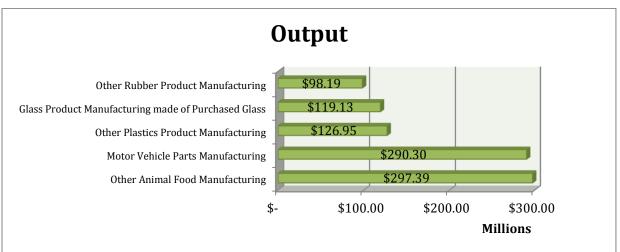
The Economic Impact Analysis results derived by IMPLAN will yield very important comparison data when looking at the same event in each of Wyandot County's top five manufacturing sectors, but it is also important that community leaders and development officials understand the current state and composition of the local economy. IMPLAN provides useful data to analyze the current economic situation in Wyandot County's the top five industry sectors. Before analyzing the impact that the event will have in each sector, they can be ranked by current number of jobs (employment), labor income, and/or total output when looking at a snapshot of the local economy. The current economic profile is useful to understand as the results of the economic impact analysis will show that the same change in each sector will not yield the same rankings.

Below is a current snapshot comparison of the top five industry sectors:



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Referring to the charts above, two top industry sectors, Motor Vehicle Pars Manufacturing and Other Animal Food Manufacturing, have a much greater total dollar output when compared to the rest. Although, only 209 people are employed in the Animal Food Manufacturing sector, the lowest of any of Wyandot County's top five sectors, while the greatest number of employees fall under Motor Vehicle Parts Manufacturing.

Juxtaposing the Employment and Labor Income charts also provides a glimpse of the employee compensation ranges that can be found in each of the industry sectors. This information can help predict what sectors might have a more extensive impact on the local economy. Lesser paying industries will likely have a smaller Value Added indicator resulting from an industry event because there is less income being generated that is then distributed throughout the rest of the local economy.

Taking into account the current snapshot of the local Wyandot County economy in its top five output industry sectors, we will now look at the analysis data generated for each sector when the same industry change event takes place (32 new jobs and \$6 million in capital investment).

Economic Impact AnalysisResults by Industry Sector

Other Animal Food Manufacturing

Impact Summary

Impact Type	Employment	Labor Income	Total Value Added	Output
Direct Effect	36.2	\$2,787,445.00	\$6,448,860.82	\$52,166,241.81
Indirect Effect	13.4	\$ 626,880.04	\$1,279,535.18	\$ 6,319,828.46
Induced Effect	5.5	\$ 147,589.41	\$ 507,528.29	\$ 780,550.79
Total Effect	55.0	\$3,561,914.46	\$8,235,924.28	\$59,266,621.06

Top 10 Affected Sectors (by Employment)

Top 10 Affected Sectors	Employment	La	bor Income	Tota	I Value Added	To	tal Output
Other animal food manufacturing	39.7	\$	3,057,170.78	\$	7,072,881.74	\$5	7,214,083.16
Maintenance and repair construction of nonresidential structures	1.8	\$	110,228.08	\$	111,471.56	\$	249,296.71
Wholesale trade businesses	1.4	\$	81,114.81	\$	160,742.71	\$	259,700.44
Scenic and sightseeing transportation and support activities for transportation	1.3	\$	2,029.22	\$	4,032.63	\$	64,313.57
Food services and drinking places	1.1	\$	14,296.23	\$	23,715.33	\$	51,746.89
Services to buildings and dwellings	0.9	\$	15,794.54	\$	23,006.12	\$	46,031.97
Real estate establishments	0.7	\$	5,997.18	\$	75,410.41	\$	96,730.54
Offices of physicians, dentists, and other health practitioners	0.6	\$	25,133.18	\$	26,694.09	\$	54,747.50
Retail Stores - Food and beverage	0.6	\$	10,920.27	\$	17,785.33	\$	28,168.23
Automotive repair and maintenance, except car washes	0.5	\$	4,369.58	\$	6,435.15	\$	21,789.12

Motor Vehicle Parts Manufacturing

Impact Summary

Impact Type	Employment	Labor Income	Total Value Added	Output
Direct Effect	44.2	\$2,864,214.12	\$2,214,862.44	\$21,715,145.41
Indirect Effect	7.8	\$ 282,468.95	\$ 507,622.37	\$ 952,074.59
Induced Effect	4.9	\$ 132,489.32	\$ 455,698.52	\$ 700,860.86
Total Effect	56.9	\$3,279,172.38	\$3,178,183.34	\$23,368,080.86

Top 10 Affected Sectors (by Employment)

Top 10 Affected Sectors	Employment	La	bor Income	Tota	I Value Added	Tot	al Output
Motor vehicle parts manufacturing	44.2	\$	2,866,213.69	\$	2,216,408.69	\$2	1,730,305.21
Maintenance and repair construction of nonresidential structures	1.2	\$	72,184.74	\$	72,999.05	\$	163,256.20
Retail Stores - Food and beverage	1.1	\$	18,767.92	\$	30,566.44	\$	48,410.81
Food services and drinking places	0.8	\$	11,308.26	\$	18,758.73	\$	40,931.59
Services to buildings and dwellings	0.6	\$	11,087.06	\$	16,149.26	\$	32,312.38
Offices of physicians, dentists, and other health practitioners	0.6	\$	22,601.60	\$	24,005.28	\$	49,232.96
Monetary authorities and depository credit intermediation activities	0.5	\$	27,992.32	\$	155,136.20	\$	205,788.52
Wholesale trade businesses	0.5	\$	30,029.22	\$	59,507.97	\$	96,142.75
Accounting, tax preparation, bookkeeping, and payroll services	0.4	\$	19,877.88	\$	33,398.10	\$	41,613.59
Retail Stores - Health and personal care	0.4	\$	13,919.45	\$	18,352.70	\$	27,427.91

Other Plastics Products Manufacturing

Impact Summary

Impact Type	Employment	Labor Income	Total Value Added	Output
Direct Effect	53.9	\$3,631,929.76	\$5,150,210.24	\$14,781,808.09
Indirect Effect	4.7	\$ 176,537.17	\$ 396,242.10	\$ 669,152.27
Induced Effect	5.9	\$ 159,569.45	\$ 548,881.70	\$ 844,177.57
Total Effect	64.5	\$3,968,036.38	\$6,095,334.04	\$16,295,137.93

Top 10 Affected Sectors (by Employment)

Top 10 Affected Sectors	Employment	La	bor Income	Tota	al Value Added	Tot	al Output
Other plastics product manufacturing	53.9	\$	3,632,796.42	\$	5,151,439.20	\$1	4,785,335.38
Food services and drinking places	1.0	\$	13,555.65	\$	22,486.82	\$	49,066.29
Monetary authorities and depository credit intermediation activities	0.8	\$	40,388.09	\$	223,834.77	\$	296,917.33
Maintenance and repair construction of nonresidential structures	0.7	\$	44,954.16	\$	45,461.29	\$	101,670.33
Offices of physicians, dentists, and other health practitioners	0.7	\$	27,222.61	\$	28,913.28	\$	59,298.87
Retail Stores - Food and beverage	0.7	\$	11,680.25	\$	19,023.08	\$	30,128.56
Accounting, tax preparation, bookkeeping, and payroll services	0.5	\$	23,628.73	\$	39,700.15	\$	49,465.86
Services to buildings and dwellings	0.5	\$	8,136.19	\$	11,851.06	\$	23,712.28
Real estate establishments	0.4	\$	3,507.58	\$	44,105.40	\$	56,574.94
Legal services	0.4	\$	19,374.59	\$	33,874.88	\$	45,385.92

Glass Product Manufacturing made of Purchased Glass

Impact Summary

Impact Type	Employment	Labor Income	Total Value Added	Output
Direct Effect	58.4	\$3,044,906.22	\$3,958,797.86	\$13,272,099.47
Indirect Effect	6.9	\$ 278,996.16	\$ 574,608.86	\$ 1,026,908.62
Induced Effect	5.2	\$ 139,372.23	\$ 479,421.57	\$ 737,344.28
Total Effect	70.5	\$3,463,274.61	\$5,012,828.30	\$15,036,352.36

Top 10 Affected Sectors (by Employment)

Top 10 Affected Sectors	Employment	La	bor Income	Tota	al Value Added	Tot	al Output
Glass product manufacturing made of purchased glass	58.9	\$	3,070,188.15	\$	3,991,667.86	\$1	3,382,298.04
Maintenance and repair construction of nonresidential structures	1.0	\$	63,830.85	\$	64,550.92	\$	144,362.68
Food services and drinking places	1.0	\$	12,833.20	\$	21,288.39	\$	46,451.30
Monetary authorities and depository credit intermediation activities	0.8	\$	44,076.39	\$	244,275.71	\$	324,032.27
Legal services	0.6	\$	30,917.36	\$	54,056.47	\$	72,425.44
Services to buildings and dwellings	0.6	\$	10,653.60	\$	15,517.89	\$	31,049.10
Offices of physicians, dentists, and other health practitioners	0.6	\$	23,768.01	\$	25,244.13	\$	51,773.74
Retail Stores - Food and beverage	0.6	\$	10,279.44	\$	16,741.65	\$	26,515.25
Accounting, tax preparation, bookkeeping, and payroll services	0.5	\$	25,501.72	\$	42,847.08	\$	53,386.89
Wholesale trade businesses	0.4	\$	23,686.13	\$	46,938.07	\$	75,834.46

Other Rubber Product Manufacturing

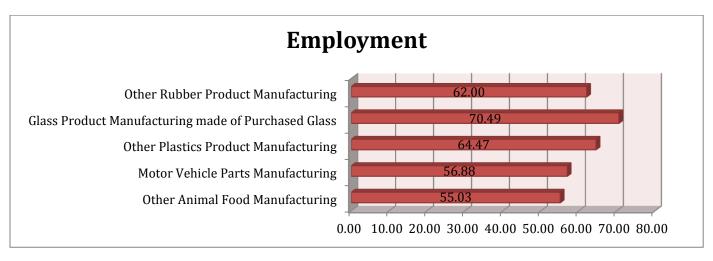
Impact Summary

Impact Type	Employment	Labor Income	Total Value Added	Output
Direct Effect	50.2	\$3,761,927.30	\$5,709,527.83	\$16,561,716.35
Indirect Effect	5.6	\$ 226,527.48	\$ 464,435.33	\$ 826,504.09
Induced Effect	6.2	\$ 167,440.22	\$ 575,950.20	\$ 885,805.45
Total Effect	62.0	\$4,155,895.00	\$6,749,913.37	\$18,274,025.89

Top 10 Affected Sectors (by Employment)

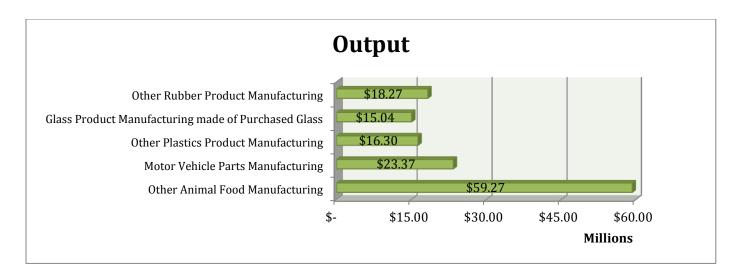
Top 10 Affected Sectors	Employment	La	bor Income	Tota	al Value Added	Tot	al Output
Other rubber product manufacturing	50.4	\$	3,781,178.31	\$	5,738,745.34	\$1	6,646,468.03
Food services and drinking places	1.0	\$	13,620.49	\$	22,594.39	\$	49,301.00
Maintenance and repair construction of nonresidential structures	1.0	\$	60,611.50	\$	61,295.26	\$	137,081.66
Monetary authorities and depository credit intermediation activities	0.8	\$	38,970.24	\$	215,976.90	\$	286,493.85
Offices of physicians, dentists, and other health practitioners	0.7	\$	28,558.62	\$	30,332.26	\$	62,209.10
Retail Stores - Food and beverage	0.7	\$	12,480.30	\$	20,326.09	\$	32,192.26
Services to buildings and dwellings	0.6	\$	10,081.36	\$	14,684.37	\$	29,381.33
Legal services	0.5	\$	25,838.22	\$	45,176.01	\$	60,527.29
Accounting, tax preparation, bookkeeping, and payroll services	0.5	\$	24,177.04	\$	40,621.40	\$	50,613.72
Real estate establishments	0.4	\$	3,409.79	\$	42,875.76	\$	54,997.65

Results Comparison









The charts above show the employment, labor income, value added and output changes seen as a result of the same event in each one of Wyandot County's top five industry sectors. When looking at the employment data, the Glass Product Manufacturing made of Purchased Glass sector produced the greatest number of total new jobs in the local county economy as a result of the event, but provided the smallest amount of total output from the change. In contrast, the Other Animal Food Manufacturing sector produced the smallest number of new jobs, but by far the greatest total output of all the sectors analyzed.

While total output is an important figure to take into account, some analysts argue that the value added figures provide a more accurate economic indicator. The following information from an IMPLAN Forum Moderator¹ explains the reasoning behind this notion:

Output is a measure of the total value of all goods produced within a region. Value added is a subset of output. An industry buys goods and services (of them considered inputs) and uses those goods and services to create a product of greater value (output) than the sum of the goods that goes into its product. Usually, analysts will focus on output because it is bigger than value added. While output is a good measure of economic activity, as an indicator value added provides a better measure of the increase in economic activity in the local economy. Value added represents the wealth created by industry activity. In IMPLAN (or any social accounting matrix), this is the sum of value added. Thus, value added is a useful measure of wealth creation in an economy. (IMPLAN Moderator, 2014)

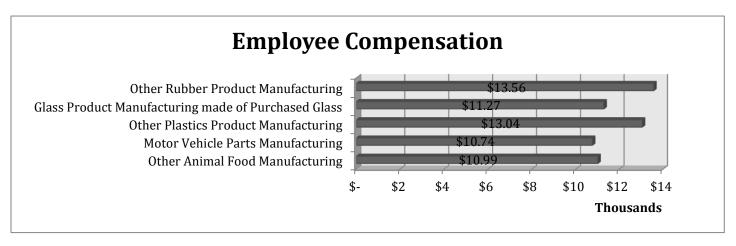
Therefore, if value added does provide a better economic indicator as to the extent this change in the five local industry sectors had on the local economy, Other Animal Food Manufacturing still would have the greatest impact. When examining the next greatest impact industry though, Other Rubber Product Manufacturing would fall in second instead of Motor Vehicle Parts Manufacturing as indicated by the total output chart.

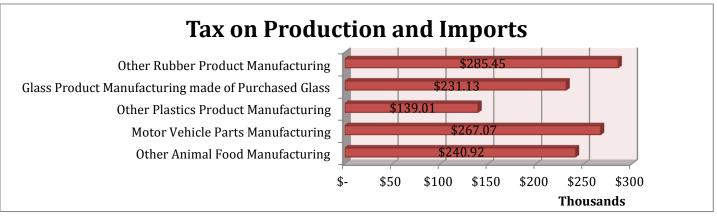
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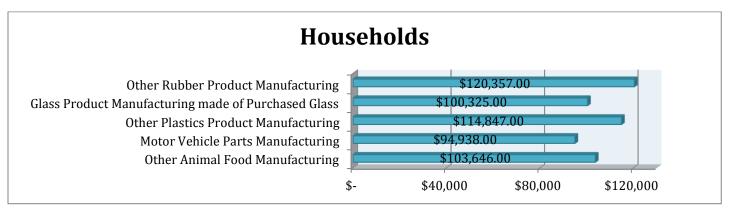
¹ IMPLAN Moderator (2014, May). Value Added [Msg 2]. Message posted to https://implan.com/index.php?option=com_kunena&func=view&catid=80&id=18247&Itemid=35

Tax Results

Another useful aspect of the IMPLAN software is its ability to analyze the local and state tax creation that will result from the event taking place in each industry sector. While the software breaks this information out into a separate line item for each tax item, the charts below represent the new taxes generated for three primary local and state taxing areas:







As can be gleaned from these charts, the greatest state and local tax gains across all three areas would be generated from this event occurring within the Other Rubber Product Manufacturing sector. The Other Plastics Product Manufacturing sector would generate the second highest gains in both employee compensation and households tax areas, but the least in taxes on production and imports. The other three industry sectors examined have various rankings when looking at the three tax categories.

A further breakdown of the taxes generated in each industry sector can be found in Appendix A.

Summary

The economic impact analysis generated by the IMPLAN software provides local public officials, community leaders, stakeholders, and economic development professionals with information essential to business development and attraction strategy. Based on the local goals of the local economic development organization, which is made up of these various individuals, the Wyandot County Office of Economic Development can choose to strategically attract industry based on a variety of factors.

One of the development metrics most heavily touted by development organizations and state governments is the number of jobs created by a project. With the EIA data in this report, development officials have the knowledge that a job creation event in their county actually creates more positions than only the direct

effect jobs in that particular industry sectors. Therefore if the WCOED would like to attract a company that would create the greatest amount of total (direct, indirect, and induced) jobs, it would target a company in the Glass Product Manufacturing sector.

While this may be the case, the WCOED can only record job creation that a new or expanding company directly commits to creating. Therefore, the organization may wish to target a firm in the local industry sectors that would create the best paying jobs (Other Rubber Product Manufacturing), or a firm that would add the most to the Gross Regional Product (Other Animal Food Manufacturing).

Whatever the strategy may be that best suits the overall goals of the WCOED and Wyandot County, the economic impact analysis data provides sound reasoning backed by firm data to base those decisions upon.

Appendix A: Detailed Tax Impacts

Sector	Description	Employee Compensation	Tax on Production and Imports	Households
Other Animal	Dividends			
Food	Employee Contribution	\$3,705.00		
	Employer Contribution	\$7,284.00		
Manufacturing	Sales Tax		\$114,720.00	
	Property Tax		\$99,630.00	
	Motor Vehicle Lic		\$2,506.00	
	Severance Tax		\$100.00	
	Other Taxes		\$22,207.00	
	S/L NonTaxes		\$1,753.00	
	Corporate Profits Tax			
	Income Tax			\$84,202.00
	Non Taxes (Fines-Fees)			\$13,668.00
	Motor Vehicle License			\$3,494.00
	Property Taxes			\$1,308.00
	Other Tax (Fish/Hunt)			\$974.00
	Total State and Local Tax	\$10,988.00	\$240,915.00	\$103,646.00
Motor Vehicle	Dividends			
Parts	Employee Contribution	\$3,620.00		
	Employer Contribution	\$7,117.00		
Manufacturing	Sales Tax		\$127,172.00	
	Property Tax		\$110,444.00	
	Motor Vehicle Lic		\$2,778.00	
	Severance Tax		\$111.00	
	Other Taxes		\$24,617.00	
	S/L NonTaxes		\$1,943.00	
	Corporate Profits Tax			
	Income Tax			\$77,127.00
	Non Taxes (Fines-Fees)			\$12,520.00
	Motor Vehicle License			\$3,201.00
	Property Taxes			\$1,198.00
	Other Tax (Fish/Hunt)			\$892.00
	Total State and Local Tax	\$10,737.00	\$267,065.00	\$94,938.00
Other Plastics	Dividends			
Products	Employee Contribution	\$4,395.00		
	Employer Contribution	\$8,641.00		
Manufacturing	Sales Tax		\$66,196.00	
	Property Tax		\$57,488.00	
	Motor Vehicle Lic		\$1,446.00	
	Severance Tax		\$58.00	
	Other Taxes		\$12,814.00	
	S/L NonTaxes		\$1,011.00	

Other Plastics	Corporate Profits Tax			
Products	Income Tax			\$93,302.00
	Non Taxes (Fines-Fees)			\$15,145.00
Manufacturing	Motor Vehicle License			\$3,872.00
	Property Taxes			\$1,449.00
	Other Tax (Fish/Hunt)			\$1,079.00
	Total State and Local Tax	\$13,037.00	\$139,012.00	\$114,847.00
Glass Product	Dividends			
Manufacturing made of	Employee Contribution	\$3,798.00		
	Employer Contribution	\$7,468.00		
	Sales Tax		\$110,059.00	
Purchased	Property Tax		\$95,581.00	
Glass	Motor Vehicle Lic		\$2,404.00	
	Severance Tax		\$96.00	
	Other Taxes		\$21,304.00	
	S/L NonTaxes		\$1,681.00	
	Corporate Profits Tax			
	Income Tax			\$81,504.00
	Non Taxes (Fines-Fees)			\$13,230.00
	Motor Vehicle License			\$3,382.00
	Property Taxes			\$1,266.00
	Other Tax (Fish/Hunt)			\$943.00
	Total State and Local Tax	\$11,266.00	\$231,126.00	\$100,325.00
Other Rubber Product Manufacturing	Dividends			
	Employee Contribution	\$4,572.00		
	Employer Contribution	\$8,989.00		
	Sales Tax		\$135,927.00	
	Property Tax		\$118,047.00	
	Motor Vehicle Lic		\$2,969.00	
	Severance Tax		\$118.00	
	Other Taxes		\$26,312.00	
	S/L NonTaxes		\$2,076.00	
	Corporate Profits Tax			
	Income Tax			\$97,777.00
	Non Taxes (Fines-Fees)			\$15,872.00
	Motor Vehicle License			\$4,058.00
	Property Taxes			\$1,519.00
	Other Tax (Fish/Hunt)			\$1,131.00
	Total State and Local Tax	\$13,561.00	\$285,450.00	\$120,357.00





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