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## *The Talent Imperative for Older Industrial Areas*

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Talent is the nation's key innovation asset. America's workers and their families, present and future, are the first priority of the Council on Competitiveness's National Innovation Agenda. On an individual level, we must support workers' and families' ability to succeed, not merely survive, in a world in which skills needs are rapidly changing and the competition for jobs is global. At the national level, it's about human creativity and the human capital that drives innovation and economic growth.

—Council on Competitiveness, "Innovate America: Thriving in a World of Challenge and Change," 2005

In 2005, the Council on Competitiveness released its seminal report, "Innovate America: Thriving in a World of Challenge and Change," on what the United States must do to maintain its place as the most competitive country in the world. In "Innovate America," developed with the input of over four hundred academics, business leaders, and public policymakers, the Council lays out three broad areas of focus for the country: investment, infrastructure, and talent. Specifically, the Council identifies talent as the most important pillar that supports our national economic competitiveness. This call to action recognizes a fundamental shift in the basis of our prosperity.

In the twenty-first century, the primary drivers behind economic growth have been transformed. Where agricultural and mineral extraction drove nineteenth-century economic growth, and mass-production manufacturing drove the twentieth, it is the application of knowledge that is driving growth in the twenty-first century. This shift has created a related change in the types of inputs that are most important to economic success. In the nineteenth century, natural resources propelled wealth accumulation; in the twentieth century, it was machinery and financial capital; in the twenty-first, it is talented people.

In the “new economy,” products and services can be developed and distributed throughout the world at a very fast pace. Because of the closeness, or “flatness,” created by advances in communications and transportation technology, firms benefit by having access to a much broader market. Firms, regardless of location, also have much faster access to new technologies, systems, and processes. Management concepts such as total quality management are disseminated and adopted more quickly. New computer chips are simultaneously available in Texas and Thailand. As more competing global entities are able to develop (or quickly copy) similar products, the intensity of competition rises and firms are compelled to either develop new products more quickly or find another way to differentiate their offerings. This dynamic places a premium on innovation.

To succeed in the global economy, firms must continually innovate and economic regions must offer the assets necessary to support a strong innovation environment. Although there are many assets that matter for regional development—physical infrastructure, financial systems, and efficient governmental regulations among them—talented people are the engine of innovation. As a result, education has become the fundamental driver of wealth creation.

This chapter explores how older industrial areas can rise to meet this talent imperative. It begins by explaining the increasing importance of talent to regional economic development and then suggests opportunities for regions to meet their talent challenges by developing, retaining, and attracting skilled workers. The chapter reviews a variety of policies and programs that leaders from older industrial areas (OIAs) should consider when implementing a human-capital-based economic development strategy.

## **Talent Is the Key to Success**

Throughout American history, higher education has always been correlated with higher wages. More education allowed individuals to have greater choice in their careers and access to the highest-paying jobs. Still, throughout most of our history,

less-educated citizens were able to reach at least the middle class through manual labor and service work. Most industrial areas supported increases in population and wealth based on extraction industries or labor-intensive manufacturing. Firms located operations near natural resources or to take advantage of high quantities of unskilled labor. In the latter years of the twentieth century, though, the importance of education has spiked for individuals, firms, and regions.

### *The Returns to Education for Workers and Regions*

In the three decades since approximately 1975, the income gap between the highly educated and less educated has widened significantly. According to research by the Institute for Higher Education Policy, in 2004 the average total personal annual income of workers nationwide with only a high school diploma was \$25,053, more than \$23,000 less than for those with a bachelor's degree.<sup>1</sup>

Joseph Cortright of Impresa Consulting has compared annual earnings, by education level, for the years 1975 to 2003. In 1975, advanced-degree holders earned an average of \$16,725, approximately twice as much as individuals with only a high school education. By 2003 the multiple was approximately 2.75, which equated to an average salary of \$75,600 for advanced-degree holders and approximately \$27,900 for high school graduates.<sup>2</sup> On the basis of 2004 figures, the Educational Testing Service has calculated that mean lifetime earnings for male college graduates will be \$2.7 million, 96 percent higher than the mean for male high school graduates. In 1979, the difference in lifetime earnings was only 51 percent.<sup>3</sup> Clearly, the returns to education are increasing.

So, too, are the returns to regions that host highly educated individuals. Cities with more educated residents have traditionally grown faster than those with less human capital. Research by Professor Ed Glaeser of Harvard shows that over the past century, both cities and their surrounding metro areas have seen increasing population growth linked to increasing levels of education.<sup>4</sup>

Traditionally, regional population growth has also been correlated closely with increases in income, but that relationship seems to have been broken. Robert Weissbourd and Christopher Berry, in their work on the changing dynamics of urban America, found that the decade of the 1990s marked the first time in modern American history that population and income growth were no longer correlated. Paul Gottlieb, a Case Western University scholar, has stated that for the first time regions could "grow without growth." On the other hand, studies have found that the relationship between education levels and regional income levels had intensified.<sup>5</sup>

In their comprehensive study of factors that impacted the growth of U.S. metro regions in the 1990s, Weissbourd and Berry conclude that the educational attain-

ment of residents was the strongest driver of economic prosperity. According to their regression model, a 2 percent growth in the size of a region's college-educated population results in a 1 percent rise in regional income.<sup>6</sup> No other factor came close in terms of its impact on income.

Joe Cortright makes a further point: it is actually the young and educated that should be the key focus for regions that seek to thrive. By definition, young educated workers have more years to work and thus can produce more over their lifetimes than older workers. More than just productive workers, Cortright has found that members of the twenty-five-to-thirty-four-year-old age group are the most entrepreneurial in our society and are highly likely to become civically engaged once they settle. Furthermore, as the baby boomer generation retires, members of this group will become increasingly in demand as regions will no longer have access to a large talent pool.

To succeed, regions must develop, attract, and retain college-educated workers. It is no longer the quantity of human capital that matters most, but the quality.

### *The Importance of Talent to Firm Location*

These academic conclusions are borne out in practice. Talent tops the list when corporate executives and site selection consultants are asked to identify key factors in location decisions. This focus on talented workers is particularly critical for technology-based industries, but is increasingly important for all sectors, including manufacturing.

Bill King, chief editor, and Michael Keating, chief research editor, of *Expansion Management* magazine, explain the new calculus:

In today's global economy, when a company is exploring possibilities for a future facility location, it is likely to have a list that includes not only U.S. cities, but also cities throughout the world. Where that company will choose to locate often hinges on labor and on which factor is more important: low costs or high skills.

As a general rule, if that future facility is to be labor-intensive, it will usually end up in a low-cost location, possibly even India, China or Eastern Europe. In the cases where the labor component will constitute the bulk of the operating costs, the worker skill requirements are usually not very high. These also tend to be low-margin operations.

If, on the other hand, it is to be a capital-intensive operation, it usually means that the skill set requirements for the workforce will be dramatically higher. While the labor component may still make up the majority of the

overall costs, these tend to be higher margin operations and it is the worker's brains, not brawn, that is the deciding factor.<sup>7</sup>

In the United States whose relative labor costs are significantly higher than those of its global competitors, corporate real estate executives and site selection consultants agree that a skilled workforce is the critical factor that allows a location to make it into the final consideration set. Consider this explanation for the decision made by Fidelity Investments to build a new 600,000-square-foot state-of-the-art operations center in the Dallas–Fort Worth (DFW) area:

The DFW area offers the strong demographic profile that Fidelity considers important when making location decisions, including a highly talented and growing workforce, a strong business and community environment, and an opportunity to get closer to many of our customers and clients. The significant commitment and support from the Texas Enterprise Fund, along with support from the town and county, were essential in making the final decision.<sup>8</sup>

This description reflects the now-common approach to site selection for knowledge-based companies. First in importance is the quality of the available workforce and the likelihood that the skilled workforce can grow. Next, site selectors evaluate traditional business environment factors such as tax treatment, infrastructure, and the regulatory environment. Once regions have made it into the final round on the basis of their existing economic development assets, financial incentives often become the ultimate factor.<sup>9</sup>

This prioritization scheme is true even for traditionally capital-intensive industries such as auto manufacturing, and in traditionally low-cost states such as Mississippi. Jay Moon, president of the Mississippi Manufacturers Association, explains, “The automotive industry is like most manufacturers today. At the end of the day it’s the workforce that builds the product and the product has to be world class because the competition is so intense.”<sup>10</sup>

### *Labor Challenge for Manufacturers*

Manufacturers face a growing challenge. Even though the old image of the factory floor as dark, dirty, and dumb has given way to the new reality of safe, sanitary, and smart facilities, many manufacturing-intensive regions now face a labor shortage. Most manufacturing firms that survive have invested in productivity-enhancing technology instead of more labor. Jobs in manufacturing today are less physically

demanding but require increased technology skills. While the salaries are attractive, rising demand for technology-savvy laborers is increasingly hard to meet.

Over the past few years, the Council on Competitiveness has conducted interviews with hundreds of employers across the country as part of projects designed to support regional competitiveness. In regions from Spokane, Washington, to Rochester, New York, employers offered a common refrain when asked about challenges to their future success: “We have the skilled employees we need today, but are not sure about the ones we’ll need tomorrow.”

There is little reason to doubt that talent will continue to drive both individual and regional economic prosperity. According to the U.S. Employment and Training Administration, twenty-six of the thirty fastest-growing jobs over the next ten years in the United States will require at least some postsecondary training.<sup>11</sup> Between 2004 and 2014, approximately 46 percent of all job growth is expected to be generated in professions (management, technical, high-level sales) that require a college degree.<sup>12</sup> For the highest-paying jobs, an even greater percentage of jobs will require college training.

With no end in sight to the technological advances that enable the growth of knowledge-based industries, the need for skilled workers is unlikely to abate. Even entry-level jobs will require basic computer skills. Higher-level jobs throughout the economy will require significantly more capabilities, from technology comprehension to advanced management techniques to manage globally dispersed workers.

As the U.S. baby boomer generation retires and more global regions upgrade their ability to support high-value-added industry, U.S. metro areas will find the competition to retain highly skilled workers intensifying. As we look to the future, it seems increasingly clear that the level of education in the workforce will make the difference between regions that succeed and those that stagnate.

## **Talent in Older Industrial Areas**

So, if talent is now the decisive driver of economic success, where do OIAs stand today? The short answer is that they are, by and large, lagging. OIAs are characterized by three common weaknesses: low educational attainment, talent flight, and weak workforce development programs. All need to be addressed for a region to succeed in the global economy.

### *Low Educational Attainment*

In a country where educational results are faltering, the educational levels of residents of older industrial areas are falling faster than the average. Generally speak-

ing, the U.S. talent development pipeline seems to be broken. While we are able to attract the world's best and brightest to our colleges and universities, our own secondary school system is declining in quality and is rife with inequities.

In international comparisons, U.S. high school students tend to do poorly in math, sciences, and foreign languages. And our relative standing continues to drop, even as we maintain one of the highest rates of expenditure per student in the world. To give one example, Council on Competitiveness analysis of the Program for International Student Assessment (PISA) international science assessment showed that U.S. students were twenty-second in the world in terms of math comprehension—behind emerging market countries such as Poland and Hungary—yet the United States was second only to Switzerland in expenditure per student.<sup>13</sup>

We are lagging in quantity as well as quality. Thirty years ago the United States could claim 30 percent of the world's population of college students. Today, the U.S. has only 14 percent, and that proportion continues to fall as other countries invest in higher education for their citizens.<sup>14</sup>

Within the United States, the older urban metropolitan areas (metros) fall toward the bottom for most educational indicators. From the Brookings Institution report, "Restoring Prosperity," which identified forty metro areas as weak older industrial areas<sup>15</sup> (table 3-1), we see that high school graduation rates in these areas lagged behind those of other U.S. metro areas by 1.6 percent. In 2005, less than 83 percent of OIA residents held high school diplomas compared to over 84 percent in the other 328 census-defined U.S. metro areas.<sup>16</sup>

The low performance is driven, in many cases, by the poor results of large urban school districts. In 2004, seven of the ten large urban school districts with the widest gap between their seventh- and eighth-grade reading and math test scores and their state averages were in OIAs.<sup>17</sup>

The disparity widens when one compares the educational attainment levels beyond high school. As we can see in table 3-2, the forty older industrial areas trail the rest of the nation in every higher education level comparison, and the gap is particularly wide at the college-graduate level. This is worrisome, for, as explained previously, a college diploma is becoming a critical credential if an individual wishes to enjoy rising wages over his or her lifetime.

### *Talent Flight*

The plight of the OIAs is intensified by the migration of educated people away from these regions. Many of the best and brightest leave OIAs and never return. In 2004, the Census Bureau produced a special report that looked at the migration of single, young, college-educated people in metro areas. In general there has

Table 3-1. *Older Industrial Areas*<sup>a</sup>


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Albany, Georgia
Albany-Schenectady-Troy, New York
Altoona, Pennsylvania
Baltimore-Towson, Maryland
Beaumont-Port Arthur, Texas
Binghamton, New York
Birmingham-Hoover, Alabama
Buffalo-Niagara Falls, New York
Canton-Massillon, Ohio
Cleveland-Elyria-Mentor, Ohio
Dayton, Ohio
Decatur, Illinois
Erie, Pennsylvania
Flint, Michigan
Harrisburg-Carlisle, Pennsylvania
Huntington-Ashland, West Virginia, Kentucky, and Ohio
Los Angeles-Long Beach-Santa Ana, California
Mansfield, Ohio
Merced, California
Milwaukee-Waukesha-West Allis, Wisconsin
Muncie, Indiana
New Orleans-Metairie-Kenner, Louisiana
Odessa, Texas
Pine Bluff, Arkansas
Pittsburgh, Pennsylvania
Providence-New Bedford-Fall River, Rhode Island and Massachusetts
Reading, Pennsylvania
Rochester, New York
Rocky Mount, North Carolina
Saginaw-Saginaw Township North, Michigan
Scranton-Wilkes-Barre, Pennsylvania
Shreveport-Bossier City, Louisiana
Springfield, Massachusetts
Springfield, Ohio
St. Louis, Missouri
Syracuse, New York
Terre Haute, Indiana
Trenton-Ewing, New Jersey
Utica-Rome, New York
Youngstown-Warren-Boardman, Ohio and Pennsylvania

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Source: Author's compilation based on Brookings methodology.

MSA: metropolitan statistical area.

a. These forty metro areas ranked in the bottom third of an MSA Economic Condition Index on the basis of their change in employment, wages, and gross metropolitan product from 1990 to 2000 and their gross metropolitan product per job in 2000 (see also chapter 6, in this volume). In addition, each of these MSAs is home to one or more of sixty-five economically distressed cities (also identified in chapter 6).

Table 3-2. *2005 Educational Attainment in Older Urban Areas Compared with Other U.S. Metros*

Percent

<i>Educational level</i>	<i>40 older industrial MSAs</i>	<i>328 other U.S. MSAs</i>
Less than high school	13.1	12.0
High school	29.7	28.3
Some college	20.9	21.8
College degree (associate's or bachelor's)	23.3	24.7
Master's/doctorate	8.9	9.2

Source: Author's calculations, based on Council on Competitiveness, American Community Survey data, U.S. Census Bureau.

MSA: metropolitan statistical area.

been a flow of young, educated people out of rural areas into urban metros, and from urban metros into a small number of “hot” urban areas. From 1990 to 2000, only seventy-five metro areas saw an increase in the single, young educated population, while 243 saw a net loss of members of this group.<sup>18</sup>

The older industrial metros were hit particularly hard by this trend. As a group, the forty OIAs lost 15.5 percent of their young, single, educated population, while all U.S. metro areas overall lost, on average, 10 percent. Only four of the forty—Birmingham, Los Angeles, Milwaukee, and St. Louis—showed a net increase in their populations of this demographic group. The bottom five of the OIAs—New York's Syracuse and Binghamton, Arkansas's Pine Bluff, and Indiana's Terre Haute and Muncie—lost more than 30 percent of their “young and restless.”<sup>19</sup>

The growing concentration of talented young people in fewer areas makes those areas even more attractive. Talented people seek to live with other talented people, creating a positive, self-reinforcing system. On the other hand, regions losing talented workers face a negative feedback loop that must be overcome to succeed in attracting educated residents.

### *Weak Workforce Development Programs*

Metros need to do a better job of retaining the skilled workers who do stay. Unfortunately, workforce development programs generally do not have a strong history of success in older urban areas.

Public workforce development programs, which are primarily funded by the federal Department of Labor and administered by state agencies and local workforce investment boards, have come under criticism for failing to meet the expectations of their two ultimate clients: workers and employers.

The challenges for the workforce system begin with its fragmentation. Our federal, state, and local workforce funding programs and service delivery systems are highly diffused. At the federal level, there are multiple funding streams for services aimed at often overlapping populations. Each funding source has different rules and regulations and requires a federally authorized waiver if states wish to commingle funds. At the regional level, workforce investment boards that cover areas ranging in size from parts of cities to entire metropolitan areas oversee the provision of workforce services whose quality varies widely from place to place.

The public workforce system and regional economic development organizations have traditionally operated independently. As a result of this disconnect, workforce organizations have tended to focus on basic training and on supporting individual preferences for specialized job training, while economic development organizations have pursued target industries with an incomplete understanding of the workforce assets that exist within the region. Far too often, job training is insufficiently linked to the jobs that are being created.

With the increasing importance of human capital to regional competitiveness, there has been a growing recognition that individuals must develop a deeper set of skills and consider long-term career paths. Additionally, federal and state agencies have recognized the need to integrate workforce development, economic development, and educational strategies at a regional level and to implement systems that incorporate the skill needs of employers into the talent development system.

Progress is being made, though OIAs appear to be lagging behind. The U.S. Employment and Training Administration (ETA) tracks a variety of workforce system performance metrics at the state level, including a satisfaction survey of both employers and workers who interact with the system.<sup>20</sup> In each of the last three years, the three states with the majority of the OIA population—New York, Ohio, and Pennsylvania—have lagged behind other states. From 2003 to 2005, each of the states scored in the lower half of the nation in the rankings of both participant and employer satisfaction.<sup>21</sup>

In 2007, *Expansion Management*, a site selection trade magazine, launched its inaugural top ten list of state workforce development programs. On the basis of a survey of site selection consultants, the magazine determined that only two states with older industrial areas made the cut: Georgia and Texas. Only four of the forty metropolitan statistical areas (MSAs), which represented less than 5 percent of the total population of the OIAs, were located in states that were on the list.

If talent is the key to success, older industrial areas have a lot of work to do.

## What Older Industrial Areas Can Do to Bolster Talent

For cities and regions to prosper in the knowledge economy, they must provide a high quantity of talented workers. There are three basic strategies to grow the talent force within a region: development, retention, and attraction. Of these strategies, development and retention are more sustainable and more likely to be successful in OIAs. Attracting talented people to a region can be successful, but it is usually best accomplished by targeted efforts within a particular industry cluster or by focusing on groups, such as former residents, whose members will be more likely to return. As the global market grows, it will be increasingly difficult for regions and their resident firms to attract individuals who have no ties to a particular area unless they are one of the few “hot” regions.

### *Workforce Development Strategies*

The first and most important economic development goal for any city or region should be to develop and grow its workforce from within. This begins with ensuring that young people receive a quality education. Covering the full depth of school reform is beyond the scope of this chapter, so we focus here on a number of strategies that require special focus as part of any reform effort, including increased investments in early childhood education and making secondary education more relevant to today’s economy. We also outline strategies that regions can employ to implement effective support systems for continuing education and training for those already in the workforce.

*Invest in early childhood education.* Human capital development should start at day one. The Nobel Prize–winning economist James Heckman has found that the greatest returns are achieved by investing in children at the earliest possible age.<sup>22</sup> Heckman and various other researchers, including Arthur Rolnick and Rob Grunewald, have made a strong economic case for investment in prekindergarten training. A variety of longitudinal studies have shown annualized returns on pre-K investment ranging from 7 to 18 percent.<sup>23</sup> The Federal Reserve Bank of Minneapolis, meanwhile, believes early childhood education to be so important from an economic perspective that it has launched a research center dedicated to the topic.<sup>24</sup>

Benefits from early learning are both individual and societal. On the societal side, successful early learning programs result in reduced government expenditures in special education and welfare costs and major benefits from the reduction in criminal activities. Well-trained young children receive increased earnings over their

life spans and are set on a path in which they can become productive members of society and regional economies.

The Bill and Melinda Gates Foundation has recognized this opportunity and is focusing a significant portion of its philanthropy on early childhood education. In explaining its decision to develop an early learning strategy for Washington, the foundation states, “Neither our present educational system, nor our current public funding in Washington State is designed to support the fact that children’s success in school and life is significantly determined before they ever enter kindergarten. By the time most funding and programs kick in to help children, many children are already behind socially, emotionally, and cognitively, and likely will never catch up.”<sup>25</sup>

The foundation’s program mentions Washington State specifically, but the lack of an effective early learning strategy is common across the country and in OIAs.

The Gates strategy, whose design is based on the foundation’s assessment of early learning programs from across the nation, seeks to upgrade three related areas that will collectively affect early childhood success: parent support and education; comprehensive early learning centers that serve an entire community; and licensed child care.<sup>26</sup> Under this model, parents and caregivers will receive high-quality information and training on how to teach their children. To support parents and children with a diverse array of tailored services, the foundation will fund the creation of central child-care centers to serve as hubs for their communities. These hubs will also serve as models in an effort to upgrade the quality of existing licensed child-care facilities. The strategy places special emphasis on teaching children from low-income and low-education households.

Leaders in OIAs should follow the Gates Foundation demonstration project closely. Regardless of whether they choose this particular model or develop an alternative, it is important that OIA leaders develop an early learning strategy for their region.

*Make secondary school training more relevant.* Once children start their formal education, new challenges emerge. The first is keeping students in school and engaged in their studies. A second is ensuring that the skills these students are learning adequately prepare them for future participation in the workforce.

As indicated previously, many OIAs are struggling to provide their young residents with the basic reading, writing, science, and mathematics skills they need to succeed. Students from poor socioeconomic backgrounds or from families with

low educational attainment face particularly steep barriers in reaching an acceptable level of proficiency.

Simply ensuring that students have a strong basis in core subjects is not enough, however. To thrive, students will have to be, as the New Commission on the Skills of the American Workforce, a bipartisan blue-ribbon panel of education experts, puts it, “comfortable with ideas and abstractions, good at analysis and synthesis, creative and innovative, self-disciplined and well-organized, able to learn very quickly and work well as a member of a team. They must have the flexibility to adapt quickly to frequent changes in the labor market as the shifts in the economy become even faster and more dramatic.”<sup>27</sup>

That is a tall order, and one that can be met only if students stay in school and are being taught skills well beyond what is measured in our present standardized tests. One idea that seems to achieve this result is called *applied learning*. Research has shown that experiential learning—gaining knowledge through exercises that apply learning to actual situations—increases student engagement and overall achievement. By offering more opportunities for applied learning, particularly when it is customized to students’ individual interests, urban education systems can both increase the relevance of their curriculums and boost students’ interest in school. Innovative national public school operators such as Edison Schools and Big Picture Schools are incorporating this principle into their curricular approach.

Big Picture Schools starts with the concept that each high school student should select an area of interest around which a “personalized education program” is developed. Regardless of the interest area—be it dance, Latin American history, or biology—key baseline skills in math, science, and writing are incorporated into the student’s curriculum through applied exercises. Students receive multiple opportunities to participate in experiential learning through internships, work with mentors, and team exercises. As a result, Big Picture students are more interested in their daily work and much more likely to stay in school than traditional high school students.

Edison has developed a curriculum that is based on traditional liberal arts training but incorporates an emphasis on helping “students develop practical skills from teamwork to technology that are crucial to success in the workplace.” Edison’s model incorporates significant participation of parents, mentors, and community leaders in the learning process.

An area where the applied learning approach has an obvious value is high school career and vocational education. Ironically, as the need for additional technicians and tradespeople is rising in the United States, the number of career and technical education classes has been declining. Many of these programs are

expensive to operate and have come under criticism for not teaching skills relevant to the present skill needs of industry. As critical technologies change with increasing speed, it is difficult for schools to keep up.

In Florida, the Okaloosa School District has developed a program whose purpose is to ensure that the skills being learned are relevant to industry needs. Under their CHOICE Institute program, students follow a curriculum that allows them to earn high school credit, college credits, and industry certification at the same time. Students earn certifications recognized by national trade organizations in four institute areas that reflect local high-growth industries: aerospace, construction technology, creative arts, and information technology. Thus employers know exactly what they are getting when they hire students, and students have an opportunity to earn significantly higher wages right out of high school. In fact, an evaluation of CHOICE by the Haas Center for Business Research at the University of West Florida found that average CHOICE graduates can expect to make \$298,000 more in lifetime earnings than the typical Florida high school graduate, even if they don't continue on to college.<sup>28</sup> Local business leaders are enthusiastic about the program because they are able to meet their workforce needs without recruiting outside of the area. The state of Florida recently passed a law, based on the CHOICE model, that funds career and technical institutes in every school district in the state.

OIAs—indeed, the country as a whole—should acknowledge the need for fundamental change in education. Over the past few decades, many new models and efforts to upgrade our pre-K–12 educational systems have been implemented. Two key findings are emerging from these efforts. The first is that to succeed, the change must be bold, comprehensive, and systemic. Incremental tinkering will not work. We have a new economy and it demands a new mechanism for training our children.

The second finding is that a single model of learning will not work for all students. To be sure, there is a core set of knowledge that all students need, but there are many ways to impart that knowledge. Students come to school with widely different skill sets, learning styles, and interests. A one-size-fits-all approach will not succeed and is not required, given the financial, technological, and human capital that we can employ to upgrade education.

The New Commission on the Skills of the American Workforce, launched by the National Center on Education and the Economy, gathered dozens of leading educational academics and practitioners to develop a comprehensive approach to school reform. Their report, *Tough Choices or Tough Times*, lays out a new model for training that is aligned with the demands of the global-innovation-based econ-

omy.<sup>29</sup> Community leaders—not just educational leaders—in OIAs should review the report and consider whether their region and state could benefit by embracing its recommendations.

*Leverage new resources for public education.* A comprehensive transformation of public education systems in OIAs will be time-consuming and expensive, but there is little doubt that increases in public educational funding are justified. Government, however, is not the only available source of investment. Across the country, new philanthropic foundations, such as the Bill and Melinda Gates Foundation and the Michael and Susan Dell Foundation, are supporting educational reform.

In the face of talent shortages, businesses are also increasing their involvement in educational initiatives. As Michael Bettersworth, the associate vice chancellor of the Texas State Technical College System, explains, “A few economic development organizations and chambers of commerce are increasingly realizing that improving a region’s talent does not start with community arts projects, ‘buffalo hunting’ for firms, or TV ads on why companies should move to your area over another, but rather begins in a region’s schools. An increasing number of companies of all sizes are speaking to this with their wallets, and more importantly, their time.”<sup>30</sup>

*Upgrade ongoing training and support.* Improving pre-K–12 and college education will play a critical role in strengthening the future regional talent pool, but the vast majority of the people who will be in the workforce for the next twenty years are already in the workforce now. As the pace of technological change quickens, the need to upgrade and obtain new skills rises for all workers.

Today, however, on-the-job training is primarily offered to high-wage workers who work for large firms. Analysis of data from the Organisation for Economic Co-operation and Development (OECD) shows that employees earning more than \$25,000 make up just half of the U.S. workforce but receive 72 percent of all employer-provided formal training. Thirty-six percent of all workers in the United States work for small companies with less than a hundred employees, but these companies account for just 12 percent of the total corporate investment in training.<sup>31</sup> To reach more individuals and improve their local labor pool, firms should consider developing training cooperatives, which reduce the cost of customized training. Furthermore, firms and their cluster organizations should proactively participate in the public workforce system by

providing updated information on their particular skill needs and by working to improve the training services offered in local institutions.

*Improve the public workforce system.* Although the public workforce system has been criticized for its inefficiencies and disconnection from employers, in recent years the Employment and Training Administration has actively been trying to better link the workforce system with regional economies. Through grants and technical assistance, ETA has been encouraging improved collaboration among workforce development boards that serve the same metro area. Further, through the High Growth Job Training Initiative, it has fostered a closer collaboration between industry leaders in high-growth sectors and training providers to develop training curricula and programs that directly relate to industry skill needs.

In early 2006, ETA launched the Workforce Innovation in Economic Development (WIRED) initiative, a comprehensive effort to transform the present workforce system into a “talent development system” that better meets the needs of employers and workers. The WIRED program explicitly recognizes that innovation is the driver of economic growth and that to develop the talent necessary to fuel innovative companies the public workforce system must operate in partnership with educational and economic development partners at a regional (multicounty) level.

So far, thirty-nine pilot regions, all selected by competitive bid, have each received at least \$5 million in funding from ETA to develop and implement integrated economic and workforce development strategies. Five of the OIAs—Saginaw, Flint, Scranton, Milwaukee, and Los Angeles—are participating in regional WIRED efforts.

The approach that WIRED is promoting—the creation of regional, innovation-based, integrated development strategies—is worth pursuing with or without the ETA pilot funding. Indeed, many of the regions that applied but were not selected are pursuing their strategies with other funding. States and OIAs should consider adopting the WIRED approach as part of their talent development strategies. At the very least, OIA leaders should closely follow the WIRED process and take advantage of the tools, leadership models, and programs that are being developed in other regions.

*Implement lifelong learning programs.* A few WIRED regions are focusing their efforts on developing a lifelong learning strategy that supports both new and more experienced workers. Incumbent workers are a particularly important group for older industrial areas. As most OIAs are losing their young, educated workers to

other regions, they need to upgrade the talent that remains. To accomplish this goal, it is critical to develop approaches that incentivize ongoing skills training.

One promising approach is the creation of lifelong learning accounts, or LiLAs, portable individual savings accounts used to finance education and training that is selected by the employee. They operate in a way similar to individual retirement accounts, except the funds are used for training, not retirement.

Accounts being piloted now in Maine, Illinois, and Missouri allow individuals to enroll in accredited training programs operated by public, private, and union-based institutions.<sup>32</sup> The LiLA model allows for the individual accounts to accept contributions from employees and matches from other employers, states, federal programs, regional governments, and foundations.

Another related effort aims specifically to extend the careers of mature workers. Older workers typically offer more experience, more loyalty, and a stronger work ethic than employees just entering the workforce. Furthermore, since older workers are typically established residents, they are less likely to leave than younger workers. Mature workers represent an important resource that is not being fully tapped.

Employers, particularly in older industrial areas, are experimenting with alternative models for work in which older workers participate on more flexible or part-time schedules, and a few regions, such as North Central Indiana, are pursuing a more comprehensive approach to supporting these employees. The North Central Indiana initiative, *Maturity Matters*, is “pioneering how aging communities can better transform the untapped assets of passion, ideas, and resources that a mature worker possesses from their work and life experiences into a foundation for a vibrant future.”<sup>33</sup>

A partnership led by the public workforce system in the region just north of Indianapolis has developed a strategy to assist both mature employees and local employers. The effort began with a baseline study about the economic status, educational characteristics, and particular employment needs of older workers. The initiative has also developed a handbook for human resource personnel that offers suggestions for how to recruit and retain older workers, as well as a series of career transition tools to assist mature workers in assessing and acting on their employment goals.<sup>34</sup>

Creating programs to assist workers who are already participating in the workforce offers a relatively fast and inexpensive opportunity to upgrade the regional talent base. It is certainly easier to implement a state- or region-focused training-support program than the critical but long-term reorganization of the secondary school system.

In the long run, older industrial areas that can support a successful system for adult learning may establish a competitive advantage over other regions. The Stanford economist Paul Romer has suggested that human capital is the only form of capital with infinite potential returns, but for this to be the case, human capital needs to be forged to the highest standards and continually upgraded.

### *Retention Strategies*

Developing a well-educated and well-trained populace is a critical strategy for growing a talented workforce, but a region must also then be able to keep talent in the area if the societal and economic benefits are to accrue. There are a number of emerging strategies to retain human capital that relate to an individual's reasons for relocating.

*Seize opportunities to retain talent.* Americans in general are highly mobile when compared to most other nationalities, but it is young Americans—and particularly young, educated Americans—who move the most. According to Joseph Cortright's research for CEOs for Cities, the likelihood that people will move across state or metropolitan lines falls about 50 percent between a person's twenty-fifth and thirty-fifth birthday.<sup>35</sup>

There are three points when young adults are most likely to move: when they enter college, when they start their first job after college, and just before or after they start families. These three transition points offer opportunities for intervention with programs to encourage talented people to stay in the area.

*Students entering college.* The most common approach used to retain college students after graduation is preferential "in-state" tuition offered by publicly funded state universities. States provide a lower tuition rate for their native sons and daughters to ensure that taxpayers feel their funds are being used fairly and to keep talent in the state during—and then hopefully after—college.

Many states also offer scholarships to in-state students, typically based on high school success and ongoing academic achievement in college. Georgia's HOPE (Help Outstanding Pupils Educationally) scholarship program is the most established state program that awards merit scholarships. All Georgia students who graduate with 3.0 on a 4.0-point grade scale can attend a Georgia university for free as long as they maintain a 3.0 average in college. Kentucky, Louisiana, and Florida have established similar programs.

Regional organizations have traditionally played a less active role in this effort to retain students. There are few examples of regions or cities that guarantee col-

lege tuition, although some philanthropic organizations and businesses offer scholarships specifically to students from particular metro areas.

One exception is Kalamazoo, Michigan, which recently launched a program called the Kalamazoo Promise. Under this program, every graduate of Kalamazoo public schools who attends a Michigan public college or university will receive between 65 and 100 percent of tuition payments, prorated according to how many years they attended school in Kalamazoo.

Attempts to retain good students in a region are unlikely to have a significant impact on talent retention (though it may have other benefits, as will be described). Students do tend to stay in the state in which they attended college, but they are less tied to the region in which they attended college, and are even less likely to be influenced by the location of their scholarship provider. Further, requiring students to stay within the region or to return immediately after college may be counterproductive. Many educational experts suggest that the experience of living in another city and interacting with people from multiple backgrounds is part of the learning process. Still, the program substantially increases the accessibility of a college education for Kalamazoo students while contributing to the attractiveness of the city as a place in which to raise a family.

*First job.* Upon graduation from college, students leave their dorms and make new homes, whether just down the street or thousands of miles away. Communities with institutions of higher education have an excellent opportunity to retain students. An increasing number of regions—including many older industrial areas such as Northeast Ohio, Central Massachusetts, Boston, Hartford, Philadelphia, and Pittsburgh—have created partnerships with local educational and business institutions to attract students to the region for college and keep the human capital they have helped create.

The Philadelphia region has established itself as a leader in community efforts to attract and retain college students. Campus Philly, launched in 2003 as a collaboration between the city, state, local higher educational institutions, and nonprofits, is part of a larger regional economic development effort called the Knowledge Industry Partnership. Campus Philly pursues an integrated strategy based upon three *E*'s: enroll, engage, and employ.<sup>36</sup>

One of the key goals is to attract more and better students to enroll in schools in the region. Through a magazine called *Campus Visit*, the region markets its universities and colleges and explains the opportunities the region—not just its schools—offers college students. In addition, a website affiliated with the magazine offers additional information and links.

Once in the region, Philadelphia organizations seek to increase the number of students engaged in off-campus experiences. Campus Philly maintains a website that helps link students to social and cultural events in the city and offers updated information and discounts for students ([www.CampusPhilly.com](http://www.CampusPhilly.com)). In addition, the group promotes opportunities for community service and other local activities.

Finally, Philadelphia's regional universities and businesses have created an extensive internship program to encourage students to find employment in the area after graduation. In addition to traditional internship events, the Philadelphia regional partners organize fairs according to specific areas of interest such as business or arts, and host fairs geared specifically to minority and international students.

Other regions have worked to develop similar programs. In Northeast Ohio, for example, the private and philanthropic sectors have created special scholarships to help fund internships for talented students from within and outside the region. In Metro Hartford, leaders have launched a Corporate Intern Committee that supports a joint internship effort and hosts an annual "Welcome to Hartford Party" for the thousand-plus interns who come to the region every summer.<sup>37</sup> Other regions seek to complement internships with mentoring programs that link students to local mentors in their area of interest.

Campus Philly has implemented extensive efforts to understand the impact of its program. A 2002 baseline survey showed that only 50 percent of students planned to stay in the region, but by 2005, 65 percent of the students said they planned to stay. Actual retention has increased by more than one thousand graduates since 2004.<sup>38</sup> In general, Philadelphia and other regions have realized that it is helpful to build as many connections as possible between the community and its students during their college experience. The greater a student's personal engagement with the community through work, play, and service, the more likely the student is to stay in the region.

*Starting a family.* The third major event that often compels a move is when couples have their first child. This is the time when the preference for a large, fast-paced urban area is weighed against a desire to raise children in the comfort of a slower-paced setting, often near family. Hometowns have a chance to bring back their native sons and daughters.

Many are trying to do just that. Particularly in the Plains, the Midwest, and the Northeast, communities are embracing homecoming programs aimed at luring talented natives back. The state of Iowa has held receptions for former Iowa residents now living in Sun Belt cities with hopes of convincing them to return. Since 1977, Omaha has hosted a major reunion every two years called "Native

Omaha Days.” Buffalo has a week-long event called “Buffalo Old Home Week.” Although these events do not exclusively focus on bringing home families, one of the key focuses of these efforts is to promote the family-friendly aspects of the communities.

For families making a location selection, the quality of public school education is, not surprisingly, a top priority. Regions and cities that can tout above-average schools should do so. But there are many places that are “above average,” so marketers need to find other distinguishing factors. The Kalamazoo Promise scholarships, for example, give the city a powerful tool in attracting families back.

As talented workers see increasing income growth, they are increasingly able to send their children to private schools or to live in select (and expensive) neighborhoods. Good schools and a safe, nurturing community are not enough for older industrial areas to regain their talented children, but they are certainly positive characteristics that can be leveraged by economic developers.

*Grow the regional job market.* Regardless of age or marital status, as level of education increases, so does the propensity to move. Talented workers, though, are more likely to stay in a region where they can easily find another position in the same field if their particular company or job disappears. Thus regional economic developers should *not* discard programs that are focused on the traditional economic goal of supporting firms that create high-paying jobs.

Cluster-based economic development strategies can help increase the depth of the regional job market. By fostering clusters—geographically proximate groups of firms, research centers, and associated institutions that focus on a particular industry sector or product—regions can direct resources to high-opportunity economic targets. For example, the polymer cluster in northeastern Ohio and the optics cluster in Greater Rochester, New York, are major components of their transitioning economies. By developing truly strong clusters in a few areas, regions can help boost companies’ competitiveness as well as improve the labor market for workers.

Another key policy lever for talent retention is entrepreneurial support. Enabled by new information and communication technology and driven by our heritage of independence, Americans are increasingly seeking to own and operate their own businesses. In older industrial areas where the large firms that dominated regional economies are downsizing—think of Flint and GM, or Rochester and Kodak—entrepreneurship is a particularly important source of job growth. Having a strong entrepreneurial culture and support system will make it easier to retain talented residents who wish to stay in the area even after being laid off.

A variety of entrepreneurship support programs are being implemented across the country, including private and university-based business incubators, federally funded small-business development centers, entrepreneurial mentoring programs, and network development. Programs are increasingly targeted at nontraditional groups, including university faculty in areas other than business and engineering, college students, and older workers. The Kauffman Foundation, a Kansas City, Missouri-based foundation that supports entrepreneurship, has launched its Kauffman Campus Initiative to promote entrepreneurship “campus-wide,” focusing specifically on nontraditional disciplines. The North Central Indiana Maturity Matters initiative also has a significant entrepreneurship component.

Over the past several decades, while the hottest markets have boomed, older industrial regions have been struggling to grow and attract firms and workers. Building clusters of industries and workers and improving opportunities for entrepreneurship are two key strategies these areas can employ to help spur a virtuous cycle of business and job growth, and ultimately build the strong human capital pools they need to thrive.

*Invest in quality of place.* It is increasingly possible for the most talented workers to live where they want. As a result of technology advances, an increasing number of job functions can be done off-site, or at least not at the corporate headquarters.

In response to the growing importance of human capital, companies are now commonly establishing operations around the smart people, not vice versa. And in some industries, particularly professional services such as consulting and accounting, firms are allowing their most prized workers to live where they want and telecommute. Talented people have more choices than ever in selecting how and where they live.

As a result, the lifestyle that a region offers its residents has become increasingly important in new ways. Richard Florida, a professor of business and creativity at the University of Toronto and the most influential proponent of quality-of-place strategies, explains:

Quality of place—particularly natural, recreational, and lifestyle amenities—is absolutely vital in attracting knowledge workers and in supporting high technology firms and industries. Knowledge workers essentially balance economic opportunity and lifestyle in selecting a place to live and work. . . . The availability of job and career opportunities is a necessary but insuffi-

cient condition to attract young knowledge workers. Quality of place completes the picture.<sup>39</sup>

In 1990, Florida concluded that quality of place was a “missing piece of the puzzle” in regional economic development strategies.<sup>40</sup> Today, driven in no small measure by his work on the creative class, that part of the puzzle is no longer “missing.” Regions all across the country are focusing on improving recreational amenities and environmental quality and promoting diversity as part of their talent-development strategies.

The state of Michigan has launched a “cool cities” effort to encourage the availability of art spaces and loft buildings for creative-class residents. Cincinnati, El Paso, and Memphis all have been upgrading outdoor recreational amenities in response to the types of activities that Florida argues are more attractive to younger knowledge workers. Successful talent attraction areas such as Austin, Seattle, and Portland, Oregon, which have traditionally implemented strong environmental policies in response to local concerns, now explicitly incorporate their environmental programs in their economic development marketing strategies.

When it comes to amenities, many older industrial cities start with a lead over competing regions. With their existing cultural offerings—museums, opera houses, and professional sports teams—as well as their historic architecture and streetscapes, they can offer an intimate urban environment that distinguishes them from the homogeneity of many newer areas.

To better serve the younger knowledge workers, however, civic leaders should consider making the “high” cultural activities more accessible. One common strategy is to have special nights and affinity groups for young professionals, such as that being offered by HYPE, the Hartford Area Young Professionals and Entrepreneurs. Outdoor hiking and bike trails, music venues, and cultural festivals are other nontraditional amenities that OIA leaders should consider investing more in. The key is not necessarily creating a large amount of new infrastructure, but leveraging existing resources such as parks, waterfront spaces, and performance venues that can be utilized in nontraditional ways.

### *Attraction Strategies*

Although developing and retaining talented workers is the place to start, the ability to attract talent from outside the region is a strong sign of community health. Ideally, talented individuals from outside a region will be attracted because of the thick job market and regional quality of life. That said, talent attraction strategies

are also useful tools in building a high-human-capital region. Given their significant cost, however, it is important that any such efforts be carefully targeted.

*Expand university-based programs.* Efforts to attract top-notch research professors with financial and institutional incentives have become common practice among universities. Now, efforts to attract talent are being expanded to include student recruitment.

In the 1980s, the University of Texas at Austin leveraged its endowment, then flush with oil income, to attract world-class researchers and build research centers relevant to the area's burgeoning microelectronics industry. Access to top talent at the university was critical to the decisions of two research consortia, the Microelectronics Computing Consortia and Sematech, a semiconductor firm, to locate in Austin.

In a similar effort, the state of Georgia, encouraged by its business community, launched the Georgia Research Alliance in the 1990s. The GRA brought together six universities in Georgia and required them to determine the specific research areas on which they individually wanted to focus. To sweeten the pot, the state legislature approved additional funding for the recruitment of "star" professors to the campuses. In addition to supporting higher salaries, the state allocates funds—up to a million dollars—that the research professors can use to build their laboratories.

As evidenced by the emergence of college and university consortia such as Campus Philly and College 360, the fight for talent now extends beyond the best professors. Colleges and universities that used to rely on local students are increasingly recruiting the best and the brightest from outside their regions. This effort increasingly includes international students. The state of Massachusetts is considering a new program that would promote its universities to prospective Indian and Asian students, and the New England Board of Higher Education has planned a "Think New England Education Mission" to India in January 2008 to promote the area to prospective students.<sup>41</sup>

*Develop creative regional strategies.* Rural areas, particularly in the Midwest, have responded to brain drain by offering free land to people willing to move to the region. Kansas has been the leader, with at least twelve communities that now offer outsiders land and, in some cases, financial support in the form of help with down payments to those willing to move to the Plains.<sup>42</sup>

China offers even greater incentives to lure home its natives who have studied in the United States. The country offers financial incentives to entrepreneurs and

top-level researchers that can include direct payments, free housing, rent-free office space, and start-up funds for businesses or research centers.

The implication for older industrial areas is that they need to work closely with local business, academic, and workforce leaders to assess their talent needs. If these can't be filled by the local workforce, then attraction strategies should be considered. Free land may not be available, but other incentives such as tax breaks, low-interest loans, and business-development support can be extended to individuals. In addition, economic development leaders need to consider human capital when constructing their overall attraction strategies. A focus on firm-level attraction will not be effective unless the region can deliver a high-quality workforce and a quality of life that will keep talent in the region.

## Conclusion

Today, economic development isn't just about new jobs, deals done, or tax revenue. Rather, regional prosperity is about developing, retaining, and attracting talented people.

Regional economic developers, political leaders, and community activists should embrace this reality and develop a talent strategy as a central aspect of their regional development plan. Older urban areas must determine how they will build their own human capital, keep the talented people already in the region, and implement targeted attraction efforts for the talent their firms and institutions need to support innovation.

This is no easy task, as the competition for talent is heating up globally. To win at this game, regions need to continually upgrade the resources they have to offer. These assets include the educational system; the workforce development system; the financial, physical, and institutional infrastructure that supports business development; and, increasingly, the amenities that make up quality of place.

There are some current trends that support older urban areas. Older industrial areas have many of the amenities attractive to younger talented people. Furthermore, these areas' density allows for the physical proximity of people and resources needed to create economies of scale in cluster development, training programs, transportation, and cultural assets.

Even though most older industrial areas start from a difficult set of present circumstances, they can take solace from the fact that many other regions face similar challenges—and that innovation is the driver of today's economy. If the global economy has proved anything, it is that people and regions with new ideas can leapfrog existing leaders.

## Notes

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