

The Role of Skills and Jobs in Transforming Communities

Harry J. Holzer

Georgetown University

Abstract

This article outlines the obstacles to widely shared prosperity in the labor markets of older communities in the United States. It addresses the need for more and better jobs, for the education and training programs to give workers the skills to fill these jobs, and for improved access to good jobs and schooling for minority and low-income residents. Examples of successful or promising approaches in each area are provided. Policy implications include government efforts to encourage the creation of more high-wage, high-performance jobs; provide more resources and incentives to community colleges to improve the employment outcomes of disadvantaged students; expand sector-based training and high-quality career education and apprenticeships; and expand services that would link all residents in a metropolitan area to good schools and jobs.

Introduction

Virtually any proposal to transform communities in urban America lists widely shared prosperity among residents as a top goal. Indeed, this goal is usually the primary motivation for recommending or undertaking such efforts.

Achieving and sustaining widely shared prosperity can be very challenging, however, especially in light of the enormous changes that have occurred in the U.S. labor market during the past few decades. Specifically, the skills required by employers for good-paying jobs have increased dramatically and are frequently in flux. Residents of low-income communities in particular lack opportunities to build the necessary skills and obtain these good-paying jobs. In many regions, good-paying jobs are either scarce in general or out of reach for low-income residents who may lack not only the requisite skills, but also access to jobs due to weak information networks, geographic imbalances, and lack of transportation, as well as discrimination.

In this article, I outline obstacles and potential solutions to achieving widely shared prosperity in the labor markets of lower-income communities in the United States. I address the following.

- On the demand side of the labor market, a need for more and better jobs.
- On the supply side of this market, opportunities for better education and skill development among urban workers.
- Access to good jobs and skill-building opportunities for disadvantaged students and workers.

Labor Demand: More and Better Jobs

Labor demand in any city or metropolitan area refers to the quantity and quality of jobs created there, along with the recruitment, hiring, and training efforts by employers in filling them.

Current State of Affairs and Challenges

Over the years, analysts of urban and metropolitan areas have described economic development policies to improve job availability and job quality. Recently, Liu (2016) outlined a series of necessary steps to remake regional development in ways that generate and sustain inclusive growth. The steps include setting appropriate goals, boosting trade (of locally produced goods and services) with other regions and countries, investing in worker skills, and connecting places to one another within the region. These steps strike me as appropriate goals, although challenging to achieve; other analysts agree (Bartik, 2016; Benner and Pastor, 2016; Nowak, 2016; Rubin, Blackwell, and Schildt, 2016). Liu's colleagues Katz and Bradley (2014) described cities and regions in the United States—including Denver, Colorado; Houston, Texas; Los Angeles, California; New York, New York; and the northeast Ohio region—that have successfully begun such transformations.

Optimistic newer voices in this area are Van Agtmael and Bakker (2016), who argued (starting with the title of their book) that Rust Belt cities and neighborhoods are becoming "...the smartest places on earth." Surveying changes they observed in Akron, Ohio, and Malmo, Sweden, and also in a range of other U.S. cities—like Minneapolis, Minnesota; Portland, Oregon; and Raleigh-Durham, North Carolina—the activities that allow for dramatic changes in the economic environment. They stress the importance of connections across major stakeholders, collaboration between universities and entrepreneurs, focus on a few key industries and innovations, access to capital markets, and creating an appealing local environment (both professional and social) that acts as a magnet for talent to the area. Other authors, such as Porter (2016), have argued for decades that distressed inner cities have competitive advantages that could be much better harnessed for inclusive economic development.

Despite their great optimism, Van Agtmael and Bakker (2016) and others have provided little evidence that the changes they describe are possible in *any* Rust Belt city. Indeed, even in the cases surveyed, they provided little evidence that the innovative industries generate employment with sufficient scale and breadth of skill demands to generate inclusive prosperity for most residents of lower-income neighborhoods.

Moreover, although low-income residents do benefit when their cities experience turnaround, the size of these benefits is in question. Glaeser (2011) and other economists have shown that a large concentration of college-educated workers in a city generates spillover effects in the economy that

raise the earnings of less-educated workers, and Moretti (2012) showed that cities that become centers of innovation also generate spillovers that raise wages of that group. In general, the overall unemployment rates and employment growth rates of cities have large effects on the employment of their low-income or minority groups (Hines, Hoynes, and Krueger, 2002). Still, no evidence is available of very widespread prosperity generated by these more general increases in high-skilled earnings and employment. Moreover, even though opportunity exists in these growing economies, housing prices reflect the economic growth and prevent lower-income households from accessing the better jobs that result (Acolin and Wachter, 2016). Thus, achieving these outcomes alone will not create broadly shared prosperity.

In addition, new research findings should further temper optimism regarding the arguments of Van Agtmael and Bakker, among others. Large gaps are evident in educational attainment and achievement, and in earnings—between White and minority children and between children from high- and low-income families—that may be barriers to positive spillovers. Although racial gaps in education have declined a bit over time in the United States, they remain very large, and gaps between high- and low-income children have grown (Reardon, 2011). Issues of access to good education are paramount (Steinberg and Quinn, 2016).

Within metropolitan areas, residential segregation by income is rising, even while it falls modestly by race (Bischoff and Reardon, 2013); such segregation likely contributes to growing gaps in educational achievement and other outcomes across children (Chetty, Hendren, and Katz, 2016). Also, across cities and regions, highly educated workers are sorting themselves in ways that cause them to be much more concentrated in some places than in others; where they concentrate, housing prices rise and drive out lower-income residents (Diamond, 2016), causing further imbalance (Acolin and Wachter, 2016). Also, Autor, Dorn, and Hanson (2016) recently created a very disturbing portrait of regions hurt by major shocks of imports (in this case, manufactured goods from China), documenting not only the degree of distress that results, but also how slowly the adjustment processes (such as new jobs developing and labor migrating to areas of greater job availability) occur.¹ Higher rents and housing cost barriers in regions with job growth may affect mobility (Acolin and Wachter, 2016).

Opportunities for Solutions

Despite these challenges, opportunities for solutions are also apparent. First, the U.S. labor market has been recovering from the terrible effects of the Great Recession; as of mid-2016, the unemployment rate is down to about 5 percent, wages are finally starting to rise faster than inflation across the country, and even labor force participation is beginning to recover. If the recovery can be maintained, local labor markets will be tighter, and the extent to which prosperity from any new economic development can spread will rise.

Second, some markets for middle-skill jobs—which pay reasonably well for workers with less than a college bachelor's degree—are already tight around the country. Although much has been written

¹ Blanchard and Katz (1992) empirically documented the general process of adjustments of metropolitan areas to major employment shocks, although Bound and Holzer (2000) also showed slower migration responses among less-educated or minority workers than others.

about the “hollowing of the middle” in the job market (Autor, 2010), a closer look at the data generates a more complex picture—whereas good-paying production and clerical jobs for workers with only a high school education have been disappearing, others requiring more skill have been growing (Holzer, 2015a). The latter group includes jobs in health care, advanced manufacturing, information technology (IT), transportation and logistics, hospitality, and the higher ends of retail. Some of these jobs require technical training at the certificate or associate degree level, but others can be obtained with less technical training.

Indeed, some industry analysts claim that these industries suffer from serious shortages of middle-skilled workers, although the claim is controversial.² Nevertheless, signs point to labor market tightness in the particular occupations and industries noted previously, especially in regions where worker skills are low. Also, as baby boomers retire, the market will become tighter, creating demand that could be filled by newly trained workers in older and less affluent communities. Indeed, tighter markets are the best antidote for overcoming employer prejudices and reaching out to categories of job applicants that they have avoided in the past (Holzer, Raphael, and Stoll, 2006).

Third, job availability can sometimes rise in response to the creation of newly skilled workers—in other words, improvements in the supply of skills can help generate demand for them. Thus, I subsequently discuss the role of generating new skills in creating job opportunities. In fact, foreign companies—such as manufacturers from Germany—are flocking to states (like North Carolina and Tennessee) and regions where they perceive sufficient skills in the population, among other characteristics. Indeed, a few years ago, Siemens famously waited to build its fairly new gas turbine engine manufacturing plant in North Carolina until they had developed arrangements with local community colleges and universities to create a steady stream of trained technicians and engineers. (In a subsequent section, I specifically suggest policies to encourage firms to work with communities to implement such sector-based strategies.) German companies, among others from around the world, generally find the United States a positive business environment (due to low taxes, low regulation, low energy costs, and proximity to a great consumer market), although they are often reluctant to do more here until local skills problems can be solved (Schwartz, 2013). In this way, job creation and skill development in high-demand fields can reinforce each other.

Fourth, separately from the *quantity* of employment growth, it is possible to upgrade its quality. Labor economists have long been aware that employers can often choose between high-wage and low-wage (or high-road and low-road) strategies to making profits; whereas the former stresses investments in training, high productivity, and low turnover, the latter stresses low labor costs (Andersson, Holzer, and Lane, 2005).

Firms can create good job opportunities by upgrading their workers’ skills. Cases of firms that upgrade the quality and skills of their workers—through significant on-the-job training and promotion ladders—to create and then fill good-paying jobs are well documented. For instance, Ton (2014) described some well-known American companies—such as Toyota Motor Corporation, United Parcel Service, Inc. (UPS), Costco Wholesale Corporation, and Four Seasons Hotels—that have undertaken

² For instance, see the Manufacturing Institute (2013) for claims of shortages, as well as Cappelli (2014) or Osterman and Weaver (2014) for more skeptical accounts. A new report by the National Academy of Sciences (2016) strikes an appropriate balance between these competing claims, as does Holzer (2015a, 2015b).

a set of strategies designed to raise both earnings and productivity among its workers, while preserving or even raising company profits. These strategies change the operations of the companies quite dramatically to improve customer service and the quality of work performed.³

Although policies to encourage and support more “high-performance workplaces” have been advocated (Kochan, 2015), in recent years, it appears as though low-road (cost-minimizing) personnel policies in the United States are becoming quite frequently used (Weil, 2014). Again the data are not absolutely clear and the trends are not immutable.⁴ Attempts to assist and incentivize more firms to take the high road and to learn what does and does not work in this regard are certainly in order (Holzer, 2015b).

Because the United States has very little experience to date with these types of policies, city officials do not know exactly what kinds and levels of incentives or assistance offered by federal and state governments would induce firms to adopt high-performance strategies. Governments could experiment, for example, with technical assistance organizations for a range of industries along the lines of the Manufacturing Extension Partnership, grants or tax credits to firms that build new promotion ladders or adopt profit sharing, or preferences in contracting for firms that engage in such practices.

Can local and metropolitan areawide economic development policies build on these more promising trends and strengthen the demand for workers in older communities? The body of evidence remains thin, but a few economists have provided sensible arguments about avoiding zero-sum battles of tax reductions across states and combining customized services for firms with appropriate assistance in areas such as regionwide appropriate skill development (Bartik, 2016). How well these approaches work and how broadly they build prosperity in combination with other development activities remains to be seen.

Labor Supply: Better-Educated and Better-Skilled Workers

Actually turning around declining cities and regions is impossible without improving the education and skills of its workers, which should be a focus of effort. Some major challenges plague efforts to improve education and skills, however, especially in areas of concentrated disadvantage. The following section identifies solutions to the challenges of skill transfer.

Current State of Affairs and Challenges

Job training for good-paying, high-skill jobs requiring bachelor of arts degrees (BAs) or more takes place at 4-year colleges and universities; whereas, training for middle-skill jobs mostly occurs

³ Ton (2014) focuses on four key goals in business strategy to improve workers' wages and performance while delivering greater value to customers and investors: (1) Offer fewer products to customers, with fewer sales promotions and gimmicks, perhaps at fewer hours; (2) standardize many operations and empower employees to make key decisions on how to implement them; (3) cross-train workers to perform a range of duties and jobs; and (4) operate with slack to ensure that customer service is amply provided in all circumstances.

⁴ One macro argument that suggests an aggregate shift by employers toward low-wage, cost-minimizing strategies is the current combination of high profits and low productivity growth in the United States in the past decade. See Baily and Bosworth (2015).

at community colleges—in associate degree programs in arts (AA) or sciences (AS) or in certificate programs, which can be for academic credit or not. Pell Grants now fund much of this training—at least when the programs of study are for academic credit.⁵

Huge numbers of students—including those from disadvantaged backgrounds, both young (coming out of high school) and older—enroll in community colleges; completion rates, however, are extremely low. Completion rates for youth in AA or AS programs nationally are about 20 to 30 percent and much lower among low-income students and especially among adults. Furthermore, in some states, large percentages of students complete AA programs in the humanities (especially in general studies or liberal arts programs), which have nearly no labor market value, while avoiding AS or certificate programs that are much better compensated (Backes, Holzer, and Velez, 2015).⁶ Also, many students emerge from programs with substantial debt, especially if they attend for-profit colleges.⁷

Why are these outcomes so bleak? For one thing, many students enter college with a number of disadvantages. Most obvious are their weak academic skills, resulting from poor academic work in kindergarten through 12th grade (K-12).⁸ Entry rates into “developmental education”—or remediation—at community colleges are as high as 60 percent (Bailey, Jenkins, and Jagers, 2015). Students who cannot pass an Algebra I or English reading test are required to take and pass developmental education and entry exams before they can take classes for credit—even if Algebra I is not particularly necessary in their programs of study. Traditional remediation also has generally been very ineffective or even harmful at community colleges (Clotfelter et al., 2013).

In addition, disadvantaged students are hurt by a variety of other problems. First, high and rising tuition rates hurt families without substantial liquid assets and keep many students from institutions other than the local community colleges.⁹ Second, even when students might be qualified for admission and financial aid at better schools, first-generation college-goers lack the needed information about potential college choices and generally lack the social capital needed to perform well.¹⁰ Third, low-income students are often (single) parents who face pressure to work full time while they attend school, making it much harder to complete programs of study.

⁵ In previous decades, employment and training for the disadvantaged were funded primarily by the U.S. Department of Labor’s programs, such as the Comprehensive Employment and Training Act and its successors (Holzer, 2013). Funding for these efforts has greatly diminished over time; however, Pell Grants have grown in generosity and community colleges have expanded their offering of certificates and other workforce development efforts.

⁶ In Florida, for instance, about 45 percent of students who earn AA degrees do so in humanities, particularly general or liberal studies. These rates are a bit higher for disadvantaged students. Of all community college enrollees from Florida high schools, only about 22 percent transfer to 4-year colleges, and about one-half of them earn BAs within 6 years. Most transfer to the 4-year college nearest to their community college, although many such schools are third- or fourth-tier institutions as measured by test scores and high school grades.

⁷ Holzer and Baum (2017) discuss all these issues at greater length.

⁸ Of course, achievement gaps often begin shortly after birth in the home, well before students enter kindergarten (Magnuson and Duncan, 2016), which is why many researchers consider high-quality pre-kindergarten programs to close these gaps so critical to any future postsecondary and labor market success.

⁹ State subsidies for higher education are actually declining over time on a per-capita real basis (Holzer and Baum, 2017).

¹⁰ Such social capital can often mean how to study and where to get help, which might be particularly unknown among first-generation college-goers.

On top of the challenges that low-income students bring to college, the quality and behaviors of the institutions they attend often make things worse. Community (and lower-tier 4-year) colleges are often strapped for resources, contributing to worse student outcomes (Bound, Lovenheim, and Turner, 2010). For instance, supports and services for low-income students are limited, as are important services like career counseling for all students. Lacking information about the labor market, many students choose areas of study with weak job prospects.

In addition, the unstructured nature of most community colleges leads many students to wander aimlessly through the course curriculum without structure or guidance along the way (Bailey, Jenkins, and Jagers, 2015). Students also tend to overestimate the likelihood that they will complete their associate programs or transfer to 4-year colleges and universities, which leads them to avoid technical-certificate or AS programs and concentrate too heavily in liberal arts AA programs. Indeed, most AA students expect to transfer to 4-year colleges and obtain BAs when they arrive, and yet only one-fourth or less successfully transfer, and only one-half of that group earn BAs (Bailey, Jenkins, and Jagers, 2015).¹¹

Even if students understand the labor market value of programs such as those in health care, teaching capacity in high-demand fields can be very constrained, with many students not able to enroll in all the needed classes. This scarce capacity occurs because of strained resources, and also because of weak performance incentives facing community colleges. Simply put, technical classes with labor market value are often more expensive than others, with the need for up-to-date equipment and instructors with high salaries.¹² Because colleges generally receive the same per-student tuition regardless of what students study or how well they perform (in either college or the job market), the institutions have little incentive—especially given their limited financial abilities—to invest in expanding teaching capacity in high-demand fields.

Opportunities for Solutions

In response to incentive problems, many states are starting to base higher education subsidies to institutions on student performance to strengthen these incentives. Indeed, the National Conference of State Legislatures tracks state policies of this kind, and more than 30 states have started moving in this direction.¹³

If the incentives are badly structured, however, unintended consequences can result—such as “creaming” students up front (in other words, admitting only those of higher ability) or reducing performance requirements to raise graduation rates at the back end (Dougherty et al., 2016). Too few states emphasize subsequent employment outcomes of students in their subsidy formulae,

¹¹ Of course, many avoid technical classes or management, either because they do not have the necessary math and science backgrounds or they do not like these programs and jobs. Passing important “gateway” classes, like anatomy in health care, is problematic for many as well.

¹² Because most tenured faculty at community colleges are trained to teach liberal arts, and others with more technical background might have obsolete knowledge, community colleges rely heavily on adjunct instructors. Although adjuncts are generally paid poorly relative to regular faculty, those in healthcare or technical classes are often medical or engineering professionals requiring better compensation. Aside from financial issues, that makes it hard to scale successful workforce development programs.

¹³ <http://www.ncsl.org/research/education/performance-funding.aspx>.

especially among minority or low-income students (Holzer, 2014).¹⁴ Movement in the direction of measuring and incentivizing student performance in terms of improved employment outcomes will be important, so that colleges will have incentives to advise more students to major in high-demand programs (like AS rather than AA) and to provide the necessary teaching capacity to absorb them.

A second approach to solving the skills gap is using *sector-based training* strategies that involve partnerships between industry representatives, training providers (usually community colleges), and intermediaries who bring them together (Conway and Giloth, 2014). The training provided is therefore certain to meet employer skill needs, and employers come to trust the intermediaries to send them only well-trained students.

The sectors in which these strategies are applied are usually those that pay reasonably high wages to workers with educations less than the BA level, in which demand growth has been consistently strong, and in which employers claim to have some difficulty meeting their skill needs on their own. As noted previously, these sectors usually include health care, advanced manufacturing, IT, transportation and logistics, and parts of the service sector such as the higher end of retail or leisure and hospitality. Rigorous evaluation of such programs (Maguire et al., 2010) shows that such training can have significant effects on the earnings of low-income trainees.

A related approach involves building *career pathways* in these sectors, whereby students pursue careers through a series of steps that involve intermediate, or stackable, credential accumulation and work experience along the way. For example, students might begin by becoming certified nursing assistants at first, ultimately aiming for licensed practical nurse or even registered nurse degrees. Some students take multiple steps across the pathways, when the timing is appropriate, although others do not.

Because they have some employer support and also some promising evaluation outcomes, most states around the country have adopted some such strategies, and the reauthorized Workforce Innovation and Opportunity Act in 2014 required states to expand sector partnerships and career pathways. Scaling the best programs is challenging. The partnerships can take years to build and become operational; in a very dynamic and uncertain labor market, in which strong labor demand today can disappear tomorrow, such partnerships may not be nimble enough to be viable. The previously mentioned constraints on community colleges also often limit scaling, as does general employer wariness of participating in publicly funded programs.

In addition, questions remain about whom these programs serve and how long the positive effects last. Successful programs mostly serve low-income workers with quite strong basic skills, rather than the hard-to-employ; indeed, the latter would have difficulty mastering the training involved, and employers would quickly lose confidence in their intermediary partners if the latter did not screen out the most disadvantaged. Thus, these solutions depend on skill building in the pre-kindergarten (pre-K) through grade 12 years of education.

¹⁴ Another approach is to allow institutions to charge higher tuition for high-demand or more expensive classes, as was done in Texas (Kim and Stange, 2016). This approach could easily cause lower-income students to be priced out of these fields of study, however, unless they receive proportionately more financial aid in these fields.

Increasingly, the necessary remediation for weak skills is built into the career pathways for low-income students and workers. This skills-building augmented career pathways approach can help to compensate for prior skill development. Among the best-known and most successful remediation efforts are the Integrated Basic Education and Skills Training (I-BEST) program in Washington, where occupational classes are co-taught by substance and remedial instructors; and the LaGuardia Community College's Bridge to College and Careers Program, in which students taking general educational development (GED) classes received some labor market information and counseling.¹⁵ Reforms in the delivery of remediation more generally—for instance, by making developmental classes co-requisite with rather than prerequisites for credit-bearing classes, thus enabling students to gain credit more quickly—are beginning to occur in many states (Long, 2014).

Furthermore, getting the right mix of general and specific skills and credentials for workers is important here. The sector-based programs work because they meet specific employer skill requirements. What happens, however, when workers leave these firms and sectors to gain employment elsewhere? Some portability of the skills that workers gain across firms and sectors is important for long-run effects, especially if the public sector subsidizes the training.¹⁶

Overall, the challenges of expanding high-quality education and job training options for disadvantaged workers anywhere are quite great, especially when the disadvantaged are also residents of very low-income and racially segregated communities. Despite these problems, some more encouraging efforts have been made along these lines.

For instance, the National Fund for Workforce Solutions, created and funded by a set of national foundations plus some federal funding, has built more than 30 such partnerships (between employers, community colleges, and intermediaries) on the local and regional levels around the country with considerable success. Evaluation evidence on their efforts has been relatively positive, and much has been learned along the way (Michaelides, Mueser, and Mbwana, 2015). Newer models of programs that support low-income students at community college, like Accelerated Study in Associate Programs (ASAP), also show that dramatically improving student completion rates is possible if sufficient resources are available (Scrivener et al., 2015).¹⁷

A third approach to skills training deserves mention here: high-quality career and technical education (CTE) that begins in high school and creates pathways into community colleges and the job market can play a much more positive role in many communities than it has to date. Historically,

¹⁵ The extent to which these kinds of programs can broadly generate access to skills training for the hardest to employ remains to be seen. Several states are now trying to replicate the results of I-BEST within various career pathways in "Accelerating Opportunity," although evaluation impacts are not yet available (Anderson et al., 2015). The U.S. Department of Health and Human Services is also testing the ability of career pathways programs to serve the least-educated workers in its Health Profession Opportunity Grants and Pathways for Advancing Careers and Education projects. Bridge programs like LaGuardia's (Martin and Broadus, 2013) are also being replicated in a variety of programs, although students' success rates in passing the GED examination under the LaGuardia program remained quite low (about 20 percent).

¹⁶ Becker (1975), a seminal work on human capital formation, argued that general skills will be financed exclusively by workers, because they can leave their employers at any time and take their investments with them, whereas specific skills will be partly financed by employers, because the external market for such skills is more limited. Subsequent theoretical models of training (Acemoglu and Pischke, 1998) blur this distinction somewhat.

¹⁷ The ability of other colleges to replicate ASAP is limited not only by its costs but also by the fact that it was limited to full-time students, which excludes many of the disadvantaged students who most need help.

vocational education in the United States tracked low-income and minority children away from college and thus became discredited. Newer models of CTE do not require students to avoid college; indeed, CTE can be a way of teaching strong academic skills by contextualizing them in applied projects or work. Students can take college preparatory (and even advanced placement) classes while they also take some classes and enter a “career cluster,” which they can further pursue at 2- or 4-year colleges.¹⁸ Nothing locks those students into the careers that they explore. At the same time, those not bound for 4-year colleges right away get stronger preparation for pathways into community college or direct entry into the job market.

Stern (2016) showed that, nationally, the quality of students taking CTE has risen over time, and more of them are taking high-level math and science, which will help reduce the stigma over time associated with CTE. Particular models are especially promising or proven in raising earnings for CTE students.

For example, rigorous evaluations of Career Academies show long-term impacts on the earnings of at-risk students, and especially of at-risk men (Kemple, 2008). The academies of the 1990s did not reduce college attendance of this population, thereby indicating that they were not tracking students away from college; perhaps newer models actually encourage more college enrollments. The High Schools That Work, popular in several southern states, have high graduation rates and high rates of student enrollment and completion of upper-level math, science, and English classes. Linked Learning Alliance is a districtwide and whole-school model of CTE that has been developed and implemented in California. Recently, the Pathways in Technology Early College High School (P-TECH) programs in New York are based on partnerships between IBM (International Business Machines Corporation), The City University of New York, and local high schools. P-TECH is a grades 9-through-14 model in which high school students move directly into associate degree studies and get work experience along the way. It is also spreading to service industries beyond the world of IT.¹⁹

One of the most important benefits of CTE is the work-based learning that students receive. Many low-income students prefer learning on the job to doing it in the classroom and are motivated by earning money while they learn. For single or low-income parents, payment or stipends for work are critical to their continuation in training programs. Employers also sometimes prefer training on the job, because they know the skills generated will be the ones they seek and value.

Perhaps the best form of work-based learning is the *apprenticeship model*, which is quite popular in most European Union countries (Hoffman, 2011; Newman and Winston, 2016) and is beginning to make a comeback in the United States. Students usually combine some classroom learning with on-the-job training; they can attain a postsecondary certificate or degree, which signals more general occupational training, while also getting the specific training the employer seeks. Workers are paid, but usually below-market wages, so employers do not bear the cost of the training. A number

¹⁸ The Carl D. Perkins Career and Technical Education Act (Pub. L. 109-270), the federal legislation that distributes modest funding to CTE programs, now requires states to use career clusters and pathways to organize CTE programs. To do so, states most frequently use a framework that includes 16 clusters, such as IT, health care, manufacturing, business, arts, and education; within these 16 clusters, 79 more specific pathways are presented. The pathways extend to 2- or 4-year colleges, with specific courses that should be taken in each.

¹⁹ See chapter 7 in Holzer and Baum (2017) for details on these models.

of states, such as Georgia, South Carolina, and Wisconsin, seek to expand apprenticeships in their states using a variety of methods (such as tax credits to employers or grants to local schools), and the Obama Administration supported them through competitive grants like the American Apprenticeship Initiative Grants program (Lerman, 2014). Quasi-experimental evidence (Reed et al., 2012) has shown strong impacts of apprenticeships on the subsequent earnings of workers.

Whether disadvantaged students can benefit from apprenticeships, however, again depends on their ability to handle some of the more technical training provided in many cases, hence the importance of prior skill building. Preapprenticeship programs sometimes prepare disadvantaged students for apprenticeships in construction and other industries, although completion rates of the preparatory programs are modest (Conway, Gerber, and Helmer, 2010).

High-quality CTE and apprenticeships are important building blocks in the “pathways to prosperity” that some key states are trying to build.²⁰ Dual enrollment at community colleges for high school students is another. The extent to which these programs successfully expand educational attainment and subsequent earnings for disadvantaged students needs to be better understood.

Access to Good Schools and Jobs

Creating more and better jobs in a region, and creating education and training programs to give workers the skills to fill them, are critical steps to reinventing older communities. They alone are not sufficient, however, to ensure that disadvantaged workers in these communities share in any prosperity generated by them. They must also have relatively easy geographical and information access to those jobs and programs.

Current State of Affairs and Challenges

As discussed in Acolin and Wachter (2016), in metropolitan areas that are heavily segregated by race, family income, or both, access to good schooling and jobs is often limited for minority and low-income residents. Residence in highly segregated or low-income neighborhoods often means that children attend weak public schools and are also harmed by a lack of positive role models and social capital, as well as by exposure to neighborhood violence (Chetty, Hendren, and Katz, 2016; Cutler and Glaeser, 1997; Hanushek, Kain, Rivkin, 2009).

Another way that racial residential segregation can contribute to employment difficulties of neighborhood residents is through a “spatial mismatch” between residents and more decentralized employer locations (Holzer, 1991). The growth of minority and low-income populations in older suburbs around the country can ease such mismatch but not eliminate it, especially if much of the region’s economic development is concentrated downtown or in more affluent suburbs (Holzer and Stoll, 2007).

Networks of employees within firms that affect subsequent hiring patterns vary by race, and these networks appear to be influenced by locational factors (Hellerstein, Kutzbach, and Neumark, 2013). Racial discrimination by employers can also vary systematically by location, with suburban

²⁰ The Pathways to Prosperity Network includes a group of states organized by Robert Schwartz of Harvard University and Nancy Hoffman of Jobs for the Future in Boston.

employers in higher-income areas engaging in more such discrimination than those in central cities and older, inner-ring suburbs (Holzer and Reaser, 2000; Stoll, Holzer, and Ihlanfeldt, 2000; Stoll, Holzer, and Raphael, 2004).²¹

Opportunities for Solutions

Improving access of low-income residents of major metropolitan areas to good schools and jobs is clearly a critical additional step to ensure that economic development is inclusive and widely shared.

Turner (2016) noted a variety of ways to improve access of low-income neighborhood residents to better schools and jobs, which she broadly labeled “place-conscious strategies”; these strategies can include enhancing the mobility of residents to better neighborhoods, improving the quantity and quality of schools and jobs within low-income neighborhoods, or hybrid strategies to improve residents’ access to good schools and jobs anywhere in the metropolitan region from any location.

As put forth by Steinberg and Quinn (2016) regarding good schools, such access must begin with high-quality pre-K programs and continue through the K-12 years to shrink the achievement gaps that typically develop in those years. Solutions include those put into place by the stronger models of urban charter schools, (like Knowledge Is Power Program, or KIPP, academies) associated with school management networks (Dynarski, 2015).

Having high-quality guidance counselors in place to discuss the full range of training opportunities after K-12 is also important and must go along with providing the options that deliver the full range of college opportunities.

The most important training for good jobs will occur in CTE programs in high schools and community colleges. Providing transportation, childcare, and other necessary benefits can enhance access to community colleges for low-income residents. A nationwide organization called Single Stop, now operating in community colleges around the country, seeks to make sure that community college students are aware of and can receive a range of available benefits and supports.

Links to the job market and employer partnerships are critical if these programs are to successfully offer opportunities for work-based learning and employment. Because employers might be deterred by negative perceptions (whether justified or not) of students’ abilities in low-income schools, the active involvement of the intermediaries described previously is key. These intermediaries can help generate employer confidence in the quality of students referred to them for work and generate apprenticeships and other work-based learning opportunities for low-income students; work-based learning opportunities would be especially valuable in building employer confidence over time in the workers’ developing skills and in overcoming workers’ lack of recorded work experience.

In addition, students must have better access to labor market information and career counseling about available opportunities throughout their metropolitan regions. Many states are developing labor market information systems to better inform students about returns to different courses of

²¹ One reason that suburban employers may engage in more discrimination is that the managers in charge of hiring are more likely to be Black in the other locations (Stoll, Holzer, and Raphael, 2004).

study and about current job vacancies.²² For those in community college, access to One-Stop Centers (or American Job Centers, as they are now called) can be very important. Indeed, the recent trend of One-Stop Centers co-locating on community college campuses is a helpful one.

Students might need more than access to information, however; they might also need counselors who can advise them about different career ladders and about where good employment options might be. Some students also would clearly benefit from active assistance from job developers in making connections with area employers to overcome the barriers of information, space, and race described previously.

Beyond information and transportation barriers, the reality of employer discrimination needs to be acknowledged and addressed. Although strict enforcement of equal employment opportunity laws is critical, statistical discrimination can result from employers having too little information about specific workers or job applicants; making such information more readily available, especially through intermediaries whom employers trust, is important too.

Conclusion

As the preceding discussion indicates, any attempts to generate inclusive economic development will face challenges. Three such challenges are paramount: (1) generating sufficient demand for labor in the form of good-paying jobs; (2) creating the supply of skills among workers to fill such jobs; and (3) assuring improved access to good jobs and schools. Needless to say, addressing all these challenges is a tall order. Reasons also exist for optimism on each of these issues, however, as more state and local policy options are developed to achieve these goals.

To achieve these goals, cities and states should move ahead with actionable takeaways to promote inclusive economic development efforts, such as—

- Using financial incentives and technical assistance to encourage firms to create more high-performance workplaces and jobs.
- Holding community colleges more accountable for the future employment outcomes of disadvantaged students by increasing funding and tying such increases to these outcomes.
- Helping employer groups, community colleges, and intermediaries scale up sector-based training strategies, and career pathways in sectors with stackable credentials to train students for good-paying jobs where labor demand is high.

²² Zinn and Van Klunen (2014) provide for more information on the potential uses of these federal and state data. Most states are linking their administrative data on individual students at public higher education institutions with quarterly earnings data from Unemployment Insurance records, to measure the extent to which different programs of study and different institutions are successfully preparing students for the labor market afterwards. These data are used both to inform students about their potential choices and also in performance-based funding strategies for states imposing accountability on their colleges and universities.

- Using high-quality CTE, apprenticeships, and dual enrollment programs to pursue these goals as well.
- Providing transportation, childcare, and counseling on schooling and labor market opportunities (starting in high school or before) to residents of all neighborhoods so they can access good jobs and skill-building opportunities wherever they are found.

While cities and states implement these policies, researchers should rigorously evaluate the different models pursued in different areas, to determine what works most cost-effectively and for whom. The opportunity to learn from all such experiments is great and the research community should take full advantage of it.

Clearly, the challenges facing cities and states in their attempts to grow will be so great that they will need active support from the federal government. One way to provide this support is a federal Race-to-the-Top strategy for community colleges (Holzer, 2016)—along the lines of what the Obama Administration did in K-12 schooling—wherein the federal government would provide significant new resources to states that bring new accountability to their higher education budgets and systems.

States could also emphasize subsequent earnings of students, as well as their academic outcomes, when measuring performance. In addition, states could explicitly reward colleges that promote advancement for minority or disadvantaged students and could restrict the spending of these new resources to expanding teaching capacity in high-demand middle-skill fields and to raising important services and supports for low-income students. Expanding career pathways with work-based learning (especially apprenticeships) and sector-based training could also be an explicit goal.

Of course, even absent such a federal policy, states and cities can try to implement such an agenda on their own, as many are doing now through new accountability policies to distribute subsidies to public institutions of higher education. In any case, as noted previously, accountability should be based on the subsequent earnings of students, especially the subsequent earnings of disadvantaged students, to a greater extent than they are now. Making these changes will usually require greater infusion of resources to community colleges, which are already quite strapped for resources in most states.

Other federal and state funds that explicitly promote inclusive development should also be supported with grants and technical assistance from departments of education, labor (or workforce development), and commerce at each level. Federal and state governments should explicitly commit to supporting high-road workplace choices by employers in all their forms.

With these forms of federal and state support, cities and regions can undertake the critical work of generating inclusive development. Undoubtedly, success will not be achieved everywhere, and outcomes likely will be mixed in nearly all such efforts. These efforts should be viewed as part of a long-term learning strategy, in which mid-course corrections would and should be encouraged. The upside to improving opportunities for disadvantaged and minority residents in older urban areas will be great.

Acknowledgments

The author thanks Susan Wachter for her very helpful editorial suggestions.

Author

Harry J. Holzer is the John LaFarge Jr. SJ Professor of Public Policy at the Georgetown University McCourt School of Public Policy, an institute fellow at the American Institutes for Research, and a nonresident senior fellow in economic studies at the Brookings Institution.

References

- Acemoglu, Daron, and Jorn-Steffen Pischke. 1998. "Why Do Firms Train? Theory and Evidence," *The Quarterly Journal of Economics* 113 (1): 79–119.
- Acolin, Arthur, and Susan Wachter. 2016. Opportunity and Housing Access. Working paper. Philadelphia: Penn Institute for Urban Research; Federal Reserve Bank of Philadelphia.
- Anderson, Theresa, Lauren Eyster, Robert Lerman, Carolyn O'Brien, Maureen Conway, Ranita Jain, and Marcela Montes. 2015. *Second Year of Accelerating Opportunity: Implementation Findings for the States and Colleges*. Washington, DC: The Urban Institute; The Aspen Institute.
- Andersson, Fredrik, Harry Holzer, and Julia Lane. 2005. *Moving Up or Moving On: Who Gets Ahead in the Low-Wage Labor Market?* New York: The Russell Sage Foundation.
- Autor, David. 2010. *The Polarization of Job Opportunities in the U.S. Labor Market: Implications for Employment and Earnings*. Washington, DC: Center for American Progress; The Hamilton Project.
- Autor, David, David Dorn, and Gordon Hanson. 2016. The China Shock: Learning From Labor Market Adjustments to Large Changes in Trade. NBER Working Paper No. 21906. Cambridge, MA: National Bureau of Economic Research.
- Backes, Benjamin, Harry Holzer, and Erin Dunlop Velez. 2015. "Is It Worth It? Postsecondary Education and Labor Market Outcomes for the Disadvantaged," *IZA Journal of Labor Policy* 4 (1): 1–30.
- Baily, Martin, and Barry Bosworth. 2015. "Productivity Trends: Why Is Growth So Slow?" Presented at Hutchins Center on Fiscal & Monetary Policy at Brookings, Washington, DC, March 26.
- Bailey, Thomas, Davis Jenkins, and Shanna Jagers. 2015. *Reinventing America's Community Colleges: A Clearer Path to Student Success*. Cambridge, MA: Harvard University Press.
- Bartik, Timothy. 2016. "Labor-Demand-Side Economic Development Incentives and Urban Opportunity." In *Shared Prosperity in America's Communities*, edited by Susan Wachter and Lei Ding. Philadelphia: University of Pennsylvania Press: 129–150.
- Becker, Gary. 1975. *Human Capital*. New York: National Bureau of Economic Research.

Benner, Chris, and Manuel Pastor. 2016. "Fostering an Inclusive Metropolis: Equity, Growth, and Community." In *Shared Prosperity in America's Communities*, edited by Susan Wachter and Lei Ding. Philadelphia: University of Pennsylvania Press: 192–212.

Bischoff, Kendra, and Sean Reardon. 2013. *Residential Segregation by Income, 1970–2013*. Providence, RI: Brown University, Russell Sage Foundation.

Blanchard, Olivier, and Lawrence Katz. 1992. *Regional Evolutions*, Brookings Papers on Economic Activity No. 1. Washington, DC: The Brookings Institution.

Bound, John, and Harry Holzer. 2000. "Demand Shifts, Population Adjustments, and Labor Market Outcomes During the 1980s," *Journal of Labor Economics* 18 (1): 20–54.

Bound, John, Michael Lovenheim, and Sarah Turner. 2010. "Why Have College Completion Rates Declined? An Analysis of Changing Student Preparation and Collegiate Resources," *American Economics Journal: Applied Economics* 2 (3): 129–157.

Cappelli, Peter. 2014. *Skill Gaps, Skill Shortages, and Skill Mismatches: Evidence for the US*. NBER Working Paper No. 20382. Cambridge, MA: National Bureau of Economic Research.

Chetty, Raj, Nathaniel Hendren, and Lawrence Katz. 2016. "The Effects of Exposure to Better Neighborhoods on Children: New Evidence From the Moving to Opportunity Experiment," *American Economic Review* 106 (4): 855–902.

Clotfelter, Charles, Helen Ladd, Jacob Vigdor, and Clara Muschkin. 2013. *Developmental Education in North Carolina Community Colleges*. Working paper 88 (February). Washington, DC: American Institutes for Research, National Center for Analysis of Longitudinal Data in Education Research.

Conway, Maureen, Allison Gerber, and Matt Helmer. 2010. *Construction Pre-Apprenticeship Programs: Results From Surveys of Industry Leaders*. Washington, DC: The Aspen Institute.

Conway, Maureen, and Robert Giloth, eds. 2014. *Connecting People to Work: Workforce Intermediaries and Sector Strategies*. Washington, DC: The Aspen Institute.

Cutler, David, and Edward Glaeser. 1997. "Are Ghettos Good or Bad?" *The Quarterly Journal of Economics* 112 (3): 827–872.

Diamond, Rebecca. 2016. "U.S. Workers' Diverging Locations: Causes and Inequality Consequences." In *Shared Prosperity in America's Communities*, edited by Susan Wachter and Lei Ding. Philadelphia: University of Pennsylvania Press: 57–70.

Dougherty, Kevin, Sosanya Jones, Hana Lahr, Rebecca Natow, Lara Pheatt, and Vikash Reddy. 2016. "Looking Inside the Black Box of Performance Funding for Higher Education: Policy Instruments, Organizational Obstacles, and Intended and Unintended Impacts," *RSF: The Russell Sage Foundation Journal of the Social Sciences* 2 (1): 147–173.

Dynarski, Susan. 2015. "Urban Charter Schools Often Succeed. Suburban Ones Often Don't," *The New York Times*, November 20.

Glaeser, Edward. 2011. *Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier*. London, United Kingdom: Macmillan.

Hanushek, Eric, John Kain, and Steven Rivkin. 2009. "New Evidence About *Brown v. Board of Education*: The Complex Effects of Racial Composition on Achievement," *Journal of Labor Economics* 27 (3): 349–383.

Hellerstein, Judith, Mark Kutzbach, and David Neumark. 2013. Do Labor Market Networks Have an Important Spatial Dimension? NBER Working Paper No. 18763. Cambridge, MA: National Bureau of Economic Research.

Hines, James, Hilary Hoynes, and Alan Krueger. 2002. "Another Look at Whether a Rising Tide Lifts All Boats." In *The Roaring Nineties: Can Full Employment Be Sustained?* edited by Alan Krueger and Robert Solow. New York: The Russell Sage Foundation: 493–537.

Hoffman, Nancy. 2011. *Schooling in the Workplace: How Six of the World's Best Vocational Education Systems Prepare Young People for Jobs and Life*. Cambridge, MA: Harvard Education Press.

Holzer, Harry. 2016. Proposal: A Race to the Top in Public Higher Education To Improve Education and Employment Among the Poor. Unpublished manuscript. New York: Russell Sage Foundation.

———. 2015a. *Job Polarization and U.S. Worker Skills: A Tale of Two Middles*. Washington, DC: The Brookings Institution.

———. 2015b. *Higher Education and Workforce Policy: Creating More Skilled Workers (and Jobs for Them to Fill)*. Washington, DC: The Brookings Institution.

———. 2014. "Improving Employment Outcomes for Disadvantaged Students." In *Policies To Address Poverty in America*, edited by Melissa Kearney and Benjamin Harris. Washington, DC: The Brookings Institution, The Hamilton Project: 87–96.

———. 2013. "Workforce Development Programs." In *Legacies of the War on Poverty*, edited by Martha Bailey and Sheldon Danziger. New York: Russell Sage Foundation: 121–150.

———. 1991. "The Spatial Mismatch Hypothesis: What Has the Evidence Shown?" *Urban Studies* 28 (1): 105–122.

Holzer, Harry, and Sandy Baum. 2017. *Making College Work: Pathways to Success Beyond High School*. Washington, DC: The Brookings Institution.

Holzer, Harry, Steven Raphael, and Michael Stoll. 2006. "Employers in the Boom: How Did the Hiring of Less-Skilled Workers Change in the 1990s?" *The Review of Economics and Statistics* 88 (2): 283–299.

Holzer, Harry, and Jess Reaser. 2000. "Black Applicants, Black Employees and Urban Labor Market Policy," *Journal of Urban Economics* 48 (3): 365–387.

Holzer, Harry, and Michael Stoll. 2007. *Where Workers Go, Do Jobs Follow?* Washington, DC: The Brookings Institution.

Katz, Bruce, and Jennifer Bradley. 2014. *The Metropolitan Revolution*. Washington, DC: Brookings Institution Press.

Kemple, James. 2008. *Career Academies: Long-Term Impacts on Work, Education, and Transitions to Adulthood*. New York: MDRC.

Kim, Jeongeun, and Kevin Stange. 2016. "Pricing and University Autonomy: Tuition Deregulation in Texas," *RSF: The Russell Sage Foundation Journal of the Social Sciences* 2 (1): 112–146.

Kochan, Thomas. 2015. *Shaping the Future of Work: What Future Worker, Business, Government, and Education Leaders Need To Do for All To Prosper*. New York: Business Expert Press.

Lerman, Robert. 2014. "Expanding Apprenticeship Opportunities in the United States." In *Policies To Address Poverty in America*, edited by Melissa Kearney and Benjamin Harris. Washington DC: The Brookings Institution, The Hamilton Project: 79–86.

Liu, Amy. 2016. *Remaking Economic Development: The Markets and Civics of Continuous Growth and Prosperity*. Washington, DC: The Brookings Institution, Metropolitan Policy Program.

Long, Bridget. 2014. "Addressing the Academic Barriers to Higher Education." In *Policies To Address Poverty in America*, edited by Melissa Kearney and Benjamin Harris. Washington, DC: The Brookings Institution, The Hamilton Project: 67–76.

Magnuson, Katherine, and Greg Duncan. 2016. "Can Early Childhood Interventions Decrease Inequality of Economic Opportunity?" *RSF: The Russell Sage Foundation Journal of the Social Sciences* 2 (2): 123–141.

Maguire, Sheila, Joshua Freely, Carol Clymer, Maureen Conway, and Deena Schwartz. 2010. *Tuning In to Local Labor Markets: Findings From the Sectoral Employment Impact Study*. Philadelphia: Public/Private Ventures.

Manufacturing Institute, and Deloitte. 2013. *The Skills Gap in U.S. Manufacturing: 2015 and Beyond*. Washington, DC: Manufacturing Institute.

Martin, Vanessa, and Joseph Broadus. 2013. *Enhancing GED Instruction To Prepare Students for College and Careers: Early Success in LaGuardia Community College's Bridge to Health and Business Program*. New York: MDRC.

Michaelides, Marios, Peter Mueser, and Kasim Mbwana. 2015. *Quasi-Experimental Impact Study of NFWS/SIF Workforce Partnership Programs: Evidence on the Effectiveness of Three Workforce Partnership Programs in Ohio*. Report prepared for the National Fund for Workforce Solutions. Columbia, MD: IMPAQ International, LLC.

Moretti, Enrico. 2012. *The New Geography of Jobs*. New York: Houghton Mifflin Harcourt.

National Academy of Sciences. 2016. *Building America's Skilled Technical Workforce*. Washington, DC: National Academies Press.

Newman, Katherine, and Hella Winston. 2016. *Reskilling America: Learning To Labor in the Twenty-First Century*. New York: Metropolitan Books.

Nowak, Jeremy. 2016. "The Fragility of Growth in a Post-Industrial City." In *Shared Prosperity in America's Communities*, edited by Susan Wachter and Lei Ding. Philadelphia: University of Pennsylvania Press: 173–191.

Osterman, Paul, and Andrew Weaver. 2014. *Why Claims of Skill Shortages in Manufacturing Are Overblown*. Washington, DC: Economic Policy Institute.

Porter, Michael. 2016. "Inner-City Economic Development: Learnings From 20 Years of Research and Practice," *Economic Development Quarterly* 30 (2): 105–116.

Reardon, Sean. 2011. "The Widening Academic Achievement Gap Between the Rich and the Poor: New Evidence and Possible Explanations." In *Whither Opportunity?: Rising Inequality, Schools, and Children's Life Chances*, edited by Greg Duncan and Richard Murnane. New York: Russell Sage Foundation: 91–116.

Reed, Deborah, Albert Yung-Hsu Liu, Rebecca Kleinman, Annalisa Mastro, Davin Reed, Samina Sattar, and Jessica Ziegler. 2012. *An Effectiveness Assessment and Cost-Benefit Analysis of Registered Apprenticeship in 10 States*. Washington, DC: Mathematica Policy Research.

Rubin, Victor, Angela Glover Blackwell, and Chris Schildt. 2016. "Equitable and Inclusive Growth Strategies for American Cities." In *Shared Prosperity in America's Communities*, edited by Susan Wachter and Lei Ding. Philadelphia: University of Pennsylvania Press: 151–172.

Schwartz, Nelson. 2013. "Where Factory Apprenticeship Is Latest Model From Germany," *The New York Times*, November 30.

Scrivener, Susan, Michael Weiss, Alyssa Ratledge, Timothy Rudd, Colleen Sommo, and Hannah Fresques. 2015. *Doubling Graduation Rates: Three-Year Effects of CUNY's Accelerated Study in Associate Programs (ASAP) for Developmental Education Students*. New York: MDRC.

Steinberg, Matthew, and Rand Quinn. 2016. *Education Reform in the Post-NCLB Era: Lessons Learned for Transforming Urban Public Education*. Working paper. Philadelphia: Penn Institute for Urban Research; Federal Reserve Bank of Philadelphia.

Stern, David. 2016. *Pathways or Pipelines: Keeping High School Students' Future Options Open While Developing Technical Skills and Knowledge*. Washington, DC: The National Academies of Sciences.

Stoll, Michael, Harry Holzer, and Keith Ihlanfeldt. 2000. "Within Cities and Suburbs: Racial Residential Concentration and the Spatial Distribution of Employment Opportunities Across Sub-Metropolitan Areas," *Journal of Policy Analysis and Management* 19 (2): 207–231.

Stoll, Michael, Harry Holzer, and Steven Raphael. 2004. "Black Job Applicants and the Hiring Officer's Race," *Industrial and Labor Relations Review* 57 (2): 267–287.

Ton, Zeynep. 2014. *The Good Jobs Strategy: How the Smartest Companies Invest in Employees To Lower Costs and Boost Profits*. Boston: New Harvest.

Turner, Marjorie Austin. 2016. "Building Shared Prosperity Through Place-Conscious Strategies That Reweave the Goals of Fair Housing and Community Development." In *Shared Prosperity in America's Communities*, edited by Susan Wachter and Lei Ding. Philadelphia: University of Pennsylvania Press: 73–90.

Van Agtmael, Antoine, and Alfred Bakker. 2016. *The Smartest Places on Earth: Why Rustbelts Are the Emerging Hotspots of Global Innovation*. New York: PublicAffairs.

Weil, David. 2014. *The Fissured Workplace: Why Work Became So Bad for So Many and What Can Be Done To Improve It*. Cambridge, MA: Harvard University Press.

Zinn, Rachel, and Andy Van Kluenen. 2014. *Making Workforce Data Work: How Improved Education and Workforce Data Systems Could Help the U.S. Compete in the 21st Century Economy*. Washington, DC: National Skills Coalition.