

A background image showing a close-up of a digital display with green numbers and currency symbols like USD and EUR, suggesting a financial or economic context.

SEIZING THE MANUFACTURING MOMENT:

AN ECONOMIC GROWTH PLAN
FOR THE BLUEGRASS REGION
OF KENTUCKY

A background image showing a car body on an assembly line, with robotic arms and various mechanical parts, illustrating the manufacturing industry.

BLUEGRASS ECONOMIC ADVANCEMENT MOVEMENT
EXECUTIVE SUMMARY

METROPOLITAN BUSINESS PLAN

AN ECONOMIC GROWTH PLAN FOR THE BLUEGRASS REGION

**A METROPOLITAN BUSINESS PLAN
PREPARED IN COLLABORATION WITH
THE BROOKINGS INSTITUTION METROPOLITAN POLICY PROGRAM**

NOVEMBER 2013

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SEIZING THE MANUFACTURING MOMENT: AN ECONOMIC GROWTH PLAN FOR THE BLUEGRASS REGION OF KENTUCKY

A MESSAGE FROM BEAM LEADERS

It is with a great deal of urgency and focus that we present this action plan for economic growth emphasizing our advanced manufacturing sector.

This plan grew out of an idea when we were newly elected mayors of Lexington and Louisville. As entrepreneurs who just happen to be mayors, economic development was foremost in our minds, but we weren't sure traditional approaches would adequately respond to the growing challenges of global competition.

So we joined with The Brookings Institution Metropolitan Policy Program as part of a national pilot to develop a new approach, charting a course to spur economic growth by leveraging the region's shared assets and the quality of life in our two vibrant cities.

The plan that resulted offers the region a strategy designed to take our strengths in advanced manufacturing and build on them to compete against the largest manufacturing regions in the world.

Named the Bluegrass Economic Advancement Movement (BEAM), the two-year effort gathered steam as it benefitted from Brookings' research and expertise along with guidance from leaders in government, business, and education from across the region.

Based on data and insight from all of those partners, the plan focuses on three main areas: innovation, exports, and workforce development. Initiatives in the plan seek to grow our capacity for innovation particularly among smaller and medium-sized firms, to expand our manufacturers' participation in the global economy, and to create a 21st Century workforce.

We know that manufacturing offers opportunities for solid careers, with each new job spinning off others in the region. We know that manufacturing in America is experiencing a resurgence, with macroeconomic trends at our backs. And we know we have a strong manufacturing base upon which to build. In short, we have all the tools we need for success. The BEAM plan seeks to harness those assets to seize this manufacturing moment for our region and for our entire state.

We urge you to read through this plan and discover areas in which you can contribute to the movement. And we ask you to join with us and our partners in the commitment to distinguish the BEAM region as a global center for advanced manufacturing.

Greg Fischer
Mayor, Louisville

Jim Gray
Mayor, Lexington



INTRODUCTION

Kentucky's two largest cities—Louisville and Lexington—are separated by 75 miles of small towns and the state capital, by distinct community identities, and one intense college basketball rivalry.

But they share complementary strengths, clear business and social connections, and together form a distinctive region of “makers”—manufacturing that creates quality jobs and drives innovation from Ford and Toyota motor vehicles, to state-of-the-art GE appliances, from the sprawling plants of those major multi-nationals to more than 1,600 firms producing a wide variety of goods, including 97 percent of the world's bourbon.

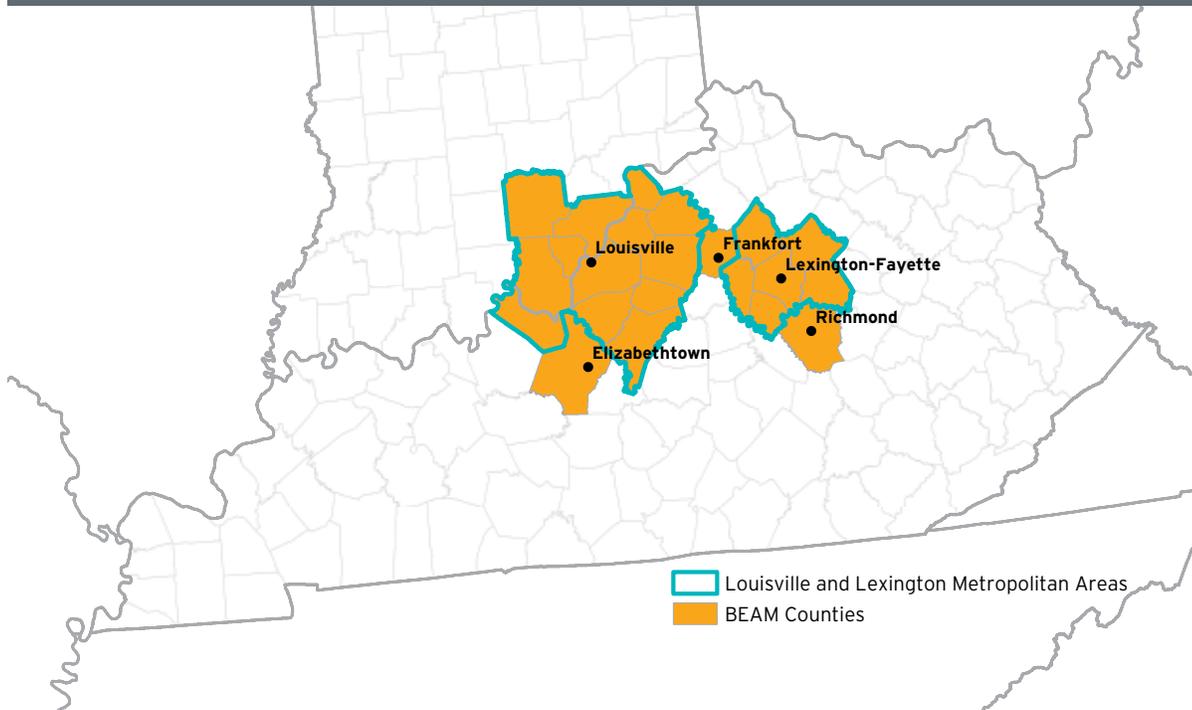
From the Louisville metropolitan area including parts of Southern Indiana to the horse farms surrounding Lexington, the 22-county region encompassed in the Bluegrass Economic Advancement Movement (BEAM) represents:

➤ Almost 2 million people—nearly half of Kentucky's total population, jobs for slightly more than half of its total workforce, and many of its innovation workers.

- A gross domestic product of almost \$92 billion, or about 53 percent of the state's total economic output—a disproportionate share compared to population.
- The hubs for vital transportation and communications networks, including the UPS global logistics hub, Worldport.

Although severely battered by the last recession, the BEAM region is gaining economic momentum. It is accelerating entrepreneurial activity and posting notable gains on job growth, investment, and the “reshoring” of manufacturing lost over several decades. Investments in research over the last decade have seeded emerging expertise in next-generation technologies related to additive manufacturing, rapid prototyping, materials science, energy storage and others.

BEAM MAP



Yet the region is at a crossroads, burdened by decades of global restructuring that have undermined wages, jobs, and competitive advantage.

Over the last three decades, employment and output growth have not kept pace with the nation, and the productivity premium that distinguished the region in 1980 has diminished or disappeared.

Since 1980, average wage growth in Lexington almost kept pace with the national average of 34 percent, but Louisville's older industrial profile and mix of industries limited its total growth in average wages over those three decades to 19.2 percent.

More recently, from 2000 to 2012, the region's overall employment, total economic output and productivity (output per worker), all lagged behind the national rates. Those trends reflected, at least in part, increasing concentrations of lower wage and less productive jobs. Household incomes also declined in both metropolitan areas, as they did nationally, although the loss was slightly less in the Louisville area than in the Lexington region.

The BEAM region confronts these challenges amid a fundamental transformation underway in the global economy, where knowledge assets centered in people and technology are prized and concentrated in metropolitan areas.

The rise of technology, innovation, and globalization are changing the dynamics of productivity and

economic growth. Market dynamics are more fluid and geared to reward continuous innovation in products, production techniques, and business models.

The global economy is rapidly evolving toward even greater integration, with goods, services, talent, capital, and supplier relationships seamlessly crossing national boundaries. And metropolitan regions have emerged as the vital hubs of these activities, the engines and essential units of the new economy.

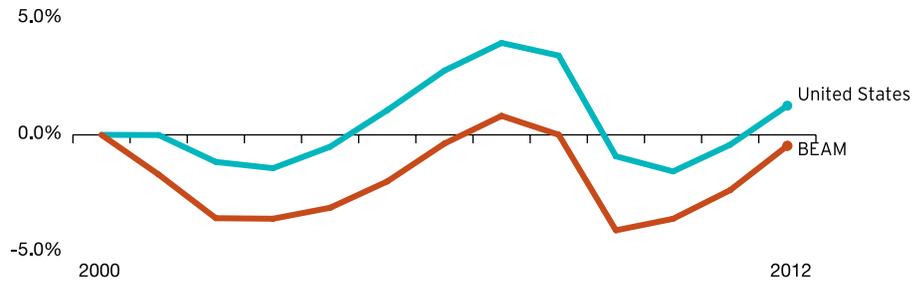
This more dynamic environment demands a new approach to economic development: one that is anchored in a deep understanding of the region's market assets and challenges, focused on carefully calibrated strategies built on strengths and designed to foster a culture of collaboration between public and private sector institutions and leaders.

Regions with the greatest capacity to think strategically, act globally, and build on their unique strengths will forge ahead in this new environment. And those that don't will fall farther behind.

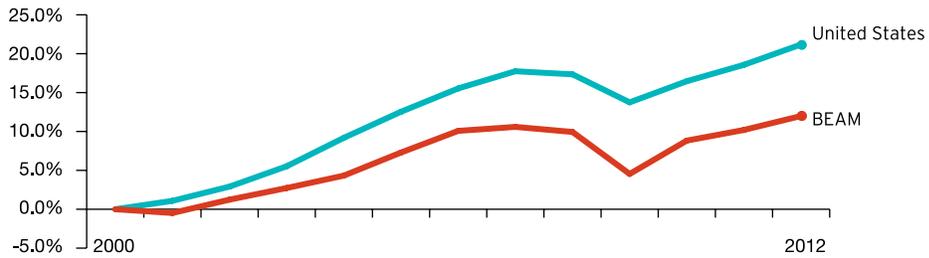
It is this new reality of urgency and opportunity that stands behind the creation of BEAM—a new level of collaboration and strategic action under development across 22 counties, uniting two metropolitan areas to create a critical mass of people, talent, capital, and economic assets. ■

THE OVERALL ECONOMIC PERFORMANCE OF THE BEAM REGION LAGS THAT OF THE NATION

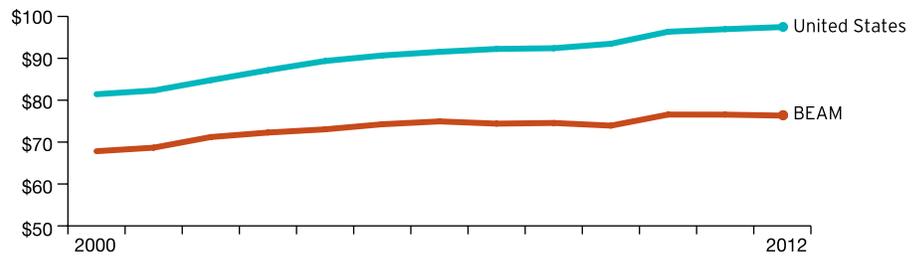
CHANGE IN EMPLOYMENT, 2000 TO 2012



CHANGE IN ECONOMIC OUTPUT, 2000 TO 2012



CHANGE IN OUTPUT PER WORKER, 2000 TO 2012 (IN \$1,000S)



CHANGE IN HOUSEHOLD INCOME, 2000 TO 2012





COLLABORATING TO COMPETE GLOBALLY

The partnership behind BEAM represents a coming together led by two mayors, who, along with leaders in industry, higher education, state government and other key sectors, recognize that global competition makes competition between neighbors obsolete. Only when the region's leaders join forces, aligning their economic assets, can this one Kentucky region stand tall among the world's major production hubs such as Stuttgart, Seoul, and Sao Paulo.



Convened by Louisville Mayor Greg Fischer and Lexington Mayor Jim Gray, BEAM's focus is to grow the region's economic assets and capacities for next-generation manufacturing, global logistics, and other key sectors.

Under a national pilot launched by The Brookings Institution Metropolitan Policy Program and RW Ventures of Chicago, BEAM leaders have drafted an Economic Growth Plan for the region, adapting the rigor and discipline of private-sector business planning to the new challenges and opportunities of economic growth.

The plan provides a roadmap based on extensive market data and analysis and an approach that builds on existing strengths and initiatives already underway across multiple sectors in the region.

Already, the regional collaboration behind BEAM has produced results, sparking a new level of partnership between the two metro governments, heightened attention to the importance of manufacturing, new approaches to workforce training, and new networks of partners across the region.

The publication of the regional plan for economic growth represents only a first step, however, in what is intended as a long-term effort that will engage an expanding circle of partners designing and implementing action to support the region in the transition to the next economy.

It intentionally does not address all aspects of community life. It assumes that all-important efforts to raise education attainment, ensure safe streets, improve neighborhoods and quality of life are underway and are pre-requisites for sustainable growth. It also does not tackle local issues relevant to individual areas but looks for opportunities to leverage shared economic assets to make this 22-county region stronger.

It takes as its first principle that manufacturing matters—that manufacturing drives innovation and innovation drives the next economy. ■

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SEIZING THE MANUFACTURING MOMENT

Manufacturing is poised for a new industrial revolution. Breakthroughs in production technology are enabling manufacturers to respond with greater flexibility to shifting market demands. New technologies allow more places around the globe to participate in the production economy, leading to a convergence of developed and emerging economies that is rapidly changing the geography of production.

Manufacturing forms the bedrock of the BEAM economy. Anchored by major global firms including Ford, Toyota, and GE, manufacturing accounted for \$13.8 billion in economic output in the BEAM region in 2011 or about one sixth of the total. Manufacturing sectors employ more than a hundred thousand workers, a share that is 20 percent greater than the national average. And manufacturing exerts a strong multiplier effect, with one new job in the automotive sector, for example, generating 2.6 jobs in other sectors of the regional economy.

The reach of manufacturing extends beyond the largest companies to a network of more than 1,600 small and medium-sized firms that account for almost three quarters of that employment, or about 75,000 jobs. From the large network of suppliers producing every component for auto and truck production, to appliances and a wide range of electrical equipment, to food and beverages, primary materials including plastics, forging and stamping, a significant set of manufacturing subsectors are more highly concentrated in the BEAM region than across the nation.

half-a-billion dollars in new investments up and down their supply chains, with more happening every day.

Some jobs driven by advanced manufacturing were little known only a decade ago—in robotics, big data systems that control design and production, and the emerging “internet of things”—and there is more to come, with new technologies emerging that will drive the next industrial revolution.

As a result of automation, no one foresees manufacturing job growth that equals projected growth in healthcare and other service sectors. Research commissioned from economists at the University of Kentucky and the University of Louisville cautioned against banking on manufacturing as a strong producer of new jobs.

However, the new production and investments already underway in the BEAM region provide evidence that the rapidly evolving forces driving the resurgence of manufacturing could shift those projections. The new formula for manufacturing competitiveness guiding those developments prompted Jeffrey Immelt, chairman and CEO of General Electric,

Manufacturing forms the bedrock of the BEAM economy, employing more than a hundred thousand workers—a share 20 percent greater than the national average.

Today, in the wake of a recession that closed one in ten manufacturing firms in the region, key production sectors that had declined for decades are experiencing new growth. They added more than 2,200 jobs over the last year, outpacing growth in other sectors as well as national recovery rates.

Manufacturing firms are redesigning plants, investing and expanding to add production lines and products, moving to higher technology and more innovation-driven production. Developments like GE’s \$800 million investment in new products and production at Appliance Park, Ford’s \$621 million investment in its Jefferson County car and truck plants, and Toyota’s \$360 million investment to bring Lexus production to Georgetown are driving more than

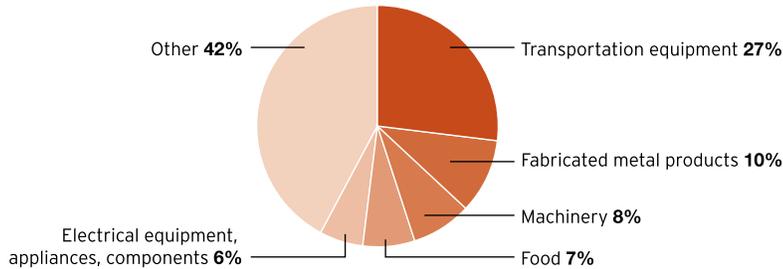
to declare the offshoring that drained manufacturing jobs out of America for several decades “an outdated business model.”

Firms now are choosing locations and supplier relationships that increase value, not simply reduce costs, a trend that places greater premium on integrating design and production, deploying technology throughout the production cycle and driving on-going innovation in new products and production processes.

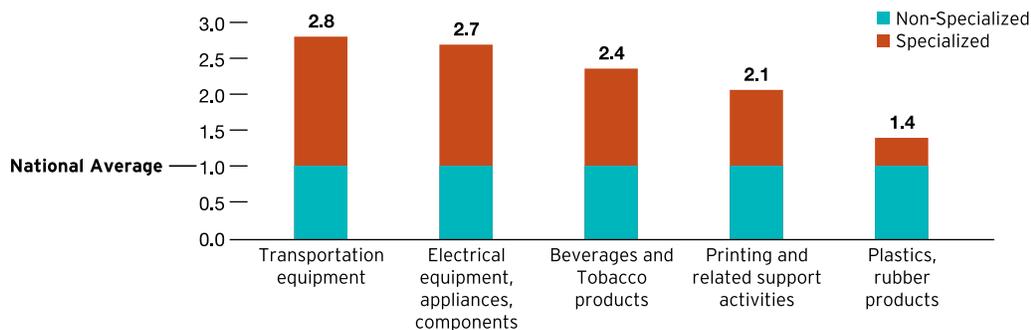
And policy makers are recognizing the vital link between innovation and the culture of “making things” that amplifies the importance of manufacturing to economic growth and vitality. As the CEO of Dow Chemical put it, “Where manufacturing goes, innovation inevitably follows.”

THE BEAM REGION'S MANUFACTURING SECTOR IS CONCENTRATED IN A SELECT GROUP OF INDUSTRIES CLOSELY RELATED TO AUTOMOTIVE, FOOD, AND BEVERAGE MANUFACTURING

SHARES OF EMPLOYMENT IN MANUFACTURING INDUSTRIES IN BEAM REGION, 2012



BEAM REGIONAL CONCENTRATIONS OF EMPLOYMENT COMPARED TO NATIONAL AVERAGES, 2012



In short, for the BEAM region to excel as a hub of innovation, it must do so through its manufacturing strengths.

Traditionally, manufacturing in the BEAM region has been dominated by assembly and some other lower-technology production sectors. Just as major global firms are retooling and redesigning production, so there are opportunities for other firms to expand into more technology and innovation-driven production to increase productivity and value—and for workers who once defined manufacturing as low-tech to step up their skills to meet the high-tech challenges of advanced manufacturing.

Both middle-skill technical workers and engineers stand at the top of that list. Kentucky and the BEAM region significantly trail national averages on measures of its engineering and technical workforce. It ranks in the bottom 10 percent on most: 48th among the states in the percentage of college degrees awarded that are in engineering and natural sciences, 48th in the percentage of technology workers in the labor force.

Although some production jobs returning to the region come with lower pay than similar positions once provided, manufacturing jobs still pay 42 percent more on average than comparable jobs in other sectors. But manufacturers already report shortages of skilled workers, prompting the BEAM Board to make closing the skills gap its top priority.

Beyond innovation, manufacturing also matters to exports, environmental sustainability, and higher-quality jobs. It is key to the global trade economy, and the BEAM region's manufacturing sectors, coupled with its prominence as a global logistics hub, combine to rank Louisville and Lexington among the most export-intensive metropolitan economies in the country.

To distinguish itself as a center of advanced manufacturing in the next economy—to seize the manufacturing moment—the BEAM region must create a strong ecosystem of support for the transition across each of those fronts, with a particular focus on the greatest challenges manufacturers face: the imperative to innovate and the skilled workers essential to make it happen. ■



BEAM MARKET ANALYSIS

The Economic Growth Plan for the BEAM region is rooted in an understanding of market strengths, opportunities, and challenges across five key market levers that, when aligned, mutually reinforce growth. It assesses the strengths, weaknesses, and significant initiatives already underway to identify opportunities for potential leverage and synergy across the region. The full market analysis can be read at facebook.com/bluegrassmovement or on metro websites at www.lexingtonky.gov/BEAM and www.louisvilleky.gov/BEAM.

REGIONAL STRENGTHS

The region brings significant assets to the challenge of repositioning for the next economy:

- ▶ **Economic Concentrations and Clusters.** Coupled with its strength as a world-class logistics center, the region's manufacturing base makes it a major exporter and potential beneficiary of rising global demand for goods and services. UPS Worldport lures logistics-savvy companies to the region and creates competitive advantage for growth opportunities in higher-technology sectors, product customization, and rapid repair. The region also boasts growing concentrations in key service sectors related to lifelong wellness and aging care and some business services.
- ▶ **Innovation and Entrepreneurship.** The region has gained momentum in innovation, with support for entrepreneurs accelerating business startups and

the University of Kentucky and the University of Louisville doubling their combined research base over the last decade. In manufacturing, university-based and independent centers focus on innovation, including additive manufacturing or 3D printing, rapid prototyping, sustainable manufacturing, materials science, and next-generation batteries.

- ▶ **Human Capital.** Lexington's relatively high levels of education attainment distinguish it among metropolitan areas of its size, and the Louisville area's sustained commitment to raise attainment is showing progress. Projections are for the greatest growth to occur in middle-skill jobs that require post-secondary training most often at the level of technical certificates, which Kentucky workers are earning on a per capita basis at almost twice the national average.
- ▶ **Physical Profile.** Both metropolitan areas host relatively dense regional job centers, with Lexington's groundbreaking growth boundary creating the compact environment conducive to the knowledge economy and over 70 percent of all jobs in Louisville's 13-county metropolitan area located in Jefferson County.
- ▶ **Governance.** Strong cultures of public-private partnership and merged local governments in both metropolitan areas reduce the fragmentation that stymies many regions and paves the way for the broad-based, cross-sector, regional governance (rather than government) best suited to lead economic development.

REGIONAL CHALLENGES

Despite those strengths and recent economic momentum, three decades of decline in the region's manufacturing base eroded some traditional strength. The BEAM region's performance can be much improved if it addresses critical weaknesses:

- ▶ **Economic Concentrations and Clusters.** The mix of industries in the region has tended to be dominated by lower-skill and lower-wage production and service sectors, including part-time jobs in transportation and warehousing. To compete in the renaissance of manufacturing, the BEAM region must recoup the productivity advantage it once held. Manufacturing productivity in the region remains higher than in many other sectors and drives the overall productivity rate, but over three decades, it improved at a rate that is only a third of the national rate.
- ▶ **Innovation and Entrepreneurship.** Despite commitment to build its research base, Kentucky remains in the bottom quartile among states on measures of R&D, and the rates of patents issued in the BEAM region remains lower than the national average. Industry investments in R&D and university partnerships remain low compared to national figures, and regional assets that focus on innovation in manufacturing tend to be small in scale, fragmented, and not well connected to regional firms.
- ▶ **Human Capital.** The BEAM region confronts a conundrum of the knowledge economy: too many low-paying jobs that require increasing levels of skill and fewer opportunities at the higher end to attract and retain top talent. The BEAM region also faces the prospect of replacing a third of its workforce as its most experienced members approach retirement age.
- ▶ **Physical Profile.** Both metropolitan areas struggle to identify land appropriate for economic growth; "next generation" infrastructure requires expanded capacity and infrastructure for data, telecommunications, and cyber security in addition to transportation and traditional utilities.
- ▶ **Governance.** Repositioning the BEAM region for the next economy requires even stronger alignment and closer partnership with the Commonwealth of Kentucky. ■



LOUISVILLE METRO GOVERNMENT



STRATEGIC ACTION PLAN

In the context of those assets and challenges, the Board of the Bluegrass Economic Advancement Movement has devised priority strategies designed to move the region forward across multiple fronts, leveraging its shared assets and building synergy between the two metropolitan regions.

Promising initiatives are already underway, including Kentucky's recent investment in the Argonne-Kentucky Battery Manufacturing Research and Development Center in Lexington, the University of Louisville's planned Institute for Product Realization and Innovation, and the opening of the new STEAM high school on the UK campus focused on problem-based learning in science, technology and other fields.

The Kentucky Community and Technical College System now issues more than twice the number of certificates and degrees it awarded only seven years ago and has embarked on a strategic plan that will increase industry involvement and accelerate curriculum development to address workforce needs.

Within industry, major employers are starting to recognize new national credentials established by the Manufacturing Skills Standards Council and make new investments, including a new training center recently announced by GE. The Kentucky Manufacturing Career Center launched last spring in Louisville has more than two dozen employers actively guiding development of the Center where workers earn "stackable" credentials that can lead to associate degrees.

BEAM strategies embrace and build on initiatives like those and others, bringing together critical partners, elevating the focus on manufacturing, and aligning efforts to create a comprehensive and coordinated approach.

Initiatives highlighted for initial implementation represent only a first wave of strategic action and are meant to inform public and private investment and the design of future initiatives by BEAM and its partners. Achieving the long-term goal will require engaging many partners in the mission to strengthen the region's competitive position and economic prosperity.

OVERALL GOAL:

STRENGTHEN AND LEVERAGE THE REGION'S ROBUST ADVANCED MANUFACTURING SECTOR AND RELATED STRENGTHS TO CAPITALIZE FULLY ON ITS POTENTIAL TO PROTECT AND CREATE SOLID JOBS AND GROW WAGES.

► **GOVERNANCE: Solidify the partnership between Kentucky's two largest metropolitan areas to guide implementation of the Economic Growth Plan and expand collaboration on growth strategies.**

The next economy places a premium on coordination and collaboration. Economic success in this new environment requires new capacity to be deliberate in developing targeted growth strategies and engaging the public, private, and civic sectors to execute them, creating a new form of regional governance.

In that spirit, the BEAM region should:

- Foster partnership and alignment between Louisville and Lexington through implementation of the Economic Growth Plan.
- Share best practices for improving customer service, efficiency and effectiveness in metro governments and collaborate on legislative priorities with the Metropolitan Alliance for Growth.

► **HUMAN CAPITAL: Become a world-class center for advanced manufacturing by developing a skilled workforce equipped to meet the demands of 21st century industry.**

Human capital is the single most important input to economic growth, and the development of a robust pipeline guided by employers to provide workers with the skills to compete in the global economy represents a top priority for BEAM leaders. The region confronts two critical challenges in human capital and skills: closing a growing gap in middle skills particularly in manufacturing and expanding the ranks of higher-skilled workers in science and technology fields.

Competitor states are investing heavily in skills training and apprenticeship opportunities in manufacturing and other fields. Others are significantly





expanding the pipeline of technical skills and engineering talent critical to the next economy.

Among initial steps to address the skills issue, the BEAM region should:

- Expand capacity in its engineering schools to double the number of engineers graduating each year from Kentucky universities.
- Centralize and promote the availability of employer-supported training, apprenticeship, and education options—or “earn and learn” programs—and develop a range of customized tools to attract and train the next generation of workers.
- Build on emerging recognition by major employers for national manufacturing credentials to develop an employer-driven network of training centers like the Kentucky Manufacturing Career Center.
- Seek state funding to build Kentucky Community and Technical College advanced manufacturing training centers that serve the BEAM region.

**The 21st Century
production economy
rewards businesses
and industries that
continually innovate
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► **INNOVATION: Develop an integrated ecosystem of support for advanced manufacturing centered on innovation and technology.**

The 21st century production economy rewards businesses and industries that continually innovate in products, processes and markets. It favors firms that are agile and compete on quality, adding value and rapid customization, rather than those that primarily compete on cost. While major investments by global firms anchor the region’s manufacturing base, the new economy also favors firms in the “middle market” that foster collaboration and continuous innovation. Improving the competitive position of the region’s 1,600 small and medium-sized firms and connecting them to the latest technologies and innovation capacities will strengthen the region’s overall capacity for manufacturing.

As first steps, the region should:

- Support existing and potential innovation hubs and centers for manufacturing excellence, extending the reach of regional resources and enhancing the depth and sophistication of support for the development of technology and production innovation.
- Develop an annual showcase of public and private providers of technology and innovation services designed to increase firm awareness, access and adoption of innovation capabilities in the region.
- Engage global manufacturing leaders as partners to small- and mid-sized firms through the Mayors’ CEO Corps, lending leadership, talent, and resources to help firms make the transition to the next economy.
- Leverage the region’s strength in logistics to grow higher technology sectors.

➤ **EXPORTS: Increase global demand for made-in-Kentucky products by helping BEAM manufacturers tap new and expanding export markets.**

Both BEAM metropolitan areas export more than the average for regions across the nation, largely as a result of its strong manufacturing base and competitive advantage in global logistics. The rise of emerging markets and consumer demand provide an important source for growth for the region, bolstering BEAM's traded sectors, including its multi-modal transportation and logistics industry.

In this spirit, the region should:

- Implement the new Metropolitan Export Plan to increase by half the number of companies that begin to export or expand exports to new markets.
- Collaborate with and support the Kentucky Export Initiative and existing trade partners to ensure optimal coordination and use of existing resources and programming to support firms' export success.

➤ **REGIONAL CONCENTRATIONS AND CLUSTERS: Beyond manufacturing, invest in targeted regional assets to diversify the economy into technology-based firms and knowledge industries.**

The region's world class logistics assets draw new firms and sectors to the region, creating opportunities in new high-technology sectors, product customization and rapid repair.

The recent focus on establishing the Louisville region as a center of excellence for lifelong wellness and aging care offer the potential to grow headquarters functions, and Lexington's recent success in attracting high-end support services for a national professional firm opens up new potential for specialization in business services. To implement this strategy:

- Partner with Greater Louisville Inc. the Metro Chamber of Commerce, and Commerce Lexington to focus economic development efforts on growing the region's most promising concentrations in tradable sectors.

➤ **PLACE MAKING: Strengthen the region's competitive position by enhancing its metropolitan areas as attractive places to live, work, and do business.**

The knowledge economy values proximity between workers, firms, and other assets such as research institutions, cultural amenities, and transit access. Modern infrastructure, smart technologies, and quality places attract knowledge workers and firms.

To this end, the region should:

- Enhance the region's profile as a center for advanced manufacturing by assembling land appropriate for development and job growth.
- Pursue a comprehensive and coordinated approach to the development of 21st century infrastructure that supports technology-driven industries and entrepreneurs, such as gigabit internet service.
- Support development and investments in metropolitan areas that create densely populated, mixed-use communities designed to meet the needs of knowledge workers and firms. ■





CONCLUSION: CALL TO ACTION

The BEAM region represents prime territory for this emerging manufacturing moment in America. Advanced manufacturing is evolving at an unprecedented pace, creating new products and jobs. Its evolution will accelerate as promising new technologies including 3D printing and rapid prototyping mature, as new materials, production processes and power sources take hold.

The Economic Growth Plan creates a clear pathway to maximize those opportunities for the 22-county region and to distinguish it as a globally recognized center of production and value for the next generation of manufacturing.

Both the Louisville and Lexington regions know firsthand the synergies created by strong economic clusters: food and beverages, lifelong wellness and aging care, manufacturing and logistics. In the future, the BEAM region's formidable production capacity will produce not just cars, trucks and appliances but also other technology products and "green" solutions.

To seize the moment in manufacturing, the region must strengthen its ecosystem of support for this new, higher-tech culture of "making things" to grow and thrive. That depends on an extensive network of institutional partners aligning their efforts with the Economic Growth Plan, including economic development groups in both Lexington and Louisville, universities, community colleges, workforce training providers, and firms of all sizes.

The BEAM leaders who came together to create the Economic Growth Plan will stay the course, guiding its implementation, establishing metrics to track progress, and crafting new strategies and initiatives to further advance its goals. The Board will hold itself and its critical partners accountable for producing outcomes across the region. It will adopt performance indicators for each strategy with a particular focus on whether the region is growing its manufacturing sectors, including the total number of firms and economic output, productivity rates, engineering and technical workforce and duration of openings for manufacturing positions.

Mayor Fischer, Mayor Gray, and the BEAM Board of Directors invite new partners and strategic owners to join in expanding its reach, breadth, and depth, creating a comprehensive approach to economic transformation. Together, leaders, employers, and citizens, can make the BEAM region a true magnet of growth and invention to ensure prosperity for future generations. ■

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Generous financial support from the following regional partners made this project possible:

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- Babbage Cofounder
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- Cornett Integrated Marketing Solutions
- Fifth Third Bank
- GE
- GLI Advanced Manufacturing and Logistics Network
- Humana
- LG&E
- Lexmark International
- Lynn Imaging
- Mountjoy Chilton Medley
- Stoll Keenon Ogden
- UPS Foundation
- U.S. Bank Foundation
- Wyatt, Tarrant & Combs.

In addition, the following regional workforce development boards partnered with BEAM to commission labor market research:

- Bluegrass Workforce Investment Board
- Cumberlands Workforce Investment Board
- KentuckianaWorks (Greater Louisville Workforce Investment Board)
- Lincoln Trail Workforce Investment Board
- Region 10 Workforce Board in Southern Indiana

FOR MORE INFORMATION

Scott Shapiro

Senior Advisor to Mayor Jim Gray

Office of the Mayor, Lexington

sshapiro@lexingtonky.gov

Chris Poynter

Director of Communications

Office of the Mayor, Louisville

Chris.Poynter@louisvilleky.gov

The full report can be found at **www.louisvilleky.gov/BEAM** and **www.lexingtonky.gov/BEAM**

ABOUT THE BROOKINGS-ROCKEFELLER PROJECT ON STATE AND METROPOLITAN INNOVATION

This is part of a series of papers being produced by the Brookings-Rockefeller Project on State and Metropolitan Innovation.

States and metropolitan areas will be the hubs of policy innovation in the United States, and the places that lay the groundwork for the next economy. The project will present fiscally responsible ideas state leaders can use to create an economy that is driven by exports, powered by low carbon, fueled by innovation, rich with opportunity, and led by metropolitan areas.



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BROOKINGS

1775 Massachusetts Avenue, NW
Washington D.C. 20036-2188
telephone 202.797.6000
fax 202.797.6004
web site www.brookings.edu

Metropolitan Policy Program at BROOKINGS

telephone 202.797.6139
fax 202.797.2965
web site brookings.edu/metro



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