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Knowledge Shock Series Part 3: Apprenticeships & Other Gateways to Good Jobs

Apprenticeship through the Ages

In the 1920s my father Earl G. Gordon attended Bowen High School on Chicago's south side. He was a great athlete and a member of the school's football team that won the Illinois state championship in 1929. His dream to study at Michigan State University to become a coach was crushed by the Great Depression.

Apprenticeship in a carpenter's union, however, provided his lifeline in those difficult economic times. In 1937 after passing his final test by designing and building a spiral staircase, he became a union carpenter. Fifty years later he received his union's Gold Card. Until he retired at age 80 from a profession he loved, my father spent a lifetime building homes and doing custom remodeling.

Today in the Austin neighborhood on Chicago's troubled west side, poverty is rife, and many students entering high school test as low as the 4th-grade-level in reading and math. Alex was a typical student. He didn't attend class very often. When he did go, he spent most of his time selling drugs or making trouble. Alex didn't see any point in attending class because, "They weren't teaching anything I needed to know and I needed to know how to make some money." A teacher convinced him to take a few classes at the newly opened Austin Polytechnical Academy. "Man, I really took to working with the machines," Alex recalled. He earned industry certifications that prepared him to work as a skilled machinist. After graduation, Alex was hired by a local manufacturer. He not only is considered a model employee, but he also is pursuing further training to upgrade his skills.

When asked what his family thinks of him now, he speaks with pride, "I have two cars, I'm taking care of my daughter, and I make around \$70,000." He choked up when he said, "My mom is real proud." (Philanthropy Journal News, January 3, 2017)

The Current Status of Apprenticeship & Allied Initiatives

As these two accounts show, apprenticeship and high school career academies can be keys to satisfying and gainful employment. Today about 500,000 individuals are enrolled in U.S. apprenticeship programs, about half sponsored by unions and half by businesses. But this number is not nearly enough as there are growing shortages of skilled workers in many business sectors.

Across the nation over 200,000 construction jobs are unfilled. "Contractors would hire more workers if enough qualified applicants were available," said Stephen E. Sandherr, chief executive officer of the Associated General Contractors of America. Their recent survey of 1,600 members showed that 70 percent are having difficulty filling hourly craft jobs.

Regional initiatives to increase apprenticeship numbers are gaining momentum. They include an outreach program that provides high school students in southwestern Pennsylvania with information on apprenticeship opportunities. The Builders Guild of Western Pennsylvania that represents 16 building trade unions and 6 contractor associations forecasts that to keep up with demand the region's training centers will need to double or triple the number of apprentices entering their program. The Chicago Regional Council of Carpenters has participated in a television series, now in its fourth season, titled "Built to Last" that is designed to showcase "the positive impact a skilled union labor force has on people's day-to-day lives." In a recent full-page *Chicago Tribune* advertisement, the council both promoted this series and also encouraged readers to learn about its apprenticeship program.

Manufacturing is another business sector reporting difficulty in finding qualified applicants .A July 2017 Society for Human Resource Management survey reported that 43.3 percent of respondents in the manufacturing sector reported increased recruiting difficulty. Only 20 percent of U.S. apprenticeships registered with the U.S. Department of Labor are in the manufacturing sector. (*Wall Street Journal*, 6/17/2017) The Manufacturing Institute forecasts that within ten years U.S. manufacturers will face a shortfall of 2 million qualified workers. In the Greater Chicago Metropolitan area there are over 30,000 vacant jobs in high-end manufacturing. There are another 19,000 vacancies in the rest of Illinois.

One notable initiative in the Chicago area to address the skills-jobs gap is Manufacturing Renaissance, a non-profit organization that was recruited by Arne Duncan, then the Superintendent of the Chicago Public Schools, to offer a pre-engineering program for high-end manufacturing careers in a Chicago public high school. The result was Austin Polytechnical Academy of which Alex earlier profiled in this report was a graduate. It has now evolved into the Manufacturing Connect Program at Austin College and Career Academy. Since 2007, the Manufacturing Connect program has had over 100 manufacturers as partners. In the last seven years, its accomplishments include: 420 work experiences including job shadows, paid internships, and summer jobs in manufacturing; 421 nationally recognized industry credentials earned by 215 students; 73 graduates earning between \$20,000 and \$75,000 per year plus benefits in full-time manufacturing jobs; initiating the only current Chicago Public School dual-credit manufacturing technology class in which students earn college credits as well as industry credentials. The pre-engineering program begun at Austin College and Career Academy is being expanded to two additional Chicago public high schools, Prosser Career Academy and Bowen High School.

Manufacturing Renaissance is an excellent example of a Regional Talent Innovation Network (RETAIN) that is cooperating in a variety of programs to increase advanced manufacturing skills. It raised the private funding needed to establish the WaterSaver Faucet Manufacturing Technology Center, the only accredited machining training facility on Chicago's west side and in Chicago Public Schools. Manufacturing Renaissance began an adult manufacturing training program that has assisted adult trainees to secure jobs or earn promotion at their current employment. This program is now being operated by the Jane Addams Resource Corporation. It is the model used by the SAFER Foundation in their very successful training program for formerly incarcerated individuals. In addition, Manufacturing Renaissance recently has been

awarded funding from the Illinois Department of Commerce and Economic Opportunity to expand youth pre-apprenticeship educational opportunities.

Manufacturing Renaissance is expanding its reach in Cook County and showing the way for other RETAINs to begin similar efforts. It illustrates that for a RETAIN to be successful there must be strong cooperation among educational entities, the business community, unions, government agencies, and non-profit partners.

Focus on Vacant Jobs

The August unemployment rate reported by the Bureau of Labor Statistics was 4.4 percent. However the average duration of unemployment was 24.4 weeks, which is higher than any level since 1982.

Wage levels are still not rising in most occupational areas. One factor is that 20 percent of new jobs during the past year were in the restaurant sector, one of the lowest paying fields.

The Department of Labor's August JOLTS survey reported that job openings increased 8 percent to 6.2 million, the highest on record since 2000. Finding workers with the requisite education and skill levels remains a big problem for an increasing number of businesses of all sizes. Many now rate finding and retaining skilled workers as their most important challenge. The August Federal Reserve Beige Book reports that a shortage of workers is stifling employment growth in many industries. The Minneapolis, Atlanta, and St. Louis Federal Reserve Districts reported that firms have turned away business due to a lack of skilled workers. The Dallas and San Francisco Districts saw wages rising because of labor shortages.

Yet over 39 million prime-age workers (aged 16 to 55) have given up looking for work. Although their labor force participation rate has improved somewhat, at 62.9 percent it remains far below the participation level of the 1990s. If these Americans were added to the unemployment calculation, the unemployment rate would be a more accurate 18.5 percent.

Until more U.S. businesses increase their job training programs to help fill job vacancies, the skills-jobs gap will continue to retard economic growth across most of America. From 1995 to 2016 the proportion of U.S. businesses providing training fell from 35 percent to only 20 percent. Unless U.S. business gets more skin in the game including support for cross-sector education and training programs, we can expect job vacancies to continue their dramatic rise. Without significant initiatives to upgrade training and education-to-employment systems, it is possible that 14 million jobs may be unfilled in the United States by 2022 driven both by massive baby-boomer retirements and the continued mismatch of worker skills and job requirements.

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