

Growing Berea's Economy from the Inside Out

By Michael H. Shuman¹

Overview

Compared to fellow Americans who are now struggling with an unemployment rate stuck stubbornly above 9%, the residents of Berea, Kentucky, are doing relatively well. According to Workforce Kentucky (www.workforcekentucky.ky.gov), in May 2012 Madison County, where Berea is located, enjoyed an unemployment rate of 6.9%, well below the national average. Specifically, its labor force of 44,104 has 3,037 workers who are unemployed and seeking work. With about 29% of the total population of Madison County, Berea has an estimated 881 people unemployed.

These data suggest two conclusions. First, the region is doing something right. Whether Madison County's better-than-average employment performance reflects fortuitous market forces or smart economic-development initiatives is unclear. A second conclusion, however, is that more must be done—much more. For most of the past generation, an unemployment rate of 6.91% would be considered a failure, and certainly for the 881 residents who are unemployed – some for two or three years – the problem represents a personal disaster. This paper suggests that existing approaches to economic development, largely focused on the attraction and retention of outside businesses, should now be supplemented by a new approach to nurture and expand the region's local businesses.

The paper and the linked community visioning process were commissioned by the City of Berea, Kentucky. The effort was led by Mayor Steven Connelly and City Manager Randy Stone, with additional support from an appointed advisory group. A fundamental problem identified at the outset, in addition to unemployment, was a deep civic divide over the next generation of economic-development initiatives. Residents were locked in a bitter debate about whether to modify the city's long-standing prohibition on alcohol, and policymakers argued over whether to make a major investment in a new convention center. There was a critical need to put new options on the table.

After completing an RFP process in the spring of 2011, the City hired Cutting Edge Capital (CEC) to facilitate this work. A contract was signed in July 2011, with two important understandings. First, CEC was to serve as a catalyst, not as a leader. Its mission, based on a carefully targeted month of work spread over a year, was to produce background data and help organize several public meetings about potential new economic-development strategies focused on local small business. Leadership ultimately

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had to come from commitment individuals and organizations within the community. Second, this effort was not an end in itself but rather the beginning of a long-term, grassroots-led process. What follows, therefore, should be read as a *framing document* for a new era of economic development in Berea.

The first part of the paper, which was the basis for the first two public meetings in 2011, provides an overview of the Berea economy. It then introduces the concept of “Local Living Economies.” Integral to this approach to economic development is to identify and plug dollar leakages within the economy—that is, opportunities for substituting for imports through new or expanded local businesses that meet local demand. The paper next performs two leakage analysis: a simple comparison of each sector with that of a perfectly self-reliant U.S. community (adjusted to Berea’s size); and a more sophisticated analysis of the consequences of meeting all current local demand with expanded local industry.

The simple leakage analysis, performed with the online calculators of the Business Alliance for Local Living Economies (designed by the author and available at www.livingeconomies.org), suggests that through self-reliance Berea could create 5,739 direct jobs. Achieving just 25% of this goal would generate 1,435 new jobs paying about \$53 million in wages annually, more than enough to put every resident of Berea back to work.

A more comprehensive leakage analysis is possible using IMPLAN, the Minnesota Input-Output Model used extensively by economic development agencies nationwide. IMPLAN corrects, unifies, and fills in gaps (like farmers and self-employed individuals) in the data of the U.S. Economic Census. It also can model how changes in one industry can lead to changes in other industries (indirect effects) and changes in personal consumption (induced effects). This analysis finds that realizing 25% of the potential jobs from local demand would generate 2,182 new jobs: 1,398 directly, 211 indirectly, and 572 induced. These new jobs, moreover, would lead to \$92 million more in wages each year, \$152 million in additional value-added production, and \$11 million in indirect business taxes. This comprehensive analysis, like simple one, shows that a 25% shift could more than eliminate unemployment in Berea.

The paper next addresses how Berea realize these job-creating opportunities through new or expanded local businesses. The starting place is a review strengths, weaknesses, opportunities, and threats (SWOT), based on conversations the author had in September 2011 with several dozen key people in the community, including policymakers, businesspeople, economic developers, and business support agents.

- Among the strengths mentioned were: Berea’s proximity to millions of Americans; its large manufacturing sector, resulting from successful corporate recruitments; its strong education sector, including, most visibly Berea College; its strong municipal infrastructure and financial base; a rich artistic and cosmopolitan culture that’s a magnet for tourists; a large local-business sector; and a high-quality, low-cost, low-tax quality of life.

- Among the weaknesses mentioned were: the nonlocal character of the manufacturing base, which means many jobs could depart suddenly; the absence of local capital and entrepreneurship resources for local business expansion; the presence of many empty storefronts; the availability of few local entertainment opportunities, which is one of many reasons young people migrate away; the narrowness of the tourism base; and shortcomings in the skills of the local labor force.
- Among the opportunities mentioned were: the availability of land and infrastructure for business expansion; the expected growth of the region overall; various regional proposals to support entrepreneurs through new courses, schools, and programs; various proposals to expand the city's arts and tourism sectors; the presence of many nearby partners with expertise in different aspects of local-economy building.
- Among the threats mentioned were: road projects that could further reduce downtown traffic; the aging of the population and the infrastructure; offshoring trends that could undermine existing corporate attraction strategies; unplanned growth that could increase local costs and reduce local amenities; poor public policies at the county, state, and national levels; and deep divisions within the city, often pitting a progressive college community against a conservative religious community.

The paper then suggests thirteen strategies for strengthening local business. One strategy would be for the City's economic developers to better connect the many large, nonlocal firms in the industrial park with local businesses. Other strategies include supporting entrepreneurship, creating a local business alliance, promoting local purchasing and local investing, improving downtown-development and residential-development efforts, upgrading infrastructure, promoting more tourism, facilitating town-gown collaboration, nurturing specific economic sectors, and fostering sustainability practices. All these strategies invite a new generation of public policies.

Reflecting on these thirteen possible economic-development strategies, the advisory group picked six strategies they thought would be particularly relevant and exciting starting places for grassroots action: a big-business group, focusing on linkages with small business; a small-business group, looking ways to support local businesses that include a local business alliance, buy-local initiatives, and entrepreneurship programs; an energy group, with a strong emphasis on sustainability; a local investment group; a tourism group; and a local food group.

During our second public meeting in December, participants chose group to join, sketched an action agenda, and scheduled another meeting to take place within the next month. Several months into this process, four of the groups were thriving while two dissolved. The big-business group, perhaps because its participants were more comfortable continuing their historic focus exclusively on large businesses, had limited enthusiasm for the small-business linkages. And the small-business group lacked a single

focal point – like a “Think Local First” campaign – that could have provided a strong enough framework for it to continue.

The four remaining groups each developed their plans. They called themselves the Berea Economic Advancement Teams (BEATs). Each BEAT group prepared a short (1-2 page) vision statement for action, based on a template distributed by Peter Hackbert of Berea College. Each identified the principal obstacles to achieving that vision, sketched an action plan, and highlighted local government policies that might help. At a public meeting in May, each group presented its plans, which are summarized in the paper and reprinted in full in the Appendices. Briefly:

- The local food BEAT group plans to undertake a comprehensive Community Food Security Assessment, which would identify gaps and business opportunities in the local food system, and fashion strategies to fix those gaps and promote new businesses. For example, it will involve local schools more comprehensively in local food programs through internships, 4-H programs, school gardens, and local purchasing programs for school breakfasts and lunches.
- The local energy BEAT group sees the waste of energy, and the related loss of energy dollars, as one of the most promising “leaks” in the Berea economy to plug. The group plans to promote an “on-bill financing program” that could help customers of Berea Municipal Utilities (BMU) finance audits and hire contractors to implement cost-effective energy-efficiency upgrades. This would follow-up MACED’s successful pilot program with a more ambitious, two-year city-wide pilot. It would also explore innovative ways to help provide the up-front finance for this work, including targeted municipal bonds.
- The tourism BEAT group sees huge potential in expanding the number, diversity, and expenditures of tourists drawn to Berea each year. Its objective is not only to strengthen Berea’s existing reputation as an artisan and crafts center but also to broaden the areas appeal to tourists interested in scenery, competitive sports, recreation, history, and local culture. It plans include a community-wide “call to action” on the potential economic value of legalizing alcohol sales— for attracting tourisms, enriching nighttime entertainment options, and developing new local businesses such as wineries, craft breweries, and theme cafes.
- A local-investment BEAT group seeks to create one or more local investment funds, tapping primarily local investors who can nurture and expand promising local small- and medium-size businesses. The mission is to create an “entrepreneurial friendly community,” where the presence of local investment maximizes community buy in, support, and purchasing.

The paper offers advice – to City officials and to the BEAT groups alike – on how to implement and expand these plans, which the author presented at the last public meeting in May 2012. Specifically, each group was encouraged to add programs capable of

financing themselves—what we call “metabusinesses.” The best economic-development strategies are those that cost the least money, especially in an era of austerity like today. Among the metabusinesses recommended for each BEAT group:

- The local food BEAT group could promote local food purchasing through local loyalty cards, gift cards, a business-to-business virtual marketplace, a business-to-government brokering service, a local food-business mall, a procurement cooperative, and a direct-delivery service.
- For the local energy BEAT group, commercial viability is built into the on-line billing model. That is, the cost of energy efficiency is deemed to be less than stream of savings captured by the program. The use of municipal bonds could be a useful way to finance its startup.
- The tourism BEAT group could create viable businesses around local “reality tours” or “eco-tours.” It could improve the viability of existing institutions and businesses by filling existing spaces in Berea with events, festivals, and conferences. And it could create a directory of local business, supported through advertising, with the purpose of helping visitors find goods, services, and experiences from locally owned businesses.
- The finance group should study various self-financing loan funds that allow the participation of unaccredited investors, such as the New Hampshire Community Loan Fund, Mountain BizWorks (in North Carolina), and Invest Local Ohio (in Columbus). It also should recruit banks to issue CDs that support local business lending, promote coop investment and local crowdfunding of promising small businesses, and spread the use by Berea residents of self-directed IRAs (which would enable them to invest tax-ferred money into various local projects).
- The nascent small business BEAT group might look at promising metabusiness frameworks for promoting entrepreneurship, such as fee-for-service courses, mentorships, and incubators.

Finally, the paper closes with a pitch for looking more closely at a town-gown strategy. The biggest institution in Berea—certainly its most visible and influential—is Berea College, and in many ways it already influences the direction of local economic development. This relationship can and should be nurtured, as is being demonstrated through the \$125 million Oberlin Project in which Oberlin College and the City of Oberlin are collaborating to create a model self-reliant community. Among the features of this kind of collaboration might be student-faculty teams, promotion of local banking and local purchasing by the college and by faculty and students, and the development a small-business incubator program.

The Existing Berea Economy

To understand what kinds of new jobs are possible in Berea, it's helpful to begin by reviewing what jobs exist today. Two government databases are useful for this analysis. 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.

For purposes of this analysis, the Berea economy is assumed to comprise two zip codes – 40403 and 40404 – both part of Madison County. *County Business Patterns* go down to the zip code level. According to the 2009 edition, zip code 40403 has 389 establishments employing 6,025 people, receiving an annual payroll of \$194 million. Zip code 40404 has just three additional establishments, and their characteristics are kept confidential.

Table 1 puts these data together. It shows that all but two of the 392 establishments in Berea have fewer than 500 employees and therefore qualify as small businesses. It's important to note, however, that many small establishments may be branch factories or branch stores of larger chains, so not all these businesses are locally owned.

Chart 1
Berea's Business Establishments with Employees
(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+'
22----	Utilities	1	0	0	1	0	0	0	0	0	0
23----	Construction	39	31	4	2	1	1	0	0	0	0
31----	Manufacturing	26	10	5	2	1	2	4	1	1	0
42----	Wholesale trade	5	4	1	0	0	0	0	0	0	0
44----	Retail trade	80	42	26	7	3	1	0	1	0	0
48----	Transportation and Warehousing	11	9	0	2	0	0	0	0	0	0
51----	Information	5	2	3	0	0	0	0	0	0	0
52----	Finance and Insurance	32	18	11	1	2	0	0	0	0	0
53----	Real Estate, Rental, and Leasing	10	8	2	0	0	0	0	0	0	0
54----	Prof'l, Scientific, and Technical	27	23	4	0	0	0	0	0	0	0
56----	Admin, Support, and Waste	15	11	1	0	2	1	0	0	0	0
61----	Educational Services	6	5	0	0	0	0	0	0	1	0
62----	Health care and social assistance	45	15	12	11	3	1	2	1	0	0
71----	Arts, Entertainment, and Recreation	5	1	3	1	0	0	0	0	0	0
72----	Accommodation and Food Services	38	9	8	12	6	2	1	0	0	0
81----	Other Services (Exc. Pub. Admin.)	46	29	14	2	1	0	0	0	0	0
99----	Industries Not Classified	1	1	0	0	0	0	0	0	0	0
	Total	392	218	94	41	19	8	7	3	2	0

As noted earlier, NAICS data are incomplete. One omission, for example, is self-employed individuals. These data can be found in the U.S. Census Bureau's Nonemployer Statistics, but unfortunately only are available down to the county level.

The most recent such data from Madison County, find that 5,319 people have their own businesses, most of them home based, and earn \$160 million per year. Table 2, below, estimates self-employees in Berea by shrinking county statistics proportional to Berea's share (29%) of Madison County's population. An estimated 1,548 individuals have their own businesses in Berea, with sales of \$47 million per year.

Chart 2
Estimate Nonemployee Firms in Berea
(By 2-Digit NAICS Sector)

NAIC Code	Description	Firms	Receipts (\$1,000)
'11'	Agriculture, forestry, fishing and hunting	16	\$388
'21'	Mining, quarrying, and oil and gas extraction	n/a	n/a
'22'	Utilities	n/a	n/a
'23'	Construction	306	\$12,966
'31-33'	Manufacturing	15	\$397
'42'	Wholesale trade	16	\$1,495
'44-45'	Retail trade	182	\$7,245
'48-49'	Transportation and warehousing	51	\$2,586
'51'	Information	15	\$413
'52'	Finance and insurance	43	\$1,643
'53'	Real estate and rental and leasing	112	\$5,392
'54'	Professional, scientific, and technical services	160	\$3,458
'56'	Administrative and support and waste manage	164	\$2,036
'61'	Educational services	46	\$404
'62'	Health care and social assistance	105	\$1,843
'71'	Arts, entertainment, and recreation	66	\$775
'72'	Accommodation and food services	17	\$545
'81'	Other services (except public administration)	234	\$4,958
		1,548	\$46,545

Another omission from NAICS is farmers. The USDA's *Agricultural Census of 2007* gives data at the county level, and shows that Madison County has 1,328 farms with 218,194 acres. The average farm size is 164 acres. Most of these farms are raising beef cattle, with a few also involved in fruits, vegetables, and dairy.

The IMPLAN Input-Output model attempts unify various federal databases and fill in the gaps. Table 3, below, summarizes its estimate from 2009. It shows that the total number of employees and nonemployees is 10,317. Compared to NAICS data, it includes 294 people in the farming sector and roughly 2,500 public employees (1,849 in state and local education, 202 in state and local government, and 459 in federal government). All together, this workforce is paid \$413 million in wages, and generates \$25 million in state and local taxes. The total value added of Berea's businesses –the local equivalent of the nation's Gross Domestic Product – is \$1.9 billion per year.

Chart 3
Employees and Nonemployees in Berea
(By 3-Digit NAICS Sectors)

	Employment	Output	Wages	Proprietor Income	Other Property Income	Indirect Business Tax	Total Value Added
Farming, Ranching, and Forestry	294	\$10,034,116	\$917,570	\$779,092	\$282,325	\$206,342	\$12,219,739
Mining, Oil and Gas	0	\$124,267	\$0	\$32,011	\$35,290	\$8,223	\$199,792
Energy & Utilities	11	\$13,837,963	\$796,644	\$23,688	\$2,094,292	\$544,065	\$17,296,662
Construction	408	\$40,892,240	\$9,211,514	\$3,796,056	\$2,147,065	\$210,232	\$56,257,517
Manufacturing							
* Food Products	0	\$0	\$0	\$0	\$0	\$0	\$0
* Textiles & Clothing	0	\$0	\$0	\$0	\$0	\$0	\$0
* Wood Products	4	\$769,705	\$92,933	\$22,240	\$29,985	\$2,987	\$917,854
* Printing	2	\$295,680	\$62,986	\$0	\$16,104	\$1,205	\$375,977
* Petroleum-based Products	0	\$0	\$0	\$0	\$0	\$0	\$0
* Rubber, Glass, Stone, Concrete Products	129	\$29,135,980	\$7,848,616	\$0	\$2,618,035	\$214,784	\$39,817,544
* Metals	170	\$161,810,640	\$12,184,752	\$199,968	\$10,428,286	\$656,345	\$185,280,161
* Metal Products	34	\$7,174,326	\$1,379,373	\$0	\$694,090	\$33,659	\$9,281,483
* Arms, Machinery & Equipment Production	540	\$163,999,682	\$32,857,195	\$18,046	\$13,443,017	\$729,742	\$211,048,221
* Computers & Electronics	19	\$5,818,114	\$805,198	\$1,878	\$188,139	\$35,318	\$6,848,665
* Vehicles, Boats, and Planes	779	\$280,970,272	\$47,964,812	\$0	\$16,816,206	\$2,838,168	\$348,590,237
* Furniture & Woodwork	34	\$4,025,185	\$1,311,482	\$0	-\$122,511	\$24,009	\$5,238,197
* Health Industry Products	3	\$1,585,944	\$545,811	\$1,867	\$369,500	\$11,571	\$2,514,696
* Other Products	0	\$0	\$0	\$0	\$0	\$0	\$0
Wholesale Trade	15	\$1,778,542	\$626,329	\$40,478	\$232,091	\$244,883	\$2,922,338
Retail	841	\$39,800,401	\$20,014,700	\$1,784,358	\$4,918,542	\$6,890,202	\$73,409,045
Transportation	95	\$9,993,855	\$2,331,820	\$1,188,884	\$829,780	\$245,649	\$14,590,082
Warehousing & Storage	0	\$0	\$0	\$0	\$0	\$0	\$0
Services							
* Information Businesses	30	\$6,180,060	\$1,273,263	\$15,137	\$1,037,998	\$174,650	\$8,681,136
* Banking & Financing	199	\$36,710,400	\$7,007,275	\$1,640,592	\$7,935,656	\$534,282	\$53,828,405
* Realty, Equipment Leasing & Rentals	64	\$63,995,069	\$737,402	\$287,176	\$34,744,948	\$7,494,156	\$107,258,814
* Professional Services	337	\$26,981,871	\$12,012,343	\$1,758,293	\$2,926,960	\$389,301	\$44,069,105
* Private Education	910	\$68,967,549	\$33,757,913	\$552,053	\$614,318	\$555,807	\$104,448,550
* Health & Social Services	1,206	\$92,483,783	\$47,429,864	\$1,637,159	\$2,394,035	\$779,458	\$144,725,504
* Entertainment, Restaurants & Tourism	866	\$46,054,019	\$14,706,312	\$812,000	\$4,273,204	\$2,324,992	\$68,171,392
* Personal Services	765	\$45,426,319	\$19,933,713	\$2,357,171	-\$482,692	\$1,001,944	\$68,237,220
Public Sector							
* Government Enterprises	53	\$9,676,656	\$3,396,244	\$0	\$578,800	-\$593,359	\$13,058,394
* Local Schools	1,849	\$99,219,688	\$87,340,176	\$0	\$11,879,512	\$0	\$198,441,225
* State & Local Government	202	\$10,388,181	\$9,144,410	\$0	\$1,243,771	\$0	\$20,776,564
* Federal	459	\$43,905,306	\$37,509,445	\$0	\$6,395,860	\$0	\$87,811,069
TOTAL	10,317	\$1,322,035,810	\$413,200,092	\$16,948,146	\$128,562,607	\$25,558,616	\$1,906,315,588

One way to understand Berea's economy is to compare its composition to the United States as a whole. Chart 4 does this. The most striking distinction about Berea is that 23% of the workforce is involved in manufacturing—more than double the national average. Berea also has much greater numbers of people in education, health, and social services. Interestingly, despite its reputation, Berea has a third less than the national average of its workforce involved in arts, entertainment, and tourism. Its finance sector is about half the national average, which suggests how little capital is available for business growth.

Chart 4
Workforce Composition
Berea vs. USA in Year 2000

NAICS Sector	% Total Workforce	
	Berea	USA
Agriculture, forestry, fishing and hunting, and mining	1.6%	1.8%
Construction	8.0%	7.4%
Manufacturing	23.0%	11.2%
Wholesale trade	2.0%	3.2%
Retail trade	11.4%	11.5%
Transportation and warehousing, and utilities	3.0%	5.1%
Information	2.0%	2.4%
Finance, insurance, real estate, and rental and leasing	3.5%	7.1%
Professional, scientific, management, administrative, and waste management services	4.0%	10.3%
Educational, health and social services	27.4%	21.5%
Arts, entertainment, recreation, accommodation and food services	5.5%	8.8%
Other services (except public administration)	5.5%	4.8%
Public administration	3.0%	4.7%

Local Living Economies

The conventional paradigm of economic development is that a locale should attract and retain globe-trotting companies, and do so by doling out huge sums of public money. The best estimate of the annual cost of these “incentives” by state and local governments is \$50 billion per year, with federal agencies contributing at least as much (and significantly more in recent 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.² Moreover, many of the most popular concepts in economic development today – industrial parks, high-tech clusters, tax-increment financing (TIFs), business incubators, even green jobs – turn out ultimately rely on the flawed paradigm of attraction and retention.

Two of the author’s two books, *Going Local* and *The Small-Mart Revolution*, argue that economic development performs best when it is focused, laser-like, on businesses that are LOIS – that is locally owned and import-substituting. 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:³

- *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 recycle profits locally.
- *More Reliable* – While absentee-owned businesses increasingly consider moving to Mexico, China, or low-wage U.S. state, with little 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

² Ann Markusen, ed., *Reining in the Competition for Capital* (Kalamazoo, MI: W. E. Upjohn Institute for Employment Research, 2007).

³ Extensive documentation of these points can be found in *The Small-Mart Revolution*, Chapter 2.

who seek entrepreneurial opportunities and a distinct sense of place, and reduce the noise, fumes, and risks of traffic. It also can save families the headache and expense of maintaining multiple vehicles (currently running \$8-10,000 per vehicle per year, an expense that will rise as oil and gasoline prices go up).

- *Better Social Impacts* – Compared to economies dependent on absentee-owned enterprises, local-business economies tend to have more social 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 decimated 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 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 saw profitable opportunities for creating a bakery, a coffee roaster, and a creamery. They looked at the products being sold at the deli – 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. Some global, export-led companies can be terrific at creating wealth and jobs. In Berea some of the efforts to attract these companies clearly have paid off, as evidenced in the strong manufacturing sector. But no one knows the opportunity costs. Had the same hours and dollars been invested in local business, might they have yielded more and better jobs? There’s evidence, moreover, that roughly 85% of the jobs from attracted businesses do not go to Berea residents but instead to commuters or to newcomers who move into Berea. The data also clearly show that for every dollar of sales, the typical LOIS business produces two to four times *more* benefits than the typical non-LOIS business.

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 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 (the vast majority of state and local businesses subsidies, for example, target nonlocal business) be eliminated so that local businesses can compete on a level playing field?

Another needed shift in economic development is from a pork-barrel consumer of public dollars to a self-financing producer of public and private wealth. It’s ironic that those promoting entrepreneurship do not demand that they themselves operate in an entrepreneurial capacity. Advocates of LOIS, in contrast, are increasingly designing, testing, and deploying models for self-financing economic development, everything from local gift and debit cards to business-to-business contract facilitators. We call these programs “meta-businesses,” since they are designed to operate profitably like other businesses, but benefit not just shareholders but all LOIS businesses.

The LOIS perspective, once deemed on the fringe, is now becoming increasingly mainstream. 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 80 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.

A Simple 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 that local businesses bring, like knowledge, skills, tax payments, charitable giving, revitalized downtowns, tourists, stronger civil society, and more political participation.

Two tools can help to measure dollar leakages. One – a “jobs leakage calculator” -- was created by the author for the Business Alliance for Local Living Economies (BALLE) (www.livingeconomies.org). The calculator basically constructs an employment profile for a self-reliant United States by adjusting each NAICS sector’s actual employment by the nation’s trade balance in that sector. It then creates a jobs composite of a self-reliant Berea by shrinking the jobs composite of a self-reliant United States down to the town’s population. The analysis then compares the actual employment in Berea in each NAICS sector with the expected self-reliant employment. The year of the data is 2009. The calculator shows that 5,739 additional jobs are possible from local demand in Berea and they would pay \$210,607,739.

It’s worth noting that this analysis is conservative in one significant respect. In any category where Berea is deemed 100% self-reliant, no additional jobs from import substitution are considered possible. In fact, some of the existing jobs in fact may be oriented to producing exports, which means there are still opportunities for further job creation through import substitution.

Levels of self-reliance greater than 100% indicate export industries. Chart 5 shows the top 40 export industries in Berea. Among the features of the Berea economy suggested by the data are:

- industries manufacturing parts for automobiles, some undoubtedly supplying the assemble plant in Georgetown, Kentucky;
- the important role of Berea College, and many nonprofits promoting human rights and environmental protection;
- the presence of a largely retirement population, which requires a greater presence of nursing homes, funeral parlors, and cemetaries;
- a large arts sector linked with the production of musical instruments and with art dealers; and
- a major services sector providing residents throughout the region (some of whom may be coming to work in Berea) with child care, taxis, limited service restaurants (often lunch and breakfast food), and vending machines.

Chart 5
Top 40 Export Industries in Berea

NAICS Code	Industry Name	Percent Self Reliant
336370	Motor Vehicle Metal Stamping	2,999
813311	Human Rights Organizations	1,373
485310	Taxi Service	1,317
453991	Tobacco Stores	1,079
331111	Iron and Steel Mills	758
611310	Colleges, Universities, and Professional Schools	700
333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	692
238140	Masonry Contractors	597
721211	RV (Recreational Vehicle) Parks and Campgrounds	425
238160	Roofing Contractors	333
451140	Musical Instrument and Supplies Stores	303
337110	Wood Kitchen Cabinet and Countertop Manufacturing	283
623110	Nursing Care Facilities	263
453920	Art Dealers	246
812220	Cemeteries and Crematories	242
624190	aso	241
221210	Natural Gas Distribution	239
336322	Other Motor Vehicle Electrical and Electronic Equip. Mfg.	237
454210	Vending Machine Operators	211
813312	Environment, Conservation and Wildlife Organizations	198
624410	Child Day Care Services	198
446191	Food (Health) Supplement Stores	195
722211	Limited-Service Restaurants	189
812210	Funeral Homes and Funeral Services	186
452990	All Other General Merchandise Stores	185
811211	Consumer Electronics Repair and Maintenance	174
812910	Pet Care (except Veterinary) Services	163
441310	Automotive Parts and Accessories Stores	159
522292	Real Estate Credit	157
236117	New Housing Operative Builders	157
453310	Used Merchandise Stores	157
447110	Gasoline Stations with Convenience Stores	152
541370	Surveying and Mapping (except Geophysical) Services	149
532230	Video Tape and Disc Rental	145
484230	Specialized Freight Trucking, Long-Distance	144
562910	Remediation Services	137
444130	Hardware Stores	128
621310	Offices of Chiropractors	120
621320	Offices of Optometrists	116
446110	Pharmacies and Drug Stores	113

Mainstream economic development views these industries as the indicators of the region's competitive advantages. That is, whatever is exported is, by definition, what the region can produce well by global standards. Conventional wisdom then counsels expansion of these clusters as the only strategy for economic development.

Leakage analysis suggests another approach. By focusing on areas of weakness, where few or no local businesses are meeting local demand, the region can diversify itself and create new clusters. And that Berea is producing less than it consumes in the vast majority of its NAICS industries suggests how many of these opportunities it has.

Chart 6 on the next page shows the 40 leaky sectors that, with new local businesses meeting local demand, could produce the most new jobs. Chart 7 shows the 40 leaky sectors that could produce the highest new earnings (new jobs times the average state wage in that sector). Among the most important leakages revealed by this analysis are as follows:

- *Global Companies* – Most of the larger companies in Berea are branch factories or offices, not headquarters. Hence two of the largest job gaps are managers and professional-employer organizations.
- *Professional Services* – Companies within Berea are outsourcing their needs for engineers, lawyers, janitors, security guards, computer programmers, data processors, and payroll specialists.
- *Intermediaries* – Even though Berea has a greater-than-average manufacturing sector, it is outsourcing its needs for warehouses, distribution, couriers, and trucking.
- *Tourism* – Berea is trying to be a tourist magnet but currently lacks the critical mass of hotels, full-service restaurants, and bars needed for this strategy to succeed. Even residents and students common go elsewhere for entertainment.
- *Food & Retail* – In addition to the tourist gaps above, Berea is not capturing its fair share of shoppers (including tourist shoppers) because it lacks grocery stores, department stores, clothing stores, and car dealers. It also lacks food contracting infrastructure to connect farmers with consumers.
- *Finance* – While Berea has a number of important local banks, it does not have local insurance and securities brokers.
- *Health Care* – There are important gaps in health services, such as physicians offices and mental-health-care facilities. There is also a need more full-service retirement communities.

Chart 6
Top 40 Leak-Plugging Opportunities in Berea (by Jobs)

NAICS Code	Industry Name	New Jobs	New Earnings (\$)
551114	Corporate, Subsidiary, and Reg'l Managing Offices	189	\$15,035,305
561330	Professional Employer Organizations	143	\$3,088,288
445110	Supermarkets and Other Grocery (Exc. Convenience) Stores	138	\$2,506,719
722110	Full-Service Restaurants	132	\$1,605,649
561320	Temporary Help Services	129	\$2,013,615
452910	Warehouse Clubs and Supercenters	95	\$2,124,645
541330	Engineering Services	69	\$3,035,722
541110	Offices of Lawyers	64	\$2,909,206
238210	Electrical Contractors	59	\$2,405,110
561720	Janitorial Services	59	\$869,782
611110	Elementary and Secondary Schools	58	\$1,339,165
721110	Hotels (except Casino Hotels) and Motels	49	\$795,361
238220	Plumbing, Heating, and Air-Conditioning Contractors	49	\$2,090,412
813110	Religious Organizations	48	\$780,790
517110	Wired Telecommunications Carriers	48	\$2,376,670
624120	Services for the Elderly and Persons with Disabilities	46	\$1,725,214
448140	Family Clothing Stores	46	\$1,033,307
561612	Security Guards and Patrol Services	44	\$952,754
541710	Research and Dev, in the Physical, Engineering, and Life Sci.	44	\$1,921,419
541511	Custom Computer Programming Services	40	\$1,781,757
493110	General Warehousing and Storage	40	\$1,749,301
492110	Couriers	39	\$1,692,630
452111	Department Stores (except Discount Department Stores)	38	\$858,903
524126	Direct Property and Casualty Insurance Carriers	38	\$1,824,646
722310	Food Service Contractors	36	\$437,798
541512	Computer Systems Design Services	34	\$1,517,528
524114	Direct Health and Medical Insurance Carriers	32	\$1,558,448
623311	Continuing Care Retirement Communities	32	\$1,204,962
484121	General Freight Trucking, Long-Distance, Truckload	32	\$1,130,214
623210	Residential Mental Retardation Facilities	32	\$1,176,309
561110	Office Administrative Services	31	\$669,345
541214	Payroll Services	31	\$1,359,755
621111	Offices of Physicians (except Mental Health Specialists)	30	\$2,060,918
722213	Snack and Nonalcoholic Beverage Bars	30	\$321,018
481111	Scheduled Passenger Air Transportation	29	\$1,280,839
721120	Casino Hotels	29	\$350,139
441110	New Car Dealers	28	\$1,020,711
524113	Direct Life Insurance Carriers	28	\$1,325,499
326199	All Other Plastics Product Manufacturing	27	\$1,171,164
518210	Data Processing, Hosting, and Related Services	27	\$1,053,901

Chart 7
Top 40 Leak-Plugging Opportunities in Berea (by Earnings)

NAICS Code	Industry Name	New Jobs	New Earnings (\$)
551114	Corporate, Subsidiary, and Regional Managing Offices	189	\$15,035,305
523120	Securities Brokerage	26	\$3,716,429
561330	Professional Employer Organizations	143	\$3,088,288
541330	Engineering Services	69	\$3,035,722
541110	Offices of Lawyers	64	\$2,909,206
445110	Supermarkets and Other Grocery (Exc. Convenience) Stores	138	\$2,506,719
238210	Electrical Contractors	59	\$2,405,110
517110	Wired Telecommunications Carriers	48	\$2,376,670
452910	Warehouse Clubs and Supercenters	95	\$2,124,645
238220	Plumbing, Heating, and Air-Conditioning Contractors	49	\$2,090,412
621111	Offices of Physicians (except Mental Health Specialists)	30	\$2,060,918
561320	Temporary Help Services	129	\$2,013,615
541710	Research and Dev. in the Physical, Engineering, and Life Sci.	44	\$1,921,419
221122	Electric Power Distribution	26	\$1,914,050
524126	Direct Property and Casualty Insurance Carriers	38	\$1,824,646
541511	Custom Computer Programming Services	40	\$1,781,757
493110	General Warehousing and Storage	40	\$1,749,301
624120	Services for the Elderly and Persons with Disabilities	46	\$1,725,214
492110	Couriers	39	\$1,692,630
722110	Full-Service Restaurants	132	\$1,605,649
524114	Direct Health and Medical Insurance Carriers	32	\$1,558,448
541512	Computer Systems Design Services	34	\$1,517,528
541214	Payroll Services	31	\$1,359,755
611110	Elementary and Secondary Schools	58	\$1,339,165
524113	Direct Life Insurance Carriers	28	\$1,325,499
541611	Administrative Mgmt. and Gen'l Mgmt. Consulting Services	24	\$1,290,091
481111	Scheduled Passenger Air Transportation	29	\$1,280,839
541211	Offices of Certified Public Accountants	27	\$1,221,942
623311	Continuing Care Retirement Communities	32	\$1,204,962
236220	Commercial and Institutional Building Construction	27	\$1,193,688
237310	Highway, Street, and Bridge Construction	22	\$1,186,291
623210	Residential Mental Retardation Facilities	32	\$1,176,309
326199	All Other Plastics Product Manufacturing	27	\$1,171,164
484121	General Freight Trucking, Long-Distance, Truckload	32	\$1,130,214
518210	Data Processing, Hosting, and Related Services	27	\$1,053,901
511210	Software Publishers	27	\$1,038,981
448140	Family Clothing Stores	46	\$1,033,307
441110	New Car Dealers	28	\$1,020,711
424490	Other Grocery and Related Products Merchant Wholesalers	20	\$991,222
423430	Computer, Peripheral Equipment, and Software Wholesalers	20	\$979,475

Note that there are very few large-job manufacturing opportunities on the top-40 list. This is because local demand for any given manufacturer is small. Most manufacturers must serve a broader population, regionally or globally, to achieve competitive scale. The exceptions, where local production could generate a significant number of new jobs, include computers, software, and plastics. The people who would fill these jobs tend to be well-educated and well-paid.

IMPLAN Leakage Analysis

A more comprehensive leakage analysis is possible using IMPLAN, the Minnesota Input-Output Model used extensively by economic development agencies nationwide. IMPLAN corrects, unifies, and fills in gaps (like farmers and self-employed individuals) in the Economic Census data. It also can model how changes in one industry can lead to changes in other industries (indirect effects) and consequent changes in personal consumption (induced effects).

IMPLAN combines the 1,100 NAICS sectors into about 460 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. The demand figure includes both local and nonlocal consumption. Multiplying Total Gross Demand by 1-RPC shows how much additional industry is possible to meet local demand, without reducing production for export.

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 – most 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.

Chart 8 shows the total impact of ramping up industry in Berea to go 25% of the way to meet total *existing* local demand. Specifically, 25% localization would generate 2,182 new jobs: 1,398 directly, 211 indirectly, and 572 induced. The estimate of 1,398 direct jobs is very close to the 1,435 jobs new predicted with the BALLE calculator. IMPLAN predicts, moreover, that these new jobs will lead to \$92 million more in wages each year, \$152 million in additional annual value-added production, and \$11 million in indirect business taxes.

Chart 8
Economic Impacts of a 25% Shift to Self-Reliance – 2009
(IMPLAN Input-Output Model Summary)

ImpactType	Employment	Labor Income	Total Value Added	Output	Business Taxes
Direct Effect	1,398	\$62,550,859	\$106,126,161	\$238,574,731	\$8,149,448
Indirect Effect	211	\$7,573,769	\$12,369,883	\$30,264,978	\$611,148
Induced Effect	572	\$22,322,497	\$33,479,746	\$51,498,370	\$2,186,218
Total Effect	2,182	\$92,447,124	\$151,975,790	\$320,338,078	\$10,946,814

A more detailed sector-by-sector view of the results, alongside existing jobs in Berea, is presented in Chart 9. The three sectors where the largest number of new jobs are possible are professional services (317), wholesale trade (198), and tourism (168)—all sectors identified as especially leaky in the simple leakage analysis.

Charts 10 and 11 show the top 40 leak-plugging sectors by jobs and earnings again, as we did with the simple leakage analysis. A few of the job opportunities here are probably not possible, given the assets of the community. For example:

- *Monetary Authorities* – This category, which could provide 16 jobs administering the nation’s monetary and reserve system, is the most centralized among all the 1,100 NAICS sectors, and unlikely to have local potential.
- *Extraction of Oil and Natural Gas* – This category (9 jobs) would only be relevant if there were local oil and natural gas deposits in Berea – and there are not.
- *Metal Processing* – Certain metallic processing industries for ferrous metals (11 jobs), nonferrous metals (11), and steel product manufacturing (14) all would probably require close proximate sources of metal, which is currently not the case for Berea (though this could change).

Totalling the above, just over 100 jobs may not be plausible. But that still means about 1,300 direct jobs are.

The jobs ranking is done by direct jobs. Putting the sectors together, we can identify five clusters that account for more than 800 of the 1,300 direct jobs (summarized in Chart 12):

- goods distribution, warehousing, and trucking (232 direct jobs);
- professional services (247);
- finance, insurance, and real estate (167);
- local food (103)
- tourism (60);

Chart 9
Economic Impacts of Self-Reliance– 2009
(IMPLAN Input-Output Model – Details)

	Current Jobs	25% Shift
Farming, Ranching, and Forestry	294	119
Mining, Oil and Gas	0	10
Energy & Utilities	11	7
Construction	408	51
Manufacturing	0	
* <i>Food Products</i>	0	22
* <i>Textiles & Clothing</i>	0	17
* <i>Wood Products</i>	4	12
* <i>Printing</i>	2	7
* <i>Petroleum-based Products</i>	0	22
* <i>Rubber, Glass, Stone, Concrete Products</i>	129	16
* <i>Metals</i>	170	56
* <i>Metal Products</i>	34	22
* <i>Arms, Machinery & Equipment Production</i>	540	74
* <i>Computers & Electronics</i>	19	34
* <i>Vehicles, Boats, and Planes</i>	779	25
* <i>Furniture & Woodwork</i>	34	6
* <i>Health Industry Products</i>	3	3
* <i>Other Products</i>	0	9
Wholesale Trade	15	198
Retail	841	117
Transportation	95	73
Warehousing & Storage	0	9
Services	0	
* <i>Information Businesses</i>	30	43
* <i>Banking & Financing</i>	199	105
* <i>Realty, Equipment Leasing & Rentals</i>	64	132
* <i>Professional Services</i>	337	317
* <i>Private Education</i>	910	32
* <i>Health & Social Services</i>	1,206	134
* <i>Entertainment, Restaurants & Tourism</i>	866	168
* <i>Personal Services</i>	765	124
Public Sector	0	
* <i>Government Enterprises</i>	53	33
* <i>Local Schools</i>	1,849	147
* <i>State & Local Government</i>	202	16
* <i>Federal</i>	459	71
TOTAL	10,317	2,229

Chart 10
Top 40 Job-Producing Sectors
(IMPLAN Input-Output Model)

Description	Direct	Indirect	Induced	Total
Wholesale trade businesses	196.4	1.4	0.5	198.3
Real estate establishments	118.8	3.7	3.5	126.0
Grain farming	45.1	0.7	0.1	45.9
Legal services	36.6	1.8	1.3	39.8
Management of companies and enterprises	33.9	0.2	0.0	34.1
Employment services	31.6	16.7	4.4	52.7
Transport by truck	27.2	4.1	1.1	32.4
Services to buildings and dwellings	22.7	5.5	1.7	29.9
Management, scientific, and technical consulting services	21.3	2.1	0.4	23.8
Accounting, tax preparation, bookkeeping, and payroll services	20.3	2.5	0.6	23.4
Securities, commodities, investments, and related activities	19.5	5.2	2.7	27.4
Offices of physicians, dentists, and other health practitioners	18.5	0.0	30.1	48.6
Insurance carriers	17.1	0.1	0.1	17.3
Hotels and motels, including casino hotels	17.1	4.8	4.4	26.2
Scientific research and development services	16.6	0.1	0.0	16.7
Monetary authorities and dep. credit intermediation activities	16.5	8.3	6.6	31.4
Other state and local government enterprises	16.3	1.6	2.5	20.4
Machine shops	15.3	0.3	0.0	15.6
Food services and drinking places	15.1	21.2	65.9	102.1
Steel product manufacturing from purchased steel	13.6	1.3	0.0	14.9
Motor vehicle parts manufacturing	13.3	3.3	0.8	17.4
Other support services	12.9	4.7	0.8	18.4
Retail Stores - Clothing and clothing accessories	12.3	0.0	0.3	12.6
Automotive repair and maintenance, except car washes	11.2	4.9	4.4	20.5
Investigation and security services	11.1	0.2	0.1	11.4
Dry-cleaning and laundry services	11.0	0.6	0.8	12.4
Ferrous metal foundries	10.9	0.0	0.0	10.9
Telecommunications	10.8	0.8	0.4	12.0
Nonferrous metal foundries	10.5	0.0	0.0	10.5
Civic, social, professional, and similar organizations	10.2	3.4	6.4	20.0
Other private educational services	10.1	0.1	1.2	11.4
Retail Stores - Food and beverage	10.1	0.3	4.9	15.3
Transit and ground passenger transportation	10.0	2.0	3.6	15.5
Personal care services	9.4	0.1	4.3	13.8
Extraction of oil and natural gas	9.1	0.2	0.0	9.3
Plate work and fabricated structural product manufacturing	9.0	0.0	0.0	9.0
Construction of other new nonresidential structures	8.7	0.0	4.4	13.1
Warehousing and storage	8.4	0.3	0.0	8.7
Computer systems design services	8.3	0.1	0.1	8.5
Nondepository credit intermediation and related activities	8.1	3.6	2.9	14.5

Chart 11
Top 40 Wage-Producing Sectors
(IMPLAN Input-Output Model)

Description	Direct	Indirect	Induced	Total
Wholesale trade businesses	\$9,160,177	\$67,143	\$23,599	\$9,250,919
Management of companies and enterprises	\$3,737,239	\$19,735	\$1,800	\$3,758,774
Legal services	\$1,429,250	\$71,750	\$51,342	\$1,552,342
Insurance carriers	\$1,375,287	\$5,767	\$10,273	\$1,391,328
Steel product manufacturing from purchased steel	\$1,160,745	\$111,092	\$792	\$1,272,628
Scientific research and development services	\$1,160,228	\$3,821	\$1,470	\$1,165,519
Real estate establishments	\$1,076,217	\$33,160	\$31,497	\$1,140,873
Offices of physicians, dentists, and other health practitioners	\$1,071,674	\$490	\$1,738,970	\$2,811,133
Transport by truck	\$1,056,128	\$158,318	\$41,447	\$1,255,894
Other state and local government enterprises	\$1,020,961	\$102,057	\$154,850	\$1,277,868
Motor vehicle parts manufacturing	\$850,378	\$211,894	\$53,904	\$1,116,176
Monetary authorities and depository credit intermediation activities	\$839,465	\$419,566	\$337,444	\$1,596,475
Telecommunications	\$836,265	\$59,823	\$28,830	\$924,918
Management, scientific, and technical consulting services	\$828,143	\$81,166	\$17,455	\$926,763
Accounting, tax preparation, bookkeeping, and payroll services	\$768,867	\$95,071	\$24,299	\$888,237
Computer systems design services	\$727,919	\$9,419	\$4,686	\$742,023
Machine shops	\$723,828	\$11,904	\$424	\$736,156
Ferrous metal foundries	\$699,792	\$168	\$3	\$699,962
Extraction of oil and natural gas	\$681,898	\$12,935	\$1,949	\$696,781
Nonferrous metal foundries	\$638,005	\$2,639	\$75	\$640,719
Employment services	\$618,396	\$327,263	\$86,539	\$1,032,198
Architectural, engineering, and related services	\$609,479	\$655,016	\$150,823	\$1,415,317
Semiconductor and related device manufacturing	\$578,574	\$23,566	\$1,017	\$603,157
Services to buildings and dwellings	\$528,581	\$128,775	\$40,806	\$698,163
Custom computer programming services	\$525,572	\$4,929	\$1,768	\$532,269
Copper rolling, drawing, extruding and alloying	\$507,417	\$46,211	\$1,860	\$555,487
Plate work and fabricated structural product manufacturing	\$459,340	\$46	\$4	\$459,390
Securities, commodity contracts, investments, and related activities	\$447,327	\$119,256	\$62,171	\$628,754
Nondepository credit intermediation and related activities	\$427,544	\$188,545	\$150,940	\$767,029
Pharmaceutical preparation manufacturing	\$412,301	\$3,445	\$20,467	\$436,213
Secondary smelting and alloying of aluminum	\$402,347	\$23,111	\$70	\$425,528
Hotels and motels, including casino hotels	\$401,432	\$112,057	\$102,931	\$616,421
Warehousing and storage	\$393,086	\$12,996	\$1,341	\$407,422
Scenic and sightseeing transp'n and support activities for transp'n	\$378,935	\$88,124	\$16,521	\$483,580
Turned product and screw, nut, and bolt manufacturing	\$375,505	\$4,171	\$126	\$379,803
Other general purpose machinery manufacturing	\$367,804	\$4,895	\$1,052	\$373,751
Fluid power process machinery manufacturing	\$359,142	\$408	\$37	\$359,587
Office administrative services	\$347,202	\$13,276	\$4,133	\$364,611
Civic, social, professional, and similar organizations	\$345,618	\$114,690	\$218,440	\$678,749
Comm'l and industrial machinery and equip. repair and maintenance	\$330,957	\$11,280	\$2,052	\$344,289

Chart 12
Top Leaky Clusters

Description	Direct	Indirect	Induced	Total
Goods Distributions				
Wholesale trade businesses	196.4	1.4	0.5	198.3
Transport by truck	27.2	4.1	1.1	32.4
Warehousing and storage	8.4	0.3	0.0	8.7
	232.0	5.8	1.6	239.4
FIRE				
Real estate establishments	118.8	3.7	3.5	126.0
Securities, commodity contracts, investments, and related activities	19.5	5.2	2.7	27.4
Insurance carriers	17.1	0.1	0.1	17.3
Nondepository credit intermediation and related activities	8.1	3.6	2.9	14.5
Funds, trusts, and other financial vehicles	3.5	0.0	0.2	3.6
Insurance agencies, brokerages, and related activities	2.0	7.9	0.6	10.5
	169.0	20.4	9.9	199.3
Local Food				
Grain farming	45.1	0.7	0.1	45.9
Food services and drinking places	15.1	21.2	65.9	102.1
Retail Stores - Food and beverage	10.1	0.3	4.9	15.3
Oilseed farming	7.9	0.1	0.0	8.1
Animal production, except cattle and poultry and eggs	3.8	20.4	4.5	28.8
All other crop farming	3.8	2.8	0.3	6.8
Animal (except poultry) slaughtering, rendering, and processing	3.0	0.1	0.1	3.2
Bread and bakery product manufacturing	2.8	0.0	0.1	2.9
Fruit farming	2.7	0.0	0.0	2.7
Vegetable and melon farming	2.6	0.0	0.1	2.8
Commercial Fishing	2.5	0.0	0.0	2.5
Poultry processing	2.4	0.0	0.1	2.6
Wineries	0.7	0.0	0.0	0.7
	102.5	45.8	76.1	224.4
Professional Services				
Legal services	36.6	1.8	1.3	39.8
Employment services	31.6	16.7	4.4	52.7
Management of companies and enterprises	33.9	0.2	0.0	34.1
Services to buildings and dwellings	22.7	5.5	1.7	29.9
Management, scientific, and technical consulting services	21.3	2.1	0.4	23.8
Accounting, tax preparation, bookkeeping, and payroll services	20.3	2.5	0.6	23.4
Scientific research and development services	16.6	0.1	0.0	16.7
Machine shops	15.3	0.3	0.0	15.6
Other support services	12.9	4.7	0.8	18.4
Investigation and security services	11.1	0.2	0.1	11.4
Printing	5.9	0.4	0.1	6.4
Architectural, engineering, and related services	5.7	6.1	1.4	13.2
Office administrative services	4.9	0.2	0.1	5.1
Couriers and messengers	4.4	0.5	0.0	4.9
All other miscellaneous professional, scientific, and technical services	4.2	0.3	0.0	4.5
Business support services	2.8	0.3	0.0	3.1
	247.3	41.5	11.1	300.0
Tourism				
Hotels and motels, including casino hotels	17.1	4.8	4.4	26.2
Civic, social, professional, and similar organizations	10.2	3.4	6.4	20.0
Scenic and sightseeing transp'n and support activities for transp'n	7.6	1.8	0.3	9.8
Amusement parks, arcades, and gambling industries	7.5	0.0	0.6	8.1
Fitness and recreational sports centers	6.9	0.4	0.9	8.2
Other amusement and recreation industries	5.9	0.1	0.3	6.3
Performing arts companies	4.9	0.1	0.1	5.2
Spectator sports companies	3.8	0.1	0.1	4.1
	60.3	10.5	13.0	83.8

Realizing the 25% Shift – A SWOT Analysis

What are the most promising assets Berea has for realizing the 25% shift? The most formidable obstacles? To answer these questions, we conducted a series of interviews with several dozen residents of Berea, including policymakers, civil servants, economic developers, small businesspeople, and grassroots activities. Below is a summary of the key points they listed as the town's strengths, weaknesses, opportunities, and threats.

Before proceeding, one caveat: Almost every strength can be rephrased as a weakness (“we have significant financial capital” vs. “we need more financial capital”), or even framed as an opportunity or a threat. In the recitation below, we try not to repeat points and instead to place each point in the one category that, in our judgment, made the most sense.

Strengths are issues or characteristics of a town that local leaders can use to advance economic growth. Among the key strengths Berea has are:

- *Location* – The city is easily accessible on I-75, connected to rail, and located near millions of Americans. It's close to the Madison County Airport, and a short drive from Lexington's transportation hubs.
- *Manufacturing* – The city has more than double the national rate of manufacturing jobs, reflecting its successes at recruiting businesses for its industrial park and creating 3,200 manufacturing jobs. These jobs, while many are non-unionized, pay relatively well.
- *Education* – The public school system is strong. Berea College provides an anchor for a strong intellectual community, further boosted by a large endowment and outstanding students. Berea's citizens enjoy many local educational opportunities from, for example, the Madison County Public library and Berea College library.
- *Public Sector* – The city has sound finances. It entered the recession with a cushion that provided stability. It also has developed a diversified revenue base.
- *Infrastructure* – The city owns, operates, and controls its own water, electric and sewer utilities. The roads are good. Land with water and sewer connections is available for industrial development. High-speed internet is widely available.
- *Civic Culture* – The city has a cosmopolitan culture that has produced many of strong leaders, voices, and thinkers.
- *Tourism* – The city's rich civic culture attracts many outside visitors. It has numerous studio artists and crafts products. The Artisan Center, as well as the

city's designation as the as the Folk Arts and Crafts Capital of Kentucky, has given the community greater visibility. The city benefits from a well-coordinated tourism effort with significant funding. These programs include online promotion of Kentucky goods and crafts.

- *Local Businesses* – The city has several healthy sectors of local business. It is witnessing a rapid expansion of the local food movement. It has strong local banks and credit unions. And it has nationally respected nonprofits like MACED.
- *Quality of Life* – The city is scenic and environmentally rich. Taxes are light (9.9 cents per \$100 valuation compared to state average of 22 cents). The crime rate is low. High-quality health care is available. There are many recreational facilities, including pools, athletic fields, golf course, and ahandicapped-accessible play ground.

Weaknesses are issues or characteristics that, if not addressed effectively, could limit economic growth. Residents mentioned the following:

- *Limits to Manufacturing* – The manufacturing base of the city is not locally owned or controlled. It is overly dependent on the automotive sector, which has been volatile in recent years. It has many employees who do not live in Berea, which means that potential property taxes are lost to other communities.
- *Finance Gaps* – There is limited available investment capital for local businesses, especially for start-ups.
- *Empty Storefronts* – Local retailers have had a particularly difficult time succeeding in Berea, despite the absence of local retail outlets for clothing and groceries. Arts businesses not capable of filling these spaces. Many Berea residents are not shopping “local first.” Some retail areas lack adequate parking.
- *No Fun* – The city has sparse entertainment opportunities: no movie theaters, no bars, and limited restaurants. This, along with limited hotels, contributes to the underperformance of the tourism sector.
- *Limited Entrepreneurship* – Financing gaps, coupled with the absence of a single place where entrepreneurs can go for assistance, has stunted the growth of new local business.
- *Youth Out-Migration* – The absence of fun and entrepreneurship opportunities convinces many young people – especially the best and brightest – to leave the community after being graduated from high school or Berea College.

- *Tourism Deficits* – Despite the city’s efforts to ramp up tourism, there are odd shortcomings. The Artisan Center is spatially disconnected from downtown Berea. Small meeting spaces, like those in the Artisan Center, are undersubscribed. Large meeting spaces, like a conference center sought by the Chamber of Commerce, do not exist. The artisan population that lies at the center of local tourism efforts is “aging out.”
- *Workforce Shortcomings* – A significant percentage of Berea’s workforce lacks basic job skills, everything from being able to balance a checkbook to arriving at work on time.

Opportunities are assets, events, or trends that offer Berea the potential for economic growth. Interviewees identified the following as opportunities:

- *Physical Assets* – Berea has land in its industrial park and throughout the city to facilitate all kinds of business growth, including more manufacturing. Existing state-funded infra-structure improvement projects are already designed and budgeted. The Bluegrass Army Depot also provides opportunities for future economic development.
- *Regional Growth* – Significant growth in the I-75 corridor is expected. The Madison County Airport may well expand.
- *Industrial Park* – Existing companies could attract similar or supplier companies to the area. Hitachi’s contract to produce an electric engine for General Motor is particularly promising.
- *Entrepreneurship Innovations* – One proposal that would add to the entrepreneurship resources of the region is a vocational school. Another is a proposed partnership between ECU and Berea College for worker- retraining programs. Others have proposed life-skill programs for unemployed workers and new entrepreneurship programs. Yet another is to expand youth entrepreneurship and mentorship programs.
- *Arts & Crafts* – Berea’s existing reputation as an arts center could be built upon. The Artisan Center’s role could be ramped up, tours of working-artist studios could be created, and arts-in-the-curriculum programs for school children could be expanded. The Chestnut Street connector proposal offers a way to fill empty lease space between the Old Town and College Square arts districts with galleries and working-artist studios. The Arts Council could be retained in one of Berea’s arts district.
- *Broader Approach to Tourism* – There is interest in the area to focus on much more than folk arts and crafts. Tourism could emphasize local scenery, sports tournaments, recreational activities like biking, music, and dance, local history and culture, and local examples of sustainable living. Many fairs and festivals

already occurring throughout the year support this definition. There's a helpful proposal to combine workshops with festivals.

- *Other Approaches to Economic Development* – Wherever a critical mass of excitement exists around an approach to economic development, it can and should be seized. Substantial numbers of Berea residents are eager to do all the following: create a new conference center; expand the Boone Tavern; create (through United Church Homes) a retirement community in Berea to augment existing skilled-nursing and long-term care facilities; integrate Berea College more thoroughly into the city's economic growth (through more local investment of its endowment); promote "think local first" campaigns and expand existing efforts around buy-local and local currencies; expand the local food system through more farming, farmers markets, and vineyards; formalize and empower the vast network of home-based businesses in the community. The surest path to consensus in the city might be for the government to support ALL these efforts equally and fairly.
- *Partners* – Many partners exist in the region to help realize the opportunities above. These include SKEN, Kentucky Ventures Corp., Kentucky Science and Tech Corporation, Eastern Kentucky University, Kentucky Highlands, KEAN, Coaches Institute, and the UK Appalachian Center.

Threats are obstacles, events, or trends that, if not addressed effectively, could diminish Berea's economic potential and its ability to create jobs. For example, some of the following might be listed as threats:

- *Traffic Patterns* – The Berea bypass could divert traffic from downtown areas, threatening local retailers even further.
- *Aging Population* – Like the rest of the country, Berea's population is getting older, and the exit of young people is accelerating this trend.
- *Infrastructure* – Water might become limited, as might energy. Roads will need upgrading and repair.
- *Globalization* – Major companies in Berea might continue to offshore some manufacturing jobs. Because the city's revenue streams, while more diversified than they one were, still depend heavily on payroll taxes, sudden offshoring could be particularly devastating to the city's budget.
- *Over-focus on Corporate Attraction* – The city's focus on attracting outside manufacturers, while successful thus far, could, if continued, divert resources from other economic-development strategies.

- *Investment Capital* – Capital gaps facing local businesses could get worse. Outside corporations might lose interest in Berea. Pension funds and other investment institutions might continue to invest nonlocally.
- *Disasters* – Close proximity to storage depots with old nerve gas is fraught with danger.
- *Unplanned Growth* – The city’s small-town character could be lost through unplanned growth and development. Contributing to poor planning is the absence of regional cooperation in economic development.
- *Poor Public Policies* – Public policy choices made outside the city could adversely impact the community. The Kentucky tax structure inhibits regional cooperation on economic development. Enlargement of FEMA flood area could limit development. State and federal funding for special projects is likely to decline.
- *Divisions* – Deep divisions within the community on some issues could continue to prevent a more consensual, multi-strategy approach to economic development. These divisions currently include whether to change alcohol laws, whether to embrace gay and lesbian rights, whether to use public money to build a convention center, whether to continue the tourism tax, and how closely to work with Berea College.

A Baker's Dozen of Plausible New Economic Development Strategies

Based on this SWOT analysis, there are at least thirteen broad economic-development strategies that could support local business:

- *Large-Business Linkages* – The presence of larger manufacturers in Berea, which is partially the result of years of traditional attraction and retention work, offers opportunities for local businesses. Larger businesses could increase their purchasing from local businesses. They could recruit local businesses to participate in their bids for federal or large private contracts. They could connect key managers and staff with entrepreneurs to serve as mentors. They could help improve the overall quality of the workforce in Berea, which would benefit all businesses.
- *Entrepreneurship Support* – This item, along with the bulleted items that immediately follow, track with the 6 P's of LOIS economic development mentioned earlier. The “people” component could be strengthened through a more comprehensive system of entrepreneurship support and training, so that small-business entrepreneurs at every stage of business development – startup, expansion, contraction, and diversification – could find needed assistance. Startups and home-based businesses, for example, could be supported with mentors and a network of small-business incubators.
- *Local Business Alliances* – The “partnerships” initiatives in the 6 P's aims to help small businesses increase their competitiveness through collaboration with one another. This is what has motivated the spread of local business alliances in more than one hundred communities across the country. Such alliances can stand alone or become divisions of the Chamber of Commerce. Member businesses support one another as peers or mentors. Business alliances also can lead to very specific joint projects, such as a procurement cooperative that brings down the price of business inputs. Berea currently lacks a local business alliance.
- *Think Local First* – “Buy local” initiatives augment consumer expenditures with local business, which improves the bottom lines of participating businesses and also “multiplies” into economic benefits for the entire community. Part of the value of buy-local campaigns is that it helps educate consumers about the presence of many local goods and services that they otherwise might not know about. It also raises awareness about which businesses are actually locally owned. Berea has barely scratched the surface of what's possible with such campaigns.
- *Community Capital* – The “purse” initiatives in the 6 P's aim to draw more capital into local businesses. Historically this has meant attracting outside investors, philanthropists, and government dollars. But increasingly this refers to redirecting local money into local financial institutions that invest in

local business. Berea small businesses clearly would welcome, and benefit from, more sources of capital.

- *Downtown Development* – Another approach to economic development, advocated by Main Street programs and urban revitalization groups, is to create vibrant public places, with an exciting mix of shops, restaurants, businesses, and amenities. Berea is not one but arguably three such places, each incomplete and disconnected from one another, that could benefit from this kind of program.
- *Residential Development* – Expanding the population of Berea, if done carefully, can expand the skilled workforce, attract more entrepreneurs, bring more capital into the community, and increase demand for local goods and services. Critical to this strategy’s success is that each new person’s contributions – in work, taxes, purchasing, and so forth – exceed that person’s incremental demand on services like roads, schools, police, etc.
- *Tourism* – While downtown development attempts to create a critical mass of residents and relatively close outsiders, tourism attempts to draw a critical mass of outsiders. This has long been one of the centerpieces of Berea’s economic-development activities. Downtown development is part of these initiatives, as has been the development of specific destinations for tourists, like the Artisan Center or Boone Tavern, and specific events and festivals. A group of developers in Berea also has been interested in creating convention center to attract a “business class” of tourists.
- *Town-Gown Collaboration* – Economic development can be spearheaded by the main institutions in a community. In Berea, like other college towns, this could mean extensive town-gown collaboration. Among the ways a college can help include: directing that land be college-owned land be used in ways to maximize local economic activity; investing the college’s endowment in local business; encouraging students and faculty to buy local; supporting students who wish to start local business; creating collaborations between professors and various sectors in the local economy. Small initiatives have proceeded over the years in Berea, but much more is possible.
- *Infrastructure Investments* – Another traditional economic-development approach focuses on improving infrastructure—roads, water systems, sewage and electricity hookups, and high-speed internet—that are attractive to all businesses, local and nonlocal. Improvements in schools that strengthen local human capital also fall in this category. Berea has invested significantly already in this category—by, for example, running its own utilities—but more is always possible, especially in a field like electricity generation where technology is advancing very quickly.

- *Sustainability* – While some regard “green” initiatives as a drag on economic development, many of these can unambiguously increase efficiency and community wealth. Well-designed programs around energy, water, and material efficiency, for example, can simultaneously save money and reduce burdens on natural resources. Berea has benefitted over the years from grassroots groups like MACED taking initiatives in these areas.
- *Sector Specific Initiatives* – Nurturing particular sectors, typically clusters with related businesses, can also push economic development forward. Many U.S. communities today are seeing local efforts focusing on local food, local energy, local retail, and local banking and finance. Those interested in local manufacturing might find common ground with mainstream economic developers interested in expanding activity in Berea’s industrial park.
- *Public Policy* – Since the categories above are influenced by government laws, regulations, and practices, public policy is a cross-cutting category of action. Almost every conceivable local government power – zoning, policing, contracting, investing, educating, and speaking – has some impact on economic development.

The Community's Priorities

Reflecting on this list of 13 possible economic-development strategies, the advisory group overseeing this project picked six strategies they thought would be particularly relevant and exciting starting places for grassroots action:

- A big-business group, focusing on linkages with small business;
- A small-business group, looking ways to support local businesses, including a local business alliance, buy-local initiatives, and entrepreneurship programs;
- An energy group, with a strong emphasis on sustainability;
- A local investment group;
- A tourism group; and,
- A local food group.

During our second public meeting in December, participants chose a group to join, sketched an action agenda, and scheduled another meeting to take place within the next month. Several months into this process, four of the groups were thriving while two dissolved. The big-business group, perhaps because its participants were more comfortable continuing their historic focus exclusively on large businesses, had limited enthusiasm for the small-business linkages. And the small-business group lacked a single focal point – like a “Think Local First” campaign – that could have provided a strong enough framework for it to continue.

The four remaining groups each developed preliminary plans. They called themselves the Berea Economic Advancement Teams (BEATs). Each BEAT group prepared a short (1-2 page) vision statement for action, based on a template distributed by Peter Hackbert of Berea College. Each identified the principal obstacles to achieving that vision, sketched an action plan, and highlighted local government policies that might help. The Appendix contains the “final” version of each plan, though the word “final” is in quotes to underscore that the aim is for this work and these groups to continue beyond the completion of this paper and preliminary meetings. (The Appendix also contains the draft, but incomplete, plans of the two groups that dissolved.)

Below, we summarize the plans of the four BEAT groups that completed their work:

(1) Local Food

The local food group called itself LIFE, for Local Integrated Food Economy. Its primary goal is to undertake a comprehensive Community Food Security Assessment (CFSA), perhaps in conjunction with the Berea College Business Department and EPG program, that would identify gaps and business opportunities in the local food system, and fashion strategies to fix those gaps and promote new businesses. Among the goals would be to

improve household food security, diversify farms and food businesses, expand existing farmers markets, and increase local-food purchasing by major institutions (such as government agencies, hospitals, and Berea College). With information gathered from the CFSA, the group also plans do the following:

- Educate the public about the local food system through local news outlets (including student newspapers) and social media.
- Involve local schools more comprehensively in local food programs through internships, 4-H programs, school gardens, and local purchasing programs for school breakfasts and lunches.
- Create a web-page that's a clearinghouse of key information, including food-related resources, contacts, and events.
- Recruit local health officials to underscore the value of fresh, unprocessed, local food.
- Connect with the BEAT group on tourism through edible landscaping, local-food branding, food-business tours, a certified community kitchen, food events at existing spaces (like the Acton Folk Center), and community gardens.
- Connect with the BEAT group on finance by developing new sources of capital for priority local food businesses and entrepreneurship support programs.
- Connect with the BEAT group on local business by connecting more local food businesses to the Kentucky Agriculture Restaurant Rewards Program.
- Connect with the BEAT group on big business by encouraging more purchasing of local food, spreading the use of Berea branding, and putting business wastes (including heat) to better use for local agriculture.
- Connect with the BEAT group on energy efficiency by helping farmers and food entrepreneurs take advantage of programs and technologies for energy efficiency.

(2) Local Energy

The local energy BEAT group sees the waste of energy, and the related loss of energy dollars, as one of the most promising “leaks” in the Berea economy to plug. Reducing electricity costs puts more money into residents’ and businesses’ pockets that can be spent locally. It also create jobs. New business may be attracted to Berea by the promise of lower utility costs, as well as to the community brand of Berea as promoting clean and sustainable energy. To reach this goal, the group focused narrowly on promoting an “on-bill financing program” that could help customers of Berea Municipal Utilities (BMU) finance audits and hire contractors to implement cost-effective energy-efficiency upgrades. Among the specific recommendations:

- Follow-up MACED’s successful pilot program with a more ambitious, two-year city-wide pilot. Tap MACED’s insights into promising audit methods, partnerships (e.g., with Home Energy Partners), and technical-assistance programs. And contract for MACED assistance.
- Ensure that the typical upgrade includes insulation, leak repairs, HVAC upgrades, and “smart” utility meters.
- Hire a city liaison, perhaps from MACED, to carry out the pilot and then lead the program, and supplement this staff person with one or more interns from Berea College or ECU.
- Explore innovative ways to help provide the up-front finance for this work, including special municipal bonds. Because defaults on utility bills are rare, payments for these upgrades are very reliable. Risks of default can be reduced even further by placing a lien on upgraded buildings that run with the building, not the occupant. Ultimately, the city could create a revolving loan fund so that repayments help finance future rounds of efficiency upgrades.
- Keep careful records during the city-wide pilot about pre-program energy use, building size, occupants, and upgrades undertaken. After participation, data should be collected about reduced levels of energy use and related billing. Supplement administrative data with surveys of participants and monitoring of upgraded buildings.
- Evaluate the program not only for energy savings and cost-effectiveness but also for customer satisfaction.
- Educate the public about the opportunities for such a program to help overcome administrative inertia and resistance.

(3) Tourism

The tourism BEAT group sees huge potential in expanding the number, diversity, and expenditures of tourists drawn to Berea each year. Its objective is to strengthen Berea’s existing reputation as an artisan and crafts center but also to broaden the areas appeal to tourists interested in scenery, competitive sports, recreation, history, and local culture. Among its specific recommendations:

- Mobilize a community-wide “call to action” on the potential economic value of legalizing alcohol sales— for attracting tourists, enriching nighttime entertainment options, and developing new local businesses such as wineries, craft breweries, and theme cafes. In the meantime, permit “moist” alcohol selling in restaurants with more than 50 seats.

- Establish a citizen advisory team that would work with the Tourism Commission on ideas for expanding marketing efforts (outside and inside Berea) and for diversifying attractions, events, and amenities.
- Develop a master calendar, schedule, and inventory and make it available both in print, online, and on strategically located kiosks throughout town.
- Identify and upgrade facilities for events and business incubation, and if necessary, build new ones. Conduct a feasibility study for a major community/conference center, including possibilities of partnering with local industries and Berea College, and better using existing facilities.
- Upgrade the physical appearance of the town, such as Chestnut Street, to increase the town's attractiveness, to convey its history, to tell its story. Add more public art, signage, maps, benches, bike racks, parks, gardens, green spaces, bird sanctuaries, dog walks, and trails.

(4) Local Investment

The fourth BEAT group seeks to create one or more local investment funds, tapping primarily local investors who can nurture and expand promising local small- and medium-size businesses. Its mission is to create an “entrepreneurial friendly community,” where the presence of local investment maximizes community buy in, support, and purchasing. Among its specific goals:

- Identify exemptions to securities laws that might allow unaccredited investors to participate.
- Identify individuals, organizations, businesses, and financial institutions that could serve as principal partners.
- Recruit the city to share legal assistance, provide matching funds, and encourage residents to participate in the funds.

It's worth noting that at the final public meeting, one resident expressed a desire to revive the moribund small-business BEAT group. He expressed interest in the following:

- Develop better networks among local businesses, particularly in peer sectors (like food, finance, manufacturing, retail, etc.), mindful not to replicate any of the work of the Chamber of Commerce.
- Create an incubator for low-overhead businesses, where current homebased businesses could grow to scale.
- Develop a commercial corridor of model Berea businesses.

Metabusinesses

At the “final” public meeting in this process, after the BEAT groups presented their plans and solicited feedback, we suggested that each group consider adding programs capable of financing themselves—what we call “metabusinesses.” The best economic-development strategies are those that cost the least money, especially in an era of government austerity like today. Better still, these strategies should *make* money—and thereby be capable of underwriting still more local economic-development activity. Below is a brief description of some of the metabusinesses that most relevant for each BEAT group:

For the local food group:

- *Local Loyalty Cards* – One way of inducing residents to buy more local food would be to create a loyalty card like Supportland (www.supportland.com) based in Portland, Oregon, or a debit card like Bernal Bucks (bernalbucks.clearbon.net) based in San Francisco. Both systems help consumers to identify which businesses are local, and reward consumers with discounts at the participating businesses. Revenues are generated from fees charged to participating businesses. A loyalty program could begin with food businesses and then include other businesses.
- *Local Gift Card* – The region could create a gift card, like the Dine Local Card in Edmonton, Alberta (www.live-local.ca/purchase-dine-local-gift-cards), usable only at locally owned businesses in Berea that would help introduce residents and tourists to unfamiliar local businesses. As with the loyalty cards, this program could be made up of food businesses, and then gradually expand to include others. It would be a great stocking-stuffer, and a terrific promotional item 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.
- *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 – but this occurred in a largely pre-internet era. With a well designed software package, this

concept could become a viable means of promoting regional purchasing throughout Kentucky. Local-Motive (www.whatsyourlocalmotive.com), an initiative in eastern Kentucky done in conjunction with the University of Kentucky Appalachian Center, is currently trying to deploy this system.

- *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 suppliers. But there’s no reason why a community like Berea 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 (*see* www.farmtoschool.org) show the viability of these programs, though few have yet to be run professionally or profitably.
- *Local Business Mall* – Berea could create its own local food mall, like Pike’s Place in Seattle which has served as a tremendous anchor for tourists and regional consumers.⁴ Berea College is currently considering such a mall for its students, and with careful planning, this could become a draw for residents and visitors. This initiative could be led by the College, a consortium of local businesses, or a private developer.
- *Procurement Cooperative* – Because bulk purchasing brings down costs, a network of local food businesses could engage in collective purchasing and improve the competitiveness of its members. Tucson Originals (www.tucsonoriginals.com), for example, services its member food businesses by purchasing in bulk foodstuffs, kitchen equipment, and dishes. This could gradually expand to include non-food businesses, and perhaps undertake bulk purchasing of everything from “green power” to health insurance.
- *Direct Delivery* – To compete with the convenience of shopping malls or mail-order services, a local business alliance could set up a direct delivery service for food, as has been done in Edmonton, Canada (<http://www.live-local.ca/local-food-delivery>). Again, this could expand to include other local goods. 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.

For the local energy BEAT group, commercial viability is already built into the on-line billing model. That is, the cost of energy efficiency is deemed to be less than stream of savings captured by the program. That said, the use of tax-exempt municipal bonds could be a useful way to finance its startup.

⁴ For descriptions of the top public markets in the United States, see the reference materials of the Project for Public Spaces, at www.pps.org/reference-categories/markets-articles/.

For the Tourism Group:

- *Eco-Tours* – Around the country successful proprietors of learning tours are springing up under such banners as “reality tours” or “eco-tours.”⁵ Developing special packages around the crafts and artisan centers in Berea would be a natural way of packaging and selling the best of the town to visitors.
- *Facilities* – As noted, there’s interest filling existing spaces in Berea with events, festivals, and conferences, and in creating larger spaces that could accommodate major conventions. Well run, these venues – and related businesses like promotion, hotels, and restaurants – could be capable of paying for themselves. An exciting recent development here is a new two-week “learn-shop” program (scheduled for July 2012) with over 200 classes taught by working artists in subjects like cooking, glass blowing, blacksmithing, pottery, dancing, and banjo playing. This is an effort to move from the old craft festival paradigm to a new model where visitors can participate and may stay over night.
- *Local First Directory* – Another metabusiness could be created around a directory (online and in print) of local businesses, with the purpose of helping visitors find goods, services, and experiences from locally owned businesses that might otherwise be below their radar screen. There are roughly two dozen of these directories nationwide, some of which break even or generate small profits.⁶ Cash flows come from advertising sales and from selling the directory (in participating businesses or in local bookstores).

The finance group envisioned setting up a revolving loan fund to help small business. Most such funds require periodic infusions of government or charitable funds to be viable, but there are certainly models that are self-financing—especially if there’s an intention that the fund be self-financing from the outset. Among the most interesting models, because they allow the participation of unaccredited investors, are the New Hampshire Community Loan Fund (www.communityloanfund.org), Mountain BizWorks in North Carolina (www.mountainbizworks.org), and Invest Local Ohio in Columbus (www.ecdi.org). There are numerous other self-financing models that could bring capital into local businesses in Berea. Among the ones described in *Local Dollars, Local Sense* (Chelsea Green, 2012):

- *Targeted CDs* – Some banks and credit unions offer special CDs, the proceeds of which are targeted at certain local businesses. The Alternatives Credit Union in Ithaca, New York, partners with nonprofits to create loans in support of their mission (www.alternatives.org). Eastern Bank in Boston has extended

⁵ See, e.g., the very successful tours organized by Equal Exchange: www.globalexchange.org/tours/.

⁶ See, e.g., “Where the Locals Go,” a publication of Sustainable Connections in Bellingham, Washington. See <http://sustainableconnections.org/thinklocal/where-the-locals-go-coupon-book/coming-soon>,

a \$1 million line of credit to Equal Exchange through fair trade CDs (www.equalexchange.coop/eecd). Vancity, a large credit union in Vancouver, British Columbia, is designing sector-specific CDs to support local businesses in food, energy, manufacturing, and so forth.⁷

- *Coops* – Membership shares in cooperatives – whether consumer, worker, or producer coops – are not considered securities, which makes them particularly attractive vehicles for tapping investment from the 99% of residents who are “unaccredited.” Members also can be tapped for loans for bigger coop projects, though these might require some securities filings with Kentucky.
- *Fee-for-Service Assistance* – An office might be set up to help small businesses find sources of finance. It might create a roster of accredited investors in the area interested in small business, and periodically circulate business plans. It might help client businesses create small stock issues that could be sold directly to Kentucky residents. It might steer them to promising crowdfunding sites like Kickstarter (project sponsorship, at www.kickstarter.com), Kiva (microloans, at www.kiva.org), and Prosper (peer-to-peer commercial loans, at www.prosper.com).
- *Self-Directed IRAs* – The community might set up one or more “custodians,” again working on a fee-for-service basis, who would set up special accounts so that Berea residents could roll over their tax-deferred retirement accounts (which typically can only invest in nonlocal stocks, bonds, and mutual funds) into local business investment opportunities.

The nascent small business BEAT group might look at metabusiness frameworks for promoting entrepreneurship. Typically, these services are underwritten by government or philanthropic grants, but it is certainly possible to deploy these on a fee-for-service basis:

- *Mentorships* – Berea might set up a program 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 (www.score.org). 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 classes online. Either alone or in partnership with existing programs, Berea could set up entrepreneurship courses appropriate for local-businesses and recruit participants throughout Kentucky.

⁷ See: www.vancity.com/Investing/InvestmentsAndServices/TermDeposits/NonRedeemableDeposits/SharedGrowthTermDeposit/.

- *Incubators* – While nearly all of the 1,000 incubators in North America depend on outside support, models exist – in Australia, for example – of well-run, financially self-supporting incubators. These 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 (www.acenetworks.org). To become self-financing and expand, the incubator could work with each incubated company issue local stock, and then upon graduation claim 5-10 percent of the shares as payment for its services. This could increasingly be done for virtually incubated companies (with the incubator claiming a smaller percentage of the stock).

The Home Run

Even though no specialized group was formed to carry out a town-gown strategy, it's worth concluding this report by emphasizing its potential. The biggest institution in Berea—certainly its most visible and influential—is Berea College. In many ways it already influences the direction of local economic development. It owns significant parcels of commercial land, as well as the historic Boone Tavern, where many tourists stay and dine. It runs crafts and arts programs that connect with the community and train a new generation of professionals. It has a large endowment, part of which could in theory be invested locally. It purchases significant levels of goods and services, and just as its food purchases have been localized in recent years, so can its other purchases.

This relationship should be nurtured. The potential is suggested by Oberlin College in Ohio, where a visionary environmental policy professor, David Orr, is leading an ambitious, \$125 million town-gown project to create a model self-reliant community.⁸ The objective is to put together a collaboration between Oberlin College and the City of Oberlin that prototypes what a post-carbon economy can look like in a rust-best community. At the heart of the project is a 13-acre downtown renewal program, with state-of-the-art “green” offices, shops, and hotels. It brings together students, faculty, and local business people to promote local food, energy, manufacturing, and finance. Nothing of this scale has been proposed in Berea yet—but it could be.

Among the features of this kind of collaboration might be:

- The creation of permanent teams involving students, faculty, businesspeople and policymakers around sectors like food, energy, and finance.
- The preparation of annual report containing indicators of progress based on the ideas in this study.
- A commitment from the college to bank local, and to encourage students to bank local.
- The creation of a buy-local loyalty card that encouraged students to patronize local businesses.
- A commitment to allocate more of the College's endowment to local economic projects and businesses.
- The development of a small business incubator program, so that entrepreneurial students have a better path toward starting businesses locally.
- An effort, led by students, to lead in the design and creation of businesses that could fulfill their recreational needs.

⁸⁸ See www.oberlinproject.org.

Appendix I

The Local Food Group's Strategy

Action Plan

- Education and communication to raise public awareness
- Design and implement a CFSA
- Expand the involvement of the community

Introduction

While the primary goal of the Berea Economic Advancement Team (BEAT) is economic development and job creation through the development of a local food economy, the BEAT Sustainable Food Workgroup would like it to be recognized that ultimately the purpose of economic development is to increase the quality of life for all Bereans. When addressing the development of a local food system it is important to factor in the safety and security of Bereans' food from potential threats such as changes in climate, energy and population. The advantage to developing a local food system for Berea is that it will not only become an important economic driver but it will also increase the safety and security of food for the people of Berea and their neighbors.

GOAL: Develop a strategic communications and outreach plan

A. Public Outreach

News outlets for public outreach and social media resources. We need a marketing plan to know what we want to publish in these news outlets and determine our target markets as well as differentiated marketing tactics/strategy (i.e. different messages or hook for different demographic groups)

B. Marketing Plan

A larger Marketing Plan will be designed and implemented following the Community Food Security Assessment (CFSA) possibly in conjunction with the Berea College Business Department and EPG program. Danielle will contact the Business Department and EPG to find out in more detail how to start a working relationship with them and assess if that is a direction/resource the committee wants to pursue.

GOAL: Integrate Farm-to-School Programs

A. College Internships

We discussed various ways student interns might be mobilized/utilized in the committees goals. Specifics were not decided on but Kelly will contact Ester Livingston for more information about the process of setting up internships through the college internship office.

B. Education in Schools

Some programs already exist and we talked about how they could be used in educating children about sustainable food production:

1. 4-H Program – As far as we know there is no club in Berea but this is a national program for school aged children through 21 years. There are clubs in schools and summer camps available. Establishing a group in Berea and drawing on their curriculum would allow us to reach school age children with skills for sustainable food production, preparation and healthy food choices. Jacob will contact the Madison County Extension Office to gather more information about the current 4-H program and what is needed to start a chapter in Berea.
2. HEALs Garden Club (currently at Berea Community School and soon to expand to Shannon Johnson Elementary) – This program can be expanded with the current schools and to more schools within the Berea area. Berea Community has a raised bed for every elementary class and two green houses. Shannon Johnson has 6 raised beds for the elementary classes and there seems to be potential for more space.
3. Farm to School Food Program – All Madison County Schools have funds for local food purchase. Danielle will locate contact information for this program. There is a question of how many schools we want to target with our programs. When we get to county wide programs we are including a much bigger area than just Berea.
4. Web Pages -- Consolidate/ coordinate the various BEAT related web-pages. Create a resource page on local food, as well as a calendar of food related events in the Berea area.

GOAL: Integration with other BEAT Work Groups

A. Tourism

1. Edible Landscaping – hire maintenance, tourist map similar to hands
2. Berea Branding – local food
3. Community Center - specifically certified community kitchen
4. Using Existing Spaces/Buildings – Acton Folk Center?
5. Community Gardens – educational and part of branding

B. Local Finance

1. Grant or funding for edible landscape maintenance crew

2. Local investment fund and Entrepreneurial training program – local food focus Meta Business Model (purchasing, partnering and purse)
3. Send representative to meetings to infuse a local food agenda in their planning

C. Local Business

1. KY Agriculture Restaurant rewards Program – percentage of Local Food purchases can be reimbursed to restaurants buying from KY Proud producers up to \$12,000 annually
2. Send representative to meetings to infuse local food agenda in their planning

D. Big Business

1. Berea branding
2. Business with no waste systems – business designed to deal with their waste in creative ways within the community or even on site

E. Sustainability and Energy Efficiency

1. Community Center design
2. Consolidate/ coordinate the various BEAT related web-pages
3. Create a resource page on local food

GOAL: Berea Community Food Assessment

A. Define the “Area of Impact”

This will vary according to consumption and production. The group needs to create a profile of the community’s socioeconomic and demographic characteristics.

B. Looking at the food system from the consuming point of view

1. Profile of community food resources
2. Assessment of household food security

3. Assessment of food resource accessibility
4. Assessment of food availability and affordability

C. Locations

1. Retail sales
 - For at home consumption
 - For away from home consumption: Obtained from food service permits and restaurant sales tax
2. Farmers market(s)
3. Schools
 - Public and private K-12
 - Preschools
 - Institutions
 - Berea College
4. Hospital
5. Other
 - Home gardens
 - Community gardens

D. Availability, Accessibility and Affordability

1. Looking at the food system from the production point of view
2. Assessment of community food production

Appendix II

The Tourism Group's Strategy

Action Plan

- Investigate alcohol sales in Berea as an economic driver.
- Establish a citizen advisory team that would work with Tourism and the Commission
- Create and identify more facilities that can be used for both tourism and local activities

Introduction

The leakage analysis indicates there is a demand for an expansion of tourism in Berea that would create new jobs. The disconnect of arts centers, no fun, and lack of gathering spaces are listed as weaknesses in the SWOT analysis. That analysis lists opportunities as building upon Berea's existing arts reputation and taking a broader approach to tourism by emphasizing local scenery, sports tournaments, recreation activities and local history and culture. The IMPLAN model indicates that a 25% shift in the entertainment, restaurant & tourism sector could produce 168 new jobs.

The tourism group's overall goal is to leverage tourism as an economic development tool by broadening the definition of tourism to include diverse recreational activities and events, history, scenery, exercise, continuing to support artists and craftspeople and to explore the possibility of alcohol sales within the city.

GOAL: Investigate alcohol sales in Berea as an economic driver.

A. Opportunity for Growth

This could attract tourists and provide entertainment opportunities for local citizens and opportunities for local businesses to grow by developing wineries, craft breweries, and theme cafes. It could also attract new businesses such as restaurants and allow existing restaurants to expand business.

B. Study of Economic Impact of Alcohol

An overall study of the economic impact of alcohol on Berea needs to be conducted. Including looking at the potential differences between the "moist" and "full wet" options.

1. Different people have collected some information and shared ideas and conversation about this issue and we have spoken with several of them.

Those discussions centered on economic growth in surrounding towns such as Danville, the various options from moist to wet and the steps needed to place the issue on a ballot for a vote.

2. We support the “moist more than 50 seats” option sale of alcohol.
3. The Tourism Commission has indicated financial support of further economic develop studies of this issue.

C. Possible Campaign Strategy

1. A group of 5 people should be recruited with one leader to continue research and establish a strategy and timeline to collect signatures to get the issue placed on a ballot. Much research has been gathered already and will be shared with this group.
2. Any strategy should include community education about the process – City appointed Commission, zoning regulations and local control, economic benefits and factual information about associated issues.

GOAL: Establish a citizen advisory team that would work with Tourism and the Commission on ideas to expand marketing efforts, local outreach and diverse new events.

A. Master Calendar

Develop a master calendar/schedule/inventory and arrange by date/type of event, etc for all events/activities/opportunities/facilities that would be accessible and available to citizens and visitors.

1. Advertise the calendar via social media and business cards (prototype developed).
2. It is low cost and should use web based- use technology. The costs would be IT support and staff to monitor. There could be kiosks located through out town and there would be a cost to maintain those.

B. Education of Public

Local Team could also help in the understanding of how Tourism works, how it is funded, statutory restrictions on operations and possible funding of events. They could also help educate the public on these issues.

1. Follow up with Tourism Commission and formalize role of advisory team.

GOAL: Create and identify more facilities that would promote events and interaction and review existing physical image.

A. Development of Master Plan

Recommend that the City develop master plans to upgrade Berea physical image, no unique identity, Chestnut Street needs facelift. Create dynamic community, make Berea feel different. Need consistent look, play up history, tell Berea's story. This could include more public art, signage, maps, benches, and bike racks.

A separate master plan should also be developed for city wide parks/greenspaces/gardens, bird sanctuaries, dog walks.

B. Facility Feasibility Study

Conduct a feasibility study for a facility that would serve as a community/conference center. Define what it is, determine conference revenue potential and demand (less than 300 participants), inventory existing facility resources, explore the possibilities of partnering with local industries, Berea College, and explore underused or unused facilities. The tourism Commission is looking at spaces for learn shops and is interested in partnering with others to share space. A committee has been appointed to do this.

Appendix III

The Energy Efficiency Group's Strategy

Action Plan

- Work with City and MACED to develop on-bill financing plan for implementation in 2013

Introduction

Energy efficiency is an excellent way to promote economic development in Berea. Utility expenditures represent a form of “leakage”—much of the money Bereans pay for electricity leaves the city and does not return. Reducing electricity costs not only reduces individual costs, it reduces leakage from the City.

For small businesses, less utility cost means less overhead and better operating margins. New business may be attracted to Berea by this promise of low utility costs. This may also contribute to a positive perception or community brand of Berea as promoting clean and sustainable energy.

Finally, this proposal for an on-bill financing program presents many direct employment opportunities. Auditors are needed to conduct energy audits. Contractors are needed to perform energy efficiency upgrades. Some of these skilled workers are already present in Berea. A pilot program could be the start of a lasting opportunity to employ even more Bereans in this promising field.

GOAL: Development of an On-Bill Financing Pilot Program

A. Select Administrator

The City and Berea Municipal Utilities (BMU) will have the opportunity to partner with MACED, which has an energy efficiency pilot program under way and can provide technical assistance. BMU will be an integral part of any permanent program, so the City and BMU might consider appointing a BMU employee to be a liaison for the pilot program.

Several organizations have already provided assistance in the early stages of development of the program. These include MACED and Home Energy Partners. The city should consider exactly how the pilot program should begin. One option is for the City and BMU to undertake the pilot program as turnkey with MACED. Or MACED could take on a more limited role, providing financing only, with BMU providing administrative services and contracting for audits. Based on MACED's estimates from previous work, if the pilot program targets 25 residential units and 5 commercial units, administrative costs would most likely be less than \$10,000. The timeline for the pilot program could be as follows:

- Developed throughout 2012
- Implementation by January 2013
- Two-year pilot program completed by December 2014

This pilot will give the City and Berea Municipal Utilities the opportunity to evaluate the program, make modifications to accommodate BMU, and determine a future on-bill financing structure.

B. Content of Pilot Program

Depending upon city procedure, an RFP or RFQ may be required, or the pilot program could simply be negotiated. In either case, the following criteria should be considered:

1. Proposed source of financing
2. Schedule for developing program implementation milestones
3. Plan for solicitation of both residential and business participants (opportunity for intern work)
4. Plan for energy audits to identify:
 - Specific energy auditors to be employed
 - Cost of audits
 - Plan for subsidization of cost to low-income households
5. Plan for completion of upgrades to includes:
 - Specific contractors to be employed
 - Detailed descriptions of potential upgrades
 - Cost of upgrades
 - Expected energy savings
 - Schedule for repayment
6. Quantifiable goals

C. Assistant Administrator/BMU Liaison

This position will be particularly important if MACED is the lead organization. The City will need someone to serve as a liaison during the two-year pilot program. The liaison will work with the administrator of the pilot program and gradually assume responsibilities as the pilot progresses.

D. Financing

There are a variety of financing options, both public and private. There is potential for some cooperation with the Berea Economic Development Team's Finance Committee. Data regarding the low default rates of existing on-bill financing programs should be useful in securing financing. Utility customers have a strong incentive to pay their bills—the fear of suspension of utility service. Existing on-bill financing programs have shown default rates below 2%.

1. Public Financing -- Pilot program financing is available from MACED, which will already be involved as a technical advisor. This would reduce the number of stakeholders in the program, streamline the process, and reduce transaction costs.
2. Private Financing -- Private financing offers the advantages of competitive bidding and distribution of risk. There is also potential for financing via a private “meta-business.”

E. Select Auditors and Contractors

Berea already has several local energy efficiency auditors and contractors capable of performing efficiency upgrades. Home Energy Partners is a local organization that could suggest potential auditors and contractors. One goal of the pilot program should be to identify auditors and contractors that the city would be interested in entering into a long-term relationship with.

F. Solicit Participants

Finding the right people to participate in the pilot program is a potentially very time consuming task that might lend itself to an internship program. An intern from Berea College or ECU could provide manpower to the City and BMU to research BMU records for high bills, identify the type of structure, cross reference with the PVA for approximate unit square footage, and conduct door-to-door surveys to determine household characteristics such as number of occupants and owner occupied or rental.

The City/BMU should begin to solicit participants for the program in Fall 2012. The earliest participants may come through word-of-mouth, as the program will need to be under way before a larger call for participants can be issued.

GOAL: Implementation of the Pilot Program

A. Select Participants

The project will begin in earnest in January 2013, when the first audits and upgrades are performed.

1. Factors to consider when choosing participants
 - Source of electricity and heating (e.g., all electric, or electric and gas)
 - Total electricity usage
 - Potential for energy savings
 - Bill payment history

B. Methods for Choosing Participants

1. Evaluate utility bills for potential inefficiencies
2. Residential participants informed via volunteers or interns
3. Commercial participants solicited via city liaison
4. Information made publicly available via the internet

C. Perform Audits

1. Energy audits identify the necessary energy efficient upgrades. Audits may be paid for in a number of ways:
 - By the participant
 - Via existing or newly developed incentives
 - Subsidized by the city, based on need
2. Once the audit is completed, the participant chooses the upgrades he or she wishes to install. Consultation with the administrator or some other advisor might be useful.

D. Complete Upgrades

1. The City/BMU contracts for upgrades with one of the approved contractors. Typical upgrades include:
 - Insulation
 - Leak repair, caulk
 - HVAC upgrades
 -
 - Smart utility meters

E. Payment

1. City Obligation -- The City/BMU pays the contractor for the work from money provided through financing at a rate to cover costs. BMU/City tracks the re-payments, collecting funds from all program participants to repay the financier from the initial financing investment.
2. Participant Obligation -- The participant's repays over time to BMU via an additional charge on the utility bill. A lien could be placed on the property while the payment obligation exists; the lien will encourage prompt payment and notify any potential future buyers of the existence of the charge and the energy upgrades. The program obligation stays with the building, rather than the participant.

GOAL: Program Review

A thorough review would evaluate two years of data collected during the pilot program. Two years is the minimum time necessary to account for seasonal variation in energy use and weather variability.

A. Data Collection

There are a number of means available to collect data. Each method has its own advantages and disadvantages in terms of cost, reliability, and comprehensiveness of data. Several data collection methods are possible.

1. Recordkeeping and Data Mining
2. The city and the utility will have much of the needed data at hand. Detailed records should be kept throughout the pilot program. Records should include information about pre-program energy use, building size, occupants, and upgrades undertaken. After participation, data should be collected about energy use and bill payment. This data can be collected from all participants throughout the pilot program for minimal cost using only utility bills.
3. Participant surveys are another relatively inexpensive way to gather data about all participants. A survey should be required that includes the following information, at a minimum:
 - List of all upgrades performed
 - Total cost of upgrades
 - Electricity usage before the upgrades
 - Electricity usage after the upgrades
 - Any incentives utilized during the program
 - Total amount of utility bill before and after
 - Amount of on-bill charge for upgrades

3. Self-reported data may result in inexact estimates and incomplete information. If time and resources permit, follow-up interviews or site visits may be able to supplement data collected via surveys. Survey data can also be checked against data mined from utility bills.
4. Electricity monitors are a reliable way to collect more complete data about energy usage. The program should monitor the energy use of as many participants as possible—electricity monitors such as those available from The Energy Detective cost as little as \$200. Data should be collected for an entire year at a minimum. A full year of data will provide valuable information about peak usage and overall energy savings.
5. Representative participants should be chosen carefully. Both residential and commercial participants should be monitored. Factors to consider when selecting monitoring candidates should include:
 - Size and energy needs of participant
 - Energy use before upgrades
 - Upgrades undertaken
 - Likelihood of complete and reliable data collection

B. Review

Analysis and review of data collected during the pilot program is of paramount importance. Review should consider both how individuals are engaging with the program and how the program is progressing as a whole.

Individual Review – The review should determine how individual participants use the program, and how their experiences can be improved upon. An individual analysis should consider the following:

- Participant satisfaction
- Which of the auditors recommendations were used
- Which recommendations were not used, and why
- Whether cost and time estimates were met
- Any incentives used
- Total cost of upgrades
- Total energy savings
- Estimated schedule for full repayment

Program Review -- At the program level, the analysis should consider:

- Who is participating in the program
- Whether quantitative targets are met
- Whether available incentives are adequately utilized
- Performance of auditors and contractors
- Adequacy of loan arrangement
- Default rate

C. Evaluate future On-Bill Financing for BMU

The program should monitor and verify services received in the pilot program and track utility savings.

Once BMU establishes a permanent on-bill financing program of its own – the BMU liaison can provide administration or BMU can hire turn-key administrative services for the program. The City or BMU could hire additional employees as needed, or outsource. Permanent financing would need to be secured, possibly through a bond issue. A revolving loan fund should be established to recycle re-payments of initial investments for energy improvements and continue to support additional loans. The ultimate goal of a revolving loan fund is for the program to become self-sustaining.

GOAL: Enumerate the Benefits of On-Bill Financing for Berea

A. Benefits to Berea's Economy

1. Leakage is reduced – A key component of Berea's current economic development process is the minimization of leakage; that is, economic resources that leave the Berea economy. BMU's energy charge, which goes to Kentucky Utilities, represents leakage out of Berea. On-bill financing (OBF) will reduce that leakage.
2. Potential resource flow to the local community – Energy savings realized by residential and commercial customers who participate in OBF represents additional dollars that can flow to local businesses.
3. Improved operating margins – businesses that participate in OBF will reduce their overhead, allowing them to move additional dollars into improving their businesses and/or moving additional dollars into the local economy.
4. Jobs growth – residential and commercial energy audits and subsequent upgrades to building shells, HVAC and other energy-consuming equipment will require human resources; additional jobs that, by their very nature, must remain local.

B. Benefits to Rate Payers

1. Reduced expenditures – Reduces the percentage of income that flows to electric rates.
2. Increased comfort – Upgrades to housing envelopes and HVAC results in a more comfortable home with a lower energy usage.
3. No barriers to financing – Ability to qualify for credit – as with a standard loan – is a non-issue since financing is attached to the electric bill. Participation in OBF is contingent on bill-payment history. This opens energy efficiency upgrades to many residents with limited incomes.
4. Lowered transaction costs – Financing is at rates that are lower than prevailing loan rates. Also, paperwork, credit checks, etc. are minimized. Loan overhead costs are minimized relative to those of commercial lenders.
5. No “up-front” money required from ratepayer – In the current MACED pilot, upgrades are treated as utility capital improvements paid for by the ratepayers without raising rates. They are tariffed to the meter, and the total cost (including financing) is more than covered by the energy savings brought about by the installed improvements.
6. Promotes accessibility to rental units – Since costs of upgrades are billed to the meter, it is not person-specific. Instead, it is address-specific.

C. Benefits to Berea Municipal Utilities/City

1. Reduced Peak Demand – Envelope sealing, upgrading HVAC, etc. will reduce peak demand.
2. Defaults are reduced –OBF focuses on those addresses where energy-efficiency improvements will result in lower overall electricity billings. Lower bills equal fewer defaults.
3. High bill complaints – These complaints will be one means of identifying those who might qualify for OBF. Efficiency upgrades will reduce bills and BMU will be seen in a positive light for its efforts to help customers reduce their costs.
4. Learning from the pilot – By doing the pilot with MACED, BMU and the City would learn whether a more extensive on-bill financing program was viable and in the best interest of BMU, the City and the rate-paying citizens of Berea.

GOAL: Overcome Challenges of On-Bill Financing for Berea

- A. Updating Software Programming** – What would be involved in modifying accounting software to track and bill OBF charges?
- B. Money Transferral** – what would be involved as far as transferring funds?
- C. Identifying Participants** – Contingent on how pilot tasks are split up between MACED and BMU, BMU may have some responsibility for identifying potential customer participants, and/or identifying auditors and contractors who would perform the various energy efficiency improvements.
- D. Tracking Measurement & Verification**– what are the demands and solutions to tracking actual kWh reductions and city peak kW gains and progress in building out upgrades to qualifying properties?

Appendix IV

The Finance Group's Strategy

Action Plan

- Decide upon a local investment fund option and then implement it in conjunction with an entrepreneurial training program.

Introduction

The primary vision is to create a local investment fund that will encourage and facilitate local investment in enterprises and increase the availability of funds to Berea's local business community. The Finance Group's strategy is to develop a source of capital in Berea, deployed in many ways to support the genesis, expansion or transfer of ownership of local small to medium businesses. This should encourage investors and a sustainable alternate financing market that is not reliant on outside capital as well as creating an "entrepreneurial friendly community". A local investment fund will provide financial support to current and prospective business owners as well create a stronger commitment from residents who have an investment in these businesses to think local first. When paired with business training this addresses two major obstacles for businesses today - financing and training.

GOAL: Choose Finance Options

A. Four Investment Models Have Been Identified

B. Present Models to Focus Group

Include local entrepreneurs in different stages of business development and potential investors.

C. Choose Two Options to Develop

GOAL: Prepare Models for Implementation

A. Identify Resources Needed

B. Identify Specialized Skills Needed

C. Build Partnerships with Organizations

GOAL: Implement Finance Models in conjunction with Entrepreneurial Program

A. Training Prerequisite

Entrepreneurs wishing to participate in finance option would have to also undergo business training.

GOAL: Identify Obstacles

A. Regulations

Current federal and state regulations that make it difficult for small investors to participate in local funding. The team will need to investigate the any legal issues.

B. City Support

The working group needs an indication of legitimacy and support from the local government.

C. Identify Investors

Identifying individuals, businesses, and organizations willing to invest would be needed so that a fund or several funds could be established.

D. Knowledge of Technical Details

Further development and understanding of the investment vehicle. Understanding the legal, technical, and logistical considerations in setting up a fund.

E. Investment Model Analysis

An analysis of investment models needs to be conducted to better inform the working group, current small business owners, local financial institutions, and community investors.

GOAL: Set Role of the City

A. Legal Research

B. Funding

1. Provide matching funding to establish funds.
2. Provide funding for expertise to develop programs

C. Provide Legitimacy

Legitimize groups by recognizing them as standing committees reporting to city council.

D. Advertisement

Conduct Advertising campaign that promotes Berea as “entrepreneurial friendly community.” Advertise the investment opportunities once they are established.

Appendix V

The Small Business Group's Strategy

Action Plan

- Business networking structures
- Co-officing location and services
- Commercial corridor investment

GOAL: Business Networking Structures

Create various formal business networking structures for entrepreneurs to pass referrals and do collective marketing.

A. Need

This strategy is consistent with the BEAT SWOT analysis and can draw upon the existing small/local businesses in Berea. Based on our focus group, we expect that Berea small businesses would hire more people as a result of collective marketing/networking efforts. This would add more to the payroll tax base for the City and support some of our other strategies.

B. Potential Impact

It has the potential to expand existing business immediately and has potential for some of the more traditional meta-business ideas.

C. Actions To Be Taken

1. Talk with Berea Chamber of Commerce to see what programming may emerge for small/micro businesses.
2. Talk with Business Network International (BNI) area director to see if they would help start chapters in Berea.
3. Talk with Berea Local (web-based group) to see if they could adopt BEAT strategies and organize an on-line network.
4. Identify business technical assistance needs that are most common and match with the right agencies that provide services like MACED or SBDC. Create a formal referral tracking system.
5. Organize a small business fair/conference that informs small businesses about all the business services that are available in/near

Berea (cross promote Co-Office strategy and any other BEAT initiatives to local businesses).

D. Obstacles

1. Not all businesses use the internet to market their business. Access to the internet.
2. Small business owners may not feel they have the time to attend meetings or do not see the value of face to face meetings.
3. Younger entrepreneurs may not participate in a “meeting” (old school and not cool).
4. Cost of being a part of a formal membership group.
5. People do not understand how to track the return on investment of their time and money.
6. People do not understand how to clearly communicate their unique value, and what their ideal client is.
7. People do not understand the full benefits of formal networking (e.g. barter services).
8. Some businesses may not want to participate in networking.

GOAL: Creation of co-officing location and services

A. North Broadway Building

Restore the 204 N. Broadway facility owned by the City of Berea into a new co-officing space where micro/small businesses may rent affordable space, share equipment and small business development services all in one location.

B. Actions to be Taken

1. Understand the current status, cost and issues with this 204 N. Broad Street.
2. Create a working group to develop a feasibility plan for co-officing space.
3. Identify alternative spaces in Berea that may also work.

4. Committee recommends the preferred businesses to fill space, rate structures.
5. Identify small businesses that would use co-officing space and shared services.
6. Indicators of progress. Agreement with the City, start up operating funds secured, fill the space with targeted businesses.

C. Obstacles

1. Who will operate and administer services at the office location?
2. Approval by the City of Berea (what would be operational cost?)
3. Equipment maintenance and upkeep (who will own, maintain?)
4. Pricing structure for tenants (will need to create a rate scheduled).
5. Recruiting small business to space (what is the best tenant mix or targeted industry?)
6. Opposition may come from taxpayers who would oppose such “subsidies”
7. Resources needed: City-paid dedicated staff to manage initiative, conduct an inventory of businesses.

GOAL: Commercial Corridor Investments

Develop public/private partnerships to spur economic and physical investments along Berea commercial corridors and destination locations.

A. Action Plan

1. Identify source of funds to pay for architect/urban planning firm to facilitate a series of community design charrrattes to envision redeveloped commercial corridors and destination locations; emphasis on place-making and creating guidelines and standards for future development.
2. Identify ways to engage Berea college students, residents and business and property owners throughout the planning process.

3. Organize Berea retail businesses to do tour/site visits of existing commercial areas to do an assessment and report back what the strengths, weaknesses, opportunities and threats to inform a planning process and to share ideas for immediate improvements. Ask city code person to be a part of the tour and provide support.

4. Ask all participates to take pictures of places that they find interesting and share with group as examples of how they would want their commercial corridors to look.

B. Obstacles

1. Lack of knowledge of examples of good public/private initiatives that might fit the scale and uniqueness of Berea.

2. No coordinated “master-plan” of the commercial corridors and other destination locations that have public/private buy-in and input.

3. Uncertain funding sources, redevelopment authorities and commercial investment entities that would be available to start projects.

4. Conflicts with transportation planning/planners that do not promote “place-making,” pedestrian-friendly commercial corridors.

Appendix VI

The Big Business Group's Strategy

Action Plan

- Create a workforce development program or training consortium.
- Stimulate and promote economic activity related to the depot
- Explore the possibility of supporting “big business” in finding local agents of procurement.

Introduction

With the understanding that “big business” including the Berea industrial park provides substantial support to the local economic base and that “big business” is more than just manufacturing we have set forth to discover more about the following as a small working group.

GOAL: Create a workforce development program or training consortium.

A. Purpose

To support the training and preparedness of the local workforce to compete and find gainful employment in a variety of sectors in the area along with obtaining viable and basic life skill training. The program is envisioned as a consortium or partnership between the City of Berea (and/or Madison County), local industry, and regional institutions (Berea College, ECU, UK and faith based).

B. Need

A recurrent theme in conversations with industry representatives is that the workforce is not prepared with technical skills or with basic life skills (passing a drug test or having a GED, not to mention specialized technical skills). This program should act to plug the leakage in workforce preparedness and build a social capital pool.

The training program would and should be more expansive than trade skills and include things like maintenance, purchasing, business marketing, production planning, other tech related fields along with the traditional vocations like welding, electric and plumbing to name a few.

C. Actions to be Taken

1. City of Berea facilitates creation of workforce development partnership with industry and institutional representatives.

2. Identify free training curriculum provided by state or other institutions that could be provided with a minimal fiscal investment (4H, entrepreneurship, youth leadership).
3. Target industry specific needs in terms of core competencies and desired life skills in available workforce.
4. Facilitate K-12 involvement through youth programming or co-op programs like the micro-communities example.
5. Create an awareness campaign for both workforce and industry partners.
6. Create or adapt a physical space(s) to accommodate the different sorts of trainings needed.
7. Incentive programs for both worker completion and for the programmatic supports by industry partners.

D. Obstacles

1. Local, State and Institutional fiscal challenges.
2. Getting all essential parties to form partnerships.

D. Public Policy Implications

City officials will need to support the creation of the program consortium which includes local institutions and industry. Berea College will need to be at the table because of their interest in creating a cradle to career program and their involvement in preparedness programs like Gear Up and their recent Project Neighborhood funding.

GOAL: Stimulate and promote economic activity related to the depot.

A. Purpose

The Depot will be demanding highly skilled labor as it embarks to create a facility to dispose of its stored munitions. This will be a large pool of very skilled labor and our goal would be to find the intersection of these workers and future opportunity here in the Berea community, which also includes the potential adaptive reuse of the depot site in the future.

B. Current Study

Currently there is a study underway to identify the skillsets that will be needed and to identify the economic impact in terms of infrastructure and social capital. The questions for the future is related to how can the site be attractive to business once the Depot has de-militarized.