

City of Allentown Re-Industrialization Strategy

April 2014



Funding Source:

The City of Allentown Re-Industrialization Strategy is one of three catalytic demonstration projects part of Envision Lehigh Valley, a public outreach effort designed to engage the citizens of Northampton and Lehigh Counties to create a truly sustainable Lehigh Valley. The region received a three year, \$3.4 million Sustainable Communities grant from the U.S. Department of Housing and Urban Development (HUD).

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CITY OF ALLENTOWN RE-INDUSTRIALIZATION STRATEGY

Project Overview

The City of Allentown retained a consultant team to prepare a citywide reindustrialization strategy (Phase I) and apply the strategy to the Little Lehigh Industrial Corridor (Phase II). The consultant team is led by Camoin Associates and includes Bergmann Associates, Thomas P. Miller and Associates, and Innovation Policyworks. This project is managed by City staff and guided by a project advisory committee that includes eighteen public and private sector individuals knowledgeable of Allentown's industrial economy.

To begin Phase I of this project, the consultant team, with guidance and support from City and Allentown Economic Development Corporation (AEDC) staff, collected information through interviews, focus groups, economic data collection and analysis, web research, windshield surveying, building walkthroughs, and review of existing planning documents. Key findings, recommendations, and strategies are provided in this summary report. The appendices contain the body of work collected and developed by the consultant team, which supports the recommendations.

Allentown's Re-Industrialization Strategy will be immediately followed by Phase II of this project, which will apply the strategies and recommendations developed to the Little Lehigh Creek corridor in a neighborhood redevelopment plan. Finally, Phase III will focus on the Allentown Metal Works complex and include pre-development work such as a building and site conditions assessment, a financial feasibility analysis, and a fiscal impact study. These site-specific studies will be used to create a redevelopment strategy for the site complete with a step-by-step action plan to guide redevelopment.

Objectives

The principle objectives of this project are as follows:

1. Develop a Citywide Re-Industrialization Strategy that provides policy direction and strategies to retain and attract those industries that are best suited for Allentown and that lays out the best opportunities for increasing employment for City residents.
2. Provide a description of the City's economic base and its position within the region, its competitive advantages, and economic trends.
3. Coordinate with the regional economic development plan under development by the Lehigh Valley Economic Development Corporation (LVEDC) under the Sustainable Communities Regional Planning Grant.
4. Prepare a revitalization strategy and land use plan for the Little Lehigh Study Area that:
 - a. Identifies potential opportunities for economic development and job creation,
 - b. Identifies public improvements/enhancements to improve access, public services, and aesthetics, and
 - c. Recommends any necessary zoning changes to better accommodate the economic development of the area, and serves as a model to transform similarly situated industrial areas.
5. Develop strategies to enhance AEDC's existing business incubator located within the Little Lehigh Study Area and identify the need/potential to develop a new incubator.

6. Understand the makeup of the city workforce and vocational and post-secondary educational opportunities available to residents and how the City can work closer with workforce and education institutions.
7. Facilitate in-city employment opportunities through the information generated through the planning program and the plan's activities.
8. Establish a process for approaching appropriate and sustainable reuses for vacant and/or underutilized sites and buildings throughout the city.
9. Develop reuse strategies for significant industrial sites within the Little Lehigh Study Area and/or other older industrial city sites that fulfill the study's objectives of creating meaningful employment opportunities. This includes providing guidance to site owners and insights for City economic development staff to better assist building owners and developers in working with brownfields and industrial building reuse and adaptation.

Key Findings

Industrial Base

Over the past 10 years the manufacturing sector shrank by almost 30%, losing over 2,500 jobs in the Allentown ZIP code region.¹ While the rate of decline is expected to slow significantly, this industry is expected to continue to shed jobs moving forward, though at a slower rate (about 50 jobs over the next ten years).

Manufacturing is still a cornerstone of the city's economy. It is the third largest major industry sector by employment in the Allentown ZIP code geography, with 6,450 jobs, representing 7.4% of all jobs in the Allentown ZIP codes. It is strong in the region as well, being the fourth largest in the Lehigh Valley with over 30,800 jobs (10% of the total workforce).

Top manufacturing industry sectors in the Allentown ZIP region in terms of number of jobs include:

- Surgical and Medical Instrument (1,050 jobs)
- Fabricated Metal (720 jobs)
- Food (670 jobs)
- Machinery (600 jobs)

In terms of employment growth in the Allentown ZIP code region, some manufacturing subsectors have experienced growth in the past 10 years:

- At the 3-digit level in the Allentown ZIP code region, three sectors added over 100 jobs each:
 - Plastics and Rubber (280 jobs)
 - Electrical Equipment (200 jobs)
 - Fabricated Metal (130 jobs)

¹ As noted in Appendix A: Industrial Market Analysis, industry data is available at the ZIP code level. The City of Allentown is situated at the intersection of five different ZIP codes, which extend beyond the City's boundary and encompass parts of adjacent municipalities. Therefore, throughout the report, we distinguish between the Allentown ZIP code region and the City of Allentown. A map of the City of Allentown and the ZIP codes that cover the city is provided in Appendix I.

- At the detailed 6-digit subsector level, sectors that added over 50 jobs from 2003 to 2013 include (those that overlap with the top 5 in Lehigh Valley are in bold and with the MSA are underlined):
 - **Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing: 252 new jobs**
 - Fluid Power Valve and Hose Fitting Manufacturing: 111 new jobs
 - In-Vitro Diagnostic Substance Manufacturing: 102 new jobs
 - **Plate Work Manufacturing: 82 new jobs**
 - Electric Housewares and Household Fan Manufacturing: 79 new jobs
 - Dog and Cat Food Manufacturing: 74 new jobs
 - Construction Machinery Manufacturing: 66 new jobs
 - Tire Retreading: 53 new jobs
 - Metal Tank (Heavy Gauge) Manufacturing: 53 new jobs

While manufacturing at the 2-digit level is highly concentrated in the Lehigh Valley, it is less concentrated in the Allentown ZIP code region. Even so, the Allentown ZIP code region does have 18 4-digit manufacturing sectors with LQs over 1.2. They are:

- Animal Food Manufacturing: 13.89 LQ
- Medical Equipment and Supplies Manufacturing: 6.22 LQ
- Household Appliance Manufacturing: 5.85 LQ
- Other Electrical Equipment and Component Manufacturing: 4.91 LQ
- Other Textile Product Mills: 4.79 LQ
- Sugar and Confectionery Product Manufacturing: 3.06 LQ
- Other General Purpose Machinery Manufacturing: 2.62 LQ
- Other Furniture Related Product Manufacturing: 2.27 LQ
- Household and Institutional Furniture and Kitchen Cabinet Manufacturing: 1.86 LQ
- Apparel Accessories and Other Apparel Manufacturing: 1.69 LQ
- Communications Equipment Manufacturing: 1.66 LQ
- Beverage Manufacturing: 1.63 LQ
- Boiler, Tank, and Shipping Container Manufacturing: 1.62 LQ
- Plastics Product Manufacturing: 1.53 LQ
- Other Fabricated Metal Product Manufacturing: 1.43 LQ
- Industrial Machinery Manufacturing: 1.38 LQ
- Cut and Sew Apparel Manufacturing: 1.35 LQ
- Pharmaceutical and Medicine Manufacturing: 1.29 LQ

Additionally, at the detailed 6-digit level:

- In the Allentown ZIP region there are almost 40 6-digit manufacturing industry sectors that have a LQ over 1.2 and employ more than 20 workers.
- Though textile-related manufacturing is not one of the largest or fastest growing industry sectors identified above, it has a significant LQ in the Allentown ZIP code region. This is likely because most textile manufacturing occurs outside of the U.S. so even a small presence of this industry achieves a high LQ.

Manufacturing wages in Allentown and the region are higher compared to overall average wages.

Average earnings per manufacturing job in the Allentown ZIP region are \$66,150, about \$7,550 less per manufacturing job than average in the Lehigh Valley (\$73,700). However, in both Allentown and the Lehigh Valley, wages in manufacturing are higher than overall average wages, which are \$52,789 in Allentown and \$53,408 in Lehigh Valley.

Exports in manufacturing are greater than any other industry sector. In 2011, total exports reached \$30.9 billion in the Lehigh Valley (export data not available for ZIP regions). Manufacturing accounted for over 33% of total exports in the Region (\$10.2 billion).

In summary, the above data on the Allentown industrial base indicates that though there have been historic employment losses, manufacturing is still very important to the local and regional economy in terms of both jobs and wages. Additionally, based on employment growth and concentration (LQ) data at the detailed subsector levels, there are many manufacturing subsectors that have grown and/or are highly concentrated in Allentown. When combined, Allentown and the surrounding region have a diverse manufacturing economy that is spread over many subsectors. This provides Allentown and the region a solid base for future manufacturing as opposed to having manufacturing highly reliant on only a few subsectors.

Manufacturing Market Trends

The manufacturing environment is changing rapidly, and therefore, economic development approaches must be adapted to enable manufacturing to thrive and grow in local and regional economies.

Though there have been major decreases in manufacturing employment nationally in the past 40 years, manufacturing is still a very important part of the economy:

- Manufacturing pays higher than average wages;
- Success in manufacturing is associated with success in the economic base overall, contributing to growth in all sectors;
- Manufacturing is an important economic multiplier, and responsible for considerable R&D and exports;
- Manufacturing has stopped shedding jobs and is contributing to the recent recovery.

Technology is changing manufacturing:

- The declining price of computer power allows small companies to be players in the global market;
- The increasing rate at which disruptive technologies are introduced makes it hard for firms to dominate the market for an extended period of time, if at all;
- 3D printing is making possible small-batch, custom manufacturing.

Opportunities exist in niche manufacturing and at cross sections of sectors, technologies, processes, and knowledge areas:

- Advanced materials composites and bio-manufacturing;
- Nanotechnology and molecular-based manufacturing.

On-shoring and near-shoring are creating new opportunities for U.S. manufacturing. Being driven by:

- Increase in labor costs in China;
- Reduced value of the U.S. dollar;
- Added cost of transportation and logistics and getting product into the hands of end users;
- Increases in American oil and natural gas production are increasing demand for machinery and chemicals and providing lower-cost energy compared to the past;
- Lack of quality control and intellectual property protection.

Labor Market Trends

Allentown has experienced significant population growth. The city's population and labor force are the largest they have ever been. Both population growth and labor force growth have outpaced the state since 2003. This population growth is being largely driven by a rise in the Hispanic population, which increased in the City of Allentown from 2010-2012 by 6%, compared to the "White alone" census group that declined by 6.5% during this time period. From 2012 to 2017, the "Hispanic origin" census group is projected to increase by 16%, reaching over 62,000.

Unemployment is still above 10%. Even though Allentown's labor force growth has outpaced its population growth, the city continues to have lower rates of labor participation than the state and nation.

Workers are attracted to jobs in the city. Based on the most recent data available, Allentown is a net importer of commuters; that is, more workers come into the city to work than those who leave. However, many of the city's jobs pay lower earnings than the state median, resulting in lower median household income and higher poverty than the state and the nation.

Allentown has a strong base of industrial workers and private sector workers. Production, transportation, and material-moving occupations comprise 27% of employment in Allentown, compared to 14% in Pennsylvania and 12% nationally. The city also has comparatively large private sector employment; 93% of Allentown's jobs are non-governmental, compared to 88% in Pennsylvania and 85% nationally.

Allentown has a high number of temporary workers. In the Allentown-Bethlehem-Easton Metropolitan Statistical Area (MSA), nearly 7,300 workers are employed in the temporary services industry. Of these, 74% are in Lehigh County, even though Lehigh County employs only 52% of the total workers in the MSA. These trends hold nationally as well; Lehigh County's concentration of temporary services jobs is 70% higher than the national concentration.

Middle-skill jobs are key to Allentown's future. Jobs that require some postsecondary education but less than a bachelor's degree are projected to grow the most over the next five years. Current educational attainment rates suggest there is a sufficient number of educated residents to fill current jobs, based on the minimum education levels those jobs require, but further analysis would be needed to determine alignment between those skills and the needs of existing and future employers.

Allentown's education gap is growing. In many places, including Pennsylvania and the nation as a whole, educational attainment is higher for younger adults. In Allentown, however, the portion of the population with a bachelor's degree or higher is slightly lower for adults age 25 to 34 than it is for the whole population over 25 (15% vs. 14%). As a result, the gap in education attainment between Allentown and the state is growing; the gap for bachelor degree attainment among all adults over age 25 is 12 percentage points (15% vs. 27%), but the gap between young adults is 21 percentage points (14% vs. 35%).

If Allentown workers can bridge the education gap, they can access occupations with a positive growth outlook and higher wages. Jobs that require higher education (and thus pay higher wages) are projected to grow in Allentown over the next five years. The weighted median wage of jobs that are projected to grow is \$21.53 per hour, while the weighted median wage of jobs projected to decline is \$17.92 per hour, suggesting potential for increases in household income in the coming years.

There is a great need for more educational opportunities in Center City. The greatest needs are in literacy, English language competency, "soft" skills, and some technical skills. Allentown students and schools would benefit from increased partnerships with businesses to get students excited about job opportunities locally and to stress the importance of education and employability skills. Approximately

60% of the immigrants that attend classes at The Literacy Center (TLC) have a high school or college degree (280 students in 2013). Through their dedication to attending classes that meet 6 hours a week for 36 weeks, these students demonstrate a strong dedication to bettering their lives and quality of life for their families. This is an untapped pool of highly motivated Allentown residents that, with English training, already bring skills and knowledge, making them excellent workforce candidates to fill Allentown's workforce gap.

Allentown can play a larger role in workforce development initiatives working with regional partners.

The Lehigh Valley region has a number of education, workforce development, and training assets, and there is very strong collaboration at the regional level among workforce, education, and economic development entities. With greater involvement from the City of Allentown and AEDC with regional partners, there is the opportunity for Allentown to play a more prominent role as a lead community or pilot site for implementation of workforce initiatives. The new Allentown Employment and Training Center, which opened in August 2013 at the Center City campus of Lehigh Carbon Community College (the Donley Center), is a positive development that affords Allentown-based employers and jobseekers better access to resources available from CareerLink Lehigh Valley in order to meet the future workforce development needs of employers in the Neighborhood Improvement Zone (NIZ) and the Little Lehigh Corridor.

The Allentown Employment and Training Center (AETC) is a partnership between the City of Allentown, the Lehigh Valley Workforce Investment Board, PA CareerLink Lehigh Valley, the Allentown Neighborhood Improvement Zone Development Authority (ANIZDA), and Lehigh Carbon Community College. The AETC complements and serves as a downtown connection to the comprehensive services offered by the PA CareerLink Lehigh Valley workforce system located at 555 Union Boulevard in Allentown which provides job seeker and employer services, such as assessments, job and labor market information, the JobGateway online job matching system, career advisors, access to training, workshops, events, On-the-Job Training resources, Keystone Works, targeted recruitments, job fairs, veterans services, and linkages to community based organizations, among others.

The PA CareerLink Lehigh Valley Employer Services Team helps employers recruit a trained and qualified workforce at their comprehensive facility. PA CareerLink Lehigh Valley is considered business and industry's back-office Human Resources department and strategic partner in developing and implementing the effective recruitment plans with a wide range of services to make the right hiring choices. PA CareerLink has trained workforce development professionals who are members of the Society for Human Resource Management (SHRM) and the National Association of Workforce Development Professionals (NAWDP), and PA CareerLink staff are focused on employment issues that are important to employers in order to assist them in designing a customized menu of services to meet their recruitment and training objectives.

Perception may be harming Center City development opportunities. Some workers have a negative perception of the crime and blight in downtown Allentown and are not optimistic about job opportunities in Center City.

However, there is optimism surrounding Center City development. The downtown, accessible campus of Lehigh Carbon Community College would benefit from this development, as more students may be able to live, work, and further their education, all in Center City. Several students we spoke with felt there would be new job opportunities for them—while they are in school—in hospitality and retail as a result of the new downtown development.

Additionally, the Center City Development will help expand the existing professional, finance, and related service sectors that exist in downtown Allentown. Growth in the manufacturing sector, particularly in the Little Lehigh Corridor, will contribute to the success of downtown by providing local

synergies between manufacturers and related service providers as well as contribute to the growing customer base for downtown businesses.

Bridgeworks Enterprise Center

The Bridgeworks Enterprise Center has new, energetic management and a renewed focus on its original mission of supporting manufacturing entrepreneurs. However, the process of rebuilding the program is in its infancy, and suffers from a lack of resources. A new business plan and strategy for the Center is needed that redefines its mission, target market, programming and services, and operations.

The building itself is showing its age. In addition to the roof repairs underway, the building is in need of a major renovation of its HVAC systems. Many minor renovations could dramatically improve the appearance and functionality of the building as an incubator, and could increase the program's competitiveness in the Lehigh Valley.

The Bridgeworks Enterprise Center is operating in a fairly robust entrepreneurial ecosystem, but has failed to distinguish itself with a unique value proposition so that potential clients have good reasons for choosing it over the other options available. Currently, Bridgeworks is seen as a cheap place to do manufacturing without a cache of real benefits. Making the whole program successful in the long run will require attracting great clients, not simply those that can afford the rent. Attracting these top quality clients will require competitive offerings, which is driving the need to dramatically upgrade and differentiate BEC.

There are many **opportunities for partnerships and leveraging resources** within the Lehigh Valley entrepreneurial community. These need to be pursued.

BEC has the opportunity to be the center of a revitalized manufacturing community in Allentown, and to be the "crown jewel" of the City's recommitment to and celebration of its manufacturing history. However, investments must be made consistently to make this vision a reality. The BEC is working hard to better capture the history of the Center and its results. As of September 2013, the Center has achieved the following results since 1989:

- Companies through incubator: 44
- Job creation/retention: 266/19
- Companies still in business: 15 (5 in the City of Allentown and 10 in the Lehigh Valley outside of Allentown)

Industrial zoning should be studied to make sure that it encourages industrial development. There are three industrial zones that are being used in Allentown: I2 Limited Industrial, I3 General Industrial, and B/LI Business Light Industrial. The B/LI district allows a wide variety of commercial uses in addition to industrial uses, a policy that may be encouraging the dispersion of commercial uses to the detriment of the city's main commercial districts. Another possible unintended effect is that commercial uses, which are able to pay a premium, are most likely occupying land that might otherwise be used by industry. In addition, the I3 district allows heavy-industrial uses which may adversely impact surrounding properties, and as such, the locations to which it is applied should be carefully considered.

Industrial Land & Building Conditions

There are several pockets of industrial properties scattered throughout the city with space available. In particular, the 1.2 million-square-foot Mack 5C building has building space available in addition to over 40 acres of open land for new construction. However, the City should **put a priority on re-industrialization efforts in the Little Lehigh Corridor** since it has a large amount of available industrial building space, a grouping of existing industries, and strong potential for improvement.

Within the Little Lehigh Corridor, there are some strategic properties on which the City should focus development and promotional efforts. The Allentown Metal Works buildings, the former incinerator site, and the Hill's Imports buildings are among the key industrial properties and will be examined further for redevelopment feasibility during the subsequent phase of this analysis.

The Little Lehigh Corridor is already a live, work, and play area since it has available industrial space, and is adjacent to residential areas (workforce), park land, trails, and major downtown sports venues. The City should enhance this with connectivity improvements and use this concept in promotions.

The public realm in the Little Lehigh Corridor is aging and utilitarian. The area should be made more attractive by improving the roads and streetscape, including sidewalks, lighting, signage, street trees, and fencing.

A few neglected properties in the Little Lehigh Corridor are defeating efforts to create an atmosphere of prosperity. Improve the appearance of select industrial properties using tools such as code enforcement, zoning amendments, and screening.

Based on market research and data analysis, characteristics of the target market for urban industrial properties in Allentown include manufacturers looking for:

- Cheap space, low-cost everything;
- Direct access to labor market, walk-to-work environment;
- Re-use opportunities instead of building on green space;
- Urban manufacturing pioneers;
- Current Allentown manufacturers looking to expand.

Several manufacturers felt **there is not enough (or the right configuration of) industrial space for expansion.** Some manufacturers may soon outgrow their current space.

Allentown's industrial properties are different, making them attractive to a certain type of manufacturer. Most of the new development happening in the region is on green space in suburban industrial business parks located outside of Lehigh Valley's urban centers. Allentown industrial properties offer a unique alternative.

Real Estate Market Trends

National real estate firms project a positive outlook for the Greater Philadelphia industrial real estate market in 2013: healthy absorption, decreased vacancy, and build-to-suit construction.

Industrial requirements are becoming more specialized in order to achieve operational efficiency and cost savings. Buildings with low ceiling heights, insufficient loading, or structural challenges will have an increasingly difficult time finding tenants. The greatest demand for space by unit size in the region's urban areas is 8,000 square feet or less and 20,000 to 40,000 square feet up to 80,000 square feet.

Almost every business interviewed for this project indicated they are growing and have plans for expansion within the next 5-10 years. The challenge will be retention as the City's limited supply of industrial real estate might delay expansion projects or force companies to relocate outside of the City to find appropriate space that meets their needs.

An important market opportunity for Allentown, from a geographic perspective, is manufacturing businesses in northern New Jersey looking to expand. The two regions have comparable labor forces and are within the same regional market. Allentown's lower cost of doing business—both compared to North Jersey and within the Lehigh Valley—could be a marketing tool for attracting these firms.

Marketing and Communications

AEDC and the City of Allentown both have attractive websites offering positive information about the business climate and quality of life in the City. Some of the demographic information on the City's website under "About Business in Allentown" is outdated (2011 projections). Also, the layout of information on certain pages is skewed and needs adjustment.

City and AEDC websites contain little to no information on available industrial properties. Both websites have web pages where this information is meant to be, but instead they are nearly empty. Blank webpages send the message that there is no available industrial property in Allentown and industrial development is not a priority.

Regional attraction efforts are led by Lehigh Valley Economic Development (LVEDC).

LVEDC has an interactive real estate property search tool that provides information on available properties in the region. This is a valuable attraction tool; however, unless you know about it you are not likely to find it directly through a search engine. When conducting research for this project, staff did not come across this tool until well into the project, even when specifically searching for property listings in the region.

Recommendations for Re-Industrialization

Allentown is a Manufacturing City within a Manufacturing Region!

1. Understand and Market Allentown's Competitive Advantages for Manufacturing: Highlight that it is a Manufacturing City within a Manufacturing Region

Through this study we have identified several of Allentown's advantages:

- Lower-cost space
- Lower-cost labor
- Access to a dense labor market within a short commute, often within walking distance
- Access to city amenities for workers and entrepreneurs and increased commercial activity
- An incubator and related services specifically dedicated to manufacturing and serving as a focal point for a manufacturing entrepreneurial network
- Existing infrastructure – water, sewer, roads, power, telecommunications

This information should be included and highlighted through the City's marketing efforts and within regional efforts. Specifically, take this a step further and document and compare the specific advantages related to these factors and the costs for each related to doing business in Allentown.

The economic base data analyzed for this report revealed that while there are certain subsectors of manufacturing that have high concentrations of businesses and employment and have experienced recent growth, Allentown's and the Lehigh Valley's manufacturing base is diverse. Rather than being known for one or a few manufacturing subsectors, the City and region are known as manufacturing locations overall. The mantra for marketing should be "A Manufacturing City within a Manufacturing Region."

Recommendation: While we highly recommend focusing on manufacturing overall as opposed to selecting a few subsectors, there are subsectors which have had recent success in the city or region and they should be regularly monitored through both data analysis, business visitation, and networking. These include:

- Fabricated Metal
- Food
- Machinery
- Plastics and Rubber
- Surgical and Medical Instruments
- Electrical Equipment

Work with LVEDC to tie into regional efforts to grow these sectors and ensure that these regional efforts are working to identify opportunities for being in urban/city environments. Companies in these industries, both in Allentown itself and in the Lehigh Valley, should be targeted in enhanced business visitation efforts (see Recommendation 5 below). Specifically, interview these companies and talk with them to figure out to what extent they are exploring expansion opportunities as well as to what extent they are tied to innovation occurring in their respective industry.

2. Target Northern New Jersey

One important market opportunity for Allentown, from a geographic perspective, is manufacturing businesses in North Jersey looking to expand. North Jersey is expensive, congested, and has little room

for growth. Allentown offers space for a much lower price point yet direct access to the same regional market, with a reverse commute. Labor costs are also less expensive in the Lehigh region relative to North Jersey. Additionally, North Jersey's workforce is diverse with large immigrant and non-English-speaking populations much like Allentown's. These companies have experience hiring in culturally diverse labor pools and understand the value of live-work environments. Several manufacturers from New Jersey have moved or are planning on moving into the suburban industrial areas around Allentown. Northern New Jersey is strong in production of food, chemicals, plastics, and medical equipment and, therefore, offers diverse opportunities suitable for Allentown.

Recommendation: Through the regional marketing efforts led by LVEDC, target northern New Jersey manufacturing companies as their suppliers and partners. Support LVEDC in making the case that Allentown properties have a unique urban offering for companies looking to move or expand. The City's and AEDC's role should be to ensure that the Allentown message is being communicated and incorporated into LVEDC efforts: "We're a Manufacturing City within a Manufacturing Region".

3. Consider Supply Chains

Manufacturing is a highly distributive industry with lots of different companies and people adding value along the supply chain. Many of Allentown's manufacturers serve on-demand markets or are part of on-demand "just-in-time" supply chains.² This is a growing trend as new technologies come online that offer the ability to create highly customizable products. The challenge is filling each order in as little time as possible, in which case proximity to markets or others along the supply chain can be a significant advantage. Understanding opportunities for Allentown to enhance the regional supply chain would help with both expansion and attraction in the city.

Recommendation: Through information collected during the business visitation program and the use of tools such as ThomasNet, Manta, and Datamyne, gain a better understanding of industry supply chains and the types of suppliers and other companies whose local presence would benefit Allentown manufacturers. There may also be opportunities to connect local manufacturers with local suppliers.

Allentown manufacturing companies may be willing partners in any recruitment efforts by LVEDC as they would benefit from having suppliers nearby. They may also have some leverage to compel key suppliers to relocate closer.

Connecting & Educating the Economic Development Community

1. Increase Collaboration, Connectivity, and Networking

A theme running through many of the recommendations and a key to successful implementation is building greater connections and strengthening the economic development network, between local and regional economic development organizations and the business community. The Lehigh Valley and the City of Allentown are fortunate to have many organizations that are working on strengthening and growing the regional and local economy and the manufacturing industry. These include but are not limited to the City, Allentown Economic Development Corporation, Lehigh Valley Economic Development Corporation, Greater Lehigh Valley Chamber of Commerce, and local Chambers including the Allentown Chamber of Commerce, Lehigh Valley Workforce Investment Board, Manufacturers Resource Center, Ben Franklin Technology Partners Northeastern Pennsylvania, Lehigh Carbon Community College, and Lehigh Career & Technical Institute. All of these, plus others, play important roles in providing the economic development capacity and support to sustain and grow the economic

² On-demand manufacturing is the practice of waiting until an order is received before actually producing the item. This method reduces waste and tailors products to the specific needs of customers.

base in the region and the city. They are all well respected among their constituencies and, from the interviews we conducted, by-and-large work well together.

It is important that coordination and collaboration among these entities continue and grow. This is critical, as resources are limited and will likely continue to be so into the future. Additionally, businesses, workers, and residents are interested in the services, programs, and outcomes provided to assist them but not in the details of who is doing what. They expect efficient, seamless provision of services.

The importance of networks for economic development is explained as follows³:

There are three different types of economies that are in churn and mixed together for the first time in history. The first is the very last stages of an Industrial Economy based on hierarchies, economies of scale, mechanization, and predictability. The second is a transitional economic phase known as the Knowledge Economy which started around 2000 and is based on knowledge creation and diffusion. The third is the emerging Creative Molecular Economy (CME) in which biological principles are forming the framework for future economic organization and operation.

A key characteristic of the emerging molecular economy is that initiatives, innovation, decisions and implementation are no longer made by a select few through hierarchical processes but rather by self-organizing, open, interlocking networks of individuals sharing knowledge and responsibility. In this system there are not easily definable stakeholders, and authority and control by one organization does not result in successful strategy development and implementation. For the economic developer, success in this creative molecular system of networks requires understanding the motivations, talents, and skills of individuals in these networks and continually distributing and sharing resources and information so informed strategies and initiatives can emerge and be implemented.

This is in stark contrast to command-and-control in hierarchical systems which characterized economic development in the industrial economy. In the past and in the midst of the industrial economy, economic development was focused on well-defined inputs, outputs, and outcomes: create new infrastructure (roads, sewer, and power) to foster land, capital, and labor formation, to provide well defined products and services repetitively and therefore efficiently. Economic development planning and decision making in this traditional environment typically involved traditional leaders (chambers of commerce, company CEOs, and state and local policymakers and managers). They were easily recognized by their titles and organizations. They came together and made projects and initiatives happen without diffusing and distributing knowledge and responsibility among larger open networks.

This industrial economic environment is rapidly waning. There are increasingly niche stakeholders representing diverse interests and motivations such as specialty industry groups, entrepreneurs, workers, educators, and citizens each with the power through digital connectivity to become informed, engaged, and organized. In this networked environment participants are no longer satisfied to let decisions be made and implemented by a few formal, traditional stakeholders. They must be part of sharing the information and decision-making in order to share the responsibility of implementation.

Recommendation: What this means in terms of specific actions for Allentown for supporting and growing manufacturing is that rather than creating new programs and services the City should:

- Focus on networking and communications among the partners and ensure that Allentown businesses and economic development stakeholders are connected and included and their needs and resources relative to the region are clearly understood.

³ [Searching for a New Dynamic: Rethinking Economic Development](#); Smyre, Rick and Damcis, Jim; Blog Post, June 2011

- In close collaboration with AEDC and through its business retention and expansion program (BR&E), focus efforts on existing manufacturing businesses and entrepreneurs by understanding their needs and ensuring they are part of the regional networks.
- Attract manufacturing businesses through close collaboration between AEDC and LVEDC, rather than creating specific City efforts. In terms of business attraction, the region has a distinct identity and it is known for manufacturing. Because of its well-established identity, it is important that the region collaborate on business attraction efforts. Allentown and AEDC should continue to work with LVEDC on attraction strategies and implementation rather than going in different directions. The City's role is to make the regional economic development team aware of the unique opportunities regarding sites, buildings, and services within city limits.
- Increase networking, communications, and partnerships with the education and workforce community. City economic development staff time should be allocated to achieve this purpose.

Doing these would strengthen existing manufacturing networks and create additional nodes within this network as needed to address issues and carry out initiatives. Strong collaboration among the manufacturing community is an attractive asset and is something that should be marketed moving forward.

2. Increase Engagement with Manufacturing Companies

The perception of the City by local manufacturers is mixed. While most seemed to have very positive perceptions regarding working with the City, others had some issues/concerns.

Recommendation:

- **Business Visitation Program** – Continue and expand the existing manufacturing business visitation program. This initiative should be led by AEDC but include the City's economic development department. One way to expand is to include City economic development staff to conduct some of the visits. More ground can be covered this way. But in doing so, this should be a coordinated effort so that

Best Practices in Business Visitation Programs

There is no one best method for conducting a business visitation program. Some common "best practice" themes include:

- Running the program through partnerships with multiple economic development related entities to share the work, cost, information, and avoid overlap.
- Using surveys that capture key information but are not overly burdensome to business.
- Conducting immediate follow-up to resolve any issue identified by the businesses.
- Integrating findings into ongoing strategic economic development planning.
- Utilizing software to make the process more efficient and operationalize results.
- Training volunteers that become involved in the program.

visits are being strategically made and information consistently gathered, assessed, and acted upon.

To streamline this effort, utilize software that allows for coordinated planning, tracking, and assessment. This will require resources in the form of software licenses as well as staff time for training but will pay dividends in terms of providing useful information to support policy changes, programs, and services as well as a better overall understanding of the market. Existing software services to aid in formalizing business visitation, retention, and expansion efforts include:

- Synchronization – www.blanecanada.com
- Executive Pulse – www.executivepulse.com
- Salesforce – www.salesforce.com

Ultimately, the business visitation program is about making connections between manufacturers or with other resources in the community. For example, information about a manufacturer's goals for innovation can be used to connect the business with faculty from a local college that has related research specialties or lab space.

Through discussions with business leaders, this program should seek to understand constraints and opportunities of existing businesses, their plans for growth, and constraints on that growth. In particular, pay attention to workforce needs, buildings and space, innovation goals and challenges, infrastructure needs (i.e. water, sewer, and power), regulations, taxes, incentives, etc. Also look to understand their supply chains and ask what specific companies or types of businesses they would like to see have a local presence.

Findings from the business visitation program can also be used as topics for future manufacturing and economic development newsletters and in social media posts.

As a guide for the City, typical business visitation programs include the following steps:

1. Identify businesses to visit. This has been done as part of this project and the list should be regularly maintained and improved. Resources will not be available to visit all manufacturers so an annual target list should be developed that represents a variety of types and sizes of manufacturers which can reasonably be visited given staff resources. This can then be supplemented by larger group meetings open to all city manufacturers.
2. Develop visitation questions. Keep the questions simple and short and focus on information that will be used.
3. Conduct business visits. Review questions, document answers, get to know the business and business owners.
4. Tabulate and analyze the results.
5. Act upon anything that can easily be addressed to meet businesses' needs.
6. Share results with stakeholders. Develop or adjust strategies to address issues or concerns and then implement new strategies.
7. Revise the program as warranted and repeat.

Examples of Successful Business Visitation Programs

Cayuga County Economic Development, NY

Program listed as a “service” on organization’s website; offer to include support and service provider entities as needed. <http://www.cayugaeda.org/business-visitation-program/>

Stafford Virginia

Makes information available about the program and its purpose on the website, includes partners in visits, and has a pre-meeting questionnaire that is also available on the website.

<http://www.gostaffordva.com/existing-business-support/business-retention-expansion-bre/business-visitation-program/>

Oak Forest, IL

Lays out the case for the purpose of the program on website, using data to support businesses but also as part of economic development planning.

<http://www.oak-forest.org/community/BusinessRetentionandExpansionProgram.asp>

Colorado Springs

Utilizes Synchronist software to support the effort.

http://www.coloradospringsbusinessalliance.com/library/Economy_Weekly/Report_Copies/10-9-13_Issue3.pdf

Through the recommended Business Retention and Expansion program as well as direct involvement with Bridgeworks, offer clients of AEDC direct feedback as to the value and use of the Enterprise Zone Revolving Loan Fund (EZRLF). Also, identify firms in need of financing and leverage partnerships with Ben Franklin and others to bring investors and businesses together. This includes increasing awareness and access to the Pennsylvania Angel Network (www.paangelnetwork.com). Additional resources include the private Equity Growth Council (www.pegcc.org) which lists private equity investors by state (www.privateequityatwork.com/state-by-state). An additional step would be to strengthen Allentown’s investor network and set the stage so multiple investors can rally behind projects that may be too costly or risky for a single investor. An example of this type of network facilitated by an EDO is the Investors Circle of York, PA (www.ycea-pa.org/about-us/investors-circle-of-york-icy). All of the above work should be done through collaboration between the City and AEDC.

- **Increase Communication Efforts with Manufacturing Community** – To complement the business visitation program and create a culture of awareness among the city’s manufacturing community, issue a monthly manufacturing e-newsletter supported by a strong social media effort.
 - Develop new content and direct readers to existing content via links to other sites that address issues and concerns expressed during the business visitation efforts.
 - Highlight new incentive programs and funding opportunities.
 - Do a mini case study on one business a month and ask that business to contribute an article of their choice. A handful of the manufacturers interviewed are currently using social media for their own marketing efforts and would be great to help kick off this effort. Insulation Corporation of America has both a blog and active social media

presence (Facebook, Twitter, Google Plus, LinkedIn, etc.). Other companies interviewed that use social media to stay connected with their customers and industry partners include Vistacom, Metem, and Penetron.

- **Support second-stage companies with economic gardening efforts** – Consistent with business visitation and other ongoing business retention and expansion programs, include efforts to target and assist second-stage companies (see Appendix E for information on second-stage companies). As resources and time allow, consider seek funding and program assistance from the Edward Lowe Foundation (<http://edwardlowe.org/>).
- **Disseminate information about funding and financing options available to the manufacturing community.** AEDC’s website has a financing and incentives page that includes information on financing available locally. Expand this page to include links to state and federal financing that might be of interest to local manufacturers. For example, one of the businesses interviewed expressed interest in obtaining financing assistance to make technology upgrades, purchase equipment and/or make process changes that reduce energy consumption or waste production, but they did not know where to find that information. The Alliance to Save Energy has a database that is a good start: (www.ase.org) as is the Database of State Incentives for Renewables and Efficiency (www.dsireusa.org).

3. Work with the Hispanic Chamber, The Literacy Center (TLC), and Other Stakeholders to Directly Include Hispanic Workers, Students, and Businesses in Development and Implementation of Workforce, Economic Development, and Entrepreneurship Related to Manufacturing

As identified in the SWOT analysis, the City needs to do more to engage the Hispanic and Latino communities, and the city’s immigrant population as a whole. These populations are untapped sources of entrepreneurs and skilled employment.

Recommendation:

- Identify Hispanic business owners in manufacturing and include in business visitation program.
- Visit owners and entrepreneurs in other sectors to engage in development of expansion strategies and actions related to growing Hispanic representation in manufacturing businesses and workforce.
- Work with workforce development partners such as The Literacy Centre (TLC) to conduct outreach to the Hispanic workforce in Hispanic communities and organizations for manufacturing workforce and skills. Be sure to conduct outreach in Spanish as well as English.
- Think beyond the individual and take a family approach to information dissemination. Through strengthened collaboration between the City and the regional workforce community (detailed under the workforce recommendations), make adults taking ESL classes through TLC aware of training opportunities at LCTI for high school students and vice versa.

4. Educate on Urban Real Estate

Early on in the analysis, it became clear that one of Allentown’s biggest hurdles to re-industrialization is the available of suitable, “move-in ready” properties. Much of the available industrial space is in poor condition and will require significant investment before it can be marketed. The second phase of this analysis is to evaluate properties in the Little Lehigh Industrial Corridor and determine the extent of necessary improvements and develop recommendations for specific building and site reuse. While this work continues, there are things the City can do to start setting the stage for successful redevelopment.

Of the industrial real estate professionals interviewed, very few could comment specifically on Allentown's urban industrial supply. Most of the industrial real estate community focuses on the suburban industrial park properties surrounding the city and do very little, if any, business with respect to Allentown's urban core and, therefore, have limited knowledge of redevelopment opportunities.

Recommendation: Ensure that the real estate and regional economic development community is knowledgeable of Allentown's urban industrial market supply.

- **Industrial Real Estate Newsletter** - Once a quarter, issue an e-newsletter for local and regional realtors highlighting industrial properties, physical assets, and trends in Allentown's urban real estate market. The first, most important step in starting this newsletter is developing a list of contacts in the real estate development community, and greater economic development community, and getting them to subscribe to the newsletter. As part of this initial outreach effort, obtain feedback on the type of information that these individuals would find most useful. Feature the current quarterly newsletter on the City's and/or AEDC's website, with a link to subscribe. Support the distribution of the newsletter with consistent, information-driven tweeting about redevelopment opportunities in Allentown.
- **Increase Web Presence of LVEDC Interactive Map** - Site selectors and others in the real estate industry expect location search tools and communities that do not offer this amenity are often overlooked. Lehigh Valley Economic Development has a clickable interactive map on their website that has property search functions and market data (www.lehighvalley.org/find-a-site-real-estate-service). Post links to this tool on both the City and AEDC websites to ensure this tool is not overlooked by individuals doing a web search. At a minimum, add the link to the following pages:
 - AEDC "Industrial Sites" Page: allentownedc.com/available-real-estate/industrial-sites
 - This page also needs to be populated with AEDC properties, including Bridgeworks space.
 - City's "Real Estate" page: www.allentownpa.gov/Business/AllentownBusinessGuideHome/AllentownBusinessGuideRealEstateGuide/tabid/343/Default.aspx
 - Consider adding the link to home pages and/or more high traffic pages of the City's and AEDC's website.

Once a month, explore this tool and verify that the market data for Allentown is correct and all available properties are listed. Additionally, LVEDC lists "Regional Economic Development Partners" on their website; however, this information is buried on a stand-alone page. This information is of interest to site selectors and would be better located under the real estate property search tool under a heading directing users to "Contact our Regional Economic Development Partners to Learn More".

The LVEDC property search is a great tool; however, when searching for industrial real estate in Allentown, this tool does not appear on the first or second page of search engine results. Enhance the search engine optimization (SEO) of this tool, particularly for searches with the keywords "Allentown interactive real estate map" and "Allentown industrial properties for sale". Use Google's Keyword Planner to identify other keywords that may be used by site selectors or businesses interested in making a move to the region. Adding links from other websites to the tool, as suggested above, will increase its position in search results. A Google Adwords campaign would also help boost visibility of the LVEDC interactive mapping tool in searches.

- **Familiarization Tour** - Host an event to introduce the real estate, development, and greater economic development community to available properties. Invite realtors, state and regional economic development professionals, builders/developers, architects, and engineers. Ask invitees to bring a developer contact along. The day might include a morning tour of properties followed by lunch and a recreational activity that provides an opportunity for networking. Market this event through the Industrial Real Estate Newsletter discussed above.

Many communities host familiarization tours with great success. An example of the newsletter used by the economic development department for the Town of Suffield, CT, to announce their familiarization tours is provided in Appendix K.

In addition to, or in combination with, a familiarization tour, give site selectors and/or business relocation prospects an opportunity to shadow or meet with a local CEO for a day.

- **Engage Property Owners** – The real estate “education” should also include education of property owners so they have realistic expectations about market potentials and land values. Industrial properties in Allentown needs to be available at competitive prices and rents. Developers and business owners want to deal with motivated sellers; unrealistic expectations by “hold-out” property owners will only delay reindustrialization efforts.

5. Ensure that ALL Data provided on the City’s and AEDC’s Websites are Up-to-Date and Accurate

The speed at which site selection happens is accelerating. Communities are typically not aware that they are even being considered until they are put on a short list of potential candidates. A poorly designed, difficult to use website is a clear signal that a community is not staying current with business technology. To make the short list, it is imperative that Allentown have a strong economic development website that provides site selectors with the information they are seeking.

Recommendation: Review the websites once a month and update with current data, pictures, activities, active links, correct formatting, etc. When deciding what type of information to include on the websites, aim to provide information about Allentown that site selectors are not able to locate on their own, for example, data tables from this report on industry trends and workforce. Continue to use pictures that show people doing things—pictures of empty streetscapes give a negative impression of emptiness and lack of activity. Add icons with links to social media sites (existing and created as a part of this effort). Include links to the full Re-Industrialization Strategy. **Annually provide updates on the progress of implementing the strategy in a scorecard-style format.**

Strengthening the Workforce

The availability of industrial space and the proximity of the Little Lehigh Corridor to residential areas in and around Center City Allentown present an opportunity to provide employment opportunities to city residents without usage of limited public transportation routes and commutes to non-Allentown locations in the Lehigh Valley. The difficulty facing the City of Allentown is ensuring that employers—and specifically, manufacturers—interested in locating facilities in the Little Lehigh Corridor, have access to a qualified and reliable workforce.

While Allentown’s population growth and labor force growth has outpaced Pennsylvania since 2003, unemployment in the city is still above 10% with lower labor participation rates than the state and nation. The Lehigh Valley offers workforce development, training, and education resources through entities such as Pennsylvania CareerLink Lehigh Valley, the Lehigh Valley Workforce Investment Board, the Lehigh Career and Technical Institute (LCTI), Welder Training and Testing Institute (WTTI), Lehigh Carbon Community College (LCCC), and the Skills USA Council. However, resources available within

Center City are limited and there are constraints for city residents and employers to have ongoing access to them.

Recent developments in Allentown are addressing this concern. The Allentown Employment and Training Center sponsored by CareerLink Lehigh Valley opened late August 2013 in the Donley Center located in the Neighborhood Improvement Zone (NIZ). This provides resources for jobseekers and employers in Center City with particular emphasis on downtown employers and emerging employment opportunities related to the new arena, Seventh Street hotel, Lehigh Valley Health Network sports medicine clinic, National Penn Bancshares, and proposed NIZ waterfront development. The Employment and Training Center is a positive development and complements activities in the Donley Center of Lehigh Carbon Community College which offers a limited number of courses on-site. This is in proximity to the Little Lehigh Corridor and provides employers interested in locating there with a committed resource for identifying qualified candidates for employment.

There is potential for strengthening activities in Allentown related to improving the capability to prepare and availability of a workforce interested in employment opportunities in manufacturing. The recommended strategies build upon current activities and how they can be applied to focus on the re-industrialization of the Little Lehigh Corridor.

1. Allentown Involvement in Regional Workforce Programs

The City of Allentown and AEDC need to stay informed and engaged with regional workforce development resource and services in the Lehigh Valley.

Recommendation: Designate a City staff member and/or AEDC staff member who is focused on strengthening involvement with organizations such as the Lehigh Valley Workforce Investment Board, LCCC, LCTI, TLC, and Skills USA Council. The new Allentown Employment and Training Center is an excellent opportunity for the City to stay engaged with a local presence in Center City and make better connections with current and future employers in the NIZ and the Little Lehigh Corridor. This will improve understanding of resources and assistance available for workforce development and how the City and the AEDC can link them to Allentown employers as well as business attraction, expansion, and retention efforts. Indirectly this might be occurring but the direct involvement of staff will allow for Allentown to stay connected, improve dissemination of information about regional resources and services, and maximize the effectiveness and utilization of them in Allentown.

2. Understand Temporary Workforce and Ways to Increase Temp-to-Hire Programs

Allentown and Lehigh County face high rates of growth in temporary jobs, along with higher rates of temporary employment than its neighboring counties and much of the nation—circumstances that are likely to even affect permanent workers, as discussed. The shift to an increased use of temporary workers, however, has been happening since at least 2003 and does not appear to be a product of the recession alone. Given this, the City of Allentown can pursue a number of next steps to work toward shifting the temporary employment trend.

Recommendations:

Meet with employers to understand underlying reasons for the ten-year shift.

Meet with employers to discuss why, during the economic boom of the mid-2000s when fear of economic instability was not at play, an increasing number of temporary workers were being hired over permanent workers in the same occupations. According to temporary services agency Snelling, the two factors most likely contributing to these trends are time and cost, including the cost of job boards,

background checks, drug screenings and employee on-boarding.⁴ A better understanding of the issues—beyond the often-cited fear of economic instability, about which the City can do little—may help start an important conversation and help employers think about their hiring choices.

Increase employer awareness of cost-reducing services available from the public workforce system and of hidden costs of temporary workers.

Explore what can be done to reduce the cost of some of the factors cited above and thus encourage more permanent hiring. Through partnerships with the regional workforce board, existing funding may be available to offset costs of recruitment, on-the-job training and pre-employment screening, especially for the most vulnerable workers. Many employers are likely unaware of these available services and may consider their use at the City's urging.

At the same time, employers may not be fully considering the negative costs associated with hiring temporary workers and may not be aware of the evidence that the use of temporary workers affects outcomes for permanent workers as well (see Pedulla, 2011). Employers who are unhappy with high rates of turnover and absenteeism may be open to a discussion about how an increase in permanent hiring may have positive impacts on their bottom line.

Use information as a basis to seek funding.

The information in this report can also be used as a basis for funding new workforce projects, since it demonstrates that temporary services employment is concentrated in Lehigh County and has repercussions beyond individual worker circumstances. With improved, ongoing collaboration with workforce and economic development partners, the City can provide partners with these data to insert into grant applications and other funding requests, perhaps tailoring a project to the City's specific needs.

For example, many of the top 15 manufacturing, transportation, and distribution jobs do not require postsecondary education for employment, although some, such as truck driving, require a license or other certification. Workers in temporary jobs are unlikely to understand the value of gaining additional certifications or other education, especially if employers themselves either do not value these credentials or do not provide information on how workers can advance within their company with additional training. **In other words, a lack of personnel investment on the part of the employer will inevitably lead to a lack of personal investment on the part of the worker.**

With the knowledge in this report, regional partners could design a new workforce pilot program that works closely with a handful of employers to create internal career pathways and train temporary workers to a level where they can enter permanent employment. The ability to demonstrate success and value with a model like this (or a similar structure) could encourage other employer to make greater investments in temporary workers, or to increase their rate of direct hire.

Create incentives for permanent hiring.

Finally, as the City pursues reindustrialization and attracts new employers, consider tying incentives to the hiring of permanent workers. Without this leverage, employers may not be interested in changing their temporary worker hiring model, and thus new employers may not mean new, permanent jobs for Allentown residents. An effort such as this may be politically charged, since temporary services agencies may see it as an affront to their business. If the goal, however, is to reduce employers' reliance on a

⁴ Snelling (2012). Cost of Temporary Staffing vs. Cost of Full-time Employee. Available to download at <www.snelling.com/WorkArea/DownloadAsset.aspx?id=2147492979>.

temporary workforce and to reduce Allentown's status as a "temp town," the City may need to operate in a way that influences employers' choices with positive and negative incentives.

3. Market Careers in Manufacturing with Urban Made Allentown

Case Study

The Talent Initiative is a 10-county regional program in Northeast Indiana focused on accelerating education and training initiatives in science, technology, engineering, and mathematics (STEM). The primary goals of the Talent Initiative are to increase the base of highly skilled workers to meet the needs of the defense/aerospace and advanced manufacturing industries, while increasing job quality and reversing the current decline in regional per capita income.

It has developed a regional brand "Talent Made Here" and a platform for regional activities (www.talentmadehere.com). This includes a roadmap to success which outlines information from elementary students to adult learners (see <http://talentmadehere.com/roadmap>).

Allentown has a historical connection to the industry, which has evolved into advanced processes that utilize computerized equipment, sophisticated design programs, and pay above average wages. The Manufacturers Resource Center (MRC), a regional non-profit organization that focuses on providing training and consulting services to small and mid-sized manufacturers has received a grant from the Pennsylvania Department of Community and Economic Development for a program called Skill Up. The focus of the program is to expose middle school and high school students in regional schools to career opportunities in manufacturing. The MRC is partnering with the Lehigh Valley Workforce Investment Board, Lehigh Career and Technical Institute (LCTI), and the Da Vinci Science Center to develop a regional campaign for "Dream It. Do It.," a national marketing program of the Manufacturing Institute. A new website, www.dreamitdoitpa.com, will be launched in fall 2013 and the initiative is working with school

districts to inform about the resource and identify local manufacturers to serve as individual school partners. Allentown School District (ASD) has participated in these discussions and ways to incorporate into initiative activities.

Skills USA Council, a national non-profit organization focused on career and technical education (<http://www.skillsusacouncil.org/>), serves over 6,000 students region in District 11 (includes Lehigh, Monroe, Northampton, and Upper Bucks counties). This includes events that expose students to career opportunities with regional employers through events and competitions that emphasize leadership, employability, and technical skills needed for success in the workplace. Skills USA partners with LCTI, has a number of regional corporate sponsors and volunteers that support programming. As a recognized regional entity, it provides an avenue to market careers in manufacturing to students.

More participation is needed from Allentown businesses in initiatives like these with an emphasis on how Allentown stands out in the Lehigh Valley. There is an existing brand, Urban Made, with a website linked to the AEDC website (<http://urban-made.org/>). The current content is generic and does not have a customized focus on Allentown businesses. There are no individual company profiles, information about available education and training programs, or Allentown-specific job postings.

Recommendation: Take this platform and market the brand "Urban Made Allentown." It offers potential to inform about Allentown businesses, career and training opportunities for Allentown residents, information on entrepreneurial resources, and available industrial properties and land for redevelopment. It can promote the new Allentown Employment and Training Center providing a place to incorporate Allentown-specific job openings as well as regional background information on career pathways and training opportunities from the Pennsylvania CareerLink Lehigh Valley. It can also provide

a mechanism to connect and promote collaborative activities with Allentown School District. This can build upon the Skill Up program and Skills USA Council, with more dialog between manufacturers and ASD to promote local career opportunities in the manufacturing industry (www.mrcpa.com).

4. Local Access to Manufacturing-Related Training

The Lehigh Valley has higher education institutions and career technical education centers with programs that prepare individuals for skilled occupations in manufacturing. However, the availability of manufacturing-related education and training programs offered in Allentown is lacking, which creates challenges for city residents interested in program participation. LCTI, a nationally recognized technical education with targeted certifications for in-demand careers in manufacturing is located in Schnecksville, a 25-30 minute commute from Center City. ASD sends a significant number of high school students to LCTI (1,000+ students each school year). Adults interested in participating in programs at LCTI have public transportation options from Allentown but bus routes run at limited times particularly in the evening. LCCC's main campus is located in Schnecksville as well. There are classes offered at the Donley Center in Center City but students interested in completing certification programs for manufacturing must complete their programs at the main campus, and they face similar transportation difficulties.

Recommendation: Create a joint educational plan between LCTI, LCCC, and TLC with the City's, AEDC's, and others' participation to address the manufacturing skills shortage in Allentown. Together this partnership would identify projects and resources to facilitate the Re-Industrialization Plan.

More Allentown residents would be able to participate in manufacturing-related training programs if they were offered near Center City. The Little Lehigh Corridor has available land and existing facility space, specifically the Bridgeworks Enterprise Center, where training programs such as Precision Machine/CNC Technology, Mechatronics, and Welding could be offered by LCTI and LCCC to provide local education and training options for Allentown students. This would allow better connectivity by Allentown-based manufacturers with LCTI and LCCC to customize training programs based on occupational needs including ability to donate equipment so individuals (i.e. potential job candidates) are training on the machines that they would utilize in the workplace. Students from ASD would not need to travel as far for classes and adults interested in completing certification programs would be able to complete them in Allentown. Additionally, this provides an asset for attracting new manufacturers to the area, noting that education and workforce training programs are available on-site with potential job candidates enrolled and resources available to customize curriculum to meet their needs. The potential for the MRC to have regularly scheduled presence in Allentown is also an option to increase connectivity for consulting and training programs with small and mid-sized manufacturers.

An initial step would be to explore the feasibility for LCTI to offer an Introductory Manufacturing Course at the Bridgeworks Enterprise Center. It would be accessible to adult residents of Center City that want to learn more about career opportunities and serve as a platform to build upon for additional manufacturing-related coursework offered locally in Allentown. Part of the curriculum should include a "Bridge program" that allows students to have site visits to manufacturing facilities and guest speakers to discuss current career opportunities. This should also include ways to link the program with adult students that recently graduated from English as a Second Language (ESL) programs—such as those offered at LCCC's Donley Center and The Literacy Center—to better connect with Allentown's immigrant population.

Case Study

The Made in Memphis initiative is a partnership between the Workforce Investment Network and the Greater Memphis Chamber of Commerce designed to create a pipeline of skilled workers to meet the needs of local manufacturing companies as they continue to achieve and grow.

The Made in Memphis team surveyed scores of the area's manufacturing employers to determine exactly what their employment needs are, and particularly what specific skills they seek in their employees. This data has been communicated to local educational institutions to customize and build training to equip the Memphis-area workforce with skills that directly address manufacturing employers' hiring needs.

An example of the success of this approach is the Industrial Readiness Training (IRT) course. The course was developed in 2012 by Southwest Tennessee Community College in partnership with WIN and area manufacturing employers.

The IRT is a four week program at Southwest Tennessee Community College designed to prepare individuals for jobs in local manufacturing and industry. The training teaches and measures foundational technical, academic, and interpersonal knowledge and skills that have been identified by local industry leaders as critical to long-term employee success.

Applicants are assessed using both ACT's WorkKeys and mechanical skills aptitude testing. Students who successfully complete the IRT program have demonstrated significant improvement in both test scores. And, most important, IRT graduates have often enjoyed more favorable hiring prospects in available industrial and manufacturing jobs.

From January through August, 2012, 251 job seekers have completed the IRT course. Of these, 152 have received job offers from Memphis area manufacturing employers. Ninety-three percent of those receiving job offers were citizens of Memphis and Shelby County. From May through August, WIN has funded the tuition for 140 students.

Source: <http://workforceinvestmentnetwork.com/made-in-memphis>

5. Employer-Led Network of Small and Medium-Sized Manufacturers

Small and medium-sized manufacturing firms do not necessarily have a high number of openings individually but they have workforce needs collectively nonetheless. This was a gap noted in meetings with Allentown-based employers where there is not a specific forum for sharing information and networking. There are groups such as the Greater Lehigh Valley Chamber of Commerce's Manufacturing Council, LVWIB's diversified manufacturing industry partnership and advisory groups for LCCC, LCTI, and WTTI, but they are not wholly employer-run, serving more in an advisory role for service-delivery design and curriculum development and tend to skew in membership away from Allentown and encompass manufacturers in other parts of the Lehigh Valley. While there is value in these discussions, it is also valuable to have a networking group of employers not tied to one organization and their resources. There were efforts to launch the Greater Lehigh Valley Manufacturing Executives Networking Association (GLV-MENA) in 2010 focused on small and medium-sized manufacturers but the all-volunteer group is no longer active.

Recommendation: Re-launch a similar group but frame in the context of the re-industrialization strategy and focus on having membership from Allentown manufacturers. The AEDC would be positioned to help with the launch and play the role of initial convener of this group to have employer

members confirm a structure and best process for engaging additional partners in education and workforce development. Keeping the program employer-led and employer-driven provides more flexibility to identify the subject matter experts that best fit needs. Setting a nominal membership fee for participation in the group will legitimize efforts and help support part-time or full-time staff focused on managing group activities.

Case Study

The Mahoning Valley Manufacturers' Coalition (MVMC) was formalized in September of 2011 by a group of small and medium-sized, locally-owned manufacturers in Greater Youngstown, Ohio facing a common problem—finding qualified, new employees to enter into the various skilled trade occupations required to operate their businesses.

This moves beyond the “lone-wolf” tendency of natural competitors in recognition they could be more powerful with a single voice. Instead of “stealing” employees from each other, they realized the need to expand the talent pool of youth and unemployed and under-employed workers who can enter into manufacturing. MVMC members are very energetic and passionate about manufacturing and provide significant momentum for promoting the industry with support from key partners in education and the workforce system.

At the same time, regional education and training providers are working to identify ways to improve career pathways in the community and need more specific and detailed feedback from industry in order to make meaningful improvements. Together, the MVMC has all the right ingredients for success to reenergize the region's manufacturing industry.

The MVMC is seeking to foster a new, collaborative way of thinking where manufacturers convene, educate and mobilize the region's key stakeholders to initiate actions that will stabilize our economy and provide opportunities for individuals and families in the Mahoning Valley to earn livable wages and advance up a career pathway in manufacturing. Further, the Coalition is focused on creating a demand-driven mechanism for ongoing dialogue among industry, education, and the public workforce system to ensure manufacturing remains an important part of the regional economy.

The Coalition provides a common voice for local manufacturers to communicate skills needs to the education and workforce development communities. Working together as a cohesive group, the Coalition will provide a greater and more effective means to help address the workforce problem and open up opportunities that, individually, organizations and institutions cannot afford to pursue.

The MVMC strives to educate the community about employment opportunities in manufacturing and create career pathways that are more responsive to employer needs and more conducive to the needs of students.

Source: <http://www.mvmanufacturing.com/>

6. Experiential Learning Opportunities to Expose Students to Manufacturing

An emphasis on exposing high school and college students to manufacturing through experiential learning opportunities such as internships, apprenticeships, and job shadowing can increase understanding of the industry and interest in job opportunities available.

Recommendation: Create an Allentown-specific experiential learning program focused on manufacturing to educate local students about job opportunities in their hometown with hands-on experiences while also sending the message that the local businesses care about them and want them to be a part of the community in the future. This will require collaboration between the AEDC, Allentown School District, LCTI, Skills USA Council and most importantly, local manufacturers. Organization of an employer-driven group of manufacturers will assist in developing priorities for the initiative (e.g. Is the focus on job shadowing, factory tours? Will there be capability, interest for internship programs? How to factor in time constraints, safety concerns? Only college students or only high school students?). Manufacturers can then work with ASD, LCCC, Skills USA Council, and LCTI staff (e.g. school counselors, district administration) to align with students in their current education and certification/training programs.

As depicted in the case study of Belknap Economic Development Council's Workforce Development 200 x 2020 program, a web-based internship and job shadow database can be a great tool for helping to organize this type of program. Additional information can be found on their website:

www.lakesregioninternships.com and www.belknapedc.org/Workforce-Development-200x2020.html. www.belknapedc.org/Workforce-Development-200x2020.html

Case Study

One of Belknap Economic Development Council's (BEDC) primary objectives is to educate their young people about their career opportunities. Belknap County is located on the southern shore of Lake Winnepesaukee where most of the region's manufacturing businesses are nicely tucked away out of sight. The only businesses local kids really see and interact with on a day-to-day basis are those in the service and hospitality and healthcare sectors. Additionally, local manufacturers and other related businesses in the region are seeing the average age of their workforce rise. To address these issues, BEDC partnered with Lakes Region United Way, Lakes Region Chamber of Commerce, the Huot Technical Center, Lakes Region Community College, Meredith Career Partnerships Program, Lakes Region Community Services Council, NHWorks, and many school-to-career coordinators and guidance counselors from our local schools (the "Workforce Partnership").

First, the Workforce Partnership surveyed local guidance counselors to get an idea of the school-to-career programs they have. The biggest thing they wanted was career panels for students to ask questions (similar to the "Dream it. Do it." initiative). The second thing guidance counselors asked for was more internship opportunities for their kids. The Workforce Partnership set a goal to get 200 of their local businesses signed on to provide local students internship opportunities by 2020. The economic development organizations began advertising the program to local businesses and guidance counselors marketed the program to local students and worked to prepare the students ("soft" skills such as arriving on time, how to dress, etc.).

As the program evolved, it became very time-consuming for the Workforce Partnership members to make the connections between the students and the businesses as many phone calls and emails were needed between organizations and businesses to align students with the right company. To make the process more efficient, the Workforce Partnership worked with the businesses to write up internship

profiles. At the same time, the group raised money and in-kind contributions for the development of the Lakes Region Internship & Job Shadow Database, a web-based database launched in the summer of 2013. It allows businesses to upload profiles of internship opportunities and allows students, with assistance from their school guidance counselor, to apply for these opportunities (www.lakesregioninternships.com).

The 200 x 2020 program is marketed on the radio and through an e-newsletter. About 30 businesses are currently participating in the program and another 30 have expressed interest in the program since the launch of the database.

Awakening the Built Environment

1. Facilitate the Redevelopment Process on a Site-by-Site Basis and Invest in Key Properties to Enhance their Appeal to the Private Sector

While the citywide Re-Industrialization Strategy provides direction and guidance to Allentown's reindustrialization, the redevelopment process, partners, and funding sources will be different for each property. The following redevelopment scenarios represent three common examples of the redevelopment process:

- **Public-Led Redevelopment** – The municipality takes ownership of the property and conducts pre-development activities such as environmental assessment and cleanup, site-specific market analysis, and financial feasibility, which are used to create a site redevelopment plan that identifies redevelopment partners and funding sources. The municipality may implement parts of the redevelopment plan such as securing funding, permitting and approvals, infrastructure improvements, and even developing or re-developing speculative buildings. At some point along the process, the municipality will “flip” the property to a developer.
- **Public-Private Partnership Redevelopment** – An agreement is made between at least one public sector entity and one private sector entity to combine resources and efforts to accomplish redevelopment goals. This partnership is unique for each project. Typically, the public entity sponsors the project and provides initial funding for preliminary assessments or infrastructure and a private-sector developer then funds and manages remaining pre-development tasks and construction process. Initial public investments provide the necessary incentives to reduce the financial burden on the private sector, making the projects more attractive to developers.
- **Private-Led Redevelopment** – A developer takes responsibility for the entire redevelopment process. Some public investment in terms of tax abatements or defining the extent of any environmental contamination on the site is sometimes necessary. The developer completes all pre-development analyses and environmental cleanup activities and redevelops the property.

For the most part, the private sector is not actively taking on redevelopment of the city's industrial properties (private-led redevelopment scenario above). Therefore, the City's and AEDC's role—along with other redevelopment partners—is to facilitate the redevelopment process by performing pre-development tasks to lessen the financial burden and shorten the time-to-completion for the private sector. In other words, bring properties closer to “move-in” condition.

Allentown can take some initial steps toward redeveloping available properties. All the steps listed below will greatly improve the value of the building to a developer or prospective manufacturing company by reducing the time that they will need to outfit the building and begin operations. There is some peril in doing too much renovation, however, since each business will have different needs. Steps

to divide or modify spaces should be undertaken with caution. Building renovations can be a significant financial investment, but the investment in a property may be recouped in time, through tax revenues, increased employment and earnings, and economic vitality that comes from having a thriving business with well paid workers in place.

Recommendation: The City cannot take on re-industrialization of every property at once. The first step is to identify the limiting factors to redevelopment for key industrial properties and identify those properties for which the City and AEDC can take steps to overcome those limiting factors. Examples of limiting factors might include:

- Property too large for a single developer/company to redevelop;
- Extent of environmental contamination unknown;
- Property owner “sitting” on the property, unrealistic expectations;
- Utility upgrades needed;
- In flood zone, steep slopes, or other site constraints;
- Dilapidated buildings;
- Other “unknowns” about the property.

The limiting factor of a property will govern who the redevelopment partners are and possible funding sources. To track and manage Allentown’s re-industrialization, the City should identify 10-15 key sites well positioned for redevelopment and monitor each redevelopment project on a site-specific basis. A simple Excel spreadsheet can provide a useful tool for tracking redevelopment status (an example template is provided in Appendix K). This spreadsheet also contains a list of potential redevelopment stakeholders, their role in redevelopment, and interests in redevelopment, which can be used to identify partners based on the type of redevelopment project. The table provided is a draft and should be updated as additional partners and funding sources are identified.

Using the redevelopment tracking spreadsheet, note which properties have limiting factors that are relatively easily addressed and those that will require a significant investment of time and/or financial resources. Use this information to prioritize properties on which to focus re-industrialization efforts with studies, outreach, marketing efforts, etc.

For properties where the City and AEDC decide to take a lead role in redevelopment, create a redevelopment plan based on market analysis, financial feasibility, and an assessment of site conditions—all of which should be intended to remove the “unknowns” about the subject property and demonstrate the feasibility of redevelopment. A redevelopment plan should also identify stakeholders and funding sources, and provide a step-by-step framework for implementable actions that will spur private development.

When the City obtains access to an industrial property, it should start the initial steps toward redevelopment as it is currently doing with the Allentown Metal Works Building. Based on available funding, steps can include:

- Conduct Environmental Site Assessments and the prescribed remediation;
- Evaluate and restore infrastructure such as water, wastewater and electric service;
- Secure buildings and take steps to prevent degradation due to exposure to the elements;
- Demolish buildings that are clearly of marginal value;
- Weatherize buildings through replacement of glazing and insulation;

- A further step that can help “seal the deal” is to have a set of concept plans and renderings showing an example of an ideal build-out of the building and site. This helps a developer and investors envision the possibilities that may not be apparent when looking at a vacant building.

Many of these steps will be implemented in Phase II and III of this study. More specific recommendations are outlined below.

2. Prioritize Re-Industrialization Efforts in the Little Lehigh Industrial Corridor

Allentown has numerous industrial zones at various locations throughout the City. However, the City of Allentown should actively promote the re-industrialization of the Little Lehigh Industrial Corridor for several reasons:

- The Little Lehigh Industrial Corridor has some very large vacant industrial buildings that are available.
- The Little Lehigh Industrial Corridor is proximate to affordable residential areas providing easy access for workers that reside in the City.
- Many of the properties have potential access to freight rail service.
- Incentives are available for industries that are located in the Little Lehigh Industrial Corridor since many properties are within the Enterprise Zone, the Keystone Opportunity Zone, the Neighborhood Improvement Zone, or a combination thereof.

Recommendation: The Little Lehigh Industrial Corridor has numerous vacant and underutilized properties that may be attractive to a business. However, there are a few that should be more actively promoted, including:

- **The Allentown Metal Works Property** – This recently vacated property is comprised of seven buildings with over 260,000 square feet on approximately 17.5 acres of land. It was acquired by the Allentown Economic Development Corporation in the spring of 2013. The property is in Allentown’s Enterprise Zone and was placed in the Keystone Opportunity Zone, with the approval of the Allentown School Board and the Lehigh County Commissioners. The local community is focused on this property becoming a source for jobs and, as such, it should be placed at the top of the list of strategic properties. The buildings will be available for occupation following an environmental cleanup, but improvements such as weatherization; heating, ventilation and cooling (HVAC); lighting; and site improvements would make the building more marketable.
- **The Bridgeworks Enterprise Center (BEC)** – This property is a 76,000-square-foot former Mack Trucks plant on 2.5 acres of land. It is currently home to the Bridgeworks Small Business Incubator. The BEC has successfully attracted several businesses; however, there is still space available and the site should continue to be promoted to businesses.
- **The Hill’s Import Property** – This is a privately owned property comprised of four buildings totaling 270,000 square feet on 12 acres of land. The property is in the Keystone Opportunity Zone and the Allentown Enterprise Zone. The City should continue to work with the property owner to promote the site to businesses.
- **Former Incinerator Site** – This 21-acre site is currently undeveloped and available for development, although 6.9 acres are in a flood zone. This site has the potential to be a unique opportunity in Allentown as the site is completely vacant of structures and available for new construction. The site is in both the Keystone Opportunity Zone and Allentown’s Enterprise Zone.

3. Improve the Opportunity to “Live, Work, and Play”

Re-establishing industries in the Little Lehigh Industrial Corridor will have numerous benefits for business owners in the area, as well as the city at large, since it would be in keeping with the principles of Smart Growth. Employees can live in close proximity to their workplace, shopping, parks and major recreational venues creating a “live, work, and play” environment. Some cities have embraced mixed-use developments where buildings may contain manufacturing, retail, offices and residential. For example, Atlantic Station in Atlanta, Georgia is a former steel plant that is now a mixed-use development. Mixed-use developments that include industrial uses can be more problematic, however, since it is the nature of industries to produce noise and emissions that may not be compatible with other uses. In the Little Lehigh industrial Corridor, uses such as commercial, industrial and residential are in close proximity to one another, but are not typically found on the same property.

Recommendation: To further improve and capitalize on the concept of live, work, and play in the Little Lehigh Corridor, the City should take the following measures:

- Create a plan and seek funding to improve recreational opportunities in Fountain Park along Martin Luther King Jr. Drive. Additional recreational trails, children’s play areas, an amphitheater, bocce and volleyball courts, and river access will increase the appeal and use of the park.
- Plan for and seek funding to provide connectivity improvements for pedestrians and cyclists to encourage workers to bike or walk to work. Improvements may include multi-use paths, improved sidewalks and bike lanes on roads. The benefits of these include reducing vehicle traffic volumes and associated congestion, as well as improving the health and vitality of the local residents and workers.
- Use the “live, work, and play” concept in promotions. By making businesses aware that this is a goal of the City of Allentown, they are more likely to embrace the concept and support efforts to improve outdoor recreation and connectivity.

4. Improve the Condition of the Public Realm in the Little Lehigh Industrial Corridor

The idea of improving curb appeal has been long embraced by the real estate industry as a way to bolster sales. The same idea can be applied to attracting businesses to an area. The area should look well-maintained and feel safe to attract and maintain businesses in the area.

Recommendation: The City should undertake the following steps to improve the appearance and function of features in the public realm:

- Conduct a study of “streetscape” conditions and features in the public rights-of-way in the Little Lehigh Industrial Corridor. This would include road, curbs, sidewalks, lighting, street trees, and signage.
- Based on the results of a study of existing conditions, identify projects and seek funding for improvements.

5. Improve the Appearance of Select Industrial Properties

There are a few industrial properties in the City that degrade the atmosphere of prosperity by presenting their unsightly side. While it is often necessary for industrial businesses to have outdoor storage yards, these should be located out of public view so as not to detract from neighboring properties. The City of Allentown’s zoning requires that outdoor storage be screened; however, until a property requires a building permit, zoning provisions will not apply.

Recommendation: There are a few tools that can be employed to improve the appearance of the industrial areas, including:

- Actively enforce provisions in the Property Rehabilitation and Maintenance Code that pertain to property maintenance.
- Properties with unsightly outdoor storage yards can be screened from view by working with the property owner or by placing screening at the rights-of-way where possible. Screening can be either vegetative screening using dense evergreen plantings or, if zoning allows, opaque fencing constructed from wood or masonry.

Capturing the Energy of Entrepreneurial, Innovation-Based Companies

Recommendations for the Bridgeworks Enterprise Center are dependent upon a number of choices that Allentown Economic Development Corporation and the City of Allentown need to make. The first choice is: Should incubation be a tactic in your manufacturing strategy? We recommend that the answer is yes. Supporting new and emerging companies is important in any economic development strategy, because the most innovative ideas are coming from small companies, not large ones. So, to capture that energy and growth driver, you need to capture the entrepreneurial, innovation-based companies. And, in the context of the Lehigh Valley, you do not want to leave this entirely to Ben Franklin and Bethlehem. Finally, we recommend that the City and AEDC focus on a single incubator facility, given limited resources.

The second choice is: Should the incubator continue in its present facility or in a different facility, or should it be an “incubator without walls?” The current facility is clearly in need of substantial investment, over and above the EDA-funded roof repair project now underway. However, as noted elsewhere in this report, the other buildings in the area also need work. So, to start over again in another facility does not make economic sense. Furthermore, there is a lot of value in having a “place” that is the center of entrepreneurial energy in Allentown, and to the extent that the strategy is to be manufacturing focused, having that center be in a manufacturing facility with the history of the present one, has a great deal of appeal. We recommend that the BEC stay in Mack 4A. However, that choice means that changes and improvements to both the business model and facility need to be made.

1. Change the Business Model

The incubator business plan and strategy should be completely revised to restart the program. The mission should be explicitly written to focus on accelerating the growth of young, innovation-based manufacturing firms in the Lehigh Valley. This focus has several implications.

Recommendation:

- **Target Clients:** Change the entrance policy to only accept firms with a meaningfully unique manufacturing opportunity and real growth prospects. If the firm does not have the opportunity to grow to a substantial size in five years, then they should not be admitted. Define and document an exit policy. One element of the program could be a steadily increasing rental rate, so that at the end of three years, the company is paying market rates. (This implies changing the current tenant mix, and backing off on the HOA, makerspace and co-working space unless these strategies can support the innovation-based manufacturing firms.)

Furthermore, there is disconnect between the size of the spaces (and monthly lease costs) and the notion of start-up companies. It must be recognized that a company has likely already been in business for a while and generating revenues in order to consider taking on the obligations of

a lease at Bridgeworks. So, either the BEC is positioned as a place for post-startup companies to transition to production, or a new strategy is needed to address the startup companies. One solution would be to have some of the space used as office space only so that companies can start there, with the intention of expanding to production space when it is required. Some companies may choose to keep their offices in nicer office space and walk down the hall to production space. A reconfiguration of the building should reflect this reality. Ultimately, there should be an opportunity for companies to lease only the space that they need. This flexibility will be highly valued by cash-strapped entrepreneurs.

- **Increase Staffing:** The incubator manager needs to be assigned to the incubator full-time, and potentially with additional assistance to create robust programming. The incubator manager should spend approximately 40% of his/her time on client assistance, including recruiting counselors and mentors and ensuring the delivery of appropriate assistance and the remaining 60% on managing and marketing the incubator.
- **Advanced Training Sessions** (e.g., lunch-and-learns, evening programming) should be developed that are focused on the needs of young, innovation-based firms. For instance, training should be offered in all aspects of access to capital, including grant writing, especially for Small Business Innovation Research grants (SBIRs) and Ben Franklin funding, and attracting angel and venture equity investments; intellectual property protection and strategies; advanced production strategies such as quality, various ISO certifications, manufacturing for sustainability; personnel issues such as recruiting and retaining talent; and marketing and sales, especially using the Internet and social media. The BEC does not need to duplicate training offered elsewhere in the region. Rather, this is an opportunity for partnering and collaboration. The BEC should identify its unique voice and supplement existing programming with new material not available elsewhere.
- **Client Assistance:** Each client should have a written plan for assistance agreed to by the manager and company each quarter. Goals for assistance should be worked out in advance and progress reviewed quarterly with the Advisory Committee.
- **Mentors:** The Center should develop a list of mentors available to assist the manager in delivering the assistance needed by the clients. Potential mentors are successful company executives in both large and small manufacturers, bankers, attorneys, accountants, and venture and angel investors.
- **Partnerships:** The Center should develop partnership agreements with other service providers in the region to provide assistance as appropriate. Each agreement will specify how the service provider will be compensated (it may be as simple as having Center clients also enroll as their clients). Examples are TechVentures, the Manufacturing Resource Center, and Small Business Development Center. Other options to be explored are relationships with the three major undergraduate business and entrepreneurship programs in the region. Students can work with the client companies on projects that advance their educational experience, while assisting the companies to reach their objectives.
- **The Advisory Committee should be expanded** and given responsibilities consistent with the management of the program, subject to financial oversight by AEDC. In return, the AEDC Board should refrain from being involved with client entrance and exit decisions.
- **Offer More Value-Added Services:** Add additional services that add value to the program and are not available elsewhere. In the past, these services included access to copy machines, fax

machines, and mailrooms, but the current availability of these types of services through the Internet greatly reduces their value.

However, anything that assists firms while reducing their need to add administrative personnel could be extremely helpful. Examples are accounting and human resource functions. For instance, have a bookkeeper on staff that can be hired by clients to manage their books and run checks. Have a group health policy that tenants and their employees can be part of. Provide cleaning and equipment maintenance services, as well as a staff that can do construction and small projects for the tenants. Have a web designer/developer/IT support person available for tenants to access. Have a café onsite or contract with a food truck to come by at lunchtime. Anything that a majority of the tenants might contract out is fair game. None of these services needs to be on the staff of AEDC. These services can be traded for office space and are a way for the BEC to link with small business owners in Allentown, particularly the Center City community.

Consider how to make better use of the makerspace and your relationship with Make Lehigh Valley. There is a need for the capability to make prototypes quickly and cost effectively, and to share expensive, but common equipment. How can this capability be best developed to serve the type of clients that the Center should have? Is this an in-house capability, something obtained through partnership, or outsourced directly?

Another valuable service would be to have financing for client companies. Would it be possible to repurpose the Enterprise Zone Revolving Loan Fund (EZRLF) program that is currently undersubscribed to support clients? This would be a draw to companies choosing between Bridgeworks and TechVentures, especially because manufacturing companies are more likely to need debt rather than equity capital for working capital, inventory and receivables financing.

- **Market Yourself and Your Clients:** Establish an ongoing public relations and marketing campaign for the Center, for Allentown, and for the clients. The objective should be for all public sector folks who are in office and/or work for the City in economic development related efforts and all in the entrepreneurial ecosystem to have visited the Center multiple times in a year. Be the host site for events, and sponsor new events that bring folks to the Center. Consider relationships and partnerships that move the Center closer to the broader community, such as the idea of hosting Lehigh Career and Technical Institute (LCTI) classes here. Continually upgrade the website and use social media consistently. The upcoming 25th anniversary is an event that should be leveraged, potentially as a “re-launch” of the Center.
- **Be Part of the Community:** Continue to work with the broader entrepreneurial ecosystem as a source of deals. Establish the Center as the “go-to” space for growth-oriented manufacturing firms. Do this by developing and promoting a high-quality program, being selective in who is accepted, creating perceived value by pricing the offerings appropriately, and promoting the success of the clients.

2. Upgrade the Facility

The facility needs to be upgraded in order to effectively attract clients. The goal should be to offer prospective clients a turn-key real estate solution, including utilities such as power, sophisticated telecommunications and Internet solutions, water and sewer. There are two types of work needed.

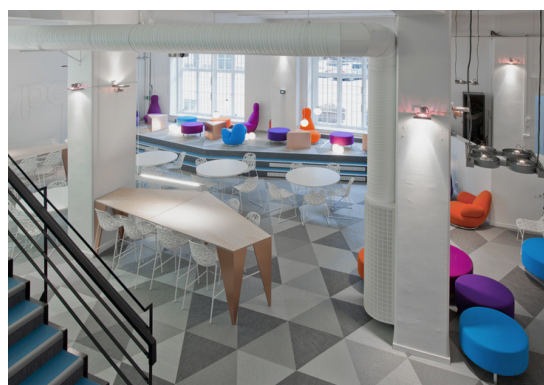
Major Renovations: The HVAC systems for the building are apparently inadequate. It is not clear to what extent the roof repairs being undertaken this fall will ameliorate the consistent complaints about the poor environmental conditions in the building. To claim that tenants knew what they were getting into when they signed the lease does nothing to overcome the fact that it is difficult to do good work when you are too cold or too hot. The AEDC part of the building has been nicely retrofitted, so staff is not subject to the same conditions as tenants, another factor that contributes to the feeling that AEDC is not concerned about its clients. Another consideration is that the facility is being compared to TechVentures, and other newer spaces outside City limits that have excellent environments. As learned from interviews with the entrepreneurial community, these spaces are perceived as superior, and Bridgeworks comes across as a cheap place to do manufacturing. When the goal is to attract the best companies—not just anyone you can find—it is important to have a competitive product. Really great clients need to see really great offerings. Modern manufacturing facilities are properly heated and cooled, and are clean and well-lit throughout.

Recommendation: Upgrade the HVAC system throughout the building.

Minor Renovations: Notwithstanding the HVAC, there are numerous cosmetic and architectural improvements that could be made to the facility that would make it more inviting to potential innovation-based tenants, and more importantly, contribute to the ability to support the client companies. There is a great deal of research about the use of space to support and encourage interactions, community-building, creativity, and innovation. Since all of these are essential to growing successful innovation-based manufacturing companies, it is essential that the new Bridgeworks Enterprise Center embrace these concepts as well.

Recommendation:

- Clean and refresh the interior. Install new hallway carpeting. Repaint all public walls. Clean dust and cobwebs from ceiling fixtures. Replace stained and broken ceiling tiles, or remove the drop ceilings entirely to retain the natural light which is a huge advantage of the space.
- Fix or replace equipment such as the forklift.
- Reimagine some of the “co-working” space as common, multipurpose space. Upgrade furniture to encourage informal meetings and facilitate training. Replace existing doors with full glass so that folks in the corridor can see if there is anyone in the space. Or, eliminate the center wall entirely or replace it with glass. Add whiteboards, lounge furniture, and meeting tables. See photos at right.



- Adjacent to co-working and conference space, outfit a proper kitchen with coffee service, working refrigerator, microwave, etc. Have a space where folks can sit and eat together. Consider bringing in lunch on a regular basis (Taco Tuesdays?) and/or make a deal with local food trucks to visit.
- Add additional office space to the Home Office Alternative space, perhaps extending into the co-working space. Paint walls, refresh carpet, install insulation and soundproofing, and configure in pods. This space could become a place for start-up companies to land before they are ready to begin manufacturing, but after they are in their homes. Consider the addition of a mezzanine to add rentable office space without increasing the footprint of the building.
- Quickly complete upgrade to conference facility. Make this space as presentable as possible so that companies can bring potential clients and investors there. Invest in mid-quality conference table and chairs as well as a projection system, podium, and teleconferencing system. Consider investing in a Polycom or similar video teleconferencing system in order to deliver high quality programming that originates elsewhere.
- Change all suite doors to full glass or add windows in the doors (consistent with building codes), to encourage networking.
- Increase lighting in back hallway.
- Add exhibit space for companies to show their products, set up their trade show displays, and otherwise advertise what they do to the many folks who come to the facility to visit.
- Upgrade exterior of building with fresh paint, awnings over entrances, new pavement, and weed and replant landscaping. Improve signage by installing directional signs at nearby intersections. Repaint the iconic water tower—a landmark and a symbol of both old and new uses of the building.
- Add more sophisticated security system so that it is easier to add and take off clients, distinguish among various levels of access, and track who has been in the building and when.

3. Rework the Finances

Recommendation:

- Rework the budget for the program to reflect the expenses implicit in the recommendations above, and include fees for service separate from rental fees. In other words, have a smaller fee related to the real estate on a per-square-foot basis, and then a series of alternative services with associated fees. This would put more value on the existing services that are currently provided pro bono and, by separating out the services as part of the revenue, will put additional focus on the services provided.

The budget should be balanced at 80% occupancy, as the desired outcome is to have clients graduate from the facility. The budget should only allow for roughly 25% of the building to be rented to anchor tenant(s). The shortfall from rental income and fees, including appropriate management staffing levels and maintenance of the building, should be supported by the City of Allentown and/or the state as part of its economic development budget.

- We also recommend that all the production facilities be separately metered for utilities. It is important for clients to accurately know the cost of their inputs to their production processes. In addition, it is not equitable for a single client with a high usage of any particular utility (e.g.,

water use by the brewery) to be underwritten by all other clients as happens where utilities are included in the rent. For office-only clients, it makes sense for utilities to be included. Whatever policy is decided upon, it must be uniformly applied by class of space.

- With appropriate new services that are valued by prospective clients, the existing rental rate makes sense, but should be divided into rent (e.g., \$5.00/sq. ft.) and a services fee (e.g., a la carte or a monthly fee roughly equal to \$3.50/sq. ft.).

It is possible that the rent for Bridgeworks could be higher if the building were improved, and that higher service fees could be collected from even higher value programming, all changing the business model of the Center. Some expenses will be higher, for instance staff expenses, but other costs should decrease, especially utilities and maintenance. The use of partnerships and outsourcing can create a large percentage of increased services without increased costs. We also believe that improved facilities and services will increase the occupancy of the building.

- Funding for the major renovation could come from federal and state programs designed to support energy efficiency improvements in existing buildings. These programs can be sources of low-interest-rate loans or grants. Two examples in Pennsylvania are Sustainable Energy Funds (www.thesef.org) with interest-only loans of up to \$1 million and The Reinvestment Fund Building Energy program (www.trfund.com) that offers 3.5% loans of up to \$2.5 million. The Pennsylvania High Performance Building Program and the Sunshine Program are also possibilities, since the building's roof is conducive to the installation of solar electric and/or solar hot water systems.

Another consideration is the use of New Market Tax Credits and potentially Historic Tax Credits, since the facility is a major piece of Allentown history. These programs give investors significant tax advantages to providing long-term financing for large projects.

Depending on the size of the more minor renovations, some financing should be available. In other places, Community Development Block Grant funds are used on these projects, and it can usually be demonstrated that low- and moderate-income persons are hired by the companies that are assisted.