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## Connecting At-Risk Youth to Promising Occupations

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**M**illions of youth across the nation are at risk of not achieving economic self-sufficiency as they transition to adulthood. The most vulnerable include youth who have dropped out of school and are not working, those in high-risk groups such as teenage parents and homeless or runaway youth, young people aging out of foster care, and juvenile offenders.<sup>1</sup> Preparing at-risk youth for and setting them on the path toward jobs with sufficient compensation is an essential part of promoting their well-being and improving their likelihood of becoming independent adults.

Although some programs aim to help youth transitioning to adulthood build their employment potential by increasing skills employers seek, many focus primarily on approaches such as mentoring or life skills coaching, or connecting them to college-bound interventions.<sup>2</sup> While such interventions are important, many at-risk youth, because of their circumstances, must be self-sufficient when they reach the age of majority.<sup>3</sup> As a result, they may prefer or need jobs that can provide them with a reasonable income and advancement potential without costly up-front investments in education or training. At-risk youth, and adult job seekers with limited employment experience and similar characteristics and needs, may need to quickly find a job that provides a livelihood and a foundation from which they can pursue careers that may require higher-level education or training. For practitioners who want to strengthen

### About This Series

The Youth Demonstration Development issue brief series provides information for organizations that serve at-risk youth transitioning to adulthood. Funded by the Office of Planning, Research and Evaluation in the Administration for Children and Families, the three-brief series is part of a larger project that developed a framework for promoting the well-being and self-sufficiency of at-risk youth. This brief explores occupations in health care and construction that hold promise for at-risk youth in search of employment that does not require extensive education or training. A third brief describes the economic well-being of youth who self-identify as lesbian, gay, or bisexual and those who self-identify as heterosexual. For more information about the Youth Demonstration Development project, please see <http://www.acf.hhs.gov/programs/opre/index.html>.

*their efforts to prepare youth or adults with limited employment experience for self-sufficiency, this brief describes features of promising occupations, highlights two key occupational areas, and comments on work-based learning programs for vulnerable youth.*

### Features of Promising Occupations

To identify promising occupations we focused on four key features: (1) median earnings level, (2) education and training prerequisites, (3) projected growth in labor-market demand, and (4) potential for individual advancement. These features correspond to the urgent need of many at-risk youth to secure an occupation that pays a reasonable wage without first investing extensive resources.

Defining a “reasonable” wage requires some assumptions about the living arrangements and financial responsibilities of at-risk youth once they become adults. The circumstances of job seekers with limited education and employment experience vary widely, with some living on their own and some living with a partner, relatives, or friends. Some may already

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have a child. For simplicity in considering a reasonable wage, we assumed the following scenario: the individual will be living with another adult and a child, and will need to contribute 60 percent of the household income through wages. We also assumed that the remaining 40 percent of the household income will come from a combination of earnings of the other adult household member, tax credits, and/or work supports.

**Earnings threshold of at least \$25,000 annually.** To determine the earnings threshold that would be needed by a young adult under the above scenario, we considered various income benchmarks. First, we noted that 60 percent of the national median income for households headed by individuals 15 to 24 years old is \$17,936.<sup>4</sup> Second, we examined the income eligibility standards for federal programs. Most federal programs set the income ceiling higher than the federal poverty threshold (\$19,090 annually for a household of three).<sup>5</sup> For example, the income threshold for federal food assistance programs is typically set at 130 percent of the poverty level, or \$24,817, 60 percent of which is \$14,512. Third, we examined the “living wage” literature, which incorporates a broader range of factors in determining household income and is adjusted for geographic region. According to the Living Wage Project, the living wage “calculator” indicates that the national median annual living wage for a family of two adults and one child is \$41,226, 60 percent of which is \$24,736.<sup>6</sup> Considering all three of these benchmarks, we selected \$25,000 as an earnings threshold for promising occupations.

**Modest education and training requirements.** The second feature of promising occupations is that they require only some brief training, an apprenticeship, or up to an associate’s degree to get started. Jobs requiring a bachelor’s or graduate degree or lengthy training are not considered options as their education and training requirements are not modest from the perspective of an at-risk youth or adult job seeker who has limited education

credentials or employment experience and needs immediate employment. For similar reasons, we concluded that promising occupations should not require substantial prior work experience.

**Projected fast-growing occupations.** Bureau of Labor Statistics (BLS) forecasts are the best predictors of growth in labor-market demand and advancement potential. We defined promising occupations as those identified by the BLS as having “faster than average” or “much faster than average” growth rates from 2010 to 2020.<sup>7</sup> This means that employment in these occupations is predicted to increase by at least 20 percent nationally.

**Potential for advancement.** Because promising occupations should offer opportunities for advancement, we looked for fields in which an individual could find a higher-paying job in that field if he or she had additional education, training, or work experience. We used the BLS’ “Occupational Outlook” to identify fields and particular careers that meet these criteria.<sup>8</sup>

There may be a range of occupational fields that meet the above criteria for promising occupations. For the purposes of this brief, we have chosen to focus on two relatively large fields: health care and construction. These two fields have a variety of jobs that pay wages of at least \$25,000 annually, have modest education or training requirements, are identified as fast-growing, and offer opportunities for advancement. The fields have also been the focus for a variety of work-based learning programs.

## Opportunities in Health Care

Much of the anticipated growth in health care is driven by a projected increase in spending as the population grows older, an increase in the number of people living with chronic health conditions, and projected growth in the number of individuals with health care coverage.<sup>9</sup> The BLS identified health care practitioner and technician occupations as having the third-largest change in growth between 2010 and 2020, with the expected addition of two million

jobs.<sup>10</sup> Although the health care industry offers promising employment opportunities for at-risk youth in practitioner, technician, and support occupations, the industry may not be promising for all at-risk youth because of geographic variation in demand, stress, overtime and shift work, and requirements regarding drug use or criminal history.

Overall, we identified 13 occupations in the health care industry that meet our criteria for promising occupations (Table 1). Among these are four noteworthy examples of promising entry-level positions. The number of needed *licensed practical* and *licensed vocational nurses*, according to the BLS, will grow faster than average from 2010 through 2020. These positions require a postsecondary nondegree certificate and offer a median wage of \$42,461. A second promising entry-level position that also requires a postsecondary nondegree certificate is *dental assistant*, which has a median wage of \$35,195. Two other occupations expected to grow much faster than average are *dental hygienist* and *diagnostic medical sonographer*. These jobs, which require an associate’s degree, offer a median wage of more than \$60,000. Training programs for many health care occupations are offered at community colleges as well as technical schools. Programs may include both class-based instruction and supervised internships/externships.<sup>11</sup>

## Opportunities in Construction

We identified 14 promising occupations in the construction and extraction occupations group (Table 2). Many promising occupations in construction require little formal, school-based education, but they do require apprenticeships. Historically, apprenticeship programs have served primarily white men, but in recent years, the share of nonwhite apprentices has increased to 30 percent, suggesting that apprenticeship programs may be more of an option for minority at-risk youth than they were in the past.<sup>12</sup> For example, a high school diploma (or equivalent) plus an apprenticeship are required to become

**Table 1.****PROMISING OCCUPATIONS IN THE HEALTH CARE INDUSTRY**

Occupation	Annual Median Wage, 2010, 2012 <sup>a</sup>	Projected Change, 2010–2020	Education Credential Requirements	Work Experience/ On-the-Job Training Requirements
Dental assistants	33,470 35,195	Much faster than average	Postsecondary nondegree award	None
Dental hygienists	68,250 71,767	Much faster than average	Associate's degree	None
Diagnostic medical sonographers	64,380 67,697	Much faster than average	Associate's degree	None
Licensed practical and licensed vocational nurses	40,380 42,461	Faster than average	Postsecondary nondegree award	None
Massage therapists	34,900 36,698	Faster than average	Postsecondary nondegree award	None
Medical assistants	28,600 30,074	Much faster than average	High school diploma or equivalent	Moderate-term on-the-job training
Medical records and health information technicians	32,350 34,017	Faster than average	Postsecondary nondegree award	None
Pharmacy technicians	28,400 29,863	Much faster than average	High school diploma or equivalent	Moderate-term on-the-job training
Radiation therapists	74,890 78,749	Faster than average	Associate's degree	None
Radiologic technologists	54,340 57,140	Faster than average	Associate's degree	None
Registered nurses	64,690 68,023	Faster than average	Associate's degree	None
Respiratory therapists	54,280 57,077	Faster than average	Associate's degree	None
Veterinary technologists and technicians	29,710 31,241	Much faster than average	Associate's degree	None

Source: U.S. Department of Labor, Bureau of Labor Statistics. "The 2010–20 Job Outlook in Brief." Washington, DC: Bureau of Labor Statistics, 2012. Available at [<http://www.bls.gov/opub/ooq/2012/spring/art01.pdf>] and [<http://www.bls.gov/opub/ooq/2012/spring/art02.pdf>]. Accessed May 2012.

<sup>a</sup> The 2010 median wage was converted to 2012 dollars by dividing it by 0.951.

a *boilermaker, brickmason, blockmason, stonemason, carpenter, electrician, glazier, plumber, or structural iron and steel worker*. These occupations are expected to grow at faster-than-average rates from 2010 through 2020. Median wages range from \$38,528 for glaziers to \$57,455 for boilermakers.

Apprenticeships are often managed by professional organizations. For example, the National Joint Apprenticeship and Training Committee (NJATC) offers apprenticeship, journeyman, and instructor training in local training centers, and the NJATC has established training standards to meet market needs. Individuals participating in an NJATC training program complete both classroom and on-the-job training. To qualify for an NJATC apprenticeship, applicants must be age 18 or older, have a high school education and one year of algebra, and pass both an aptitude and a drug test.

Promising occupations in construction that do not require an apprenticeship but do require some on-the-job training include *cement mason, terrazzo worker, construction equipment operator, construction laborer and helper, drywall and ceiling tile installer and tapper, hazardous materials removal worker, and insulation worker*. These positions may be good entry positions in the construction field and can be a precursor to an apprenticeship program or, with experience and additional training, lead to management positions such as team leaders, site supervisors, and other types of project management.

### **Work-Based Learning and Promising Occupations**

The Organisation for Economic Co-operation and Development (OECD) studied vocational education and training in 17 countries and found

that work-based learning prepares youth for work—teaching both hard and soft skills, and connecting learning to the real world.<sup>13</sup> Apprenticeship programs as well as internships and career pathway programs are examples of this approach.

Many policymakers as well as workforce and educational organizations are embracing “career pathway” programs. This model is designed explicitly to support individuals who are moving from training to employment whether they are at-risk youth or not. The model has a strong connection with local employers and integrates innovative instructional strategies with learning supports. Some career pathway programs begin by supporting individuals in completing their high school diploma or GED. Individuals can earn additional certificates—and therefore qualify for higher-skilled and better-paying jobs—as they move up the career pathway. Examples of such

**Table 2.****PROMISING OCCUPATIONS IN THE CONSTRUCTION INDUSTRY**

Occupation	Annual Median Wage, 2010, 2012 <sup>a</sup>	Projected Change, 2010–2020	Education Credential Requirements	Work Experience/On-the-Job Training Requirements
Boilermakers	54,640 57,455	Faster than average	High school diploma or equivalent	Apprenticeship
Brickmasons, blockmasons, and stonemasons	45,410 47,750	Much faster than average	High school diploma or equivalent	Apprenticeship
Carpenters	39,530 41,567	Faster than average	High school diploma or equivalent	Apprenticeship
Cement masons and terrazzo workers	35,530 37,361	Much faster than average	Varies	On-the-job training of varying length
Construction equipment operators	39,460 41,493	Faster than average	High school diploma or equivalent	Moderate-term on-the-job training
Construction laborers and helpers	28,410 29,874	Faster than average	Varies	Short-term on-the-job training
Drywall and ceiling tile installers and tapers	38,290 40,263	Much faster than average	Less than high school	Moderate-term on-the-job training
Electricians	48,250 50,736	Faster than average	High school diploma or equivalent	Apprenticeship
Glaziers	36,640 38,528	Much faster than average	High school diploma or equivalent	Apprenticeship
Hazardous materials removal workers	37,500 39,432	Faster than average	High school diploma or equivalent	Moderate-term on-the-job training
Insulation workers	35,110 36,919	Faster than average	Varies	On-the-job training of varying length
Plumbers, pipefitters, and steamfitters	46,600 49,001	Faster than average	High school diploma or equivalent	Apprenticeship
Reinforcing iron and rebar workers	38,430 40,410	Much faster than average	High school diploma or equivalent	Apprenticeship
Structural iron and steel workers	44,540 46,835	Faster than average	High school diploma or equivalent	Apprenticeship

Source: U.S. Department of Labor, Bureau of Labor Statistics. “The 2010–20 Job Outlook in Brief.” Washington, DC: Bureau of Labor Statistics, 2012. Available at [http://www.bls.gov/opub/ooq/2012/spring/art01.pdf] and [http://www.bls.gov/opub/ooq/2012/spring/art02.pdf]. Accessed May 2012.

<sup>a</sup> The 2010 median wage was converted to 2012 dollars by dividing it by 0.951.

programs include Integrated Basic Education and Skills Training (I-BEST) in Washington State, Carreras en Salud in Chicago, the Arkansas Career Pathways Initiative, and programs supported by the Health Profession Opportunity Grants (HPOG) initiative.

Programs focusing specifically on youth include YouthBuild and Year Up. These programs target a younger population: 16- to 24-year-olds without a high school diploma for YouthBuild and 18- to 24-year-olds with a high school diploma/ GED for Year Up. Both programs combine classroom instruction with work. YouthBuild offers job skills training and course work as part of earning a high school diploma or GED. Year Up participants earn a stipend while spending six months learning the “ABCs” of the workplace—attitude, behavior, and communication—and an

additional six months in an internship with a company. A small randomized controlled trial found that Year Up participants earned higher wages on average than a control group two years after random assignment.<sup>14</sup> Year Up participants earned higher hourly wages and were more likely than control group participants to work full time.<sup>15</sup>

I-BEST, Carreras en Salud, and Year Up are participating in the ACF-funded Innovative Strategies for Increasing Self-Sufficiency (ISIS) project, a large, rigorous evaluation of program impacts on the self-sufficiency of participants.<sup>16</sup> The ISIS project is expected to release 12-month follow-up findings in 2015. YouthBuild is being evaluated in a random assignment study that is taking place in 77 locations across the nation.<sup>17</sup> The YouthBuild project is planning to release impact results in 2015 and 2017.

The Patient Protection and Affordable Care Act of 2010 included the Health Profession Opportunity Grants (HPOG), which gives funding for programs to provide training and education in high-demand health care professions to Temporary Assistance for Needy Families (TANF) recipients and other low-income individuals. In addition to providing for the cost of training and education, grant funds may be used for supportive services such as case management, child care, or transportation. ACF is utilizing a multi-pronged evaluation strategy to assess the HPOG Program. This strategy includes the following components: the HPOG Implementation, Systems and Outcome Project; Evaluation of Tribal HPOG; HPOG Impact Study; additional impact studies of a subset of HPOG grantees through the ISIS project; National Implementation

Evaluation of HPOG; and, University Partnership Research Grants for HPOG. These research and evaluation activities aim to provide information on program implementation, systems change, outcomes, and impacts.<sup>18</sup>

While work-based learning programs are of great interest and are being broadly implemented, some may fall short of meeting the needs of all at-risk youth. Individuals who have witnessed violence or experienced trauma such as abuse or abandonment, for example, may need additional forms of assistance to help them cope and develop the basic capacity to trust and constructively relate to others. Homeless and runaway youth, youth aging out of foster care, teen parents, and juvenile offenders may need special attention that goes beyond career preparation and work-based learning. Additional services and supports may include housing, child care, mental health or other health care services, mentoring, or parenting education. A conceptual framework for programs that aim to support both the self-sufficiency and well-being of such youth has been developed as part of ACF's Youth Demonstration Development project.

## Endnotes

<sup>1</sup> Belfield, C. R., H. Levin, and R. Rosen. "The Economic Value of Opportunity Youth." Washington, DC: The Corporation for National and Community Service and The White House Council for Community Solutions, 2012. Available at [http://www.dol.gov/summerjobs/pdf/EconomicValue.pdf]. Accessed June 12, 2012.

The White House Council for Community Solutions. "Final Report: Community Solutions for Opportunity Youth." Washington, DC, 2012. Available at [http://www.serve.gov/new-images/council/pdf/12\_0604whccs\_finalreport.pdf]. Accessed June 11, 2012.

<sup>2</sup> Koball, H., R. Dion, A. Gothro, M. Bardos, A. Dworsky, J. Lansing, M. Stagner, D. Korom-Djakovic, C. Herrera, and A. E. Manning. "Synthesis of Research

and Resources to Support At-Risk Youth." OPRE report # 2011-22. Washington, DC: U.S. Department of Health and Human Services, 2011.

<sup>3</sup> States determine the age of majority; in most states, it is either 18 or 19. Youth in foster care or involved with the juvenile justice system may remain involved with the state agency until they are 21.

<sup>4</sup> U.S. Census Bureau. Table 698. Money Income of Families-Distribution by Family Characteristics and Income Level: 2009. Washington, DC, 2012. Available at: [http://www.census.gov/compendia/statab/2012/tables/12s0697.pdf]. Accessed May 2012.

<sup>5</sup> U.S. Department of Health and Human Services. "2012 Poverty Guidelines." Washington, DC, 2012. Available at [http://aspe.hhs.gov/poverty/12fedreg.shtml]. Accessed May 2012.

<sup>6</sup> Living Wage Project. "Living Wage Calculator." Available at [http://livingwage.mit.edu/]. Accessed May 2012.

<sup>7</sup> U.S. Department of Labor, Bureau of Labor Statistics. "The 2010-20 Job Outlook in Brief." Washington, DC, 2012. Available at [http://www.bls.gov/opub/ooq/2012/spring/art01.pdf] and [http://www.bls.gov/opub/ooq/2012/spring/art02.pdf]. Accessed May 2012.

<sup>8</sup> U. S. Department of Labor, Bureau of Labor Statistics, 2012.

<sup>9</sup> U. S. Department of Labor, Bureau of Labor Statistics, 2012.

<sup>10</sup> U. S. Department of Labor, Bureau of Labor Statistics, 2012.

<sup>11</sup> A number of government and private organizations have supported papers that discuss career pathways. For example, a discussion of career pathways as a framework appears in [http://www.acf.hhs.gov/programs/opre/welfare\\_employ/isis/reports/inno\\_strategies.pdf](http://www.acf.hhs.gov/programs/opre/welfare_employ/isis/reports/inno_strategies.pdf). Information about funding can be found at <http://www.clasp.org/postsecondary/pages?id=0003>.

<sup>12</sup> Lerman, R. I. "Training Tomorrow's Workforce: Community College and Apprenticeship as Collaborative Routes to Rewarding Careers." Washington, DC: Center for American Progress, 2009. Available at [http://www.americanprogress.org/issues/2009/12/pdf/comm\_colleges\_apprenticeships.pdf]. Accessed June 13, 2012.

<sup>13</sup> Organisation for Economic Co-Operation and Development. "Learning for Jobs." Paris, France: Organisation for Economic Co-Operation and Development, 2010. Available at [http://www.oecd.org/edu/highereducationandadultlearning/oecd-reviews-of-vocational-education-and-training-learning-for-jobs.htm]. Accessed May 2012.

<sup>14</sup> Roder, A., and M. Elliott. "A Promising Start: Year Up's Initial Impacts on Low-Income Young Adults' Careers." New York: Economic Mobility Corporation, 2011. Available at [http://www.yearup.org/pdf/emc\_study.pdf]. Accessed June 1, 2012.

<sup>15</sup> Roder and Elliott, 2011.

<sup>16</sup> For more information on the ISIS project, see the project website at <http://www.projectisis.org/>.

<sup>17</sup> MDRC. "YouthBuild Evaluation." Available at [http://www.mdrc.org/project\_32\_103.html]. Accessed June 1, 2012.

<sup>18</sup> For more information on the HPOG Program's research and evaluation portfolio, please see: <http://www.acf.hhs.gov/programs/opre/research/project/evaluation-portfolio-for-the-health-profession-opportunity-grants-hpog>.

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