

Understanding the Talent-Creation Crisis

Edward E. Gordon

A widening jobs-skills gap now exists across the United States and in many other world labor markets. Survey after survey of large and small businesses and their human resource personnel indicate that the shortage of skilled workers is an increasing concern. International surveys of CEOs rank talent shortages as a major problem.

The December 2015 US unemployment rate of 5.0 percent should indicate that the labor market is in a favorable economic range. However, the workforce participation rate (the percentage of working-age adults either employed or looking for a job) remained at a historic low of 62.5 percent, last matched in 1977.¹ About 94.4 million workers have given up looking for a job. Almost half are retirees, but many of the rest are prime-age workers who are ill-educated or need additional job-skill training to fill the estimated 5.6 to 8.1 million vacant jobs across the United States. Why is this happening?

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The US labor market suffers from a lack of workers with the education and career skills demanded for jobs in the over-\$17-trillion tech-driven advanced economy. A failing twentieth-century-based education-to-employment system is leaving many

underprepared for a more demanding twenty-first-century labor market.

Traditional economic indicators can no longer be relied on to explain the current condition of the US labor market, and fiscal and monetary policies alone cannot rectify this talent-creation crisis. Although this labor-market evolution has been identified by some of society's thought leaders, most of the proposed talent-creation solutions fail to address the broader structural collapse of outdated education-to-employment systems. They fail to apply the interdisciplinary solutions needed for coming to terms with a new labor-market era.

The aim of this article is to offer a better understanding of the range of socioeconomic forces driving today's talent-creation crisis. It then explores best practices and the public-private community talent-creation initiatives that are engaged in most holistic solutions to reinventing regional education-to-employment systems.

TRANSFORMATIONAL ISSUES

This is not the first time in human history in which there has been a society-wrenching transformation in the nature of work. There have been at least five previous labor-market eras: prehistory, the Agricultural Age, the Industrial Age, the Computer Age, and the emerging Cyber-Mental Age. (See **Exhibit 1.**) There often has been significant turmoil in labor markets during past watershed transition periods. This

turmoil is increasingly apparent today as individuals and businesses struggle to make the transition from low-tech to high-tech and from low-skill to higher-skill occupations.

Yet in the twenty-first century, there are significant differences from the previous eras. As Exhibit 1 shows, the time span of each labor era is dramatically compressing. Agricultural labor dominated most of recorded human history. The age of industrial mass production lasted only about 120 years. The Computer Age brought hardware and software that structured the rapid retrieval of stored data for myriad uses; this has transformed almost every industry and spawned the development of numerous new ones. Yet this age has lasted only about 40 years. The information technology (IT) industry is now undergoing a revolution larger than any we have ever seen.

An emerging Cyber-Mental Age will give the well-educated person the power to innovate new products and services by using very advanced technologies to precisely locate and combine data, rather than drowning in a rising sea of random or ill-organized raw information. This assumes that people have the wisdom to use such

technologies—that is, a great liberal arts education plus specific career education and skills in a profession or technical area.

Technology Demands

The Cyber-Mental Age demands larger numbers of workers to be able to think creatively and use combinational logic. Today, not just managers or individuals in the professions need to know how to solve problems and how to collaborate and work together in teams. For example, 30 years ago, 80 percent of US manufacturing workers were unskilled. In today's Cyber-Mental Age, this has been reduced to 12 percent, as digital technology is now embedded throughout most companies. Also, middle-skill jobs are disappearing in a wide spectrum of business sectors. Today's more complex twenty-

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	I	II	III	IV	V
Era	Prehistory	The Agricultural Age	The Industrial Age	The Computer Age	The Cyber-Mental Age
Time	100,000–5,000 BC	5,000 BC–1850 AD	1850–1970	1970–2010?	2010–????
Focus	Survival	Food	Machines	Automation	Innovations
Result	Subsistence agriculture	Farming	Mass production	Data/Robotics	Intelligent machines
People	Irregular labor	Hand labor	Semiskilled labor	Skilled labor	Knowledge labor

Source: Edward E. Gordon, 2016.

Exhibit 1. Five Labor-Market Eras

comprehension and better oral and written communication skills.²

The breakneck pace of technological discoveries will create hundreds of thousands to eventually millions of new jobs in programming, technical maintenance, management, manufacturing, and health care. The challenge between 2016 and 2030 will be finding the talent with the required education and skills for these occupations. However, two-thirds of all job openings will be replacement positions for retiring Baby Boomers.

Demographic Reality

Between 2010 and 2029, a total of 79 million US workers will retire. That is about 10,000 a day for two decades.

The entire world is now in the midst of a demographic upheaval. According to the United Nations, the population of the European Union is set to shrink from 496 million in 2010 to 452 million in 2025. The EU's workforce will also shrink, losing about one million people a year. In Asia, Japan's population is shrinking by 100,000 people each year. The rate of annual population loss in South Korea is 50,000. China will be short 20 million workers by 2020.

The real threat from these demographics is that only one-fourth of US organizations have done any serious planning on how to cope with this expanding talent crisis. Instead, short-term thinking has replaced strategic workforce planning. Many organizations have become hostile to the objective of making long-term investments in their physical or human capital. The labor problem in the United States is exacerbated by the growing global talent shortage, which is largely eliminating the former safety net of foreign

skilled workers filling positions in US businesses.

You Can't Click for Brains

Throughout the history of the United States, each succeeding generation has been better educated and more skilled for future careers than the preceding generation. Unfortunately, this record has ended with the Baby Boomers. ACT/SAT test scores peaked in the early 1970s and have been in decline ever since. The National Assessment of Educational Progress (NAEP), the so-called "nation's report card," reports that achievement levels in reading and math among 4th-, 8th-, and 12th-grade students have basically flat-lined over the past 25 years.

Researchers at the National Bureau of Economic Research believe that the large number of Baby Boomer retirees coupled with their higher education levels will lead to skills shortages. We cannot wish away the demographic changes that are now occurring around the world. They are real. The results will be frightening.³

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The Society for Human Resource Management (SHRM) reported in its November 2015 survey that HR professionals are having increasing difficulty filling jobs in both the manufacturing and service sectors. SHRM indicated that these trends have been increasing over the past 19 consecutive months.⁴ Many other talent surveys conducted by business, government, and

research institutions confirm this jobs-skills crisis.

The bottom line: Unless we adopt proactive talent-creation policies now, we will face a world in which there will be a lot of people without jobs and, at the same time, a growing number of jobs without people. This is not a future anyone wants or needs. The unemployment rate will keep falling, but for the wrong reasons, as more people leave the workforce because they do not have the skills employers are seeking. The biggest cultural challenge for the United States in this new labor-market era is to raise the job/career and educational expectations of students, parents, workers, businesses, educators, and politicians in order to create a larger pool of skilled talent.

REBUILDING THE SYSTEM

Despite the enormity of the challenge, the United States and other nations must implement the massive socioeconomic changes required for a more demanding talent-creation system. We tend to forget that about 100 years ago, between 1890 and 1920, the United States experienced a similar shift in employment and education with equally daunting challenges.

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At that time the nation's economy shifted from being primarily agricultural to one based on industrial production. Urban areas swelled as factories and offices grew, and large numbers of immigrants came to the United States to find better economic

opportunities. Public schooling in the cities took on the task of assimilating the newcomers and providing them with the ethos and education needed for jobs in offices and factories.

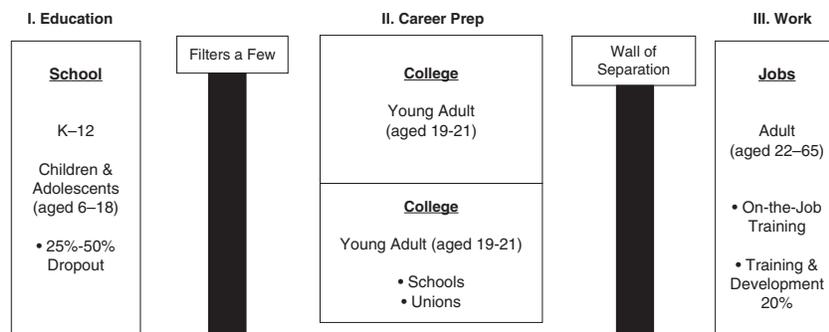
Even more importantly, children were removed from labor in factories and on farms and sent to school. For the first time, women attended high school in large numbers. This education revolution was triggered by the introduction of the new advanced technologies of that day: electricity, assembly lines, automobiles, tractors, telephones, radios, household appliances, and so forth.

Community, business, and political leaders came to see the links between supporting a new education-to-employment system and social progress. Samuel Gompers of the American Federation of Labor, newspaper publisher Henry George, industrialists Henry Ford and Andrew Carnegie, inventor and scientist Thomas Edison, and politicians such as Theodore Roosevelt and Woodrow Wilson all joined together in supporting and building mandatory, tax-supported public education.

This system fostered education and skills for this new age plus a work ethic that included punctuality, respect for authority, quality workmanship, and self-discipline. The United States was the first nation in history to attempt to create and support such an education-to-employment system. It has served the nation well. (See **Exhibit 2**.)

How the System Worked

For most of the twentieth century (through two world wars; the rise of the US middle class; and the collapse of the Soviet Union, ending the Cold War), this educational arrangement worked very well. It transformed the United States from a rural,



Source: Edward E. Gordon, 2016.

Exhibit 2. *The US Twentieth-Century Education-to-Employment Talent System*

agricultural nation into the world's number-one economic superpower. It was not a perfect system, but it was strengthened over the next decades by the GI Bill, vocational-technical education programs, and much more.

Here's how it worked: by 1970, about 25 percent of the population graduated from college; 40 percent graduated from high school, some going on to additional technical or postsecondary education; the bottom 35 to 40 percent had a hard time in school, and more dropped out with each passing decade of the century. (These are approximate ranges.)

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Because this US educational game plan worked for so long, for so many, most people came to believe that only a fraction of the population (particularly future managers and professionals) were capable of really benefiting from quality education programs. So why spend more money on the rest?

It was a closed system that compartmentalized life into three separate segments: education, career preparation, and work. The smarter kids went on to college from high school to prepare for white-collar careers. The others were funneled into technical education and apprenticeships for blue-collar jobs or went straight into the workplace.

The system then erected a high brick wall separating the "real world" of work from the "theoretical world" of education and career preparation. People openly talked about the year you "got out," as if high school or college were a prison. Apprenticeship education existed in its own limbo between these two worlds. Most people never crossed over the wall again. Yes, professionals, executives, salespeople, and advanced technicians did receive some training and development, but most workers were lucky even to receive on-the-job training. Historically, college tuition reimbursement has been the most underused US employment benefit. This was basically a closed education-to-employment system for most workers. But there is little doubt that it was a decisive factor in making the twentieth century the "American Century." This was their revolution. We need to do it again in the twenty-first century!⁵

From Isolation to Engagement

Most US residents know that something bad is going on in their community's labor market. There is a growing sense of cultural disintegration. Robert Putnam, in his book *Bowling Alone: The Collapse and Revival of American Community* (Simon & Schuster, 2000), documents the decline in many forms of social and civic involvement. In today's social order, relations tend to be superficial, the restraints imposed by public opinion on unacceptable personal behavior are weak, and a sense of a common cause with one's neighbor has begun to wane. New media has led to diminished face-to-face contact and civic engagement.

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Putnam points out that 100 years ago was a time of mass social unrest and change across the United States. He says grassroots community organization "... inventiveness reached a crescendo unmatched in American history, not merely in terms of number of clubs, but in the range and durability of the newly founded organizations. ... Their diagnosis of social change led to prescription, not despair." These local community activists saw "society's ills, poverty and the rest, as reflecting societal and economic causes, not individual moral failings." The Progressive outlook "was activist and optimistic, not fatalist and despondent."⁶

Most historians agree that these decades saw a veritable boom in association building as the cultural norm. Society was reformed on the foundations of "a massive

new structure of civic associations." The so-called club movement, emphasizing a culture of self-help, swept across the United States. Ordinary people—amateurs—became involved in alliances across class lines. This was both top-down and bottom-up at once, as popular debate about local issues became part of the culture.⁷

New types of associations multiplied, chapters of preexisting groups proliferated, and associations set up national, state, and local groups including chambers of commerce, the Rotary, the Better Business Bureau, the Parent-Teacher Association (PTA), Boy Scouts, Girl Scouts, 4-H, the Society for the Prevention of Cruelty to Animals, and numerous other organizations.⁷

Investing in Human Capital

Today, every community still contains dozens of people who do want to create something—people with ideas and ambitions for a better future. But they need information and contacts as well as obstacles cleared out of their way. Ernesto Sirolli calls this "enterprise facilitation"—a technique that has generated hundreds of new enterprises and thousands of jobs in the United States, Canada, Australia, and New Zealand. Enterprise facilitation starts with the idea that much of social and cultural development is something that people should do for themselves.⁸

Unlike the past 50 or even 70 years, during which US business had an almost unquenchable thirst for men and women with minimal education, twenty-first-century technology has less and less use for them. In every type of business, there is a demand for knowledge workers (i.e., persons with specialized career training and a sound liberal arts education). With job content changing so

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Times have changed. As the world moves into the Cyber-Mental Age, it is the brains behind the technology that makes innovation happen. Without this talent, you are left with a pile of useless hardware and software.

How does innovation happen? Luck? Genius? Personality? Evidence shows that most people’s ability to innovate develops gradually over time. (See **Exhibit 3.**)

As students move through elementary and secondary school, they need to both amass information through memorization and develop their capacities to learn how to learn. By adolescence they should be fully proficient in learning how to pursue and assimilate new knowledge.

More of today’s students attend postsecondary programs centered on career development. The young adult begins to experience some of the “aha” moments in

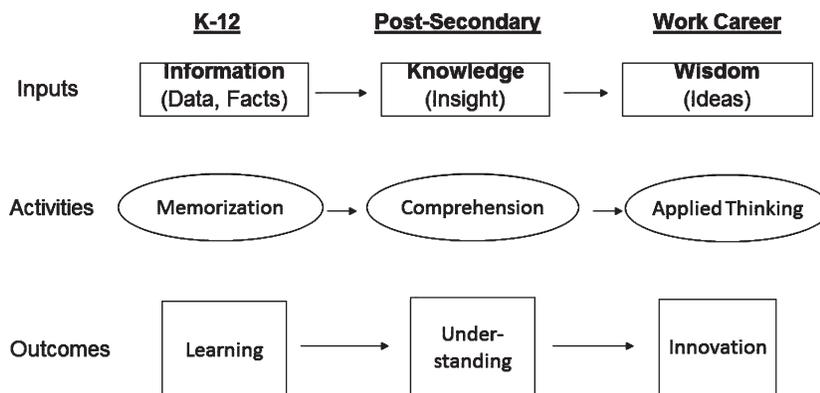
life including a growing comprehension of the basic nature and demands of specific occupations. Previously acquired data and facts are utilized to form new mental maps that provide greater understanding of how the world functions.

When young adults enter the workplace, many face the challenge of putting theory into practice for the first time. They need to employ all the information they have gained, plus their problem-solving and critical thinking skills to generate new ideas that in turn produce innovative products or services.⁹

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That means that both Wall Street and Main Street have to change their thinking. This is already happening. The 2015 *Training Annual*



Source: Edward E. Gordon, 2016.

Exhibit 3. How Innovation Happens

Industry Report indicated that US business training investment rose by 14.2 percent from 2014 to a total of \$70.6 billion.¹⁰

The United States needs to increase its economic growth by accelerating the structural and systemic actions that will bridge the jobs-skills gap of this Cyber-Mental labor-market era. Regional public-private partnership networks that include businesses, educators, nonprofits, and other community groups have begun this process. To describe these many systemic solutions to the skills-job disconnect, I have coined the acronym RETAINs (Regional Talent Innovation Networks). We need to support and speed up these efforts to reinvent local education-to-employment systems.

WHAT RETAINS DO

Regional Talent Innovation Networks are all about creating local delivery systems that both reeducate those already in the workforce and better prepare a larger proportion of students for current jobs and future careers that will be created by the ongoing jobs revolution. The over 1,000 RETAINs across the United States include have chosen a wide variety of names, such as:

- ❑ The New North, Inc. (Wisconsin)
- ❑ The Vermilion Advantage (Danville, Illinois)
- ❑ High School Inc. Academies Foundation (Santa Ana, California)
- ❑ The Coachella Valley Economic Partnership (Palm Springs, California area)
- ❑ New Century Careers (Pittsburgh, Pennsylvania)
- ❑ Partners for a Competitive Workforce (Cincinnati, Ohio)

In *Maximum Impact Education: Six Strategies to Raise Student Achievements*, Jack

Oakes relates how community development efforts like those initiated by the organizations listed above began in the late 1990s to cope with changing demographics and the unmet skill demands of community employers.¹¹ People were leaving the area. Businesses were closing or moving elsewhere. The community tax base was being seriously threatened.

Today, across the United States a rising number of businesses struggle to find the skilled workers they need. They have limited funds to train workers and often fear that if they do provide training, the workers will be poached by others. RETAINs provide a solution, and the High School Inc. Academies Foundation is a good example. The foundation is supported by hundreds of businesses that are working together by giving their time, talent, and financial contributions to help develop career programs that teach students the skills needed for current employment in their firms as well as skills they foresee needing in the future. "The story of how Santa Ana discovered the power of the 'Business and Education Connection,'" states David Elliot, president/CEO, Santa Ana Chamber of Commerce, "is an important one for every town, city, and community in America."¹²

The business-education connection is also the most important part of Jack Oakes's message. Comprehensive career-academy community high schools can be broadly implemented anywhere in the United States. This educational updating process is both doable and urgently needed. Such academies enable students to make more informed choices regarding the options for postsecondary career preparation ranging from careers requiring professional or bachelor's degrees to the less publicized

middle-job options requiring career-specific certificates, apprenticeships, or associate's degrees.

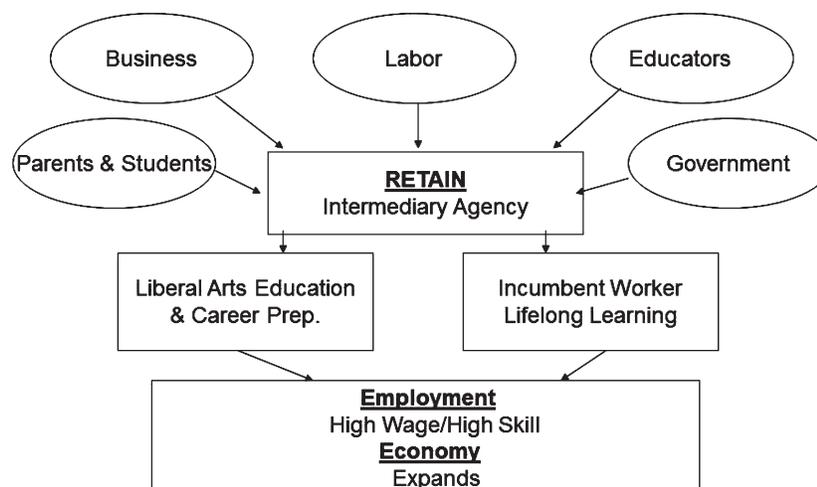
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RETAINs recognize that much of successful education is up to parents. But what are the cultural expectations of parents regarding the impact that education has on their own life and the future of their children? If parents do not make clear in word and action that they highly value learning and support the long-term schooling process, it is very difficult for any teacher to motivate children or adolescents to put their best efforts into classroom learning. RETAIN engagement and information sharing with parents on education and careers is critical to the overall successful rebuilding of the US education-to-employment system.

RETAINs act as neutral intermediaries that provide a place in which different groups can gather and safely collaborate. They produce cross-sector programs that support skill needs common to many businesses. RETAINs help minimize the poaching risks and promote a more positive overall regional business culture of creating rather than stealing talent from each other. (See **Exhibit 4.**)

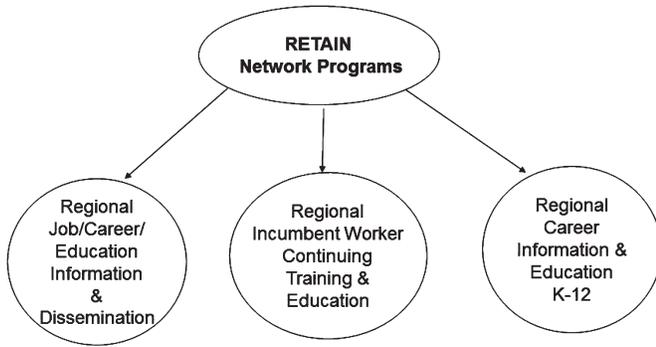
RETAINs succeed because individual groups form a new shared vision of a larger community arising from a variety of isolated silos. Each group has its own agenda and needs, but each also has an influence on the whole community and depends on the success of the whole community. (See **Exhibit 5.**) RETAINs are of particular interest to small business owners because they offer a viable way of pooling their resources through joint programming that will inform, attract, and prepare skilled workers to fill current vacant jobs.

Successful RETAINs are now being built by community and civic activism. They were



Source: Edward E. Gordon, 2016.

Exhibit 4. Build a RETAIN Network



Source: Edward E. Gordon, 2016.

Exhibit 5. Shared Talent Vision

begun by enlightened local leaders from many community sectors who are concerned about their regions’ future economic survival. In Santa Ana, the Chamber of Commerce, local school district, businesses, government agencies, and other organizations worked together to rebuild the talent pipeline by implementing structural changes that updated its education-to-employment system. (See **Exhibit 6.**)

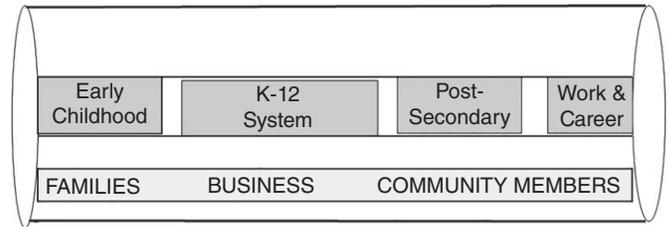
A depiction of what a new model twenty-first-century education-to-employment system is presented in **Exhibit 7.**

A New Education Model

Educational programs will provide students with a sound liberal arts education and

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opportunities to acquire career information and exploration experiences. Because of increased educational requirements, a longer school day and school year will become standard. Multiple curricula and teaching



Source: Edward E. Gordon, 2016.

Exhibit 6. Rebuilding the Talent Pipeline

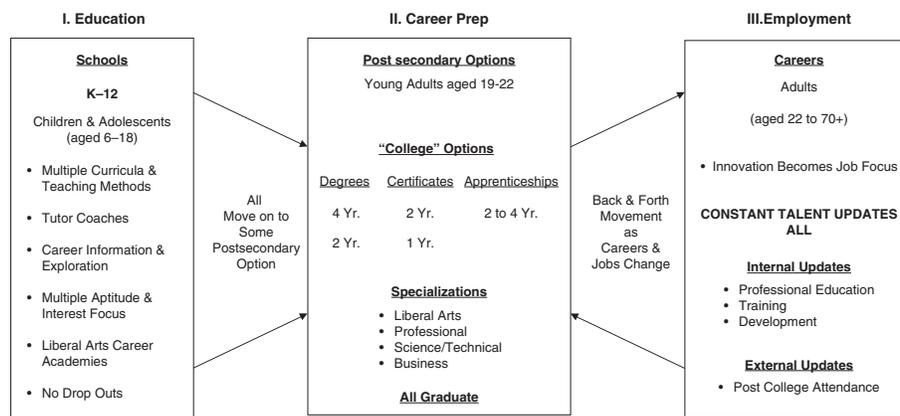
methods will be widely implemented to accommodate different learning modalities. To help students perform at the expected grade level in reading, writing, and math, different forms of individualized learning programs, such as tutor coaches, will be used to address the needs of students who are falling behind or in danger of dropping out.

Career Preparation

Young adults will have the necessary knowledge to successfully enter degree, certificate, or apprenticeship educational programs without requiring remedial education. Flexible options will enable them to complete specialized career education based on each person’s aptitudes and interests. Lifetime learning will be recognized as a necessity as jobs and career areas continue their rapid evolution.

Employment

All employers will begin to recognize that their employees will need continuing knowledge updates as part their organizations’ talent management/creation programs. These programs will include management implementation of both short-term and long-term strategic workforce plans. Employers will provide internal job



Source: Edward E. Gordon, 2016.

Exhibit 7. The Model for the Twenty-First-Century Open Education-to-Employment System

training to new hires and incumbent worker training and development updates as well as participate in RETAIN initiatives that facilitate the development of educational programs to fill the skill demands of regional employers and that provide up-to-date career information starting in elementary schools and continuing at the high school and postsecondary levels.¹²

RETAIN BASICS

Every RETAIN has its own vision of how to achieve these goals. However, there are four basic guiding principles behind the Regional Talent Innovation Network movement:

1. RETAINs are nonprofit entities that act as intermediaries to bring together an array of community businesses, educational institutions, government agencies, and economic and social-service programs into a new collaborative mix. The purpose is to rebuild the regional education-to-employment service delivery system.
2. RETAINs do not duplicate services already in existence nor create another

layer of bureaucracy. Instead, they better harmonize those that already exist and devise new ways of ascertaining that funding streams from the twentieth century are updated and new ones secured to blend K-12, career education, and adult training for jobs in a twenty-first-century economy.

3. RETAINs help regions come together and create a new vision of what's needed today. How can more students be better prepared for a twenty-first-century society? What can be done to help businesses keep up with the technical breakthroughs/processes/management structures and so on, that employees must learn, understand, and apply to innovate and improve performance, productivity, and profit?
4. RETAINs are excellent examples of the free-enterprise system at work. They are all about building today for a better tomorrow. They make sure that everyone understands that developing human capital is the community's primary goal. Through their inclusiveness, RETAINs bring all segments of communities together, thus

facilitating the flow of ideas and allowing the best ones to be implemented.

The United States has always been about the future and building better opportunities for the next generation. The RETAIN movement can serve as a talent-creation catalyst to spearhead our commitment to building a future where more children and adults are better prepared with the education and skills they need for success in the twenty-first century. RETAINs help translate the interdisciplinary complexities of talent creation into a more understandable set of workable best practices.

NOTES

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12. See note 2, 169-176.

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