Growing the Wabash County Economy from the Inside Out

By Michael H. Shuman¹

Overview

Wabash County is a small, rural area in southern Illinois. Chart 1, derived from U.S. Census data from 2010, compares some of the key features of the county to the rest of Illinois. Wabash County has almost 12,000 people, roughly a tenth of one percent of the Illinois population. Compared to the state, Wabash County's population is older, whiter, less impoverished, and more likely to own a home. Residents' median and mean incomes are both lower, however, and the general level of education significantly lower. Per capita retail sales are two thirds the state average. Facing many of the challenges of rural communities and small towns across America – including depopulation, a "brain drain" of young adults, a steadily decline of natural-resource industries, and shoppers leaving the county – Wabash County is now resolved to find new, promising ways to grow its economy.

Chart 1
Demographic Highlights of Wabash County (2010)

	Wabash County	Illinois
Population	11,947	12,830,632
Median Household Income	\$47,426	\$56,576
Mean Household Income	\$59,041	\$76,733
Poverty Rate	12.7%	13.1%
Median Age	42	36.6
Caucasion Population	97.1%	77.9%
Bachelors Degree or Higher	16.0%	30.7%
Homeownership	79.6%	68.7%
Retail Sales Per Capita (2007)	\$8,966	\$12,947

One additional measure suggests particular urgency in Wabash County framing a new approach to economic development. According to the Illinois Department of Employment Security, as of June 2013, the unemployment rate of Wabash County was 8.1%. While this is below the state rate of 9.8%, the absolute number is still daunting. In a labor force of 5,836, an estimated 471 people would like to find work but cannot. Worse, the number grew from a month earlier, when 400 people were unemployed. So

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while the country's and state's economic condition is improving, the county's is deteriorating.

The traditional approach of Wabash County to economic development, as it has been across the United States, has been to "attract and retain" outside businesses. A growing body of evidence, however, laid out in Appendix I, suggests that it is far better to focus on LOIS businesses – locally owned and import substituting. The logic of LOIS suggests the importance of six kinds of questions currently minimized or overlooked by mainstream economic development:

- Local Planning How can significant dollar "leaks" caused by imports be identified, and which leaks can best be plugged with competitive LOIS enterprises?
- Local Entrepreneurship How can a new generation of LOIS entrepreneurs be nurtured and trained?
- Local Business Organizing How can existing LOIS businesses work together (through, for example, joint purchasing or marketing cooperatives) to improve their competitiveness?
- Local Investing How can local savings, whether in banks or pension funds, be tapped to support new or expanded LOIS businesses?
- Local Purchasing How can LOIS businesses achieve greater success through "Local First" purchasing by consumers, businesses, and government agencies?
- Local Public Policymaking How can the myriad biases that currently exist against LOIS be eliminated so that local businesses can compete on a level playing field?

This paper aims to help Wabash County set a new course for economic development rooted in LOIS. Using IMPLAN, perhaps the most widely used regional economic models available, we perform a "leakage analysis" and find that in three quarters of the possible economic sectors, there is no business activity whatsoever. This suggests huge opportunities for import-replacing development in the County. Were the County to shift just 10 percent of residential, business, and government spending from outside to local business, it could create 335 jobs, solving most of the County's current unemployment problem. Among the sectors that are particularly promising job creators are finance, professional and personal services, food and farming, retail, health care, tourism, and wholesaling and distribution.

The paper suggests that the best economic-development strategies will be those that create or expand local businesses in a self-financing way. The term we use to describe

business-like economic development is "metabusinesses." We describe 24 potentially promising metabusinesses that the County might consider deploying.

Finally, the paper reviews the work of five grassroots teams the County has created to develop five different approaches to economic development. Based on the analysis of this paper, we offer recommendations for each team.

The Wabash County Economy

To understand the Wabash County economy, we begin with an overview of its supply and demand. A helpful tool for this is the IMPLAN Input-Output model, used by economic-development departments across the country. Table 2 shows that the "total value added" for the county, also known as the gross regional product, is about \$290 million.² On the production side, businesses in the county pay \$133 million to employees in wages, \$30 million to proprietors in profits,³ and \$24 million to government entities in business taxes. On the consumption side, households spend \$450 million, government entities about \$68 million, and capital budgets \$72 million.⁴ Another "demand" for Wabash goods and services comes from export markets, equal to \$220 million – or about three quarters of the local value added. For most of their needs, Wabash businesses and residents import \$508 million worth of goods and services.

Chart 2
Supply and Demand of the Wabash Economy (2011)

Value Added		Final Demand	
Employee Compensation	\$ 132,861,420	Households	\$ 459,751,650
Proprietor Income	\$ 30,389,578	State & Local Government	\$ 62,849,472
Other Property Type Income	\$ 103,064,162	Federal Government	\$ 6,146,002
Indirect Business Tax	\$ 23,576,218	Capital	\$ 71,501,370
		Exports	\$ 220,418,726
		Imports	\$ (508,165,296)
		Institutional Sales	\$ (22,610,551)
Total Value Added	\$ 289,891,378	Total Final Demand	\$ 289,891,373

To understand the job picture in Wabash County, two government databases are especially useful. Employer data can be found at "County Business Patterns," available from the U.S. Census Bureau (http://www.census.gov/econ/cbp/index.html). Self-employment data also can be found with the U.S. Census Bureau, in its "Nonemployer Statistics" (http://www.census.gov/econ/nonemployer/index.html). Both are organized around the North American Industrial Classification System (NAICS), which contains about 1,100 categories (with two-digit categories being the broadest categories, like manufacturing, and six-digit categories being the most narrow). Unfortunately, these data lag 2-3 years behind, so the best picture one can paint is not entirely up-to-date.

4

² Value added equals "gross regional product," which IMPLAN explains is "derived from the income paid to the owners of the factors of production in the model year." The income paid is to labor (wages), proprietors (profits), government (taxes), and property owners (rents).

³ Proprietors' income is what's left after business owners pay the cost of goods, wages, and taxes.

⁴ Capital expenditures are defined by IMPLAN as the "sales of durable goods and infrastructure to households and firms within the study area.

Table 3 shows the exact breakdown of establishments in the county, as of 2011. The county had 272 establishments, and every single establishment was technically a small business (the Small Business Administration defines as small business as having fewer than 500 employees). Some of these establishments, however, are franchises or branch outlets of national companies. According to 2010 data filed with Dunn & Bradstreet, available on the website www.youreconomy.org, about 9.7% of the jobs in the County were with establishments owned by nonlocal firms.

Chart 3
Wabash County's Business Establishments with Employees (2011)
(by 2-Digit NAICS Sections and by Number of Employees)

NAICS	Industry Code Description	Total Estabs	'1-4'	'5-9'	'10-19'	'20-49'	'50-99'	'100-249'	'250-499'	'500-999'	1000+
11	Ag, Forestry, Fishing	2	2								
21	Mining	23	14	5	2	2					
22	Utilities	3	1		1	1					
23	Construction	16	8	3	3	1	1				
31	Manufacturing	9	1	1	3	4					
42	Wholesale trade	15	4	8	1	2					
44	Retail trade	43	23	11	4	3	2				
48	Transportation and Warehousing	5	4	1							
51	Information	3	1	1	1						
52	Finance and Insurance	19	14	2	2	1					
53	Real Estate, Rental, and Leasing	9	7	2							
54	Prof'l, Scientific, and Technical	23	12	6	5						
55	Management of Companies	1		1							
56	Admin, Support, and Waste	4	3	1							
61	Educational Services	2	2								
62	Health care and social assistance	26	8	7	4	2	1	3	1		
71	Arts, Entertainment, and Recreation	5	5								
72	Accommodation and Food Services	23	8	4	5	5	1				
81	Other Services (Exc. Pub. Admin.)	40	29	6	4	1					
99	Industries Not Classified	1	1								
	Total	272	147	59	35	22	5	3	1	C	0

One way of understanding composition of the economy in Wabash County is to compare the breakdown of jobs by sector in the County with that of the U.S. economy. Chart 4 does this. Compared to the rest of the country, Wabash County has a relatively larger sectors for mining, construction, and health care, and relatively smaller sectors for manufacturing (where higher wage jobs usually are), management of companies, administrative support, and private education.

5

Chart 4 Wabash County vs. United States Sector Breakdown

Code	Description	US	County
11	Agriculture, forestry, fishing and hunting	0%	
21	Mining, quarrying, and oil and gas extraction	1%	7%
22	Utilities	1%	n/a
23	Construction	5%	8%
31	Manufacturing	10%	6%
42	Wholesale trade	5%	5%
44	Retail trade	13%	14%
48	Transportation and warehousing	4%	
51	Information	3%	1%
52	Finance and insurance	5%	4%
53	Real estate and rental and leasing	2%	1%
54	Professional, scientific, and technical services	7%	5%
55	Management of companies and enterprises	3%	n/a
56	Administrative and support and waste management and remediation services	8%	n/a
61	Educational services	3%	n/a
62	Health care and social assistance	16%	30%
71	Arts, entertainment, and recreation	2%	n/a
72	Accommodation and food services	10%	10%
81	Other services (except public administration)	5%	6%
99	Industries not classified	0%	n/a
		100%	97%

Another omission from NAICS data are self-employed individuals. These data can be found in the U.S. Census Bureau's Nonemployer Statistics and are presented in Chart 5. It shows that, in 2011, 813 individuals in the County ran their own businesses, most presumably home-based, with sales of nearly \$29 million per year. One way to understand the importance of these home-based businesses is to consider that if half could hire just one additional employee, the County would reach full employment.

Chart 5
Estimate of Nonemployee Firms in Wabash County (2011)
(By 2-Digit NAICS Sector)

			Nonemployers
NAICS	Industry Code Description	Firms	Receipts (\$1,000)
11	Ag, Forestry, Fishing	19	\$538
21	Mining	187	\$12,113
22	Utilities	n/a	n/a
23	Construction	109	\$4,031
31	Manufacturing	n/a	n/a
42	Wholesale trade	n/a	n/a
44	Retail trade	67	\$1,482
48	Transportation and Warehousing	23	\$1,019
51	Information	n/a	n/a
52	Finance and Insurance	27	\$1,365
53	Real Estate, Rental, and Leasing	45	\$1,574
54	Prof'l, Scientific, and Technical	50	\$1,069
56	Admin, Support, and Waste	53	\$593
61	Educational Services	4	\$22
62	Health care and social assistance	35	\$1,117
71	Arts, Entertainment, and Recreation	17	\$103
72	Accommodation and Food Services	8	\$334
81	Other Services (Exc. Pub. Admin.)	148	\$2,501
		813	\$28,649

NAICS also omits farmers. The USDA's *Agricultural Census of 2007* gives data at the county level, and shows that Wabash County has 225 farms with 114,361 acres. The average farm size is 508 acres. Most of these farms are raising beef cattle and growing corn, wheat, and soybeans. (The next edition of the *Agriculture Census* will be in 2014.)

IMPLAN unifies these various federal databases and fill in the gaps. Chart 6, below, summarizes IMPLAN's estimate from 2011 of the total number of employees and nonemployees at 4,243. Compared to NAICS data, it includes 358 people in the farming sector and 852 public employees. It's worth noting that IMPLAN's data here differ somewhat from the other data we presented. The Illinois state data show the employment status of all Wabash County residents, some of whom work elsewhere, while the IMPLAN data show the presence of jobs in Wabash County, some of which are filled by people living outside the County.

Since IMPLAN's and Illinois' employment statistics measure different things, they are not directly comparable. But roughly speaking, if the County has 4,213 employees and nonemployees (IMPLAN) and an employed workforce of 5,365 (Illinois)⁵, then *at least* 1,152 Wabash residents are working outside the county. In fact the number is significantly greater, because many people working in Wabash County do not live there.

⁵ The workforce of 5,836 minus 471 unemployed.

Chart 6 Employees and Nonemployees in Wabash (2011) (By 3-Digit NAICS Sectors)

IMPLAN Sector	Em ploym ent	Output	Employee Compensation	Proprietor Income	Other Property Type Income	Indirect Business Tax
Farming, Ranching, and Forestry	358	\$73,665,520	\$1,602,669	\$12,154,372	\$14,343,750	-\$405,734
Mining	291	\$89,438,115	\$14,204,195	\$3,195,780	\$10,767,513	\$2,969,370
Energy & Utilities	15	\$12,433,778	\$1,217,277	\$0	\$4,384,366	\$1,903,145
Construction	347	\$36,234,298	\$13,685,065	\$1,946,441	\$2,425,939	\$512,269
M anufacturing		, ,	, ,	- , ,		
* Food, Beverages, and Tobacco	0	\$0	\$0	\$0	\$0	\$0
* Fibers, Textiles, and Clothing	0	\$0	\$0	\$0		\$0
* Wood and Wood Products	0	\$0	\$0	\$0	\$0	\$0
* Paper, Paper Products, and Printing	29	\$9,840,188	\$1,414,175	\$22,356		\$99,924
* Petroleum-Based Products	2	\$4,371,520	\$0	\$2,704,514	\$0	\$10,227
* Rubber, Glass, Stone, Concrete Products	26	\$7,361,434	\$1,385,690	\$0	\$538,634	\$116,967
* Metals	0	\$0	\$0	\$0	\$0	\$0
* Metal Products	43	\$7,427,250	\$2,050,662	\$48,093	\$421,898	\$59,481
* Machinery and Equipment	26	\$5,243,798	\$1,854,490	\$250,332	-\$59,619	\$59,794
* Computers and Electronics	13	\$2,867,015	\$794,605	\$0	\$133,190	\$21,016
* Vehicles, Boats, and Planes	32	\$13,823,590	\$1,800,217	\$0		\$47,700
* Furniture	0	\$0	\$0	\$0		\$0
* Health Equipment	5	\$538,047	\$232,328	\$220,821	-\$33,839	\$1,999
* All Other Manufacturing.	0	\$0	\$0	\$0	\$0	\$0
Wholesale Trade	140	\$21,704,582	\$6,137,956	\$53,008	\$4,435,717	\$4,374,889
Retail	423	\$27,181,486	\$10,460,160	\$1,135,414	\$2,796,806	\$4,089,462
Transportation	26	\$5,951,944	\$1,146,352	\$395,407	\$920,248	-\$39,322
Warehousing & Storage	0	\$12,369	\$1,312	\$4,035	\$2,331	\$167
Services			·			
* Information Businesses	22	\$3,471,062	\$780,377	\$0	\$390,931	\$126,347
* Banking and Finance	146	\$34,194,066	\$4,703,706	\$783,061	\$13,620,544	\$524,654
* Real Estate and Leasing	41	\$57,453,074	\$1,043,201	\$488,694	\$31,809,051	\$5,467,824
* Professional Services	278	\$22,287,434	\$5,367,001	\$3,492,330	\$3,812,068	\$492,219
* Private Education	5	\$219,676	\$144,343	-\$173	\$6,125	\$6,739
* Health Services	383	\$23,038,168	\$11,772,721	\$662,813	\$604,576	\$701,090
* Entertainment, Tourism, and Food Services	395	\$20,120,137	\$5,304,777	\$180,584	\$2,485,549	\$1,722,875
* Personal Services	122	\$8,381,620	\$1,681,257	\$2,687,888	\$123,271	\$529,063
* Churches and Nonprofits	190	\$16,557,507	\$3,501,835	\$158,266	- , ,	\$184,055
* Household Operations	32	\$337,226	\$337,226	\$0		\$0
* Government Services	852	\$49,323,784	\$40,237,820	-\$194,457	\$5,477,302	\$0
Non-Direct Jobs	0	\$929	\$2,779	\$3,708		
	4,243	\$553,479,617	\$132,864,198	\$30,393,285	\$103,064,162	\$23,576,218

To understand the commuting patterns in the region more precisely, the Illinois Department of Employment Security has analyzed U.S. Bureau of Census data between 2006 and 2010. The data show that 41% of the workforce in Wabash County commutes outside County. Two out of three of these outbound commuters are heading to a job in Indiana. The data also show that 18% of the jobs in Wabash County during this period were held by nonresidents.

Chart 7
Commuting Patterns Into and Out of Wabash County (2006-2010)

All Workers Residing in Wabash County	5,393
* Worked at Home	187
* Commuted < 20 Minutes	3,052
* Commuted 20-39 Minutes	1,360
* Commuted 40+ Minutes	794
Residents Commuting to Jobs Outside County	2,205
* Commuting to Indiana	1,452
* Commuting to Other IL Counties	753
Nonresidents Commuting to Jobs in Wabash County	689
* Coming from Another IL County	522
* Coming from Another State	167
Wabash County Jobs	3,877
Residents Working in the County	3,188
Nonresidents Working in the County	689

Chart 8 shows IMPLAN's roster of the top exports from the County, both to the rest of the United States and to the world. The two largest exports are grains and oilseeds. The next largest exports are coal, oil, and natural gas. That primary, rather than processed, commodities top this list suggest opportunities for value-added production that could and should be done to create more well-paying jobs in Wabash County.

In the course of vetting some of IMPLAN's data with businesses and residents in Wabash County, small discrepancies and problems were spotted. These problems are common, because the nature of modeling is inherently imprecise. "Production functions" of different sectors are *nationally* estimated, and then reconciled against what is known about local production, sales, consumption, and so forth. The model's numbers should therefore be used primarily to highlight big picture directions for economic development.

Chart 8 Top Exports

Description	Domestic Exports	Foreign Exports	Total Exports
Grains	\$24,882,246	\$11,591,592	\$36,473,838
Oilseeds	\$16,817,835	\$12,766,014	\$29,583,849
Coal	\$16,857,274	\$11,282,656	\$28,139,929
Oil and natural gas	\$18,412,056	\$786,577	\$19,198,633
Motor vehicle parts	\$11,048,204	\$2,637,839	\$13,686,042
Services from religious organizations	\$9,900,474	\$0	\$9,900,474
Paperboard containers	\$8,742,748	\$305,123	\$9,047,871
Wholesale trade distribution services	\$3,733,672	\$2,736,399	\$6,470,071
Ready-mix concrete	\$6,315,316	\$696	\$6,316,012
Metal cutting and forming machine tools	\$2,248,678	\$2,473,561	\$4,722,239
Nursing and residential care services	\$3,872,903	\$0	\$3,872,903
Machined products	\$3,272,533	\$8,199	\$3,280,732
Death care services	\$3,264,534	\$0	\$3,264,534
Rest of the world adjustment	\$2,648,489	\$387,016	\$3,035,505
Metal tanks (heavy gauge)	\$2,565,316	\$428,426	\$2,993,742
Refined petroleum products	\$2,027,940	\$386,615	\$2,414,555
Rail transportation services	\$1,578,294	\$510,940	\$2,089,233
Used and secondhand goods	\$1,877,687	\$176,119	\$2,053,805
Noncomparable foreign imports	\$1,938,387	\$0	\$1,938,387
Insurance agencies, brokerages, and related services	\$1,741,754	\$0	\$1,741,754
Scrap	\$620,606	\$1,114,400	\$1,735,007
Dairy cattle and milk products	\$1,567,225	\$0	\$1,567,225
Community food, housing, and other relief services, including rehabilitation	\$1,557,958	\$0	\$1,557,958
Other electronic components	\$1,180,775	\$369,227	\$1,550,002
Retail Services - Gasoline stations	\$1,543,363	\$0	\$1,543,363
All other petroleum and coal products	\$1,093,128	\$111,725	\$1,204,854
Soaps and cleaning compounds	\$1,047,814	\$115,916	\$1,163,730
Coated, engraved, heat treated products	\$1,118,966	\$598	\$1,119,564
Electricity, and distribution services	\$1,034,869	\$25,641	\$1,060,510
US Postal delivery services	\$1,016,036	\$18,443	\$1,034,479
Support services for oil and gas operations	\$1,023,212	\$0	\$1,023,212

A Leakage Analysis

Leakage analysis identifies all those sectors in the economy where a community is unnecessarily importing outside goods and services. Every unnecessary import represents a loss of dollars and a loss of the "multiplier" impacts those dollars could generate locally. It also represents a loss of other documented benefits local business brings, like knowledge, skills, tax payments, charitable giving, revitalized downtowns, tourists, stronger civil society, and more political participation.

IMPLAN is a particularly useful tool for measuring leakage. The model combines the 1,100 NAICS sectors into about 440 model-specific sectors. For example, multiple wholesale sectors in NAICS are reduced to one wholesale sector in IMPLAN. It's possible to model local self-reliance by looking at the value of the Regional Purchasing Coefficient (RPC), which estimates how much of Total Gross Demand is currently met by local industry. "Gross demand" includes both local demand (that is, consumption) and export demand. Multiplying Total Gross Demand by 1-RPC shows how much additional industry is possible to meet local demand, without reducing production for export.

Appendix II presents leakage data on all 440 IMPLAN sectors. The columns highlight three pieces of information for each sector:

- The dollar amount of local consumption of local production in that sector.
- The dollar amount of *additional* local production needed to meet all local demand in that sector.
- The degree to which the sector is self-reliant.

Chart 9 pulls from Appendix II the sectors with the highest degree of local self-reliance. The following generalizations can be made about these sectors:

- Some sectors typically have a high level of self-reliance across the United States. These include government services, grocery stores, and restaurants.
- Many service categories naturally show high levels of local self-reliance, such as child care and accounting.
- Many retail categories are at or near self-reliance.
- Sectors that are strong export sectors, such as oil, gas, and coal, show high degrees of self-reliance.

Perhaps the most salient revelation from these data, as summarized in Chart 10, is how many sectors have no or almost no productive activity altogether. Of 440 IMPLAN sectors, only 39 show at least 50% self-reliance. Three quarters of these sectors have no activity whatsoever. Nearly two thirds of all local demand must be met through imports.

Chart 10 Big Picture on Leakage

	Number	Percent
Number of IMPLAN Sectors	440	100%
Number of 100% Self-Reliant Sectors	21	5%
Number of >50% Self-Reliant Sectors	39	9%
Number of >20% Self-Reliant Sectors	62	14%
Number of Zero Self-Reliant Sectors	330	75%
Current Spending on Local Production	\$283,020,584	
Additional Production for Self-Reliance	\$508,165,296	
Total Demand for Local Production	\$791,185,880	
Rough Level of Leakage	64%	

There are two ways to think about these leaks. A pessimistic interpretation is that the Wabash economy has enormous leakage and a high degree of economic fragility. An optimistic interpretation is that there are opportunities for import-replacing development in almost every sector of the economy. With two thirds of all local demand leaking out of the economy now, Wabash entrepreneurs will have no difficulty finding promising market opportunities for new or expanded local business.

Chart 9
Top Self-Reliant Sectors (>20% Self-Reliance)

	Current Spending	Additional Production	Total Demand	%
Sector	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Newly constructed nonresidential commercial and health care structures	\$3,533,813	\$0	\$3,533,813	100%
Other newly constructed residential structures	\$7,691,693	\$0	\$7,691,693	100%
Retail Services - Gasoline stations	\$3,436,086	\$0	\$3,436,086	
Bowling activities	\$102,767	\$0	\$102,767	
Car wash services	\$286,498	\$0	\$286,498	
* Employment and payroll only (state & local govt, non-education)	\$5,425,750	\$0	\$5,425,750	
* Employment and payroll only (state & local govt, education)	\$35,744,625	\$0	\$35,744,625	
* Employment and payroll only (federal govt, military)	\$2,724,629	\$0	\$2,724,629	
Imputed rental services of owner-occupied dwellings	\$50,826,698	\$1	\$50,826,699	
Newly constructed residential permanent site single- and multi-family structure	\$4,766,154	\$0	\$4,766,154	
Other newly constructed nonresidential structures	\$8,630,567	\$0	\$8,630,567	100%
Services from religious organizations	\$3,356,474	\$72	\$3,356,545	
Video tape and disc rental services	\$147,330	\$6	\$147,336	
Community food, housing, and other relief services, including rehabilitation ser	\$1,497,347	\$112	\$1,497,458	
Nursing and residential care services	\$8,424,820	\$1,203	\$8,426,023	
Death care services	\$830,852	\$119	\$830,971	100%
* Employment and payroll only (federal govt, non-military)	\$743,598 \$401,760	\$122 \$348	\$743,720 \$402,409	
US Postal delivery services	\$401,760	\$348 \$542	\$402,108 \$400,004	
Other support services Child day care services	\$408,552 \$223,916	\$542 \$422	\$409,094 \$224,338	
Support services for oil and gas operations	\$14,071,356	\$52,192	\$14,123,548	
Newly constructed nonresidential manufacturing structures	\$1,864,257	\$20,361	\$1,884,618	
Newspapers	\$1,004,257	\$5,989	\$413,259	
Oil and gas wells	\$19,603,720	\$466,557	\$20,070,276	
All other petroleum and coal products	\$16,016	\$693	\$16,709	
Accounting, tax preparation, bookkeeping, and payroll services	\$843,067	\$52,158	\$895,225	
Automotive repair and maintenance services, except car washes	\$2,413,137	\$216,320	\$2,629,458	
Maintained and repaired nonresidential structures	\$764,532	\$79,675	\$844,206	
General and consumer goods rental services except video tapes and discs	\$594,074	\$81,114	\$675,187	
Electricity, and distribution services	\$6,728,352	\$1,408,958	\$8,137,310	
Independent artists, writers, and performers	\$46,264	\$10,904	\$57,168	
Retail Services - Motor vehicle and parts OR BEA ALL RETAIL	\$5.758.399	\$1,499,772	\$7,258,171	
Retail Services - Food and beverage	\$5,326,434	\$1,635,345	\$6,961,779	77%
Restaurant, bar, and drinking place services	\$15,932,307	\$5,510,749	\$21,443,056	74%
Civic, social, and professional services	\$1,678,768	\$653,174	\$2,331,942	72%
Monetary authorities and depository credit intermediation services	\$9,470,481	\$4,179,359	\$13,649,840	
Architectural, engineering, and related services	\$2,080,063	\$964,158	\$3,044,222	68%
Other amusements and recreation	\$702,905	\$394,441	\$1,097,347	64%
Cooking, housecleaning, gardening, and other services to private households	\$337,085	\$253,819	\$590,904	
Commercial and industrial machinery and equipment repairs and maintenance	\$74,458	\$62,835	\$137,293	54%
Retail Services - Health and personal care	\$1,496,125	\$1,755,308	\$3,251,433	
Veterinary services	\$374,896	\$462,545	\$837,441	
Wholesale trade distribution services	\$11,702,059	\$14,755,520	\$26,457,579	
Retail Services - Building material and garden supply	\$1,336,131	\$1,784,647	\$3,120,778	
Retail Services - General merchandise	\$2,998,108	\$4,498,621	\$7,496,729	
Museum, heritage, zoo, and recreational services	\$276,277	\$509,556	\$785,833	
Computer systems design services	\$186,059	\$350,326	\$536,385	
Travel arrangement and reservation services	\$266,435	\$575,881	\$842,317	
Legal services	\$2,147,429	\$4,670,222	\$6,817,651	31%
Offices of physicians, dentists, and other health practitioners	\$7,435,228	\$16,777,481	\$24,212,709	
Transit and ground passenger transportation services	\$538,626	\$1,275,139		
Custom computer programming services	\$341,435	\$841,341	\$1,182,776	
Products & services of State & Local Govt enterprises (except electric utilities	\$448,600	\$1,115,363	\$1,563,963	
Water, sewage treatment, and other utility services	\$716,554	\$1,809,529		
Maintained and repaired residential structures	\$2,476	\$6,527	\$9,004	
Retail Services - Electronics and appliances	\$536,215 \$202.574	\$1,447,843	\$1,984,058 \$1,471,073	
Rail transportation services	\$303,574	\$868,398		
Securities, commodity contracts, investments, and related services	\$3,201,168	\$10,036,584	\$13,237,752	
Education from private junior colleges, colleges, universities, and professional	\$2,142,380	\$7,443,521 \$4,633,476	\$9,585,901	
Waste management and remediation services	\$408,666	\$1,623,176		
Retail Services - Miscellaneous	\$631,333	\$2,545,433		
Retail Services - Furniture and home furnishings	\$337,958	\$1,377,927	\$1,715,885	20%

A 10% Shift

What would be the impact on the Wabash County economy if there was a 10% shift in demand for local goods and services?

To answer this question, we created a scenario within IMPLAN increasing production in every one of the 440 sectors one tenth of the way toward self-reliance. That meant no increases in self-reliant sectors and large increases in leaky sectors.

Chart 11 shows the total impact of ramping up industry in Wabash County to go 10% of the way to meet total *existing* local demand. Specifically, 10% localization would generate 335 new jobs: 254 direct jobs, 48 indirect jobs (as expanded local businesses bought more goods and services from other local businesses), and 33 induced jobs (as the new employees of all the expanded local businesses bought more local goods and services). In other words, a 10% shift could solve most of the County's unemployment challenge. IMPLAN predicts, moreover, that these new jobs will lead to \$13 million more in wages each year, \$24 million in additional annual value-added production, and \$2 million in indirect business taxes.

Chart 11 Impact of 10% Shift

ImpactType	Employment	Labor Income	Value Added	Output	Indirect Business Taxes
Direct Effect	254	\$10,441,982	\$19,124,480	\$44,588,671	\$1,635,226
Indirect Effect	48	\$1,734,759	\$3,130,653	\$5,768,902	\$242,941
Induced Effect	33	\$929,947	\$1,575,884	\$2,724,485	\$221,686
Total Effect	335	\$13,106,687	\$23,831,017	\$53,082,058	\$2,099,853

Chart 12 shows the sectors likely to produce the most jobs with a 10% shift, and Chart 13 shows the sectors likely to produce the most wages. The lists are similar.

Chart 14 organizes all the sectors generating at least one job into eight broad categories: FIRE (finance, insurance, and real estate), personal services, business services, food and farming, other retail, health care, construction & housing, tourism, and wholesale & distribution. The sectors presented in this chart represent about two thirds of all the jobs possible through a 10% shift. (The other sectors either yield less than one direct job or fall outside these eight categories.)

⁶ One methodology note: When IMPLAN is used to study very small areas, as is the case in this study, the model has many zero-activity sectors. To model a self-reliant economy, these sectors – mostly in manufacturing – need to be created with a minimum of one worker. "Production functions" based on national composites of industries are then imported to show the linkage of new sector's expenditures with other local industries. Since we ultimately look at the number of increased jobs from self-reliance, the change of the starting base has very little effect on the results.

Chart 12 Top Job Opportunities from a 10% Shift

Transport by air 1.70 0.00 0.00 1.70 Other personal services 1.59 0.00 0.01 1.60 Dry-cleaning and laundry services 1.51 0.00 0.00 1.51 Spectator sports companies 1.50 0.00 0.00 1.50 Scientific research and development services 1.43 0.00 0.00 1.44 Private elementary and secondary schools 1.41 0.00 0.09 1.50 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Oilseed farming 1.30 0.05 0.02 1.38 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Motor vehicle parts manufacturing 1.18 0.00 0.00 1.18	Description	Direct	Indirect	Induced	Total
Real estate establishments 17,28 0.76 0.27 18.28 Food services and drinking places 11,04 4.03 7.28 22.35 Individual and family services 7.61 2.15 0.13 9.89 Employment services 7.61 2.15 0.13 9.89 Insurance carriers 6.61 0.00 0.00 6.63 Insurance carriers 6.61 0.00 0.04 6.63 Securities, commodity contracts, investments, and related activities 5.74 2.90 0.57 9.21 Retail Stores - Miscellaneous 5.63 0.03 0.33 0.33 Services to buildings and dwellings 4.83 1.57 0.17 6.58 Brotis and motels, including casino hotels 4.66 0.02 0.01 4.72 0.00 0.10 4.42 0.00 0.01 4.42 0.00 0.01 4.42 0.00 0.01 4.42 0.00 0.01 4.42 0.00 0.01 4.42 0.00 0.01 4.42 0.00 0.01<	Total	254.15	48.04	32.90	335.10
Real estate establishments 17,28 0.76 0.27 18.28 Food services and drinking places 11,04 4.03 7.28 22.35 Individual and family services 7.61 2.15 0.13 9.89 Employment services 7.61 2.15 0.13 9.89 Insurance carriers 6.61 0.00 0.00 6.63 Insurance carriers 6.61 0.00 0.04 6.63 Securities, commodity contracts, investments, and related activities 5.74 2.90 0.57 9.21 Retail Stores - Miscellaneous 5.63 0.03 0.33 0.33 Services to buildings and dwellings 4.83 1.57 0.17 6.58 Brotis and motels, including casino hotels 4.66 0.02 0.01 4.72 0.00 0.10 4.42 0.00 0.01 4.42 0.00 0.01 4.42 0.00 0.01 4.42 0.00 0.01 4.42 0.00 0.01 4.42 0.00 0.01 4.42 0.00 0.01<	Offices of physicians, dentists, and other health practitioners	18.83	0.00	1.77	20.60
Individual and family services 7.82 0.00 0.00 7.82		17.28	0.76	0.27	18.32
Employment services	Food services and drinking places	11.04	4.03	7.28	22.35
Retail Nonstores - Direct and electronic sales	Individual and family services	7.82	0.00	0.00	7.82
Insurance carriers	Employment services	7.61	2.15	0.13	9.89
Transport by truck Securities, commodity contracts, investments, and related activities 5.74 2.90 5.03 5.75 9.21 8.77 8.78 8.79 8.79 8.70 8.79 8.70 8.70 8.70 8.70 8.70 8.70 8.70 8.70	Retail Nonstores - Direct and electronic sales	7.28	0.03	0.28	7.59
Securities, commodity contracts, investments, and related activities 5.74 2.90 0.57 9.21 Retail Stores - Miscellaneous 5.63 0.03 0.33 5.99 Services to buildings and dwellings 4.83 1.57 0.17 6.58 Hotels and motels, including casino hotels 4.65 0.02 0.01 4.67 Personal care services 4.42 0.00 0.00 4.42 Grantmaking, giving, and social advocacy organizations 4.32 0.00 0.01 4.42 Management of companies and enterprises 3.99 0.12 0.00 4.11 Legal services 3.55 1.07 0.38 5.00 Support activities for agriculture and forestry 3.31 0.48 0.01 3.80 Amusement parks, arcades, and gambling industries 3.15 0.00 0.11 3.27 Retail Stores - Clothing and clothing accessories 2.98 0.03 0.02 3.30 Other state and local government enterprises 2.98 0.03 0.03 3.55 State and local government pass	Insurance carriers	6.51	0.00	0.00	6.51
Retail Stores - Miscellaneous 5.63 0.03 0.33 5.99	Transport by truck	5.90	0.44	0.09	6.43
Services to buildings and dwellings	Securities, commodity contracts, investments, and related activities	5.74	2.90	0.57	9.21
Hotels and motels, including casino hotels	Retail Stores - Miscellaneous	5.63	0.03	0.33	5.99
Hotels and motels, including casino hotels	Services to buildings and dwellings	4.83	1.57	0.17	6.58
Personal care services		4.65	0.02	0.01	4.67
Management of companies and enterprises 3.99 0.12 0.00 4.11		4.42	0.00	0.00	4.42
Management of companies and enterprises 3.99 0.12 0.00 4.11	Grantmaking, giving, and social advocacy organizations	4.32	0.00	0.10	4.42
Legal services 3.55 1.07 0.38 5.00		3.99	0.12	0.00	4.11
Support activities for agriculture and forestry 3.31 0.48 0.01 3.80					
Amusement parks, arcades, and gambling industries 3.15 0.00 0.11 3.27 Retail Stores - Clothing and clothing accessories 2.98 0.03 0.29 3.30 Other state and local government enterprises 2.95 0.03 0.08 3.35 Nondepository credit intermediation and related activities 2.94 0.32 0.08 3.35 State and local government passenger transit 2.83 0.24 0.19 3.26 Extraction of oil and natural gas 2.68 0.28 0.01 2.97 Retail Stores - General merchandise 2.44 0.00 0.79 3.24 Private household operations 2.44 0.00 0.79 3.24 Grain farming 2.37 0.15 0.05 2.57 Other private educational services 2.35 0.01 0.03 2.39 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Computer systems design services 2.25 0.72 0.04 3.01 Monetary authorities and depository credit intermediation activit	Support activities for agriculture and forestry	3.31	0.48	0.01	3.80
Retail Stores - Clothing and clothing accessories 2.98 0.03 0.29 3.30		3.15	0.00	0.11	3.27
Other state and local government enterprises 2.95 0.17 0.13 3.25 Nondepository credit intermediation and related activities 2.94 0.32 0.08 3.35 State and local government passenger transit 2.83 0.24 0.19 3.26 Extraction of oil and natural gas 2.68 0.28 0.01 2.97 Retail Stores - General merchandise 2.49 0.14 1.40 4.02 Private household operations 2.44 0.00 0.79 3.24 Grain farming 2.37 0.15 0.05 0.05 2.57 Other private educational services 2.35 0.01 0.03 2.39 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Computer systems design services 2.25 0.72 0.04 3.01 Monetary authorities and depository credit intermediation activities 2.24 2.32 0.82 5.37 Funds, trusts, and other financial vehicles 2.23 0.00 0.00 2.23 Civic, social, professional, a		2.98	0.03	0.29	3.30
Nondepository credit intermediation and related activities		2.95	0.17	0.13	3.25
State and local government passenger transit 2.83 0.24 0.19 3.26 Extraction of oil and natural gas 2.68 0.28 0.01 2.97 Retail Stores - General merchandise 2.49 0.14 1.40 4.02 Private household operations 2.44 0.00 0.79 3.24 Grain farming 2.37 0.15 0.05 2.57 Other private educational services 2.35 0.01 0.03 2.39 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Computer systems design services 2.25 0.72 0.04 3.01 Monetary authorities and depository credit intermediation activities 2.24 2.32 0.82 5.37 Funds, trusts, and other financial vehicles 2.23 0.00 0.00 2.23 Civic, social, professional, and similar organizations 2.22 2.27 1.74 6.22 Tendes, trusts, and other financial vehicles 2.19 0.15 0.04 2.38 Investigation and security services 2.1		2.94	0.32	0.08	3.35
Extraction of oil and natural gas 2.68 0.28 0.01 2.97 Retail Stores - General merchandise 2.49 0.14 1.40 4.02 Private household operations 2.44 0.00 0.79 3.24 Grain farming 2.37 0.15 0.05 2.57 Other private educational services 2.35 0.01 0.03 2.39 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Computer systems design services 2.25 0.72 0.04 3.01 Monetary authorities and depository credit intermediation activities 2.24 2.32 0.82 5.37 Funds, trusts, and other financial vehicles 2.23 0.00 0.00 2.23 Civic, social, professional, and similar organizations 2.22 2.27 1.74 6.22 Telecommunications 2.19 0.15 0.04 2.38 Investigation and security services 2.15 0.00 0.00 2.15 Performing arts companies 1.89 0.00 0.00		2.83	0.24	0.19	3.26
Retail Stores - General merchandise 2.49 0.14 1.40 4.02 Private household operations 2.44 0.00 0.79 3.24 Grain farming 2.37 0.15 0.05 2.57 Other private educational services 2.35 0.01 0.03 2.39 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Computer systems design services 2.25 0.72 0.04 3.01 Monetary authorities and depository credit intermediation activities 2.24 2.32 0.82 5.37 Funds, trusts, and other financial vehicles 2.23 0.00 0.00 2.23 Civic, social, professional, and similar organizations 2.22 2.27 1.74 6.22 Telecommunications 2.19 0.15 0.04 2.38 Investigation and security services 2.15 0.00 0.00 2.15 Performing arts companies 1.89 0.00 0.00 1.85 Wholesale trade businesses 1.77 2.06 1.30		2.68	0.28	0.01	2.97
Grain farming 2.37 0.15 0.05 2.57 Other private educational services 2.35 0.01 0.03 2.39 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Computer systems design services 2.25 0.72 0.04 3.01 Monetary authorities and depository credit intermediation activities 2.24 2.32 0.82 5.37 Funds, trusts, and other financial vehicles 2.23 0.00 0.00 2.23 Civic, social, professional, and similar organizations 2.22 2.27 1.74 6.22 Telecommunications 2.19 0.15 0.04 2.38 Investigation and security services 2.15 0.00 0.00 2.15 Performing arts companies 1.89 0.00 0.00 2.15 Metal cutting and forming machine tool manufacturing 1.85 0.00 0.00 1.89 Wholesale trade businesses 1.77 2.06 1.30 5.13 Management, scientific, and technical consulting services 1.72	Retail Stores - General merchandise	2.49	0.14	1.40	4.02
Grain farming 2.37 0.15 0.05 2.57 Other private educational services 2.35 0.01 0.03 2.39 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Computer systems design services 2.25 0.72 0.04 3.01 Monetary authorities and depository credit intermediation activities 2.24 2.32 0.82 5.37 Funds, trusts, and other financial vehicles 2.23 0.00 0.00 2.23 Civic, social, professional, and similar organizations 2.22 2.27 1.74 6.22 Telecommunications 2.19 0.15 0.04 2.38 Investigation and security services 2.15 0.00 0.00 2.15 Performing arts companies 1.89 0.00 0.00 2.15 Metal cutting and forming machine tool manufacturing 1.85 0.00 0.00 1.89 Wholesale trade businesses 1.77 2.06 1.30 5.13 Management, scientific, and technical consulting services 1.72	Private household operations		0.00	0.79	3.24
Other private educational services 2.35 0.01 0.03 2.39 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Computer systems design services 2.25 0.72 0.04 3.01 Monetary authorities and depository credit intermediation activities 2.24 2.32 0.82 5.37 Funds, trusts, and other financial vehicles 2.23 0.00 0.00 2.23 Civic, social, professional, and similar organizations 2.22 2.27 1.74 6.22 Telecommunications 2.19 0.15 0.04 2.38 Investigation and security services 2.15 0.00 0.00 2.15 Performing arts companies 1.89 0.00 0.00 1.89 Metal cutting and forming machine tool manufacturing 1.85 0.00 0.00 1.85 Wholesale trade businesses 1.77 2.06 1.30 5.13 Management, scientific, and technical consulting services 1.72 1.40 0.09 3.21 Warehousing and storage <td< th=""><th></th><th>2.37</th><th>0.15</th><th>0.05</th><th>2.57</th></td<>		2.37	0.15	0.05	2.57
Computer systems design services 2.25 0.72 0.04 3.01 Monetary authorities and depository credit intermediation activities 2.24 2.32 0.82 5.37 Funds, trusts, and other financial vehicles 2.23 0.00 0.00 2.23 Civic, social, professional, and similar organizations 2.22 2.27 1.74 6.22 Telecommunications 2.19 0.15 0.04 2.38 Investigation and security services 2.15 0.00 0.00 2.15 Performing arts companies 1.89 0.00 0.00 1.89 Metal cutting and forming machine tool manufacturing 1.85 0.00 0.00 1.85 Wholesale trade businesses 1.77 2.06 1.30 5.13 Management, scientific, and technical consulting services 1.72 1.40 0.09 3.21 Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70 Other personal services 1.59 0.00	Other private educational services	2.35	0.01	0.03	2.39
Monetary authorities and depository credit intermediation activities 2.24 2.32 0.82 5.37 Funds, trusts, and other financial vehicles 2.23 0.00 0.00 2.23 Civic, social, professional, and similar organizations 2.22 2.27 1.74 6.22 Telecommunications 2.19 0.15 0.04 2.38 Investigation and security services 2.15 0.00 0.00 2.15 Performing arts companies 1.89 0.00 0.00 1.89 Metal cutting and forming machine tool manufacturing 1.85 0.00 0.00 1.85 Wholesale trade businesses 1.77 2.06 1.30 5.13 Management, scientific, and technical consulting services 1.72 1.40 0.09 3.21 Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70 Other personal services 1.59 0.00 0.01 1.60 Dry-cleaning and laundry services 1.50 0.00	Fitness and recreational sports centers	2.29	0.05	0.09	2.43
Funds, trusts, and other financial vehicles 2.23 0.00 0.00 2.23 Civic, social, professional, and similar organizations 2.22 2.27 1.74 6.22 Telecommunications 2.19 0.15 0.04 2.38 Investigation and security services 2.15 0.00 0.00 2.15 Performing arts companies 1.89 0.00 0.00 1.89 Metal cutting and forming machine tool manufacturing 1.85 0.00 0.00 1.89 Wholesale trade businesses 1.77 2.06 1.30 5.13 Management, scientific, and technical consulting services 1.72 1.40 0.09 3.21 Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70 Other personal services 1.59 0.00 0.01 1.60 Dry-cleaning and laundry services 1.51 0.00 0.00 1.51 Spectator sports companies 1.50 0.00 0.00 1.50 <th>Computer systems design services</th> <th>2.25</th> <th>0.72</th> <th>0.04</th> <th>3.01</th>	Computer systems design services	2.25	0.72	0.04	3.01
Civic, social, professional, and similar organizations 2.22 2.27 1.74 6.22 Telecommunications 2.19 0.15 0.04 2.38 Investigation and security services 2.15 0.00 0.00 2.15 Performing arts companies 1.89 0.00 0.00 1.89 Metal cutting and forming machine tool manufacturing 1.85 0.00 0.00 1.85 Wholesale trade businesses 1.77 2.06 1.30 5.13 Management, scientific, and technical consulting services 1.72 1.40 0.09 3.21 Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70 Other personal services 1.59 0.00 0.01 1.60 Dry-cleaning and laundry services 1.51 0.00 0.00 1.51 Spectator sports companies 1.51 0.00 0.00 1.51 Scientific research and development services 1.43 0.00 0.00 1.50 Retail Stores - Sporting goods, hobby, book and music 1.33 <td< th=""><th>Monetary authorities and depository credit intermediation activities</th><th>2.24</th><th>2.32</th><th>0.82</th><th>5.37</th></td<>	Monetary authorities and depository credit intermediation activities	2.24	2.32	0.82	5.37
Telecommunications 2.19 0.15 0.04 2.38 Investigation and security services 2.15 0.00 0.00 2.15 Performing arts companies 1.89 0.00 0.00 1.89 Metal cutting and forming machine tool manufacturing 1.85 0.00 0.00 1.85 Wholesale trade businesses 1.77 2.06 1.30 5.13 Management, scientific, and technical consulting services 1.72 1.40 0.09 3.21 Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70 Other personal services 1.59 0.00 0.01 1.60 Dry-cleaning and laundry services 1.51 0.00 0.00 1.51 Spectator sports companies 1.50 0.00 0.00 1.50 Scientific research and development services 1.43 0.00 0.00 1.50 Scientific research and development services 1.41 0.00 0.00 1.50 <th>Funds, trusts, and other financial vehicles</th> <th>2.23</th> <th>0.00</th> <th>0.00</th> <th>2.23</th>	Funds, trusts, and other financial vehicles	2.23	0.00	0.00	2.23
Investigation and security services 2.15 0.00 0.00 2.15	Civic, social, professional, and similar organizations	2.22	2.27	1.74	6.22
Performing arts companies 1.89 0.00 0.00 1.89 Metal cutting and forming machine tool manufacturing 1.85 0.00 0.00 1.85 Wholesale trade businesses 1.77 2.06 1.30 5.13 Management, scientific, and technical consulting services 1.72 1.40 0.09 3.21 Warehousing and storage 1.71 0.01 0.00 0.00 1.72 Transport by air 1.70 0.00 0.00 0.00 1.70 Other personal services 1.59 0.00 0.01 1.60 Dry-cleaning and laundry services 1.51 0.00 0.00 1.51 Spectator sports companies 1.50 0.00 0.00 1.50 Scientific research and development services 1.43 0.00 0.00 1.44 Private elementary and secondary schools 1.41 0.00 0.03 1.37 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Oilseed farming 1.30 3.18 </th <th>Telecommunications</th> <th>2.19</th> <th>0.15</th> <th>0.04</th> <th>2.38</th>	Telecommunications	2.19	0.15	0.04	2.38
Metal cutting and forming machine tool manufacturing 1.85 0.00 0.00 1.85 Wholesale trade businesses 1.77 2.06 1.30 5.13 Management, scientific, and technical consulting services 1.72 1.40 0.09 3.21 Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70 Other personal services 1.59 0.00 0.01 1.60 Dry-cleaning and laundry services 1.51 0.00 0.00 1.51 Spectator sports companies 1.50 0.00 0.00 1.50 Scientific research and development services 1.43 0.00 0.00 1.44 Private elementary and secondary schools 1.41 0.00 0.09 1.50 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Oilseed farming 1.30 0.05 0.02 1.38 Architectural, engineering, and related services 1.28 0.01 0.01<	Investigation and security services	2.15	0.00	0.00	2.15
Wholesale trade businesses 1.77 2.06 1.30 5.13 Management, scientific, and technical consulting services 1.72 1.40 0.09 3.21 Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70 Other personal services 1.59 0.00 0.01 1.60 Dry-cleaning and laundry services 1.51 0.00 0.00 1.51 Spectator sports companies 1.50 0.00 0.00 1.50 Scientific research and development services 1.43 0.00 0.00 1.44 Private elementary and secondary schools 1.41 0.00 0.09 1.50 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Oilseed farming 1.30 0.05 0.02 1.38 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Motor vehicle parts manufacturing <t< th=""><th>Performing arts companies</th><th>1.89</th><th>0.00</th><th>0.00</th><th>1.89</th></t<>	Performing arts companies	1.89	0.00	0.00	1.89
Management, scientific, and technical consulting services 1.72 1.40 0.09 3.21 Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70 Other personal services 1.59 0.00 0.01 1.60 Dry-cleaning and laundry services 1.51 0.00 0.00 1.51 Spectator sports companies 1.50 0.00 0.00 1.50 Scientific research and development services 1.43 0.00 0.00 1.44 Private elementary and secondary schools 1.41 0.00 0.09 1.50 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Oilseed farming 1.30 0.05 0.02 1.38 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Motor vehicle parts manufacturing 1.18 0.00 0.00 1.18	Metal cutting and forming machine tool manufacturing	1.85	0.00	0.00	1.85
Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70 Other personal services 1.59 0.00 0.01 1.60 Dry-cleaning and laundry services 1.51 0.00 0.00 1.51 Spectator sports companies 1.50 0.00 0.00 1.50 Scientific research and development services 1.43 0.00 0.00 1.44 Private elementary and secondary schools 1.41 0.00 0.09 1.50 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Oilseed farming 1.30 0.05 0.02 1.38 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Motor vehicle parts manufacturing 1.18 0.00 0.00 1.18	Wholesale trade businesses	1.77	2.06	1.30	5.13
Transport by air 1.70 0.00 0.00 1.70 Other personal services 1.59 0.00 0.01 1.60 Dry-cleaning and laundry services 1.51 0.00 0.00 1.51 Spectator sports companies 1.50 0.00 0.00 1.50 Scientific research and development services 1.43 0.00 0.00 1.44 Private elementary and secondary schools 1.41 0.00 0.09 1.50 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Oilseed farming 1.30 0.05 0.02 1.38 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Motor vehicle parts manufacturing 1.18 0.00 0.00 1.18	Management, scientific, and technical consulting services				
Other personal services 1.59 0.00 0.01 1.60 Dry-cleaning and laundry services 1.51 0.00 0.00 1.51 Spectator sports companies 1.50 0.00 0.00 1.50 Scientific research and development services 1.43 0.00 0.00 1.44 Private elementary and secondary schools 1.41 0.00 0.09 1.50 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Oilseed farming 1.30 0.05 0.02 1.38 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Motor vehicle parts manufacturing 1.18 0.00 0.00 1.18	Warehousing and storage	1.71	0.01	0.00	
Dry-cleaning and laundry services 1.51 0.00 0.00 1.51 Spectator sports companies 1.50 0.00 0.00 1.50 Scientific research and development services 1.43 0.00 0.00 1.44 Private elementary and secondary schools 1.41 0.00 0.09 1.50 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Oilseed farming 1.30 0.05 0.02 1.38 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Motor vehicle parts manufacturing 1.18 0.00 0.00 1.18	Transport by air	1.70	0.00	0.00	1.70
Spectator sports companies 1.50 0.00 0.00 1.50 Scientific research and development services 1.43 0.00 0.00 1.44 Private elementary and secondary schools 1.41 0.00 0.09 1.50 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Oilseed farming 1.30 0.05 0.02 1.38 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Motor vehicle parts manufacturing 1.18 0.00 0.00 1.18	Other personal services	1.59	0.00	0.01	1.60
Scientific research and development services 1.43 0.00 0.00 1.44 Private elementary and secondary schools 1.41 0.00 0.09 1.50 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Oilseed farming 1.30 0.05 0.02 1.38 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Motor vehicle parts manufacturing 1.18 0.00 0.00 1.18	Dry-cleaning and laundry services	1.51	0.00	0.00	1.51
Private elementary and secondary schools 1.41 0.00 0.09 1.50 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Oilseed farming 1.30 0.05 0.02 1.38 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Motor vehicle parts manufacturing 1.18 0.00 0.00 1.18		1.50	0.00		1.50
Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Oilseed farming 1.30 0.05 0.02 1.38 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Motor vehicle parts manufacturing 1.18 0.00 0.00 1.18		1.43	0.00		1.44
Oilseed farming 1.30 0.05 0.02 1.38 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Motor vehicle parts manufacturing 1.18 0.00 0.00 1.18	Private elementary and secondary schools	1.41	0.00		1.50
Architectural, engineering, and related services1.303.180.104.57Promoters of performing arts and sports and agents for public figures1.280.010.011.29Motor vehicle parts manufacturing1.180.000.001.18	Retail Stores - Sporting goods, hobby, book and music	1.33	0.00	0.03	1.37
Promoters of performing arts and sports and agents for public figures1.280.010.011.29Motor vehicle parts manufacturing1.180.000.001.18				0.02	1.38
Motor vehicle parts manufacturing 1.18 0.00 0.00 1.18		1.30	3.18	0.10	4.57
	Promoters of performing arts and sports and agents for public figures	1.28	0.01	0.01	1.29
Couriers and messengers 1.10 0.00 0.00 1.10				0.00	1.18
	Couriers and messengers	1.10	0.00	0.00	1.10

Chart 13
Top Wage Opportunities from a 10% Shift

Description	Direct	Indirect	Induced	Total
Total	\$10,441,982	\$1,734,759	\$929,947	\$13,106,687
Offices of physicians, dentists, and other health practitioners	\$930,431	\$160	\$87,354	\$1,017,945
Insurance carriers	\$537,429	\$0	\$0	\$537,429
Real estate establishments	\$324,763	\$14,348	\$5,133	\$344,243
Management of companies and enterprises	\$321,856	\$9,383	\$304	\$331,544
All other petroleum and coal products manufacturing	\$221,521	\$3,147	\$361	\$225,030
Transport by truck	\$200,333	\$15,086	\$2,913	\$218,332
Individual and family services	\$199,299	\$0	\$5	\$199,304
Securities, commodity contracts, investments, and related activitie	\$185,307	\$93,640	\$18,257	\$297,203
Personal care services	\$171,541	\$0	\$0	\$171,541
Food services and drinking places	\$161.640	\$59.006	\$106,532	\$327,178
Legal services	\$159,578	\$47,942	\$16,958	\$224,479
Metal cutting and forming machine tool manufacturing	\$153,755	\$23	\$0	\$153,778
State and local government passenger transit	\$149,540	\$12,757	\$10,037	\$172,335
Scientific research and development services	\$148,615	\$97	\$6	\$148.718
Transport by air	\$142,834	\$0	\$0	\$142,834
Other state and local government enterprises	\$116,760	\$6,905	\$5,269	\$128,934
Employment services	\$113,026	\$31,857	\$1,996	\$146,879
Grantmaking, giving, and social advocacy organizations	\$111,480	\$35	\$2,509	\$114,024
Retail Stores - Miscellaneous	\$110,060	\$666	\$6,359	\$117,085
Pharmaceutical preparation manufacturing	\$105,116	\$0	\$0	\$105,116
Nondepository credit intermediation and related activities	\$98,136	\$10,707	\$2,689	\$111,533
Monetary authorities and depository credit intermediation activities	\$93,535	\$96,789	\$34,159	\$224,482
Support activities for agriculture and forestry	\$92,598	\$13,450	\$246	\$106,293
Telecommunications	\$86.856	\$5.989	\$1,709	\$94,554
Oilseed farming	\$86.416	\$3.616	\$1,484	\$91.516
Funds, trusts, and other financial vehicles	\$84.477	\$0	\$0	\$84,477
Wholesale trade businesses	\$81,271	\$94,670	\$59,678	\$235,619
Computer systems design services	\$79,149	\$25,338	\$1,290	\$105,776
Commercial and industrial machinery and equipment rental and le	\$76,331	\$5.712	\$184	\$82.227
Spectator sports companies	\$73,824	\$0	\$0	\$73,824
Services to buildings and dwellings	\$72,951	\$23,759	\$2,612	\$99,322
Hotels and motels, including casino hotels	\$72,355	\$270	\$97	\$72,722
Management, scientific, and technical consulting services	\$70,297	\$57,311	\$3,679	\$131,287
Motor vehicle parts manufacturing	\$69,371	\$42	\$2	\$69,415
Data processing, hosting, ISP, web search portals and related serv	\$67,293	\$1,079	\$335	\$68,707
Retail Nonstores - Direct and electronic sales	\$67,097	\$235	\$2,586	\$69,918
Grain farming	\$66,308	\$4,158	\$1,333	\$71,799
Dry-cleaning and laundry services	\$64,458	\$0	\$0	\$64,458
Extraction of oil and natural gas	\$63,731	\$6,600	\$232	\$70.563
Investigation and security services	\$62,091	\$0	\$0	\$62,091
Soap and cleaning compound manufacturing	\$60,822	\$10	\$3	\$60,835
Motion picture and video industries	\$57,717	\$0	\$0	\$57,717
Warehousing and storage	\$57,199	\$343	\$39	\$57,582
Office administrative services	\$57.090	\$611	\$41	\$57.742
Metal tank (heavy gauge) manufacturing	\$55,158	\$35	\$0	\$55,193
Other private educational services	\$53,848	\$212	\$724	\$54,784
All other miscellaneous professional, scientific, and technical servi	\$50,650	\$0	\$0	\$50,650
Retail Stores - General merchandise	\$50,097	\$2,766	\$28,168	\$81,031

Chart 14 Top Leak-Plugging Sectors

Real estate establishments	Description	Direct	Indirect	Induced	Total
Insurance carriers	FIRE	47.00	0.70	2.07	40.00
Securities, commodity contracts, investments, and related activities 5.74 2.90 0.57 9.21 Nondepository credit intermediation and related activities 2.94 0.32 0.08 3.35 Monetary authorities and depository credit intermediation activities 2.24 2.32 0.00 0.00 2.23 Monetary authorities and depository credit intermediation activities 2.24 2.32 0.00 0.00 2.23 Monetary authorities and depository credit intermediation activities 2.24 2.32 0.00 0.00 2.23 Monetary authorities and depository credit intermediation activities 2.24 2.32 0.00 0.00 2.23 Monetary authorities and depository credit intermediation activities 2.24 2.30 0.00 0.00 2.23 Monetary authorities and depository credit intermediation activities 2.24 0.00 0.00 0.00 Molfieldial and family services 7.82 0.00 0.00 0.00 7.82 Monetary authorities and devellings 4.83 1.57 0.17 6.58 Monetary authorities 4.42 0.00 0.00 0.10 4.42 Monetary authorities 4.42 0.00 0.00 0.79 3.24 Monetary authorities and services 1.59 0.00 0.01 1.60 Monetary authorities and authorities 1.59 0.00 0.01 1.60 Monetary authorities 2.25 3.34 2.81 3.58 Business Services 2.915 3.34 2.81 3.58 Business Services 7.61 2.15 0.13 9.88 Monetary authorities and enterprises 3.99 0.12 0.00 0.01 1.14 Management of companies and enterprises 3.99 0.12 0.00 0.15 Monetary authorities for agriculture and forestry 3.31 0.00 0.00 0.14 Management, scientific, and technical consulting services 1.72 1.40 0.00 0.00 0.14 Management, scientific, and technical consulting services 1.72 0.00 0.00 0.10 0.10 Monetary authorities for agriculture and forestry 3.31 0.48 0.00 0.00 0.1					
Nondepository credit intermediation and related activities					
Monetary authorities and depository credit intermediation activities					
Funds, trusts, and other financial vehicles 2,23 0,00 0,00 2,23					
Personal Services T.82 0.00 0	· · · · ·				
Personal Services	Funds, trusts, and other financial vehicles				
Individual and family services 7.82 0.00 0.00 7.82	Porsonal Services	36.95	6.30	1.74	44.99
Services to buildings and dwellings		7 92	0.00	0.00	7 92
Personal care services					
Grantmaking, giving, and social advocacy organizations 4.32 0.00 0.10 4.42 Private household operations 2.44 0.00 0.79 3.24 Civide, social, professional, and similar organizations 2.22 2.27 1.74 6.22 Other personal services 1.59 0.00 0.01 1.60 Business Services 29.15 3.84 2.81 35.80 Business Services 29.15 3.84 2.81 35.80 Business Services 7.61 2.15 0.13 9.89 Management of companies and enterprises 3.99 0.12 0.00 4.11 Legal services 3.55 1.07 0.38 5.00 Incestigation and security services 3.55 1.00 0.00 2.15 Scientific research and development services 1.72 1.40 0.00 0.00 1.44 Management, scientific, and technical consulting services 1.72 1.40 0.00 0.00 1.44 Couriers and messengers 1.10 0.00					
Private household operations					
Civic, social, professional, and similar organizations 2,22 2,27 1,74 6,22 Other personal services 1,59 0,00 0,01 1,60 Dry-cleaning and laundry services 29,15 3,84 2,81 35,80 Business Services 29,15 3,84 2,81 35,80 Employment services 7,61 2,15 0,13 9,89 Management of companies and enterprises 3,99 0,12 0,00 4,11 Legal services 3,55 1,07 0,38 5,00 Investigation and security services 2,15 0,00 0,00 2,15 Scientific research and development services 1,43 0,00 0,00 1,44 Architectural, engineering, and related services 1,72 1,40 0,09 3,21 Architectural, engineering, and related services 1,10 0,00 0,00 1,1 Couriers and messengers 1,10 0,00 0,00 1,1 Food services and drinking places 1,1 0,00 0,00 1,3					
Dither personal services					
Dry-cleaning and laundry services					
Business Services					
Employment services 7.61 2.15 0.13 9.89	Dry-cleaning and laundry services				
Management of companies and enterprises 3.99 0.12 0.00 4.11	Business Services	23.13	5.04	2.01	33.00
Management of companies and enterprises 3.99 0.12 0.00 4.11	Employment services	7.61	2.15	0.13	9.89
Legal services 3.55 1.07 0.38 5.00 Investigation and security services 2.15 0.00 0.00 2.15 Scientific research and development services 1.43 0.00 0.00 1.44 Management, scientific, and technical consulting services 1.72 1.40 0.09 3.21 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Couriers and messengers 1.10 0.00 0.00 1.00 Food & Farming 22.86 7.91 0.70 31.47 Food Services and drinking places 11.04 4.03 7.28 22.25 Support activities for agriculture and forestry 3.31 0.48 0.01 3.80 Grain farming 2.37 0.15 0.05 2.25 Ollseed farming 1.30 0.05 0.02 1.38 Retail Stores reliance 7.28 0.03 0.28 7.59 Retail Stores - Sirect and electronic sales 7.28 0.03 0.28 7.59 <tr< td=""><td></td><td></td><td></td><td>0.00</td><td></td></tr<>				0.00	
Investigation and security services 2.15 0.00 0.00 2.15 Scientific research and development services 1.43 0.00 0.00 0.00 1.44 Management, scientific, and technical consulting services 1.72 1.40 0.09 3.21 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Couriers and messengers 1.10 0.00 0.00 1.10 Couriers and messengers 2.286 7.91 0.70 31.47 Food & Farming Food services and drinking places 11.04 4.03 7.28 22.35 Support activities for agriculture and forestry 3.31 0.48 0.01 3.80 Grain farming 2.37 0.15 0.05 2.57 Oilseed farming 1.30 0.05 0.02 1.38 1.30 0.05 0.02 0.03 0.33 0.28 7.59 1.30 0.05 0.02 0.03 0.33 0.29 0.33 0.00 0.33 0.29 0.33 0.00 0.33 0.29 0.33 0.00 0.33 0.29 0.33 0.00 0.03 0.33 0.29 0.33 0.00 0.03 0.33 0.0					
Scientific research and development services					
Management, scientific, and technical consulting services 1.72 1.40 0.09 3.21 Architectural, engineering, and related services 1.30 3.18 0.10 4.57 Couriers and messengers 1.10 0.00 0.00 1.10 Food & Farming 22.86 7.91 0.70 31.47 Food services and drinking places 11.04 4.03 7.28 22.35 Support activities for agriculture and forestry 3.31 0.48 0.01 3.80 Grain farming 2.37 0.15 0.05 0.02 1.38 Grain farming 1.30 0.05 0.02 1.38 Grain farming 1.30 0.05 0.02 1.38 Grain farming 1.80 4.72 7.36 30.11 Office of price and electronic sales 7.28 0.03 0.28 7.59 Retail Stores - Direct and electronic sales 7.28 0.03 0.28 7.59 Retail Stores - Clothing and clothing accessories 2.98 0.03 0.29 <t< td=""><td>,</td><td></td><td></td><td></td><td></td></t<>	,				
Architectural, engineering, and related services		1.72		0.09	3.21
Couriers and messengers					
Food & Farming Food services and drinking places 11.04 4.03 7.28 22.35 Support activities for agriculture and forestry 3.31 0.48 0.01 3.80 Grain farming 2.37 0.15 0.05 2.57 0.15 0.05 2.57 0.15 0.05 0.02 1.38 0.05 0.02 1.38 0.05 0.02 1.38 0.05 0.02 1.38 0.05 0.02 1.38 0.05 0.02 1.38 0.05 0.02 1.38 0.05 0.02 1.38 0.05 0.02 0.05 0.02 1.38 0.05 0.02 0.05 0.02 1.38 0.05 0.05 0.02 0.05 0.02 1.38 0.05 0.05 0.02 0.05					1.10
Food services and drinking places		22.86	7.91	0.70	31.47
Support activities for agriculture and forestry 3.31 0.48 0.01 3.80					
Grain farming 2.37 0.15 0.05 2.57 Oilseed farming 1.30 0.05 0.02 1.38 Tother Retail Retail Nonstores - Direct and electronic sales 7.28 0.03 0.28 7.59 Retail Stores - Miscellaneous 5.63 0.03 0.29 3.30 Retail Stores - Clothing and clothing accessories 2.98 0.03 0.29 3.30 Retail Stores - General merchandise 2.49 0.14 1.40 4.02 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Health Care Offices of physicians, dentists, and other health practitioners 18.83 0.00 1.77 20.60 Tourism Hotels and motels, including casino hotels 4.65 0.02 0.01 4.67 Amusement parks, arcades, and gambling industries 31.5 0.00 0.11 3.27 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Spectator sports companies 1.50 0.00 0.00					
Dilseed farming	, ,				
Retail Nonstores - Direct and electronic sales 7.28 0.03 0.28 7.59					
Other Retail Retail Nonstores - Direct and electronic sales 7.28 0.03 0.28 7.59 Retail Stores - Miscellaneous 5.63 0.03 0.33 5.99 Retail Stores - Clothing and clothing accessories 2.98 0.03 0.29 3.30 Retail Stores - General merchandise 2.49 0.14 1.40 4.02 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Health Care Offices of physicians, dentists, and other health practitioners 18.83 0.00 1.77 20.60 Tourism Hotels and motels, including casino hotels 4.65 0.02 0.01 4.67 Amusement parks, arcades, and gambling industries 3.15 0.00 0.01 4.67 Amusement parks, arcades, and gambling industries 3.15 0.00 0.01 4.67 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Spectator sports companies 1.50 0.00 0.00 1.50 Performing ar	Oilseed farming				
Retail Nonstores - Direct and electronic sales 7.28 0.03 0.28 7.59	Other Retail	18.03	4.72	7.36	30.11
Retail Stores - Miscellaneous 5.63 0.03 0.33 5.99 Retail Stores - Clothing and clothing accessories 2.98 0.03 0.29 3.30 Retail Stores - General merchandise 2.49 0.14 1.40 4.02 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Health Care Offices of physicians, dentists, and other health practitioners 18.83 0.00 1.77 20.60 Tourism Hotels and motels, including casino hotels 4.65 0.02 0.01 4.67 Amusement parks, arcades, and gambling industries 3.15 0.00 0.11 3.27 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Spectator sports companies 1.50 0.00 0.00 1.50 Performing arts companies 1.89 0.00 0.00 1.89 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Wholesale and Distribution Transport by truck 5.90 0.44 <t< td=""><td></td><td>7 28</td><td>0.03</td><td>0.28</td><td>7 59</td></t<>		7 28	0.03	0.28	7 59
Retail Stores - Clothing and clothing accessories 2.98 0.03 0.29 3.30 Retail Stores - General merchandise 2.49 0.14 1.40 4.02 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Health Care Offices of physicians, dentists, and other health practitioners 18.83 0.00 1.77 20.60 Tourism Hotels and motels, including casino hotels 4.65 0.02 0.01 4.67 Amusement parks, arcades, and gambling industries 3.15 0.00 0.11 3.27 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Spectator sports companies 1.50 0.00 0.00 1.50 Performing arts companies 1.89 0.00 0.00 1.89 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Wholesale and Distribution Transport by truck 5.90 0.44 0.09 6.43 Warehousing and storage 1.71 0.01					
Retail Stores - General merchandise 2.49 0.14 1.40 4.02 Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Health Care Offices of physicians, dentists, and other health practitioners 18.83 0.00 1.77 20.60 Tourism Hotels and motels, including casino hotels 4.65 0.02 0.01 4.67 Amusement parks, arcades, and gambling industries 3.15 0.00 0.11 3.27 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Spectator sports companies 1.50 0.00 0.00 1.50 Performing arts companies 1.89 0.00 0.00 1.89 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Wholesale and Distribution 5.90 0.44 0.09 6.43 Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70					
Retail Stores - Sporting goods, hobby, book and music 1.33 0.00 0.03 1.37 Health Care Offices of physicians, dentists, and other health practitioners 18.83 0.00 1.77 20.60 Tourism Hotels and motels, including casino hotels 4.65 0.02 0.01 4.67 Amusement parks, arcades, and gambling industries 3.15 0.00 0.11 3.27 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Spectator sports companies 1.50 0.00 0.00 1.50 Performing arts companies 1.89 0.00 0.00 1.89 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Wholesale and Distribution Transport by truck 5.90 0.44 0.09 6.43 Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70					
19.71 0.23 2.33 22.27					
Health Care Offices of physicians, dentists, and other health practitioners 18.83 0.00 1.77 20.60 Tourism 18.83 0.00 1.77 20.60 Hotels and motels, including casino hotels 4.65 0.02 0.01 4.67 Amusement parks, arcades, and gambling industries 3.15 0.00 0.11 3.27 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Spectator sports companies 1.50 0.00 0.00 1.50 Performing arts companies 1.89 0.00 0.00 1.89 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Wholesale and Distribution 13.48 0.06 0.21 13.75 Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70	Tretail Grotes - Opening goods, Hobby, Book and Hidsie	-			
Tourism	Health Care				
Tourism 4.65 0.02 0.01 4.67 Amusement parks, arcades, and gambling industries 3.15 0.00 0.11 3.27 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Spectator sports companies 1.50 0.00 0.00 1.50 Performing arts companies 1.89 0.00 0.00 1.89 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Wholesale and Distribution 13.48 0.06 0.21 13.75 Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70	Offices of physicians, dentists, and other health practitioners	18.83	0.00	1.77	20.60
Hotels and motels, including casino hotels 4.65 0.02 0.01 4.67 Amusement parks, arcades, and gambling industries 3.15 0.00 0.11 3.27 Fitness and recreational sports centers 2.29 0.05 0.09 2.43 Spectator sports companies 1.50 0.00 0.00 1.50 Performing arts companies 1.89 0.00 0.00 1.89 Promoters of performing arts and sports and agents for public figures 1.28 0.01 0.01 1.29 Wholesale and Distribution Transport by truck 5.90 0.44 0.09 6.43 Warehousing and storage 1.71 0.01 0.00 1.72 Transport by air 1.70 0.00 0.00 1.70		18.83	0.00	1.77	20.60
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In terms of economic development strategy, here's what can be said about these eight categories in Chart 14:

- FIRE Wabash County is blessed with local banks, but lacks other critical investment, insurance, and real estate businesses. This creates a double burden for local economic development. Not only does the county not have the direct jobs that come from these businesses, but the leakage in these sectors means that local capital is being invested elsewhere.
- Services Both personal and business services arguably should be the centerpiece for community economic development. Most of these jobs require very little overhead (many are home-based) and many pay good wages. The key is to attract quality professionals to move into the county is to make sure that the world knows about all the benefits the region has to offer. Attracting people is fundamentally cheaper and easier than attracting companies, because incentives are not required. Moreover, the assets that attract outsiders typically are enjoyed by all existing residents.
- Food & Farming The presence of a strong farming sector provides an
 excellent foundation for an expanded local-food economy. Many
 communities across the United States have deployed local food as a starting
 place for LOIS, because people in the community viscerally appreciate the
 virtues of local food (in a way that, say, local banking does not resonate).
 While there is a small farmers market in Wabash County, there are huge
 opportunities for more growing, processing, selling, and servicing highquality local food.
- Other Retail Even though some retail sectors are strong in Wabash County, many are not locally owned. But there remain stark retail leakages in sectors like clothing, hobbies, and general merchandise. These gaps were once filled by a Target in Mount Carmel. A better alternative moving forward might be to create a local "mercantile," as has been started recently in Port Townsend, Washington, and Saranac Lake, New York.
- *Health Care* Wabash County has an outstanding hospital, but is missing small medical practices for less critical care. The imminent implementation of the Affordable Care Act means this will be an important growth area for the local economy.
- Tourism Wabash County lacks the kinds of central attractions a park, amusement park, a concert hall, etc. – that might attract a steady stream of tourists. Even if such a central attraction were put in place, the county also lacks an infrastructure of hotels and restaurants to accommodate more tourists.

• Wholesale & Distribution – The limited number of existing manufacturers could use expanded local wholesale and distribution businesses. If manufacturing were expanded, these businesses would expand accordingly.

How can LOIS businesses be created or expanded to plug these leaks?

The Critical Role of Metabusinesses

As noted earlier, a comprehensive LOIS agenda will look at the six P's: planning, people, partners, purchasing, purse (investment), and public policy. To its credit, Wabash County has initiated grassroots "teams" focused on this agenda. We review their work shortly. For the moment, one additional strategic point needs to be made.

The best economic-development strategies ought to be those that cost the least money. Better still, these strategies ought to make money—and perhaps underwrite still more economic development activity. These strategies are called "metabusinesses." Below are brief descriptions of 24 meta-businesses that Wabash County might consider launching, organized by four of the six priorities for local living economy economic development.

The starting place for meta-businesses is *local purchasing*—by consumers, businesses, and government purchasing agents. Plausible meta-businesses here include the following:

- Local First Directory A metabusiness could be created around a directory (online and in print) of local businesses. The purpose would be to help county residents find goods and services from locally owned businesses of which they are unaware. It also could be used to help tourists spend more money in locally owned businesses. There are roughly two dozen of these directories nationwide, some of which break even or generate small profits. Cash flows can come from advertising sales and from selling the directory in participating businesses or local bookstores.
- Local First Advertiser A monthly or weekly newspaper could be created that circulates for free to Wabash County residents, each with an updated and expanding directory of local businesses, spiced up with profiles and other local business articles. It might be linked to web resources. Examples of these kinds of advertisers across the country include the several dozen Edible magazines (focused on local food businesses) and thousands of neighborhood advertisers (focused on all kinds of local businesses).
- Local Loyalty Cards One way of inducing residents to buy more local food would be to create a loyalty card like Supportland (based in Portland, Oregon) or a debit card like Bernal Bucks (based in San Francisco). Both systems help consumers to identify which businesses are local, and reward local purchases

from them with discounts at the participating businesses. Revenues are generated from fees charged to participating businesses.

- Local Gift Card The region could create a gift card, like the Edmonton Originals Card, usable only at locally owned businesses in Wabash County that would help introduce residents and tourists to unfamiliar local businesses. It's a great stocking-stuffer, and a terrific promotional item to be sold to tourists. Generally, gift card programs are more attractive to local businesses than debit, credit, or loyalty programs, because they are more likely to award a dollar for dollar redemption. Whereas every dollar a business accepts in a local debit, credit, or loyalty transaction means surrendering some percent in fees and discounts (typically 3-5%), a dollar accepted through a gift card usually gets completely paid. The administrative costs of gift card programs are covered by lost, discarded, or unused cards, called "shrinkage," often amounting to 15-25% of total card purchases.
- Time Dollars The concept of Time Dollars, developed by law professor Edgar Cahn, facilitates a community-wide bank of volunteered time for certain categories of social service. John, a teenager, mows a lawn for Ted (who's sick), Joan tutors John, Phil teaches Joan how to play the flute, etc. Unlike most barter or local currency transactions, Time Dollars are tax exempt in the United States. Communities can download for free software programs to facilitate local exchanges. Like local currency experiments, these tend to be run by volunteers or by staff paid by foundation grants. Possible business models for Time Dollars have yet to be seriously tested. For example, a local government might provide local tax credits for Time Dollars spent and deploy municipal staff to run the system. The rationale would be that, say, a 10% tax credit unleashes social assistance in the community at a 90% discount—saving the community tens or hundreds of thousands of dollars and more than enough to justify the municipal staff expense.
- B2B Marketplace In the 1980s and early 1990s, the Oregon Marketplace operated out of six offices in which staff tried to help local businesses purchase local "inputs" from other local businesses: "I see you're making flags and importing cloth from Japan. Suppose we found you a cloth manufacturer in Oregon—same cost and same quality. Would you make the substitution?" If the deal were done, the Marketplace got a finder's fee from the Oregon cloth manufacturer. The Oregon Marketplace came close to covering its administrative costs but never quite got there, in a largely preinternet era. With a well designed software package, this concept could become a viable means of promoting regional purchasing.
- B2G Midwife About one of every four dollars in the United States is spent by a procurement agent (federal, state, county, or local). Because these purchasing agents favor bulk purchasing, they tend favor bigger corporate suppliers. Why mess around with hundreds of local farmers to provide

foodstuffs for a school lunch program when you can enter a single contract with Sysco? But there's no reason why a community could not create a "middle person" who would consolidate local businesses into a collective bid, facilitate aggregation of delivery, and take responsibility for all the paperwork—in exchange for a finder's fee. Farm-to-school programs show the viability of these programs, though few have run professionally or profitably yet.

A second promising category for metabusiness designs is *local business partnerships*, where collective action can improve the cash flow for a group of participating businesses. In each of the following examples, the valuable business service provided by the metabusiness could be covered by participating businesses through an annual fee or per-use charge:

- Procurement Cooperative Because bulk purchasing brings down costs, a local
 business network engaged in collective purchasing could improve the
 competitiveness of its members. Tucson Originals, for example, services its
 member food businesses by purchasing in bulk foodstuffs, kitchen equipment, and
 dishes. The DC-based BALLE network collectively buys cheap "green power"
 for its members. Collective purchase of health insurance on the emerging
 national exchanges is another possibility.
- Local Business Mall A local business network could take the lead in creating a small-business mall like Pike's Place in Seattle, which has served as a tremendous magnet for tourists and regional consumers. The network would essentially become a commercial developer. Alternatively, it could hire a commercial developer with expertise in local-business malls. For small towns, this could also translate into a targeted effort by a group of businesses to reclaim, revitalize, or repurchase parts of a downtown area.
- Direct Delivery To compete with the convenience of shopping malls or mailorder services, a local business alliance could set up a direct delivery service.
 Amazon says they can get consumers a book in 24 hours—a local delivery service
 should be able to do so in 24 minutes. This would be especially welcome by
 consumers who are single parents, elderly, or sick—all of whom have a very
 limited ability to leave their homes and shop.

A third promising category for metabusiness design is *local finance*. Here are some of the self-financing tools that Wabash County might look at:

• Targeted CDs – A few banks, such as Ithaca's Alternatives Credit Union, have agreed to set up special certificates of deposits that fully collateralize loans to high-priority local businesses. Eastern Bank in Boston has a CD that collateralizes a line of credit to Equal Exchange, a local fair-trade company. These CD's are fully integrated into the local bank's or credit union's business.

- Coops Some coops, like Weaver Street Market in North Carolina, pay their members handsomely to borrow money for capital projects. Others, like Coop Power in western Massachusetts, invest member capital in supplier businesses. The La Montanita Grocery Coop in New Mexico has created a revolving loan fund so that members' capital can support local farmers and food processors. The Twin Pines Cooperative Foundation, based in northern California has helped set up foundations across the country so that charitable giving can support the establishment and expansion of local coops. Coops are, by definition, business structures that can seed other businesses in the community.
- *Pre-Purchase* In most U.S. states, preselling is not regarded as a security, so businesses can raise capital without attorneys by convincing their most loyal customers to make purchases in advance. And even in those states where it may be a security, certain well-established businesses can still use this technique. Either way, there's also a cash-flow benefit: The income is not recognized until the purchase is transacted. Awaken Café in Oakland raised most of the \$100,000 it needed to open a new store by preselling coffee. Credibles is a pre-selling web site for small food businesses nationwide. A Wabash County entrepreneur might create a web site for pre-sale opportunities in local business, and take a percentage of each transaction.
- Sponsorship Last year, web sites like Kickstarter and IndieGogo raised more
 than \$100 million for small businesses and projects. Even though all you get for
 your money is a t-shirt or token of appreciation, you know that thousands of
 small contributors like yourself are helping to get a big idea off the ground. A
 new generation of web sites, like Lucky Ant and Community Funded,
 specifically facilitate local sponsorships. Wabash County might set up a fee-forservice web site to facilitate local donations.
- P2P Lending Kiva orchestrates peer-to-peer lending to microentrepreneurs, mostly in the global South but increasingly in U.S. inner cities, though as a dotorg it only pays back principal. Prosper and the Lending Club, both dot-coms, also pay their investors interest (now averaging close to 10% per year). Slow Money in North Carolina is bringing together individual lenders and borrowers to expand this practice locally. A broker in Wabash County might help place local businesses on these sites for a fee or launch a local Slow Money Chapter.
- Investor Networks The Local Investment Opportunities Network (LION) of Pt. Townsend brings together local investors and businesses each month to establish "preexisting relationships" that facilitate the circulation of business plans. New LIONs are spreading around the country. Unlike traditional angel-investor networks, where entrepreneurs present their business plans at periodic dinners, LIONs often involve unaccredited (non-wealth) investors. A Wabash County entrepreneur could start a local LION and charge a membership fee to cover the organization's expenses.

- Program Related Investments—By law, foundations must give away at least 5% of their assets each year. The other 95% is typically invested in distant stocks and bonds. A number of foundation are now open to helping local businesses with some of that 95% (or even just 1%). If these businesses are "program related" and the investment does not succeed, the foundation can apply any losses to fulfill its annual grant-giving obligations. Wabash County should encourage foundations in the region to do this.
- Slow Munis Some local governments, like Portland, are considering issuing bonds to help finance local businesses. The State Treasurer of Massachusetts recently announced a "green infrastructure" bond program to support local energy, water, and ecology companies. Properly structured, the interest from these bonds could be tax exempt, and these bonds could be sold locally. Wabash County government should look carefully at using these bonds to provide low-cost credit to its LOIS businesses.
- Crowdfunding Until recently, it has been very expensive to structure a small business to accept investment from the 99% of non-wealth people in your community who are "unaccredited." But thanks to "crowdfunding reforms" signed into law in 2012, new web sites will soon be set up that bring down the costs of "going public" and allowing unaccredited investors to purchase as much as \$2,000 of local stock per company per year. Wabash County should consider buying a license to such a turn-key platform through Mission Markets. Various fees charged to businesses and investors help defray the cost of running the portal.
- Local Fund Pools of capital are preferable to one-off investments because they diversify risk. There are nearly a thousand local-investment pools around the country, most of them linked with local economic-development programs, but nearly all of them are only open to accredited investors. Important exceptions that allow unaccredited investors to participate include MountainBizWorks in North Carolina, the New Hampshire Community Loan Fund, and ECDI in Columbus, Ohio. PV Grows in Western Massachusetts is developing a royalty finance model focusing on local food businesses. A Wabash County entrepreneur might consider starting a fund like this locally.
- Self-Directed IRAs By rolling over tax deferred IRAs or 401k's into a Self-Directed IRA, investors can direct a custodian (for about \$200-300 per year) to invest instead in any and all of the items above. The only restriction is that they cannot invest in their own family's business or home. Wabash County might offer free advertising on its government web site to any accountants willing to provide discounted self-directed IRAs for, say, \$100 per year.

A final metabusiness category worth considering is *entrepreneurship support*. Typically, these services are underwritten by government or philanthropic grants, but it is possible to deploy these on a fee-for-service basis.

- *Mentorships* A system can be set up to link new or struggling entrepreneurs with established businesspeople. The biggest facilitator of relationships with retired businesspeople in the United States, though with no particular focus on local businesses, is SCORE. In Kerala, India, there is a massive statewide program linking older and younger businesspeople called "Life Begins at 55."
- Entrepreneurship University The University of Phoenix has demonstrated the viability of teaching courses online. Either alone or in partnership with existing programs, Wabash County could set up entrepreneurship courses appropriate for local-businesses and recruit participants throughout Illinois—perhaps throughout the Midwest.
- *Incubators* While nearly all of the 1,000 incubators in North America depend on outside support, there are intriguing incubator models in Australia, for example that are financially self-supporting. Incubators can be open to all kinds of businesses or they can specialize, like the community kitchens for food businesses pioneered by AceNet of Athens, Ohio. To become self-financing and expand, the incubator could work with each incubated company to issue local stock, and then upon graduation claim 5-10 percent of the shares as payment for its services.

Implications for the Wabash County Teams

As noted, to implement a new economic-development strategy, Wabash County created five grassroots teams involving entrepreneurs, policymakers, and other community leaders. Their mission has been to come up with specific recommendations for action, and begin undertaking them, around the following five topics:

- Existing Businesses Team 1 is focused on nurturing existing business. Among its top recommendations now are to create a local CEO roundtable, launch a buy-local initiative, and improve the technical and media savvy of local businesses.
- Entrepreneurship Team 2 is focused on its own CEO Program Creating
 Entrepreneurial Opportunities in Wabash County. Its top recommendations
 include making local businesses more aware of import-replacement
 opportunities, creating a mentorship program for local entrepreneurs,
 improving the quality of local business education at all grade levels, and
 establishing a business incubator.
- Outside Business Recruitment Team 3 aims to continue and improve the traditional economic-development practices in the region of corporate attraction and retention. Its high priorities include making outside companies better aware of local suppliers, telling the Wabash "story" more effectively, collaborating with nearby counties in major recruitments, and identifying all external support of incentive funds.

- Education Team 4 is trying to improve the quality of the local workforce, starting with young people. Among its key recommendations are creating a youth entrepreneurship program (in conjunction with Team 2), improving local schools, providing better school nutrition programs, and better connecting school offerings to the specific needs of local business.
- Quality of Life and Leisure Asset Development Team 5 is dedicated to
 nurturing local assets to improve the quality of life for residents and visitors
 alike. Among its top recommendations are expanding the quantity and quality
 of local food and diversifying retails (wherever possible through local
 businesses rather than chains), sponsoring more community-wide events,
 creating a local recreation center, investing in Mount Carmel riverfront
 development, and promoting local retailers throughout the region.

What might each of the teams take from this study to sharpen its agenda? Below are our recommendations, organized by each team:

(1) Existing Business

- Start a "10% Shift Campaign" to give Wabash residents a modest, realizable, and concrete goal for changing consumer behavior. Simply getting residents to pledge such a commitment publicly is a start.
- Create a web site that provides Wabash residents, businesses, and institutional-procurement officers with better information about available competitive goods and services from local businesses.
- Because nearly every business in the County is locally owned, emphasize Wabash First purchasing (vis-à-vis non-local shopping) over defections from local chain-run franchises.
- Teach existing retailers that what consumers care about is value, not price, and how they can bolster the value of their sales (e.g., through customer support, convenience, a quality shopping experience, etc.).
- Pick one metabusiness to serve as the foundation for the 10% Shift Campaign. A strong candidate might be the B2B Marketplace, since there's already an effort underway to create an annual business fair to improve local B2B communication and cooperation. One virtue of the B2B Marketplace is that it allows for discovery of highly specific leakages and local import-replacement opportunities that might not be clear from the less-specific data.

(2) Entrepreneurship

- Conduct a more thorough analysis of the gaps in the existing entrepreneurship-support system. (Among those already known are the absence of an active SCORE chapter and of a nearby SBDC.)
- Create a comprehensive online inventory of established entrepreneurs and potential mentors in the region, well indexed so that early-stage entrepreneurs easily can find partners/mentors.
- Choose one sector perhaps food processing in which to create a self-financing incubator.
- Recruit leading businesses and institutions to sponsor incubators. For example, the hospital might incubate businesses that input-substitute hospital purchases.
- Pick one capital-raising metabusiness to expand the local finance options entrepreneurs in the region have.

(3) Outside Business

- Appreciate that the evidence on what works in economic development today suggests that this approach should be given relatively low priority.
- To the extent that business attraction proceeds, commit the community to
 doing this without subsidies. Such an approach not only makes attraction
 more affordable and more politically attractive, but also is more likely to
 ensure that companies attracted will stay based on the intrinsic qualities of
 Wabash County.
- Emphasize the attraction of great professionals and entrepreneurs to the region rather than the attraction of companies.

(4) Education

- Mobilize existing educational institutions, primarily the public schools, to rally around the recommendations.
- Create an entrepreneurship training metabusiness through the CEO Program that transforms Wabash County into an entrepreneurship powerhouse in southern Illinois.

(5) Quality of Life

• In the area of retail, pick one project that showcases local flavor, local ownership, and local investment. Rather than trying to attract another chain

store to replace the recently lost Target, the region might try to create a locally owned and operated Mercantile store or organize uptown businesses to expand in a way that provides a wider range of products.

- Focus tourism efforts on business expansion, such as "agri-tourism" visits of local farms and "entrepreneurship tourism" visits of local businesses.
- Create one recreational business that provides an anchor of weekend activities for residents. (A very successful recreation center in Coeur d'Alene, Idaho, might serve as a model.)
- Make better use of existing assets. For example, food entrepreneurs might set up business next to the indoor pool at the community college. Downtown development might focus on refurbishing the Hadley Building. Recreational developers might expand the attractiveness and uses of waterfront areas.

Appendix I The Case for LOIS Economic Development

For many years, Wabash County, like thousands of other communities across the United States, undertook economic development primarily by attracting or retaining outside businesses. The best estimate of the annual cost of these "incentive" programs by state and local governments is \$80 billion per year, with federal agencies contributing at least as much (though significantly more over the past three years in the name of "stimulus"). A growing body of evidence suggests, however, that this model of economic development is ineffectual at best and a huge waste of local resources and opportunities at worst. Moreover, many of the most popular concepts in economic development today – industrial parks, high-tech clusters, tax-increment financing (TIFs), business incubators, even many green-job programs – turn out ultimately rely on the flawed paradigm of attraction and retention. A more effective approach is to focus, laser-like, on locally owned, import-substituting (LOIS) businesses.

Challenges with Conventional Economic Development

One of the sharpest analysts of corporate attraction policies has been Professor Ann Markusen, director of the Project on Regional and Industrial Economics at the Humphrey Institute of Public Affairs, based at the University of Minnesota. Several years ago, she assembled the best analysts in the field to explore the validity of these critiques and to offer reforms. Some of these analysts believed that these deals were ultimately beneficial, some didn't, and some were unsure. The resulting book of essays, *Reining in the Competition for Capital* (Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2007), remains the best analysis of the field. In the opening essay, Markusen and Katherine Ness of the University of Illinois at Urbana-Champaign set out the problem by writing: "Incentive competition is on the rise. It is costly, generally inefficient, and often ineffective for the winning regions."

Markusen and her colleagues review a number of troubling problems with economicdevelopment attraction practices. Here are some of the key findings of academic research that need to be weighed:

- Companies attracted often don't stay very long and under-deliver the jobs they promise.
- The jobs delivered pay poorly and have few benefits, and therefore have the potential to drive down labor costs and reduce family incomes throughout the community.

28

⁷ Ann Markusen, ed., *Reining in the Competition for Capital* (Kalamazoo, MI: W. E. Upjohn Institute for Employment Research, 2007).

- About 80% of the jobs created, particularly for very large projects, are taken by workers who read about the new project and move to the community to take the new position.
- The cost-benefit of subsidies exceeding say half a million dollars per job is impossible to justify, since the jurisdiction could simply put the money into a low risk bond fund, pay a family of four a living wage in perpetuity, and dispense with the risky business proposition altogether.
- Many of the costs that a community promises to subsidize of capital improvements, for example – are often much greater than originally projected.
- The structure of site-selection representatives' compensation, around finders' fees, gives them an incentive to represent community interests poorly—that is, to overstate the benefits, understate the costs, and exaggerate the packages other communities are putting on the table.
- The site-selection industry has been able to overstate benefits over the costs through massive advertising (the industry sponsors, for example, *Site Selection* magazine and distributes it widely to local politicians and economic developers).
- The secrecy surrounding much of the deal-making facilitates communities making ill-informed decisions about such deals and short-circuits altogether adequate democratic accountability.
- The details of these deals are so embarrassing to the politicians who
 approve them that they fight to keep the details secret even after the deal,
 and—in the case of New Mexico's former Governor, Bill Richardson—
 work assiduously to kill or veto legislation that might bring those details to
 light.
- The packages are such a small fraction of a corporation's bottom line that they actually have very little impact on its site decision, which instead is driven by other factors like the proximity of weak regulations, no unions, nearby input suppliers, readily available land, or close target markets.
- Most communities engaged in global attraction wind up losing any given bid, which means they are draining precious civic time, money, and goodwill—and, at a minimum, these costs need to be weighed against the purported benefits of the occasionally won deal.

The case against corporate attraction has become so powerful that it's exceedingly difficult to find an economist prepared to defend the practice. The vast majority of scholarly articles either questions the benefits or disproves them altogether.

Moreover, almost none of the studies have weighed the biggest problem with incentives—namely the opportunity costs. What were communities providing incentives unable to do, because their economic development dollars were focused on outside attraction? What local businesses were not grown? What were the consequent costs? These questions are critically important, because as the evidence below suggests, local businesses actually are significantly better drivers of economic development.

Local Living Economies

A growing body of evidence suggests that economic development performs best when it is focused on businesses that are LOIS – that is <u>locally owned</u> and <u>import-substituting</u>. Local ownership means that working control of a company is held within a small geographic area. Import-substituting means that the company is focused first and foremost (though not exclusively) on cost-effective production for local markets.

Numerous studies in recent years suggest that locally owned businesses contribute more to economic development than do global businesses attracted. Local ownership matters in at least five ways:⁸

- *Higher Multipliers* Locally owned businesses generally contribute more to the "economic multiplier" typically two to four times the income, wealth, jobs, and tax payments per dollar of output. The reason is simple: local businesses spend more money locally, particularly on management, business services, and advertising, and local businesses also recycle profits locally.
- More Reliable While absentee-owned businesses increasingly consider moving to Mexico, China, or low-wage U.S. states, with only secondary concern for throwing the community into an economic tailspin, businesses anchored locally produce wealth more reliably for many years, often many generations.
- *Higher Standards* Because local businesses tend to stay put, a community with primarily local businesses can raise labor and environmental standards with confidence that its businesses will adapt rather than flee.
- More Dynamic A community made up of smaller, locally owned businesses
 is better equipped to promote smart growth and walkable communities, draw
 tourists through unique stores and attractions, retain talented young people
 who seek entrepreneurial opportunities and a distinct sense of place, and
 reduce the noise, fumes, and risks of traffic.
- Better Social Impacts Compared to economies dependent on absenteeowned enterprises, local-business economies tend to have more social

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⁸ Extensive documentation of these points can be found in *The Small-Mart Revolution*, Chapter 2.

stability, lower levels of welfare, and greater political participation.

Import substitution also promotes economic prosperity. Every time a community imports a good or service that it might have cost-effectively produced for itself, it "leaks" dollars and loses the critically important multipliers associated with them. Moreover, unnecessary imports – of petroleum, for example –subject a community to risks of price hikes and disruptions far beyond local control. They also deny a community a diversified base of businesses and skills needed to take advantage of unknown (and unknowable) future opportunities in the global economy.

Three examples help to illustrate the potential benefits of import substitution:

- Fifteen years ago, Güssing was a dying rural community of 4,000 in Austria. Its old industries of logging and farming had been demolished by global competition. Many of today's economic developers would have given up and encouraged the residents to move elsewhere. But the mayor of Güssing decided that the key to prosperity was to plug energy "leaks." He built a small district heating system, fueled with local wood. The local money saved by importing less energy was then reinvested in expanding the district heating system and in new energy businesses. Since then, 50 new firms have opened, creating 1,000 new jobs. And most remarkably, the town estimates that this economic expansion actually will result in a *reduction* of its carbon footprint by 90 percent.
- In autumn of 2008 Marian Burros of the *New York Times* wrote a piece about how the 3000-person community of Hardwick, Vermont, has prospered by creating a new "economic cluster" around local food. Cutting-edge restaurants, artisan cheese makers, and organic orchardists turning fruit into exquisite pies are just some of the new businesses that have added an estimated 75-100 jobs to the area in recent years. A new Vermont Food Venture Center hopes to accelerate this creation of enterprises.
- Even a single, visionary business can lead a community-wide effort at import substitution. Take Zingerman's in Ann Arbor, Michigan. On its first day of business in a college town known globally more for its radicalism than for its food, Zingerman's Deli sold about \$100 worth of sandwiches. That was 1982. It has since grown into a community of nine businesses, each independent but linked through overlapping partnerships that collectively employ 525 people and achieve annual sales of over \$27 million. Over that period the proprietors conscientiously built a food cluster from scratch. They carefully assessed the items going into the deli bread, coffee, cheeses and captured profitable opportunities for creating a bakery, a coffee roaster, and a creamery. They looked at the products being sold at the deli fabulous coffee cakes and high-quality meats and built new, value-adding businesses with these products, including a mail-order company and a restaurant called the Roadhouse.

These three case examples cast doubt on one of the principal prescriptions for rural communities given by economic developers – that rural communities should focus on expanding *existing* clusters of export-oriented business. They suggest that a smarter approach may be to create *new* clusters based, initially at least, on local demand.

Two further clarifications about LOIS are important. First, import substitution does not mean withdrawing from the global economy. To the contrary, as the late Jane Jacobs argued, an economic strategy promoting import-substituting businesses turns out to be the best way to develop exports. Suppose North Dakota wished to replace imports of electricity with local wind-electricity generators. Once it built windmills, it would be self-reliant on electricity but dependent on outside supplies of windmills. If it set up its own windmill industry, it would then become dependent on outside supplies of machine parts and metal. This process of substitution never ends, but it does leave North Dakota with several new industries – in electricity, windmills, machines parts, and metal fabrication – that are poised to meet not only local needs but also export markets. But instead of putting all of a community's enterprise eggs in one export-oriented basket that leaves the local economy vulnerable to fluctuating global markets, import substitution develops myriad small businesses, grounded (initially at least) in diversified local markets, many of which *then* becoming exporters.

Second, this perspective does not carry negative moral judgments about non-LOIS businesses. Yet evidence suggests that for every dollar of sales, the typical LOIS business produces two to four times *more* benefits than the typical non-LOIS business.

The LOIS perspective, once deemed on the fringe, is now becoming increasingly mainstream. Just in the last decade has emerged a worldwide movement for local living economies. Around the country, and increasingly throughout the world, community-based initiatives are springing up that are challenging the conventional economic development paradigm. At the forefront has been the Business Alliance for Local Living Economies (BALLE), which since its founding in 2001 has grown into coalition of nearly 100 networks across North America formally representing 30,000 local business members (and informally representing millions of local businesses that operate in these networks' regions). In fact, these numbers represent only a small fraction of the movement. Other organizations involving local businesses, including the American Independent Business Alliance (AMIBA), the Post-Carbon Institute, and Transition Towns, are bringing hundreds of other communities into this movement. And to this list should be added the growing roster of organizations promoting local food, local banking, and local energy.

Appendix II (a) Leakages in Every IMPLAN Sector in Wabash County

0-4	Current Spending	Additional Production	Total Demand	% C-16 D-156
Sector	On Local Production	for Self-Reliance	For Local Production	
Oilseeds	\$0	\$2,972,776	\$2,972,776	
Grains	\$105,557	\$2,952,481	\$3,058,038	3%
Vegetables and melons	\$0	\$760,866	\$760,866	0%
Fruit	\$0	\$435,879	\$435,879	0%
Tree nuts	\$0	\$101,702	\$101,702	0%
Greenhouse, nursery, and floriculture products	\$1,752	\$613,273	\$615,025	0%
Tobacco	\$0	\$0	\$0	0%
Cotton	\$0	\$480,885	\$480,885	0%
Sugarcane and sugar beets	\$0	\$1	\$1	0%
All other crop farming products	\$467	\$1,001,464	\$1,001,931	0%
Cattle from ranches and farms	\$88	\$475,297	\$475,385	0%
Dairy cattle and milk products	\$13	\$895	\$909	1%
Poultry and egg products	\$0	\$176,140	\$176,140	0%
Animal products, except cattle, poultry and eggs	\$18,507	\$491,270	\$509,777	4%
Forest, timber, and forest nursery products	\$0	\$117,530	\$117,530	0%
Logs and roundwood	\$4	\$42,961	\$42,965	0%
Fish	\$0	\$272,902	\$272,902	0%
Wild game products, pelts, and furs	\$3,479	\$153,307	\$156,786	2%
Agriculture and forestry support services	\$17,900	\$2,928,592	\$2,946,492	1%
Oil and natural gas	\$0	\$2,689,491	\$2,689,491	0%
Coal	\$501	\$1,599,653	\$1,600,153	0%
Iron ore	\$0	\$876	\$876	0%
Copper, nickel, lead, and zinc	\$0	\$59,054	\$59,054	0%
Gold, silver, and other metal ore	\$0	\$162,720	\$162,720	0%
Natural stone	\$0	\$1,562,635	\$1,562,635	0%
Sand, gravel, clay, and ceramic and refractory minerals	\$240	\$799,630	\$799,869	0%
Other nonmetallic minerals	\$0	\$81,683	\$81,683	0%
Oil and gas wells	\$19,603,720	\$466,557	\$20,070,276	98%
Support services for oil and gas operations	\$14,071,356	\$52,192	\$14,123,548	100%
Support services for other mining	\$0	\$77,904	\$77,904	0%
Electricity, and distribution services	\$6,728,352	\$1,408,958	\$8,137,310	83%
Natural gas, and distribution services	\$687,352	\$3,079,650	\$3,767,002	18%
Water, sewage treatment, and other utility services	\$716,554	\$1,809,529	\$2,526,083	28%
Newly constructed nonresidential commercial and health	\$3,533,813	\$0	\$3,533,813	100%
Newly constructed nonresidential manufacturing structure	\$1,864,257	\$20,361	\$1,884,618	99%
Other newly constructed nonresidential structures	\$8,630,567	\$0	\$8,630,567	100%
Newly constructed residential permanent site single- and	\$4,766,154	\$0	\$4,766,154	100%
Other newly constructed residential structures	\$7,691,693	\$0	\$7,691,693	100%
Maintained and repaired nonresidential structures	\$764,532	\$79,675	\$844,206	91%
Maintained and repaired residential structures	\$2,476	\$6,527	\$9,004	28%
Dog and cat food	\$0	\$1,080,176	\$1,080,176	0%
Other animal food	\$0	\$527,115	\$527,115	0%
Flour and malt	\$0	\$207,687	\$207,687	0%
Corn sweetners, corn oils, and corn starches	\$0	\$78,435	\$78,435	0%
Soybean oil and cakes and other oilseed products	\$0	\$69,327	\$69,327	0%
Shortening and margarine and other fats and oils product	\$0	\$321,422	\$321,422	0%
Breakfast cereal products	\$0	\$464,351	\$464,351	0%
Raw and refined sugar from sugar cane	\$0	\$83,276	\$83,276	0%
Refined sugar from sugar beets	\$0	\$83,666	\$83,666	0%
Chocolate cacao products and chocolate confectioneries	\$0	\$60,803	\$60,803	0%
Chocolate confectioneries from purchased chocolate	\$0	\$546,864	\$546,864	0%
Nonchocolate confectioneries	\$0	\$365,988	\$365,988	0%
Frozen foods	\$0	\$1,085,297	\$1,085,297	0%
Canned, pickled and dried fruits and vegetables	\$0	\$1,541,192	\$1,541,192	0%
Fluid milk and butter	\$0	\$1,791,924	\$1,791,924	0%
Cheese	\$0	\$938,334	\$938,334	0%
Dry, condensed, and evaporated dairy products	\$0	\$323,453	\$323,453	0%
Ice cream and frozen desserts	\$0	\$286,619	\$286,619	0%
	ΨΟ	Ψ200,013	Ψ200,013	0 70

Appendix II (b) Leakages in Every IMPLAN Sector in Wabash County

	Current Spending	Additional Production	Total Demand	%
Sector	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Processed animal (except poultry) meat and rendered by	\$0	\$2,371,599	\$2,371,599	0%
Processed poultry meat products	\$0	\$2,824,940	\$2,824,940	0%
Seafood products	\$0	\$503,783	\$503,783	0%
Bread and bakery products	\$0	\$1,459,124	\$1,459,124	0%
Cookies, crackers, and pasta	\$0	\$940,110	\$940,110	0%
Tortillas	\$0	\$133,064	\$133,064	0%
Snack foods including nuts, seeds and grains, and chips	\$0	\$1,459,758	\$1,459,758	0%
Coffee and tea	\$0	\$436,887	\$436,887	0%
Flavoring syrups and concentrates	\$0	\$99,351	\$99,351	0%
Seasonings and dressings	\$0	\$613,083	\$613,083	0%
All other manufactured food products	\$0	\$776,407	\$776,407	0%
Soft drinks and manufactured ice	\$0	\$2,934,433	\$2,934,433	0%
Beer, ale, malt liquor and nonalcoholic beer	\$0	\$1,452,259	\$1,452,259	0%
Wine and brandies	\$0	\$775,605	\$775,605	0%
Distilled liquors except brandies	\$0	\$665,942	\$665,942	0%
Cigarettes, cigars, smoking and chewing tobacco, and re	\$0	\$1,669,009	\$1,669,009	0%
Fiber filaments, yarn, and thread	\$0	\$50,397	\$50,397	0%
Broadwoven fabrics and felts	\$0	\$75,687	\$75,687	0%
Woven and embroidered fabrics	\$0	\$11,783	\$11,783	0%
Nonwoven fabrics and felts	\$0	\$12,341	\$12,341	0%
Knitted fabrics	\$0	\$391	\$391	0%
Finished textiles and fabrics	\$0	\$112,526	\$112,526	0%
Coated fabric coating	\$0	\$24,703	\$24,703	0%
Carpets and rugs	\$0	\$375,959	\$375,959	0%
Curtains and linens	\$0	\$607,997	\$607,997	0%
Textile bags and canvas	\$0	\$102,911	\$102,911	0%
All other textile products	\$0	\$223,397	\$223,397	0%
Knit apparel	\$0	\$130,555	\$130,555	0%
Cut and sewn apparel from contractors	\$0	\$88,286	\$88,286	0%
Mens and boys cut and sewn apparel	\$0	\$1,419,455	\$1,419,455	0%
Womens and girls cut and sewn apparel	\$0	\$2,229,736	\$2,229,736	0%
Other cut and sew apparel	\$0	\$199,000	\$199,000	0%
Apparel accessories and other apparel	\$0	\$258,919	\$258,919	0%
Tanned and finished leather and hides	\$0	\$71,104	\$71,104	0%
Footwear	\$0	\$1,015,076	\$1,015,076	0%
Other leather and allied products	\$0	\$409,675	\$409,675	0%
Dimension lumber and preserved wood products	\$0	\$416,920	\$416,920	0%
Veneer and plywood	\$0	\$165,799	\$165,799	0%
Engineered wood members and trusses	\$0	\$160,469	\$160,469	0%
Reconstituted wood products	\$0	\$60,144	\$60,144	0%
Wood windows and doors and millwork	\$0	\$494,506	\$494,506	0%
Wood containers and pallets	\$0	\$175,158	\$175,158	0%
Manufactured homes (mobile homes)	\$0	\$94,316	\$94,316	0%
Prefabricated wood buildings	\$0	\$64,286	\$64,286	0%
All other miscellaneous wood products	\$0	\$156,327	\$156,327	0%
Wood pulp	\$0	\$82,388	\$82,388	0%
Paper from pulp	\$0	\$3,718,092	\$3,718,092	0%
Paperboard from pulp	\$0	\$1,773,226	\$1,773,226	0%
Paperboard containers	\$7,399	\$557,805	\$565,204 \$314,854	1% 0%
Coated and laminated paper, packaging paper and plastic	\$0	\$314,854	. ,	
All other paper bag and coated and treated paper	\$0 \$0	\$56,225		0% 0%
Paper and paperboard stationary products	\$0 \$0	\$203,814 \$587,226	\$203,814 \$587,226	0%
Sanitary paper products All other converted paper products		\$587,226 \$70,794		
All other converted paper products	\$0	. ,	\$70,794	0%
Printed materials	\$118	\$1,070,785	\$1,070,903	0%
Printing support services	\$1 \$404,004	\$77,914	\$77,915	0%
Refined petroleum products	\$481,001	\$24,121,838	\$24,602,839	2%
Asphalt paving mixtures and blocks	\$0	\$672,885 \$504,300	\$672,885	0%
Asphalt shingles and coating materials	\$0	\$501,398	\$501,398	0%
Petroleum lubricating oils and greases	\$0	\$1,987,609	\$1,987,609	0%
All other petroleum and coal products	\$16,016	\$693	\$16,709	96%

Appendix II (c) Leakages in Every IMPLAN Sector in Wabash County

	Current Spending	Additional Production	Total Demand	%
Sector	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Petrochemicals	\$0	\$866,732	\$866,732	0%
Industrial gas	\$0	\$502,092	\$502,092	0%
Synthetic dyes and pigments	\$0	\$28,778	\$28,778	0%
Alkalies and chlorine	\$0	\$55,219	\$55,219	0%
Carbon black	\$0	\$457	\$457	0%
All other basic inorganic chemicals	\$33	\$514,566	\$514,599	0%
Other basic organic chemicals	\$3	\$1,371,315	\$1,371,319	0%
Plastics materials and resins	\$0	\$340,562	\$340,562	0%
Synthetic rubber	\$0	\$8,183	\$8,183	0%
Artificial and synthetic fibers and filaments	\$0	\$72,732	\$72,732	0%
Fertilizer	\$0	\$4,673,185	\$4,673,185	0%
Pesticides and other agricultural chemicals	\$377	\$3,688,224	\$3,688,601	0%
Medicines and botanicals	\$0	\$23,142	\$23,142	0%
Pharmaceutical preparations	\$7	\$8,824,410	\$8,824,417	0%
In-vitro diagnostic substances	\$0	\$53,138	\$53,138	0%
Biological products (except diagnostic)	\$0	\$79,822	\$79,822	0%
Paints and coatings	\$0	\$688,620	\$688,620	0%
Adhesives	\$0	\$229,506	\$229,506	0%
Soaps and cleaning compounds	\$506	\$1,533,788	\$1,534,293	0%
Toilet preparations	\$15	\$1,344,041	\$1,344,056	0%
Printing inks	\$0	\$365,600	\$365,600	0%
All other chemical products and preparations	\$1	\$1,407,365	\$1,407,366	0%
Plastics packaging materials and unlaminated films and	\$0	\$476,362	\$476,362	0%
Unlaminated plastics profile shapes	\$0	\$91,789	\$91,789	0%
Plastics pipes and pipe fittings	\$0	\$233,354	\$233,354	0%
Laminated plastics plates, sheets (except packaging), ar	\$0	\$45,842	\$45,842	0%
Polystyrene foam products	\$0	\$249,003	\$249,003	0%
Urethane and other foam products (except polystyrene)	\$0	\$286,338	\$286,338	0%
Plastics bottles	\$0	\$26,626	\$26,626	0%
Other plastics products	\$18	\$2,632,588	\$2,632,606	0%
Tires	\$0	\$934,497	\$934,497	0%
Rubber and plastics hoses and belts	\$0	\$255,383	\$255,383	0%
Other rubber products	\$0	\$313,075	\$313,075	0%
Pottery, ceramics, and plumbing fixtures	\$0	\$184,437	\$184,437	0%
Bricks, tiles, and other structural clay products	\$0	\$130,228	\$130,228	0%
Clay and nonclay refractory products	\$0	\$25,320	\$25,320	0%
Flat glass	\$0	\$23,383	\$23,383	0%
Other pressed and blown glass and glassware	\$0	\$197,423	\$197,423	0%
Glass containers	\$0	\$12,182	\$12,182	0%
Glass products made of purchased glass	\$0	\$95,541	\$95,541	0%
Cement	\$0	\$1,007,176	\$1,007,176	0%
Ready-mix concrete	\$0	\$74,863	\$74,863	0%
Concrete pipes, bricks, and blocks	\$0	\$196,631	\$196,631	0%
Other concrete products	\$174	\$293,063	\$293,237	0%
Lime and gypsum products	\$0	\$119,389	\$119,389	0%
Abrasive products	\$0	\$95,194	\$95,194	0%
Cut stone and stone products	\$0	\$177,059	\$177,059	0%
Ground or treated mineral and earth products	\$0	\$432,619	\$432,619	0%
Mineral wool	\$0	\$215,134	\$215,134	0%
Miscellaneous nonmetallic mineral products	\$0	\$70,533	\$70,533	0%
Iron and steel and ferroalloy products	\$6	\$4,601,279	\$4,601,285	0%

Appendix II (d) Leakages in Every IMPLAN Sector in Wabash County

Sector On Local Production for Self-Reliance For Local Steel products from purchased steel \$0 \$172,963 Aluminum products \$0 \$118,345 Aluminum alloys \$0 \$6,643 Aluminum products from purchased aluminum \$0 \$130,127	\$172,963 \$118,345	Self-Reliant
Aluminum products \$0 \$118,345 Aluminum alloys \$0 \$6,643 Aluminum products from purchased aluminum \$0 \$130,127	\$118,345	0%
Aluminum alloys \$0 \$6,643 Aluminum products from purchased aluminum \$0 \$130,127		
Aluminum products from purchased aluminum \$0 \$130,127	የር ር (2	0%
	\$6,643	0%
Cannon #0 #45 705	\$130,127	0%
Copper \$0 \$15,705	\$15,705	0%
Nonferrous metals (except copper and aluminum) \$0 \$87,631	\$87,631	0%
Rolled, drawn, extruded and alloyed copper \$0 \$195,875	\$195,875	0%
Rolled, drawn, extruded and alloyed nonferrous metals (e \$0 \$186,812	\$186,812	0%
Ferrous metals \$0 \$488,349	\$488,349	
Nonferrous metals \$0 \$381,228	\$381,228	0%
All other forged, stamped, and sintered metals \$0 \$107,018	\$107,018	
Custom roll formed metals \$0 \$79,932	\$79,932	0%
Crowned and stamped metals \$0 \$304,535	\$304,536	
Cutlery, utensils, pots, and pans \$0 \$147,178	\$147,178	
Handtools \$0 \$283,552	\$283,552	0%
Plates and fabricated structural products \$1 \$1,646,302	\$1,646,303	0%
Ornamental and architectural metal products \$0 \$1,136,242 Power boilers and heat exchangers \$0 \$95,033	\$1,136,242 \$95,033	0% 0%
Substitute	\$1,636,734	2%
Metal cans, boxes, and other metal containers (light gau) \$0 \$101,222	\$1,030,734	0%
Ammunition \$0 \$73,261	\$73,261	0%
Arms, ordnance, and accessories \$0 \$116,241	\$116,241	0%
Hardware \$0 \$159,174	\$159,174	0%
Spring and wire products \$0 \$104,277	\$104,277	0%
Machined products	\$1,232,321	0%
Turned products and screws, nuts, and bolts \$0 \$546,128	\$546,129	0%
Coated, engraved, heat treated products \$0 \$941,794	\$941,794	0%
Valves and fittings other than plumbing \$0 \$1,044,675	\$1,044,676	0%
Plumbing fixture fittings and trims \$0 \$108,383	\$108,383	0%
Balls and roller bearings \$0 \$306,282	\$306,282	0%
Fabricated pipes and pipe fittings \$0 \$254,811	\$254,811	0%
Other fabricated metals \$4 \$499,560	\$499,564	0%
Farm machinery and equipment \$0 \$541,377	\$541,377	0%
Lawn and garden equipment \$0 \$102,760	\$102,760	0%
Construction machinery \$0 \$2,030,114	\$2,030,114	
Mining and oil and gas field machinery \$0 \$925,533	\$925,533	0%
Other industrial machinery \$0 \$65,812	\$65,812	0%
Plastics and rubber industry machinery \$0 \$542	\$542	0%
Semiconductor machinery \$0 \$6,864	\$6,864	0%
Vending, commercial, industrial, and office machinery \$0 \$84,058	\$84,058	
Optical instruments and lens \$0 \$22,385	\$22,385	0% 0%
Photographic and photocopying equipment \$0 \$44,584 Other commercial and service industry machinery \$0 \$173,136	\$44,584 \$173,136	
Air purification and ventilation equipment \$0 \$47,309	\$47,309	0%
Heating equipment (except warm air furnaces) \$0 \$134,753	\$134,753	0%
Air conditioning, refrigeration, and warm air heating equip \$0 \$501,824	\$501,824	0%
Industrial molds \$0 \$12,290	\$12,290	0%
Metal cutting and forming machine tools \$12,884 \$3,524,236	\$3,537,119	
Special tools, dies, jigs, and fixtures \$0 \$14,251	\$14,251	
Cutting tools and machine tool accessories \$0 \$90,911	\$90,912	
Rolling mills and other metalworking machinery \$0 \$10,512	\$10,512	
Turbines and turbine generator set units \$0 \$130,064	\$130,064	
Speed changers, industrial high-speed drives, and gears \$0 \$133,726	\$133,726	
Mechanical power transmission equipment \$0 \$9,077	\$9,077	0%
Other engine equipment \$0 \$162,362	\$162,362	0%
Pumps and pumping equipment \$0 \$319,794	\$319,794	
Air and gas compressors \$0 \$14,560	\$14,560	0%
Material handling equipment \$0 \$856,563	\$856,563	
Power-driven handtools \$0 \$99,980	\$99,980	
Other general purpose machinery \$0 \$184,269	\$184,269	
Packaging machinery \$0 \$65	\$65	0%

Appendix II (e) Leakages in Every IMPLAN Sector in Wabash County

No. Local Production Solf-Reliance For Local Production Solf-Reliance Sol \$17,598 \$178,597 \$178,597 \$		Current Spending	Additional Production	Total Demand	%
Fluid power process machinery \$0 \$177,908 \$177,908 \$10,01997 \$2,001,997	Sector		for Self-Reliance	For Local Production	Self-Reliant
Electronic computers	Industrial process furnaces and ovens	\$0	\$17,597	\$17,597	0%
Computer strange devices	Fluid power process machinery	\$0	\$177,908	\$177,908	0%
Computer terminals and other computer peripheral equip So \$24,241 \$224,424 \$22	Electronic computers	\$0	\$2,001,997	\$2,001,997	0%
Telephone apparatus	Computer storage devices	\$0	\$142,286	\$142,286	0%
Stradecast and wireless communications equipment \$0 \$396,077 \$396,078 \$0 \$141,336 \$114,336 \$114,336 \$114,336 \$10,400 \$0 \$0 \$141,336 \$114,336 \$114,336 \$10,760,763 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Computer terminals and other computer peripheral equipr	\$0	\$1,008,397	\$1,008,397	0%
Other communications equipment \$0 \$141,936 \$141,9	Telephone apparatus	\$0	\$224,241	\$224,242	0%
Audio and video equipment \$16 \$1,760,763 \$1,760,763 \$30,161 \$30,163 \$0 Bare printed circuit boards \$2 \$30,161 \$30,163 \$0 Bare printed circuit boards \$0 \$95,711 \$9	Broadcast and wireless communications equipment	\$0	\$296,077	\$296,078	0%
Search cluster Sear	Other communications equipment	\$0	\$141,936	\$141,936	0%
Same printed circuit boards S0 \$95,711 \$95,711 \$0	Audio and video equipment		\$1,760,748	\$1,760,763	0%
Semiconductor and related devices	Electron tubes			* ,	0%
Electronic capacitors, resistors, colls, transformers, and \$5 \$53,060 \$33,065 \$0 \$11,222 \$11,222 \$0 \$11,222 \$11,222 \$0 \$11,222 \$11,222 \$0 \$11,222	- '			. ,	0%
Electronic connectors \$0					0%
Printed circuit assemblies (electronic assemblies) 50 \$351,966 \$351,966 \$351,966 \$351,966 \$351,966 \$354,765 \$3				. ,	0%
Subtract Components \$29 \$354,766 \$354,777 \$354,777 \$. ,	0%
Electromedical and electrotherapeutic apparatus \$0					0%
Search, detection, and navgation instruments \$0	·				0%
Automatic environmental controls \$0					0%
Industrial process variable instruments 90 \$55,606 \$55,606 00 Totalizing fluid meters and counting devices \$0 \$53,477 \$53,472 00 \$53,472 \$0 \$55,335 \$0 \$55,335 \$0 \$55,335 \$0 \$55,335 \$0 \$73,117 \$73,171 \$73,171 \$73,171 \$73,171 \$73,171 \$73,171 \$73,171 \$73,171 \$73,171 \$73,171 \$73,171 \$74,173,171 \$74,173,171 \$74,173,171 \$74,173,171 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174 \$74,174					0%
Totalizing fluid meters and counting devices \$0 \$53.471 \$53.472 \$0 \$0 \$55.335 \$55.335 \$0 \$0 \$55.335 \$55.335 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$					0%
Electricity and signal testing instruments					0%
Analytical laboratory instruments					0%
Irradiation apparatus 90 \$7.254 \$7.254 \$7.254 \$7.254 \$7.254 \$7.254 \$7.254 \$7.254 \$7.254 \$7.254 \$7.254 \$7.255	, , ,				0%
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Wiring devices	Primary batteries	\$0	\$250,953	\$250,953	0%
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Heavy duty trucks	Automobiles				0%
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Appendix II (f) Leakages in Every IMPLAN Sector in Wabash County

	Current Spending	Additional Production	Total Demand	%
Sector	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Military armored vehicles, tanks, and tank components	\$0	\$9,630	. ,	0%
All other transportation equipment	\$0	\$313,080	\$313,080	0%
Wood kitchen cabinets and countertops	\$0	\$474,279		0%
Upholstered household furniture	\$0	\$381,945		0%
Nonupholstered wood household furniture	\$0	\$591,170		0%
Metal and other household furniture	\$0	\$251,065	\$251,065	0%
Institutional furniture	\$0	\$185,270		0%
Office Furniture	\$0	\$3,599	\$3,599	0%
Custom architectural woodwork and millwork	\$0	\$220,380	\$220,380	0%
Showcases, partitions, shelving, and lockers Mattresses	\$0 \$0	\$134,216 \$229,900		0% 0%
Blinds and shades	\$0 \$0	\$128,463	\$128,463	0%
Surgical and medical instrument, laboratory and medical	\$0 \$0	\$198,625		0%
Surgical appliances and supplies	\$0 \$0	\$1,127,167	\$1,127,167	0%
Dental equipment and supplies	\$0	\$105,523	\$105,523	0%
Ophthalmic goods	\$0	\$635,231	\$635,231	0%
Dental laboratories	\$22	\$73,100		0%
Jewelry and silverware	\$0	\$1,055,071	\$1,055,071	0%
Sporting and athletic goods	\$0	\$690,849	\$690,849	0%
Dolls, toys, and games	\$0	\$1,080,499	\$1,080,499	0%
Office supplies (except paper)	\$0	\$130,518		0%
Signs	\$0	\$10,022	\$10,022	0%
Gaskets, packing and sealing devices	\$0	\$203,641	\$203,641	0%
Musical instruments	\$0	\$67,718	\$67,718	0%
All other miscellaneous manufactured products	\$0	\$1,003,393	\$1,003,393	0%
Brooms, brushes, and mops	\$0	\$120,229	\$120,229	0%
Wholesale trade distribution services	\$11,702,059	\$14,755,520	\$26,457,579	44%
Retail Services - Motor vehicle and parts OR BEA ALL R	\$5,758,399	\$1,499,772	\$7,258,171	79%
Retail Services - Furniture and home furnishings	\$337,958	\$1,377,927	\$1,715,885	20%
Retail Services - Electronics and appliances	\$536,215	\$1,447,843	\$1,984,058	27%
Retail Services - Building material and garden supply	\$1,336,131	\$1,784,647	\$3,120,778	43%
Retail Services - Food and beverage	\$5,326,434	\$1,635,345	\$6,961,779	77%
Retail Services - Health and personal care	\$1,496,125	\$1,755,308	\$3,251,433	46%
Retail Services - Gasoline stations	\$3,436,086	\$0	\$3,436,086	100%
Retail Services - Clothing and clothing accessories	\$671,080	\$3,603,467	\$4,274,547	16%
Retail Services - Sporting goods, hobby, book and music	\$59,581	\$1,461,180	\$1,520,761	4%
Retail Services - General merchandise	\$2,998,108	\$4,498,621	\$7,496,729	40%
Retail Services - Miscellaneous	\$631,333 \$040,240	\$2,545,433	\$3,176,766	20% 14%
Retail Services - Nonstore, direct and electronic sales Air transportation services	\$910,240 \$0	\$5,565,833 \$5,504,472	\$6,476,073 \$5,504,472	0%
Rail transportation services	\$303,574	\$868,398	\$1,171,972	26%
Water transportation services	\$005,574	\$847,214		0%
Truck transportation services	\$551,814	\$6,959,662	\$7,511,475	7%
Transit and ground passenger transportation services	\$538.626	\$1,275,139		30%
Pipeline transportation services	\$0	\$596,334	\$596,334	0%
Scenic and sightseeing transportation services and suppl	\$15,055	\$549,490		3%
Couriers and messengers services	\$0	\$1,197,370		0%
Warehousing and storage services	\$1,214	\$1,279,322	\$1,280,537	0%
Newspapers	\$407,270	\$5,989		
Periodicals	\$0	\$650,747	\$650,747	0%
Books	\$0	\$1,335,773		0%
Directories and mailing lists	\$0	\$304,605		0%
Software	\$2	\$932,748		0%
Motion pictures and videos	\$0	\$1,686,094		0%
Sound recordings	\$0	\$544,566		0%
Radio and television entertainment	\$18,048	\$255,234		7%
Cable and other subscription services	\$0	\$105,168		0%
Internet publishing and broadcasting services	\$0	\$170,780		0%
Telecommunications	\$1,080,282	\$10,669,854		9%
Data processing- hosting- ISP- web search portals	\$57,593	\$3,123,761	\$3,181,354	2%
Other information services	\$20,911	\$377,107	\$398,018	5%

Appendix II (g) Leakages in Every IMPLAN Sector in Wabash County

	Current Spending	Additional Production	Total Demand	%
Sector	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Monetary authorities and depository credit intermediation	\$9,470,481	\$4,179,359	\$13,649,840	69%
Nondepository credit intermediation and related services	\$137,272	\$3,432,149	\$3,569,421	4%
Securities, commodity contracts, investments, and relate	\$3,201,168	\$10,036,584	\$13,237,752	24%
Insurance	\$0	\$18,857,764	\$18,857,764	0%
Insurance agencies, brokerages, and related services	\$0	\$491	\$491	0%
Funds, trusts, and other financial services	\$0	\$6,764,135	\$6,764,135	0%
Real estate buying and selling, leasing, managing, and re	\$2,118,122	\$31,899,451	\$34,017,573	6%
Imputed rental services of owner-occupied dwellings	\$50,826,698	\$1	\$50,826,699	100%
Automotive equipment rental and leasing services	\$62,729	\$2,071,291	\$2,134,020	3%
General and consumer goods rental services except vide	\$594,074	\$81,114	\$675,187	88%
Video tape and disc rental services	\$147,330	\$6	\$147,336	100%
Commercial and industrial machinery and equipment rent	\$13,693	\$2,118,493	\$2,132,185	1%
Leasing of nonfinancial intangible assets	\$0	\$4,386,628	\$4,386,628	0%
Legal services	\$2,147,429	\$4,670,222	\$6,817,651	31%
Accounting, tax preparation, bookkeeping, and payroll se	\$843,067	\$52,158	\$895,225	94%
Architectural, engineering, and related services	\$2,080,063	\$964,158	\$3,044,222	68%
Specialized design services	\$10,656	\$317,246	\$327,902	3%
Custom computer programming services	\$341,435	\$841,341	\$1,182,776	29%
Computer systems design services	\$186,059	\$350,326	\$536,385	35%
Other computer related services, including facilities mana	\$21,311	\$1,512,896	\$1,534,207	1%
Management, scientific, and technical consulting services	\$200,289	\$1,494,798	\$1,695,088	12%
Environmental and other technical consulting services	\$17,968	\$585,111	\$603,080	3%
Scientific research and development services	\$0	\$2,678,079	\$2,678,079	0%
Advertising and related services	\$138,513	\$2,715,397	\$2,853,910	5%
Photographic services	\$0	\$317,468	\$317,468	0%
Veterinary services	\$374,896	\$462,545	\$837,441	45%
All other miscellaneous professional, scientific, and techn	\$0	\$1,781,847	\$1,781,847	0%
Management of companies and enterprises	\$0	\$7,021,492	\$7,021,492	0%
Employment services	\$80,322	\$1,878,808	\$1,959,131	4%
Travel arrangement and reservation services	\$266,435	\$575,881	\$842,317	32%
Office administrative services	\$2,098	\$830,850	\$832,948	0%
Facilities support services	\$0	\$356,248	\$356,248	0%
Business support services	\$26,414	\$1,354,752	\$1,381,166	2%
Investigation and security services	\$0	\$920,839	\$920,839	0%
Services to buildings and dwellings	\$165,345	\$2,209,331	\$2,374,677	7%
Other support services	\$408,552	\$542	\$409,094	100%
Waste management and remediation services	\$408,666	\$1,623,176	\$2,031,842	20%

Appendix II (h) Leakages in Every IMPLAN Sector in Wabash County

	Current Spending	Additional Production	Total Demand	%
Sector	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Elementary and secondary education from private school	\$425,471	\$1,824,766	\$2,250,237	19%
Education from private junior colleges, colleges, universiti	\$2,142,380	\$7,443,521	\$9,585,901	22%
Other private educational services	\$135,870	\$2,392,448	\$2,528,318	5%
Offices of physicians, dentists, and other health practition	\$7,435,228	\$16,777,481	\$24,212,709	31%
Home health care services	\$678,411	\$3,090,211	\$3,768,622	18%
Medical and diagnostic labs and outpatient and other am	\$847,024	\$6,863,608	\$7,710,633	11%
Private hospital services	\$6,346,929	\$27,329,632	\$33,676,561	19%
Nursing and residential care services	\$8,424,820	\$1,203	\$8,426,023	100%
Child day care services	\$223,916	\$422	\$224,338	100%
Individual and family services	\$0	\$2,929,314	\$2,929,314	0%
Community food, housing, and other relief services, inclu-	\$1,497,347	\$112	\$1,497,458	100%
Performing arts	\$0	\$650,148	\$650,148	0%
Spectator sports	\$0	\$986,571	\$986,571	0%
Promotional services for performing arts and sports and p	\$15,447	\$1,010,552	\$1,025,999	2%
Independent artists, writers, and performers	\$46,264	\$10,904	\$57,168	81%
Museum, heritage, zoo, and recreational services	\$276,277	\$509,556	\$785,833	35%
Fitness and recreational sports center services	\$120,110	\$661,787	\$781,897	15%
Bowling activities	\$102,767	\$0	\$102,767	100%
Amusement parks, arcades, and gambling recreation	\$446,577	\$2,876,074	\$3,322,651	13%
Other amusements and recreation	\$702,905	\$394.441	\$1,097,347	64%
Hotels and motel services, including casino hotels	\$42	\$4,056,029	\$4,056,071	0%
Other accommodation services	\$3	\$787,836	\$787,840	0%
Restaurant, bar, and drinking place services	\$15,932,307	\$5,510,749	\$21,443,056	74%
Automotive repair and maintenance services, except car	\$2,413,137	\$216,320	\$2,629,458	92%
Car wash services	\$286,498	\$0	\$286,498	100%
Electronic and precision equipment repairs and maintena	\$100,520	\$934.136	\$1,034,656	10%
Commercial and industrial machinery and equipment repa	\$74,458	\$62,835	\$137,293	54%
Personal and household goods repairs and maintenance	\$51,759	\$620,150	\$671,909	8%
Personal care services	\$0	\$2,637,077	\$2,637,077	0%
Death care services	\$830,852	\$119	\$830,971	100%
Dry-cleaning and laundry services	\$0	\$731,998	\$731,998	0%
Other personal services	\$55,340	\$2,020,078	\$2,075,418	3%
Services from religious organizations	\$3,356,474	\$72	\$3,356,545	100%
Grantmaking, giving, and social advocacy services	\$248,333	\$2,508,062	\$2,756,395	9%
Civic, social, and professional services	\$1,678,768	\$653,174	\$2,331,942	72%
Cooking, housecleaning, gardening, and other services to	\$337.085	\$253.819	\$590,904	57%
US Postal delivery services	\$401,760	\$348	\$402,108	100%
* Not a unique commodity (electricity from fed govt utilitie	\$0	\$0	\$0	
Products & services of Fed Govt enterprises (except elec	\$0	\$106,526	\$106,526	0%
* Not a unique commodity (passenger transit by state & I	\$0	\$0	\$0	
* Not a unique commodity (electricity from state & local of	\$0	\$0	\$0	
Products & services of State & Local Govt enterprises (e)	\$448,600	\$1,115,363	\$1,563,963	29%
Used and secondhand goods	\$1,400	\$1,942,878	\$1,944,277	0%
Scrap	\$0	\$0	\$0	0,0
Rest of the world adjustment	\$0	\$3,228,542	\$3,228,542	0%
Noncomparable foreign imports	\$55,946	\$2,297,383	\$2,353,329	2%
* Employment and payroll only (state & local govt, non-eq	\$5,425,750	\$0	\$5,425,750	100%
* Employment and payroll only (state & local govt, non-ex	\$35,744,625	\$0	\$35,744,625	100%
* Employment and payroll only (state & local govt, educal * Employment and payroll only (federal govt, non-military)	\$743,598	\$122	\$743,720	100%
* Employment and payroll only (federal govt, northinitary)	\$2,724,629	\$0	\$2,724,629	100%