



Construction Pre-Apprenticeship Programs: Results from a National Survey

By

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Introduction

In April 2009 the Aspen Institute’s Workforce Strategies Initiative (AspenWSI) surveyed workforce development programs that connect individuals to jobs and apprenticeship opportunities in the construction sector. The survey was prompted by growing interest in work opportunities within the construction sector. The Obama administration was then preparing to invest large scale in the nation’s infrastructure, promote opportunities to retrofit, weatherize, and otherwise reduce energy consumption, and create “green jobs.” In thinking about the jobs these types of investments could create, one of the core questions that arose was how do we, as a nation, prepare people for and connect them to new opportunities that emerge in the construction industry?

The construction industry encompasses a variety of skilled trades and career paths. Yet entry into the industry can be challenging, particularly for those with little knowledge of the way construction trades employment is organized. The registered apprenticeship system historically has been, and remains, an important entry point and training opportunity for many individuals who have made their careers in the trades. However, the range of both union and non-union apprenticeship opportunities across different crafts, and their role in the industry as a whole, can be difficult to navigate. In addition, there are a variety construction-related job opportunities outside the registered apprenticeship system. In these lines of work, individuals may enter the industry through jobs with companies in which hiring requirements and training opportunities are much more informally managed, or companies may have established a different training system that is specific to their needs.

Given the diversity and complexity of employment opportunities in the construction industry, it is not surprising that a variety of programs have been developed to help individuals connect to the industry. In workforce development circles, programs that prepare people for and connect them to jobs in the skilled trades (and to apprenticeships) are often referred to as “pre-apprenticeship” programs. But what is a pre-apprenticeship program? What does the program model look like? Who sponsors these programs? Where are they located? Who do pre-apprenticeship programs serve? What do their curricula look like? How do they support people in finding jobs? And, above all, what types of jobs do pre-apprenticeship programs connect people to?

In designing our survey, we consulted a variety of interested parties, including workforce development program operators, researchers, public officials, representatives of organized labor, representatives of construction industry trade associations and others.¹ We learned that, within the construction industry and among workforce development professionals, the definition of “pre-apprenticeship” varies. Some definitions are quite specific, while others are broader. Under the umbrella of pre-apprenticeship, stakeholders described programs designed to help individuals qualify to enter an apprenticeship, prepare for and connect to various types of job opportunities in the industry, and even simply provide basic education contextualized for construction and aimed at preparing students for a variety of jobs both within and outside of the construction industry. For the purposes of our survey, we targeted workforce development programs providing services designed to connect new entrants to the construction industry with jobs, skilled trades or apprenticeships.

¹ See Appendix A for complete list of advisors and individuals consulted.

A Note on the Term “Pre-Apprenticeship”

Determining the appropriate term for respondents to this survey has been challenging. In fielding the survey, we used the term “pre-apprenticeship” to find survey respondents – with the caveat that this term could describe any program that aims to offer services that connect people not already in the trades or construction industry, to trades jobs, training or apprenticeships in that industry. Specifically, we sought organizations and programs working to prepare individuals for entry into construction work, but that are not themselves registered apprenticeship programs.²

Our assumption was that the goal of these pre-apprenticeship programs would be to connect their participants to the registered apprenticeship system – and indeed only five percent of respondents report that they do not work with the registered apprenticeship system. Yet more than a third of respondents report that they place less than 25 percent of their graduates in registered apprenticeship positions. Placements in non-apprenticeship, construction-related jobs are much more common. This situation has caused some to question whether “pre-apprenticeship” is the appropriate term for these workforce development programs, given that they place far more graduates outside the apprenticeship system than they place into the apprenticeship system.

In conversations focused on whether it is accurate to label such programs pre-apprenticeship programs, a variety of issues were raised, including:

- Do non-apprenticeship placements eventually lead to apprenticeship?
- Is this low rate of entry into apprenticeship a normal program outcome? Or were apprenticeship placements infrequent because of the depressed state of the construction sector at the time of the survey?
- How many entry-level jobs in the construction industry are within the apprenticeship system?
- How does this picture of entry-level employment vary by region?
- Are workforce development programs positioned to learn about expected availability of apprenticeship slots?
- Is this survey finding reflective of a disconnect between workforce development programs and employers?
- What other construction-related jobs are participants placed in? Are they “good” jobs?

While data from our survey provide insight into some of these questions, they do not fully answer them. Questions remain about whether “pre-apprenticeship” is the best term to apply to the programs described in this research. Nonetheless, in this paper we will refer to all entry-level construction trades training and placement programs as “pre-apprenticeship programs,” in order to distinguish them clearly from the more formal apprenticeship system. We acknowledge that this is an imperfect term, and expect that further research will lead to more precise language to describe the wide variety of programs we have grouped together and call “pre-apprenticeship.”

Construction Industry Context

To provide context for the survey results that follow, we begin with some brief background information on key elements of the construction industry labor market. Our intent is to illustrate some of the ways in which local construction markets can vary, and later in the report we will highlight some

² References in this paper to apprenticeship programs refer exclusively to federal- or state-registered apprenticeship programs. There are privately run programs that refer to themselves as apprenticeships, but are not registered with a state or federal apprenticeship office; these programs are not discussed in this paper.

of the implications of this diversity for local program design and operations. Because this discussion is brief, additional resources on the construction industry are available in Appendix B.

Based on national labor market data, the construction sector has a strong employment outlook over the long term. In April 2009 there were approximately 6.4 million individuals employed in construction occupations. Of these, roughly 4.8 million were in non-supervisory production occupations.³ Projections from the U.S. Department of Labor indicate that total U.S. employment in the construction industry will increase from the approximately 6.9 million jobs recorded in 2004 to 7.7 million jobs in 2014.⁴ Furthermore, due to the aging construction workforce, job openings are anticipated to be even greater than industry growth numbers alone would suggest. Having said this, in the economic climate at the time the survey was fielded (April 2009), construction employment was down sharply, and unemployment was high among skilled construction workers. According to the U.S. Bureau of Labor Statistics, unemployment in the construction industry peaked in February 2009 at 21.4 percent, and by June 2009 had improved to 17.4 percent.⁵ For comparison purposes, it may be helpful to note that the construction unemployment rate was 11.4 percent in February 2008 and 8.2 percent in June 2008. Thus while longer term forecasts appear promising, in the more immediate term, employment remains weak and job placement is difficult.

While the prolonged nature of the current downturn in the economy and resulting rise in unemployment rates have been very difficult for construction workers, shorter spells of unemployment are not uncommon in the construction labor force. In general, labor demand in construction is closely associated with the economic climate. Major construction projects typically rely on financing, and when credit becomes scarce, as has happened recently, construction work declines.

In addition, because the work is largely done outdoors, weather can be a major factor in planning construction projects, with less work occurring in intemperate climates during cold winter months and overtime often required in good weather months to meet project deadlines. As a result, hours worked often can be irregular for construction workers. The February and June 2008 unemployment rates noted above illustrate the seasonal nature of construction work. Due to the cyclical and seasonal nature of the industry, construction training programs often emphasize financial planning with participants to help them prepare for these ups and downs in employment.

Nevertheless, the generally high prevailing wages in the industry have attracted the interest of many employment and training programs seeking to help participants find family-supporting jobs. The U.S. Bureau of Labor Statistics reports, for instance, that in 2008 the average hourly wage for non-supervisory workers in the construction industry was \$21.87, as compared to an average wage of \$18.08 for non-supervisory workers across all private industries.⁶ However, it should be noted that pay rates within the industry can vary widely. For example, carpenters employed on commercial job sites may be paid a substantially higher wage than carpenters working on residential construction projects.

³ Bureau of Labor Statistics, U.S. Department of Labor, *Current Employment Statistics (CES National)*, Employment and Earnings tables, seasonally adjusted, accessed 3 August 2009; available from <ftp://ftp.bls.gov/pub/suppl/empsit.ceseeb2.txt>; Internet.

⁴ Employment and Training Administration, U.S. Department of Labor, *High Growth Industry Profile: Construction*, accessed 25 July 2009; available from http://www.doleta.gov/BRG/Indprof/construction_profile.cfm; Internet.

⁵ Bureau of Labor Statistics, U.S. Department of Labor, *Labor Force Statistics from the Current Population Survey*, accessed 25 July 2009; available from http://data.bls.gov/PDO/servlet/SurveyOutputServlet?series_id=LNU04032231&data_tool=XGtable; Internet.

⁶ Bureau of Labor Statistics, U.S. Department of Labor, *Career Guide to Industries, 2008-09 Edition*, Construction, accessed 27 July 2009; available from <http://www.bls.gov/oco/cg/cgs003.htm>; Internet.

The lower rates of pay for residential work in part reflect the lack of union presence in that segment. Rates of pay are generally higher for union workers than for non-union workers. In 2008, median weekly earnings for union members were \$1,014, as opposed to \$668 for non-union workers. However, union opportunities are also far scarcer, with only 15.6 percent of construction workers nationally reported to be members of unions in 2008.⁷ Moreover, union density varies regionally and among market segments. This variation in union density is among the factors that contribute to substantial variation in wage rates by region of the country. Moreover, the industry has many different crafts that demand different competencies and skill levels, resulting in pay variations.

The wages paid to workers on many non-residential construction projects are regulated under provisions of the Davis-Bacon Act, under which the U.S. Department of Labor sets wage rates for different types of construction work based on prevailing wages for similar work in a region. “The Davis-Bacon Act applies to contractors and sub-contractors performing on federally funded or assisted contracts in excess of \$2,000 for the construction, alteration, or repair (including painting and decorating) of public buildings or public works.”⁸ Davis-Bacon prevailing wages apply to a wide variety of projects, including those directly receiving federal funds and projects that are financed in full or in part by federal loan guarantees.

Beyond the government’s role in regulating certain wages in the industry, the public sector is a major purchaser of construction labor – for such projects as roads, bridges, schools, sports stadiums and housing. Such highly visible projects often generate interest in who has access to these employment opportunities, which has led to efforts to ensure that community residents or underrepresented groups receive priority consideration in the process of hiring for the construction jobs created.⁹

At the same time, the very structure of the industry itself means that workforce development program operators looking to place graduates in the construction industry must navigate many different environments and employers. As mentioned above, the construction industry is broken into different market segments. The largest divide is between residential and non-residential construction, with non-residential further subdivided into additional market segments, including commercial, heavy and highway,¹⁰ and institutional. Ease of entry into construction jobs varies both across segments and within segments. Higher paid and longer-term jobs tend to be more competitive, while lower paid and more temporary jobs naturally are less competitive. However, relative demand across segments also can influence the ease of entry into any of the major market segments; for example, if major public works projects are coming on line during difficult economic times, then heavy and highway jobs may be more plentiful than residential.

The construction sector is generally made up of many small firms, and demand for work can change abruptly. Pre-apprenticeship program staff must interact with many different employers, both to keep

⁷ Bureau of Labor Statistics, U.S. Department of Labor, *Industries at a Glance, Construction: NAICS 23*, accessed 25 July 2009; available from <http://stats.bls.gov/iag/tgs/iag23.htm#iag23cese.f.P>; Internet.

⁸ U.S. Department of Labor, Employment and Training Administration, Wage and Hourly Division, accessed 5 August 2009; available from <http://www.dol.gov/ESA/WHD/contracts/dbra.htm>; Internet.

⁹ For a discussion of techniques used to achieve specific hiring goals, see Kathleen Mulligan-Hansel, *Making Development Work for Local Residents: Local Hire Programs and Implementation Strategies That Serve Low-Income Communities* (Denver, Colo.: The Partnership for Working Families, July 2008); available from <http://www.communitybenefits.org/downloads/Making%20Development%20Work%20for%20Local%20Residents.pdf> ; Internet.

¹⁰ Heavy and highway construction projects include infrastructure work, such as highways, bridges, dams, airport runways and a variety of marine projects.

up with the dynamics of the construction sector in their region and to help their graduates obtain jobs. In 2006, more than 75 percent of workers in construction nationwide worked for companies employing fewer than 100 workers.¹¹ And among construction establishments, 91 percent of firms employed fewer than 20 workers. Sixty-five percent of these firms employed fewer than five workers.

Although a large construction project may be managed by one general contractor, it is normal practice for such contractors to bid out portions of work to smaller sub-contractors. The construction schedule for a project is then dependent on work being completed in sequential order, often by different sub-contracted companies. With so many interdependent activities, the potential for a particular project component to fall behind and affect the start date for subsequent work on the project is high. And as mentioned above, many large projects have significant public investment or oversight. The funding and regulatory processes involved in launching and managing these projects also can lead to delays. All of these factors – delays in initiating construction projects, the sub-contracting system and shifts in demand for workers – make it difficult for workforce development program operators to accurately forecast labor demand. Yet forecast they must, in order to admit the appropriate number of trainees and to time their training (and completion) to coincide with the expected number of job placements.

Because construction projects are usually implemented through a complicated structure of sub-contracts to many different firms that are only temporarily on a job site, job quality for individual workers can be difficult to monitor in the construction industry. Many firms hire workers temporarily and informally. The industry also attracts undocumented workers and workers who speak limited English.¹² These workers are particularly vulnerable to abusive employment practices. Furthermore, poorly trained and prepared workers can create unsafe working conditions for everyone on a job site.¹³ Some workforce development programs see the need to serve as advocates for their participants – working to ensure that workers receive agreed-upon wages and are working in safe environments.

Demand for construction labor can vary dramatically across labor markets, and it is not uncommon for construction workers to travel from one region to another to find work. In addition, a region may experience demand in one segment of the construction market, such as residential, while there are fewer opportunities in another segment, such as heavy and highway construction. In addition, in some markets, employers may participate in and support a strong apprenticeship system. Other markets may lack this infrastructure and instead rely on trade schools or informal on-the-job learning to promote skill development. As a result of all of these factors, jobs available to new entrants in construction work may have widely varying requirements and compensation packages, and differ markedly between regions, market segments and employers.

Pathways to Employment and Advancement in Construction

Individuals can prepare for and/or enter construction-related jobs through a variety of channels, such as a trade or technical program apprenticeship, direct hire with a company, or through a day labor organization. In some cases new entrants may learn skills informally on the job. In other cases, skills may be taught through more traditional classroom methods.

¹¹ Bureau of Labor Statistics, U.S. Department of Labor, *Career Guide to Industries, 2008-09 Edition*, Construction, accessed 27 July 2009; available from <http://www.bls.gov/oco/cg/cgs003.htm>; Internet.

¹² Jeffrey S. Passel, *The Size and Characteristics of the Unauthorized Migrant Population in the U.S.* (Washington, D.C.: Pew Hispanic Center, March 7, 2006); available from <http://pewhispanic.org/files/reports/61.pdf>; Internet.

¹³ National Institute for Occupational Safety and Health, "Construction: Input: Economic Factors," accessed 25 July 2009; available from <http://www.cdc.gov/niosh/programs/const/economics.html>; Internet.

Program operators may train individuals for a variety of craft-specific occupations available within the construction industry. The U.S. Bureau of Labor Statistics has identified 20 different construction-related occupations, such as carpenters, construction laborers, electricians and sheet metal workers.¹⁴ Each of these occupations requires some basic proficiency in reading and math, but the level of general education required varies by trade. For the most part, the technical skills required by each occupation typically are learned through some combination of education and on-the-job training. Demand for different craft-specific workers can vary greatly, depending on market saturation of qualified workers in a particular area and demand for their services. As a result, a workforce development program operator must be knowledgeable about the requirements and economic outlook for a variety of occupations within the construction industry, in order to match program participants with skills training required to fill available jobs.

While apprenticeship is certainly not the only means of entering construction employment, from the perspective of a training program operator, it is often a targeted point of entry for their graduates (given the clear career pathway associated with it, as well as competitive wages and benefits). Apprenticeships are typically sponsored by local employers, trade associations, and/or unions that assist apprentices with placement on a job. Apprenticeship provides entering apprentices with a clear career pathway and process by which they can advance. Finally, apprenticeship involves a combination of structured classroom and applied learning on the job, which ensures that apprentices are obtaining marketable, industry-recognized skills as they progress. However, apprenticeship slots are limited in number, and entry is competitive.

Similar to construction employment demand more generally, apprenticeship opportunities often are difficult to predict. The availability of apprenticeship slots depends on forecasts for labor demand, and apprenticeship programs typically try to ensure that there will be enough work of varying types for an apprentice to complete the on-the-job training portion of the apprenticeship within the 3-5 year period usually allowed. Typically apprenticeships are structured to ensure that there is enough work for existing apprentices prior to accepting new enrollees. When there is limited demand for workers, there is usually a limited number of apprenticeship slots. It is important to note that, since entry into an apprenticeship is affected by employment projections, the ability to project accurate labor market demand definitely can affect the availability of apprenticeship opportunities. Overall, competition for limited apprenticeship slots is extremely intense.

Nationally, there is limited data on the availability of construction apprenticeship opportunities, and it is unclear how many construction workers enter the trades through apprenticeship versus other channels. The reason for this is that apprenticeship systems can be operated at the state or federal level; roughly half of states operate their own apprenticeship system and half participate in the federal apprenticeship system. The data available from the U.S. Department of Labor's Office of Apprenticeship primarily captures information from federally registered apprenticeship programs, although there are some state-run apprenticeship programs that also provide data to the federal office. Based on this data, the U.S. Department of Labor's Office of Apprenticeship reports that as of September 2008, there were 25,670 federally registered apprenticeship programs, with a total of 318,271 apprentices enrolled in these programs.¹⁵ Expert staff at the Office of Apprenticeship

¹⁴Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2008-09 Edition*, Construction trades and related workers, accessed 25 July 2009; available from <http://stats.bls.gov/oco/print/oco1009.htm>; Internet.

¹⁵ Office of Apprenticeship, Employment and Training Administration, U.S. Department of Labor, *Top 25 Occupations for Active Apprentices*, accessed 25 July 2009; available from <http://www.doleta.gov/OA/top-25-occupations.cfm>; Internet.

estimates that these data represent roughly 60 percent of apprenticeships nationally, and that about 70 percent of apprentices are in building trades and construction occupations.¹⁶ Thus, this type of data only gives a rough indication of the order of magnitude of apprenticeship enrollment in about half the states.

About This Report

The remainder of this report summarizes findings from AspenWSI's survey of pre-apprenticeship programs. We begin with a brief overview of our survey strategy, the response, and summary statistics on characteristics of the respondent pool. Within this section we report the number and types of organizations that responded to the survey, the geographic location of survey respondents, and the years of experience respondents reported. Following this, we describe the number and characteristics of participants with whom pre-apprenticeship programs report working. We then describe the range of services programs report providing, including both training and non-training services. Next we describe the construction industry segments that respondents target and discuss respondents' budgets and funding sources. The paper ends with a brief set of conclusions and some notes regarding opportunities for further research.

Although the data presented show the prevalence of various types of services being offered in pre-apprenticeship programs, the data on their own do not really tell the story of the programs and the diversity of their missions and design. All respondents to the survey provide training and services designed to help their clients prepare for construction jobs. And yet, not all programs serve the same types of clients or have the same goals. Some are serving out-of-school youth, trying to help them finish their high school degree and make more informed choices about education and work. Others are working with older students, helping them not only develop skills but also overcome barriers that have isolated them from the networks and contacts they need to find work. Some programs are offered broadly to the community, as part of an array of career offerings available from community-serving educational institutions. To illustrate the diversity among programs more clearly, and the rationale behind differing program designs, we have presented a few descriptions of programs in boxes throughout the text. Hopefully, these program descriptions will provide a picture of how the various parts of a program – participant characteristics, curricular elements, funding streams, etc. – can fit together in different ways. The program descriptions are summaries of a particular response to the survey, but the name of the program is fictitious, in order to preserve respondent anonymity. Programs were not selected to provide “best practice” examples – further research would be needed to make that determination. Rather, they were chosen to represent some of the factors that seem to influence program structure – such as organizational home and range of partners, funding sources, size of labor market, etc. Surveys were selected, however, on the basis of completeness; that is, respondents who provided answers to optional open-ended questions were selected as more interesting examples could be created from these responses. It should be noted that these more detailed survey responses often came from organizations that also reported longer experience and better outcomes than the average survey respondent. It is hoped that these program examples will provide illustrations of program practice, and will generally enhance the reader's understanding of the nature of pre-apprenticeship programs.

¹⁶ James R. Conley, Team Leader, Division of Program Administration and Management Systems, Office of Apprenticeship, U.S. Department of Labor, interviewed by telephone, 21 August 2009.

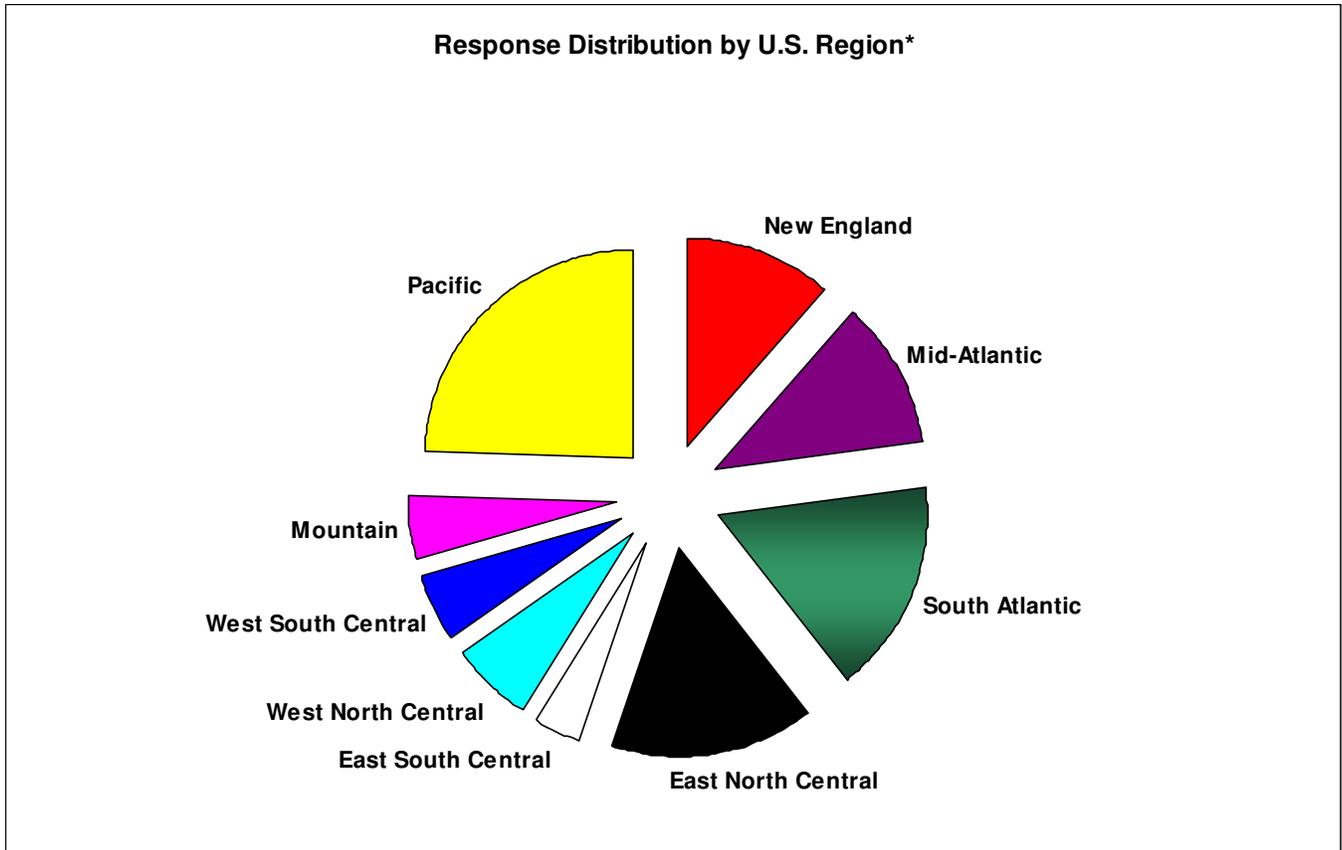
The Survey Response

As mentioned above, we did not start this survey effort with a pre-drawn list of programs involved in a specific type of pre-apprenticeship work we wanted to learn more about. A major goal of our research was to learn how large and diverse this field of activity might be. Thus, while we cannot ascertain how representative our survey respondent pool is relative to the universe of organizations involved in pre-apprenticeship, we believe the information we can provide about this field of practice will help illuminate the range of activity in this field.

Overall, the survey garnered responses from 358 organizations that reported offering services to connect individuals to jobs or further training opportunities in the construction sector. Among those 358 however, 58 respondents terminated their response to the survey before providing substantial information on their services. (The work of these organizations is not reflected in the survey results provided in this report). Among the remaining 300 respondents, 40 offer registered apprenticeship training programs, but not pre-apprenticeship services. These programs' responses were removed from the analysis of pre-apprenticeship, given the focus of this paper. The remaining 260 survey respondents provided enough information for us to determine that they are in fact pre-apprenticeship programs. Of these, 236 respondents completed all sections of the standard part of the survey,¹⁷ and only their responses are reflected in analysis that draws information from respondent answers to multiple questions within the survey.

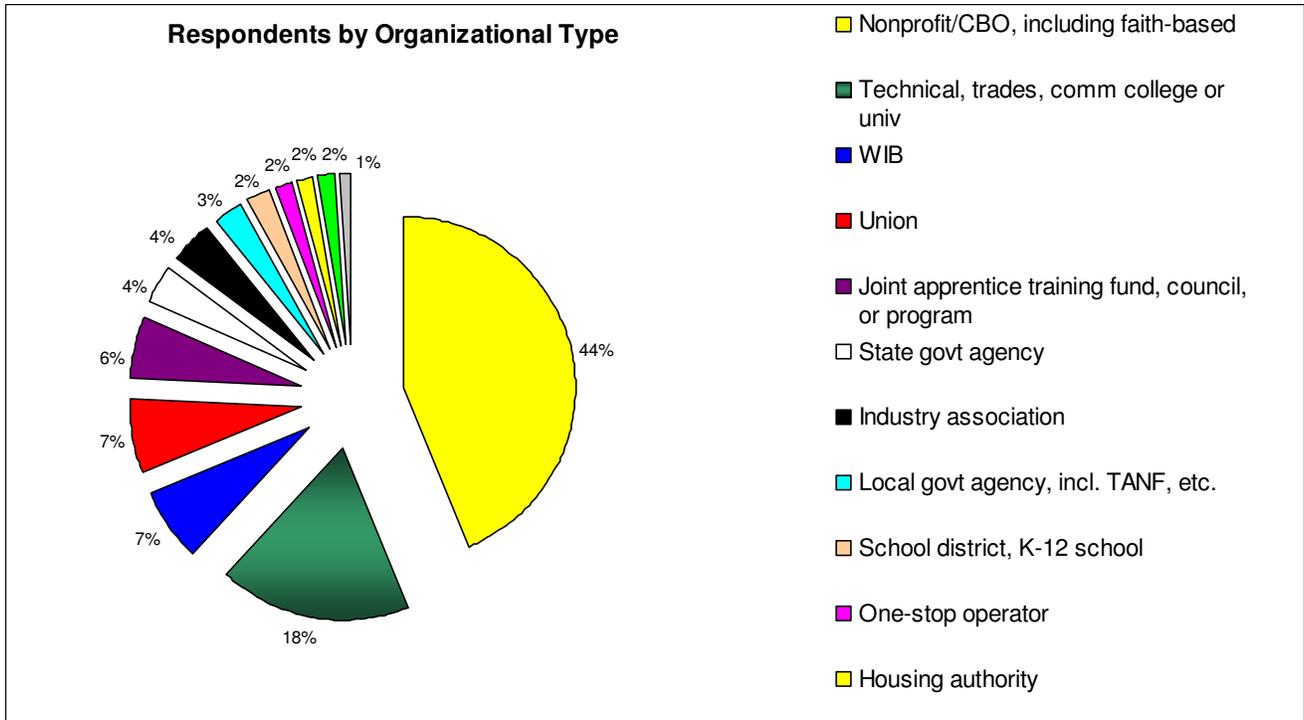
Programs across the country responded to the survey, with 40 states plus Washington, D.C. and Puerto Rico represented in the pre-apprenticeship program sample. The chart below shows the geographic distribution of responses by region of the country.

¹⁷ The survey included an optional section at the end which asked respondents opinions about opportunities, challenges and future directions for their programs. This optional section of the survey was completed by 196 respondents.

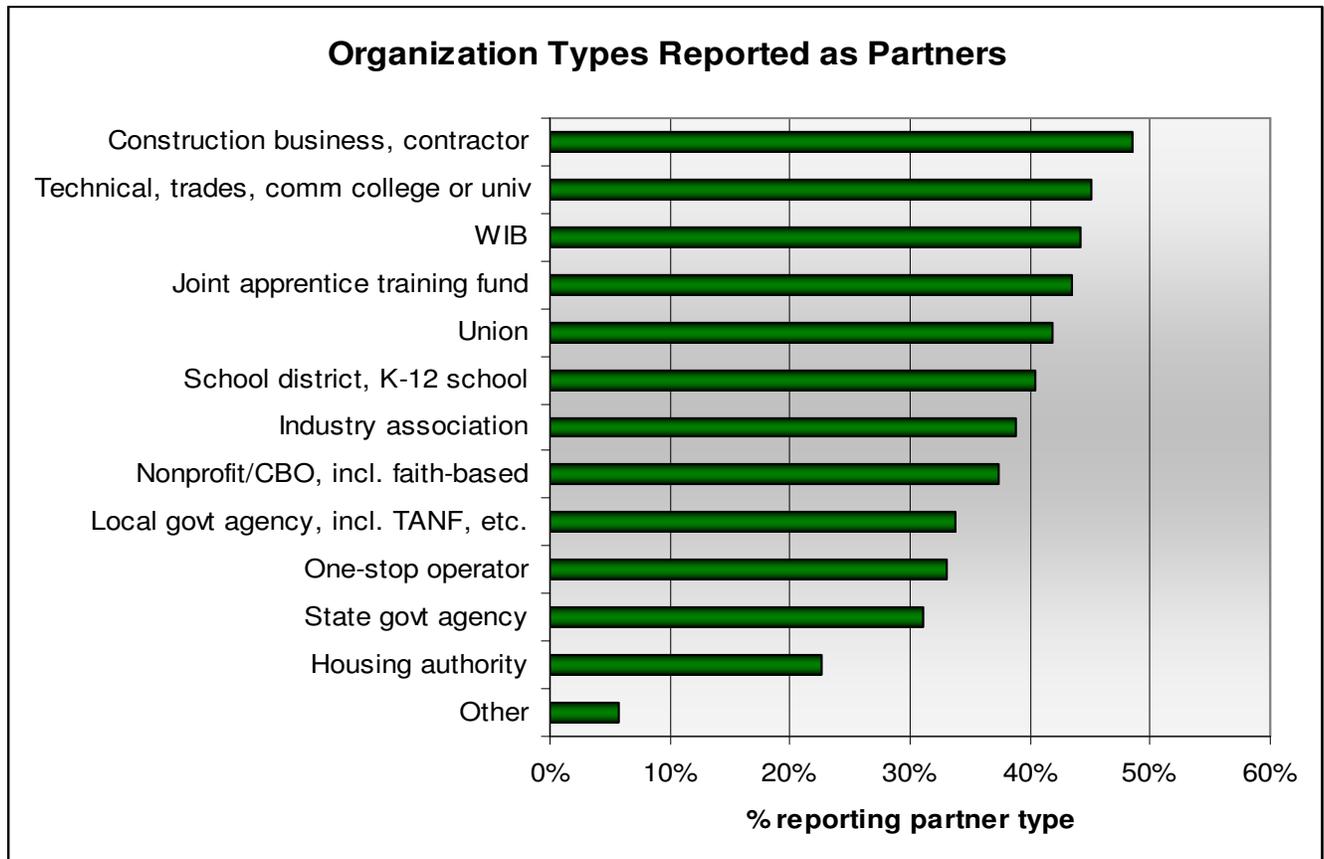


* Regions are defined according to Census Bureau definitions. See http://www.census.gov/geo/www/us_regdiv.pdf

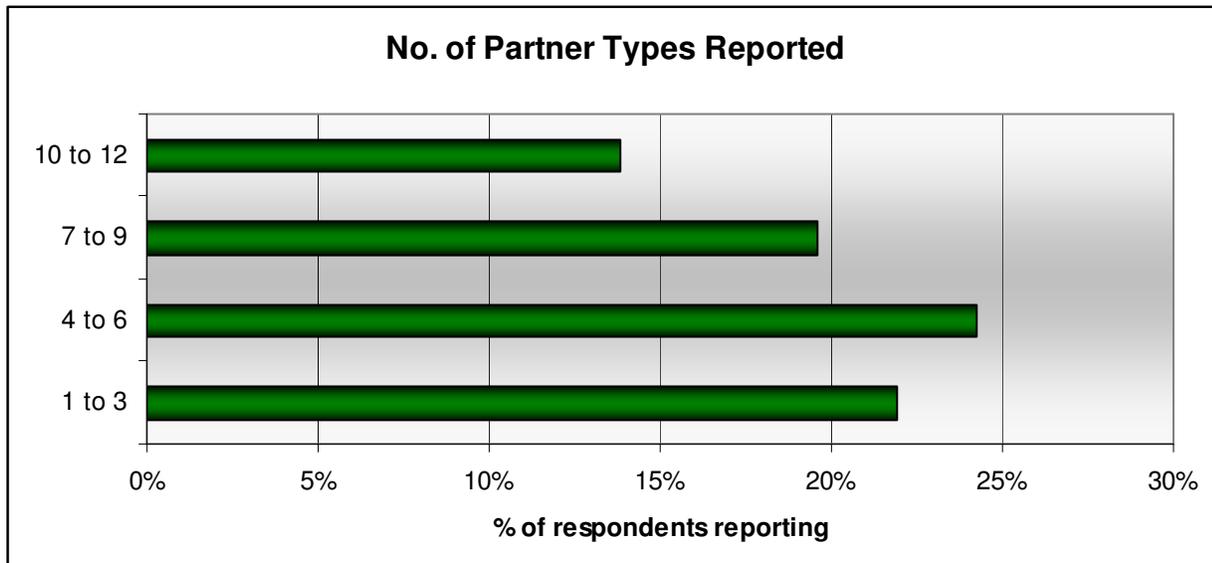
A range of institutional types also responded to the survey, with most being nonprofits or community-based organizations. But others prominently included were: community or technical colleges, joint apprenticeship training programs and unions. In addition, 74 respondents reported operating a YouthBuild program and 21 reported operating a Job Corps program. The chart below shows the distribution of the 260 pre-apprenticeship organizations responding to the survey by organizational type.



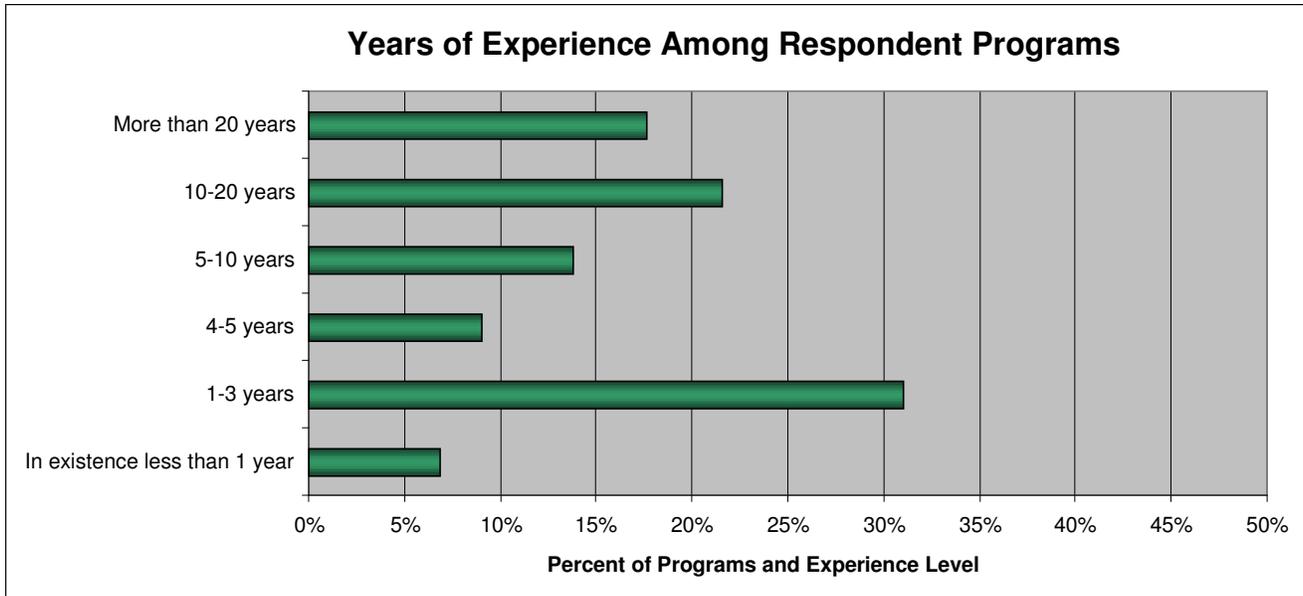
Survey respondents were asked if they partnered with other organizations to provide their construction pre-apprenticeship program, and to specify the types of organizations they partnered with. The chart below shows the percentage of respondents reporting partnering with each organizational type.



Industry partners, such as construction businesses and unions, are well-represented among the types of organizations listed as partners, as are secondary and post-secondary educational establishments. However, the distribution is somewhat even, as most respondents reported partnering with several different types of organizations. Only about 20 percent of respondents did not indicate a partner, with the balance indicating they operated their construction program with between one and 12 types of organizations. The chart below shows the distribution of the number of types of partners respondents reported.



Responding organizations had widely varying levels of experience in operating programs in the construction sector. Many organizations reported significant experience in operating programs that prepare individuals for construction training and jobs, with 91 respondents reporting 10 or more years of experience and 41 respondents reporting 20 or more years of experience. On the other hand, 88 respondents reported three or fewer years of operating experience and 16 had less than a year's experience. The chart below shows the distribution of experience among the 232 survey respondents that answered the question about program age.



Program Example: Program Focused on Women in the Trades¹⁸

Participants: The Program Opportunities for Women (POW) is designed for low-income women in a large metropolitan region. Entry requirements include a valid driver’s license, high school degree or GED, fluency in English, and a demonstrated interest in the trades. Participants with a history of substance abuse must be free of addiction for at least six months prior to enrollment. The program serves many low-income women, single parents and women of color.

Training Program: POW offers a free six-week, full-time training program that mixes classroom instruction with 30 hours of hands-on training. The curriculum works to build basic math and measurement skills, as well as facility with core industry-specific topics such as the range of trades occupations, tool identification and use, job safety and others. The program pays special attention to the culture of the construction industry and challenges women may face on the job. A focus on strength building, fitness and lifting techniques also is included. Visits to construction sites and apprenticeship programs and a new “intro to green construction” are part of the curriculum.

POW includes the development of a career plan as part of its program. The plan includes goals for further skill development and advancement, as well as budgeting for construction-related work needs, such as basic tool acquisition, and planning for child care and transportation. Sessions on time management, financial literacy, communications and conflict resolution are also part of the curriculum. In addition, students are taught a variety of job search and interview skills they might need to navigate the different segments of the construction labor market in their area.

Supports: In addition to the training curriculum, POW students work with a case manager, who can help students with transportation vouchers, emergency cash assistance, and referrals for assistance with child care, housing and other needs. Participants may also benefit from mentoring services and assistance with work expenses, such as testing fees or union dues.

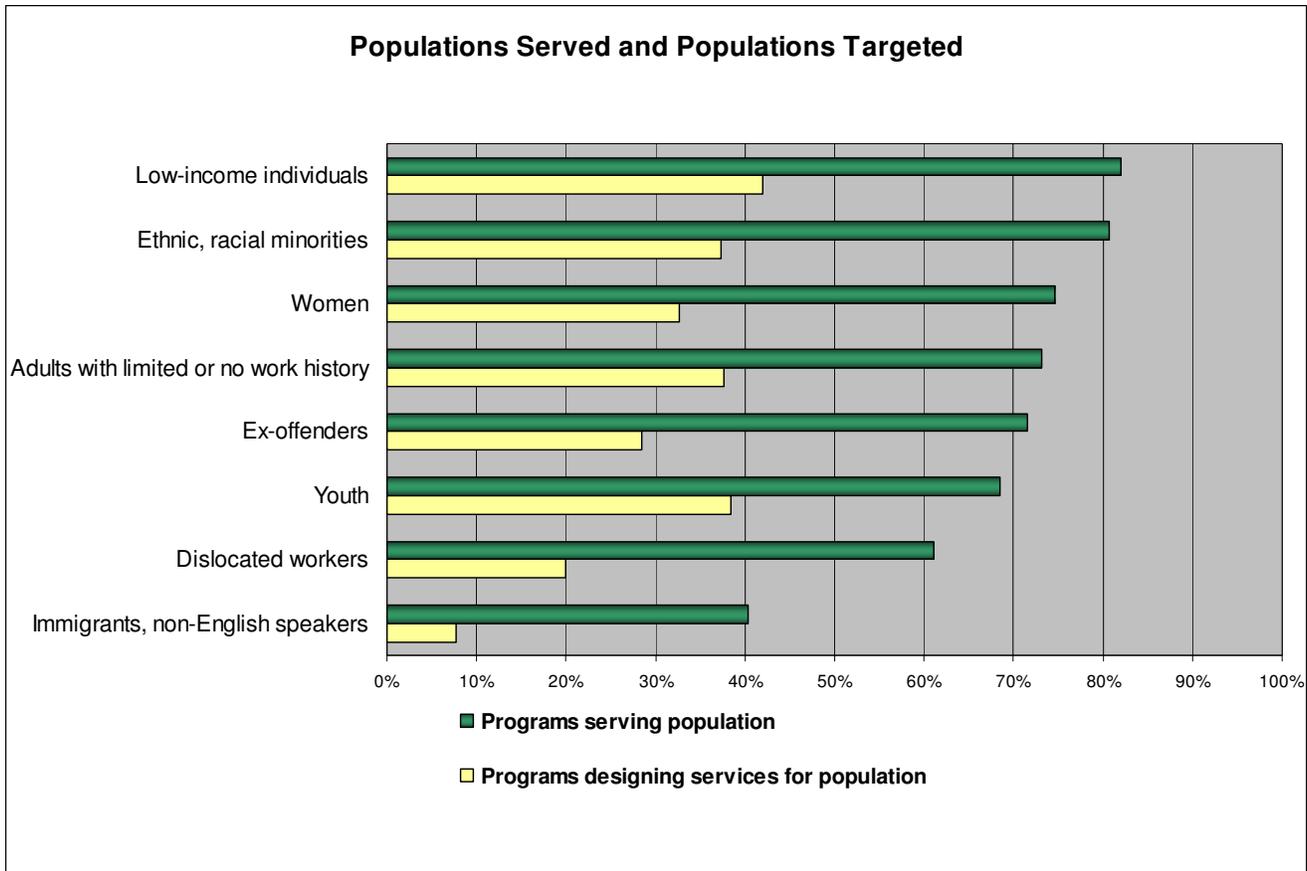
¹⁸ This program example is based on the survey response from an organization that specifically targets women. The program name is fictitious.

Affiliations and Funding: POW is operated by a nonprofit organization that works with a range of partners including local government, community and technical colleges, apprenticeship programs, unions and employers. The organization is funded by a mix of public and philanthropic sources as well as business contributions. Currently, its primary funding sources are local government money, a significant federal grant that is scheduled to end in a year, and in-kind assistance from local industry.

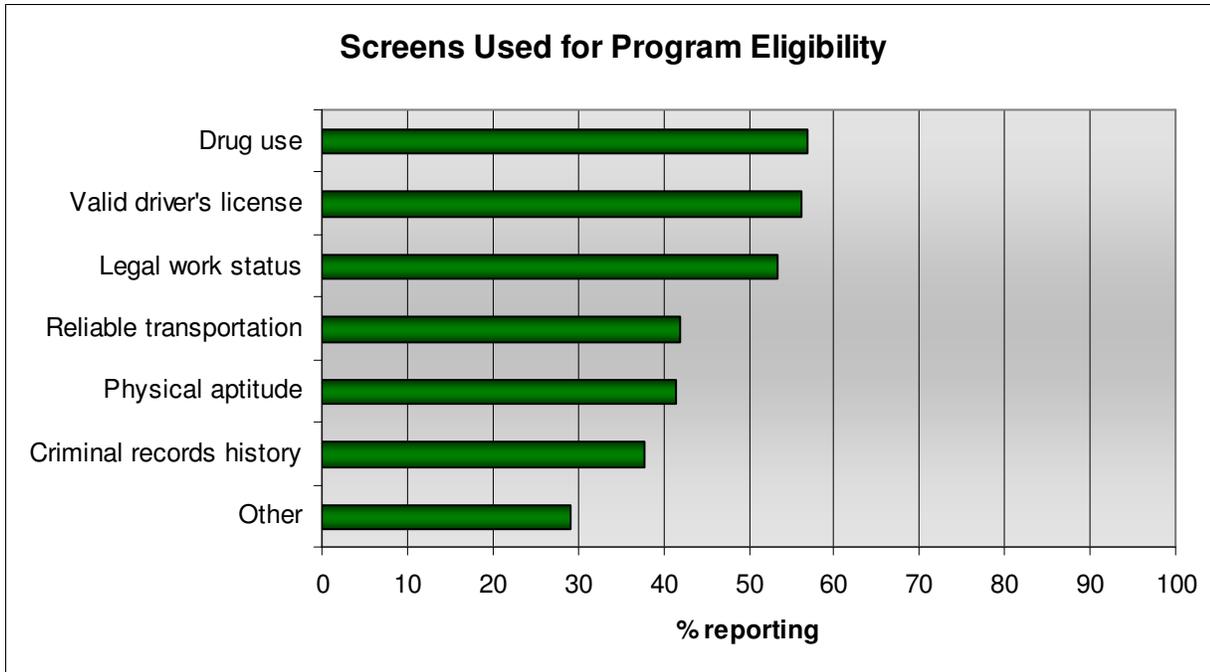
Outcomes and other information: The program works in a major metropolitan region and enrolls about 120 students per year. Typically about 80 percent complete the training and about 82 percent of those completers are placed in jobs. The program enjoys a close relationship with its union partners, and historically about 40 percent of placements have been in union apprenticeship slots, with 60 percent in other types of construction opportunities; some of these individuals eventually enter union apprenticeship positions. The program places participants in a range of trade occupations, working with both union and non-union companies and placing students on jobs in commercial, residential, institutional and heavy and highway construction jobs. However, the past year has been very difficult and job placement is down substantially. Program operators note that construction environments still present many challenges for women, particularly minority urban women, and that cultural and gender biases are still a substantial barrier to job placement and entry into apprenticeship. The program works very hard to develop a community of women in the trades and tries to maintain contact with graduates, often connecting them to new students as mentors, and facilitating various events that provide opportunities for graduates and current students to meet, network and support one another.

Participants Served

Survey respondents were asked whether they serve populations that often face barriers to employment in construction trades, and whether they design services to meet that population's needs. Programs generally reported serving most or all of the population groups mentioned, but only about half of respondents reported that their program was designed to serve one or more of these populations. That is, about 75 percent of programs reported including women in their program, but only about 33 percent reported having program elements specifically designed to encourage and support women in the trades. Probably the most striking example of disparity here is between the number of programs that reported serving immigrants and limited English language populations and the number that reported having services specifically designed for these groups. Programs were specifically asked about the populations shown in the chart below, but were also offered the opportunity to name other populations for which they design services. About eight percent of respondents mentioned that they design services for other populations, and specifically mentioned such groups as veterans and individuals who are: lacking high school degrees, homeless, disabled, currently incarcerated, receiving welfare or residing in specific geographic areas. The chart below shows the specific populations mentioned in the survey and the proportion of programs that reported including these populations in their programs and offering services designed for them.

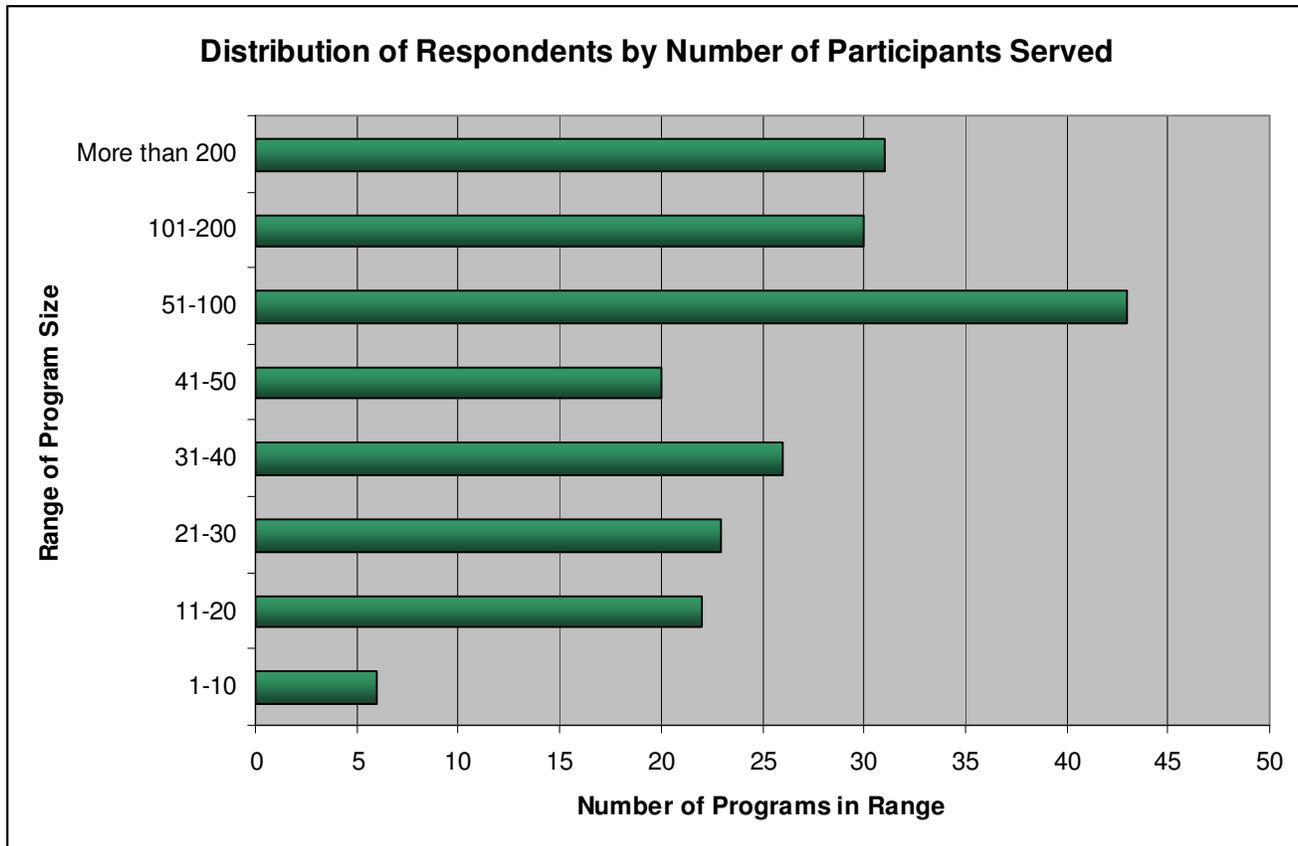


Programs reported screening applicants on a variety of criteria before admitting them. Of the 260 programs that answered the question, 75 percent, or 195 respondents, reported that they screen for ability, and one-third reported requiring a high school diploma or GED. About 25 percent reported that they do not screen for education or ability level. Only 87 of the respondents who screen for education or ability level reported the grade level they require for entry into their program. Among these, the ability level screened for clustered at the 7th or 8th grade competency level, reported by 56 percent of respondents. Adding in those who required 6th grade or 9th grade competency level accounts for nearly 90 percent of respondents who answered the question. TABE (Test of Adult Basic Education) tests were by far the most frequently cited assessment tool used; among the 100 respondents who named an assessment instrument used, 69 reported using the TABE test. Work Keys was a distant second, with only 16 respondents reporting its use. Other adult basic skills exams reported include: CASAS, Compass and Accuplacer, reported by 10, 4 and two respondents respectively. Programs also screened for other program eligibility factors, such as having a driver’s license, legal residency and criminal background. The chart below shows respondents’ reports of specific screens.



The most frequently cited “other” screen respondents reported was assessing for motivation or interest in the industry, cited by 11 respondents. Other items mentioned in the “other” category included stable life situation, as well as elements that allowed participants to qualify under funding or institutional guidelines, such as age, residency within a specific geographic area, or meeting school enrollment requirements.

Programs also varied in the number of participants they served. Respondents were asked to report the number of participants they served in their most recently completed year. Responses ranged from fewer than 10 to more than 200. The median program size was 54 participants, while the average size was 122 participants, reflecting the substantial number of respondents reporting large numbers of participants. The chart below shows the distribution of programs by number of participants in their most recent fiscal year. Numbers of participants served did not seem to vary much by organizational type.



Program Example: Pre-apprenticeship Program within the College System¹⁹

Participants: The Trades Education and Careers (TEC) program is meant to serve a variety of students in the region including minorities, low-income individuals and women. To enroll, students must complete college entrance documents, including proof of residency within the college service area, and a health and immunization history. Students are required to have a high school degree or GED to enroll, and must pass an assessment of reading, writing and math skills.

Training Program: TEC is designed to prepare students to enter the workforce as skilled employees. The TEC program is an intensive 32-week, two semester program consisting of 960 hours that introduces students to a range of skills and topics relevant to construction careers. The curriculum covers contextualized math and measurement, safety training, blueprint reading, tool identification and use, and an overview of construction trades occupations and industry segments. Students may earn training certificates in relevant skills such as drywall, cabinetry or framing. Time management, cultural sensitivity, conflict resolution, and financial literacy training are also incorporated into the curriculum. Visits to jobs sites and hands-on work are arranged as part of the program, and students receive instruction from trained professionals with substantial experience in the construction field. The program offers daytime and evening classes to accommodate student schedules, and English as a

¹⁹ This program example is based on the survey response of a college that offers pre-apprenticeship training. It should be noted, however, that the set of responses from colleges as a whole was very diverse. Respondents included: long-term and short-term programs; credit and non-credit programs; programs that targeted very low-income individuals and provided a rich set of support services; programs that were generally open to the community and not linked to supports; programs that relied on a range of government, industry and philanthropic funding sources; and those that primarily relied on tuition, fees, student aid, etc. In general, programs should not be characterized on the basis of institutional affiliation alone.

Second Language classes are provided when needed. Students earn 21 credits for successful completion of the program.

Supports: TEC students receive support in interview skills and job search techniques. Students who do not have a high school degree or GED are also provided with assistance to obtain that credential.

Funding and Affiliations: Tuition and student fees are the primary source of funding for the TEC program, but many students are eligible for Pell grants or other forms of state and federal financial aid.

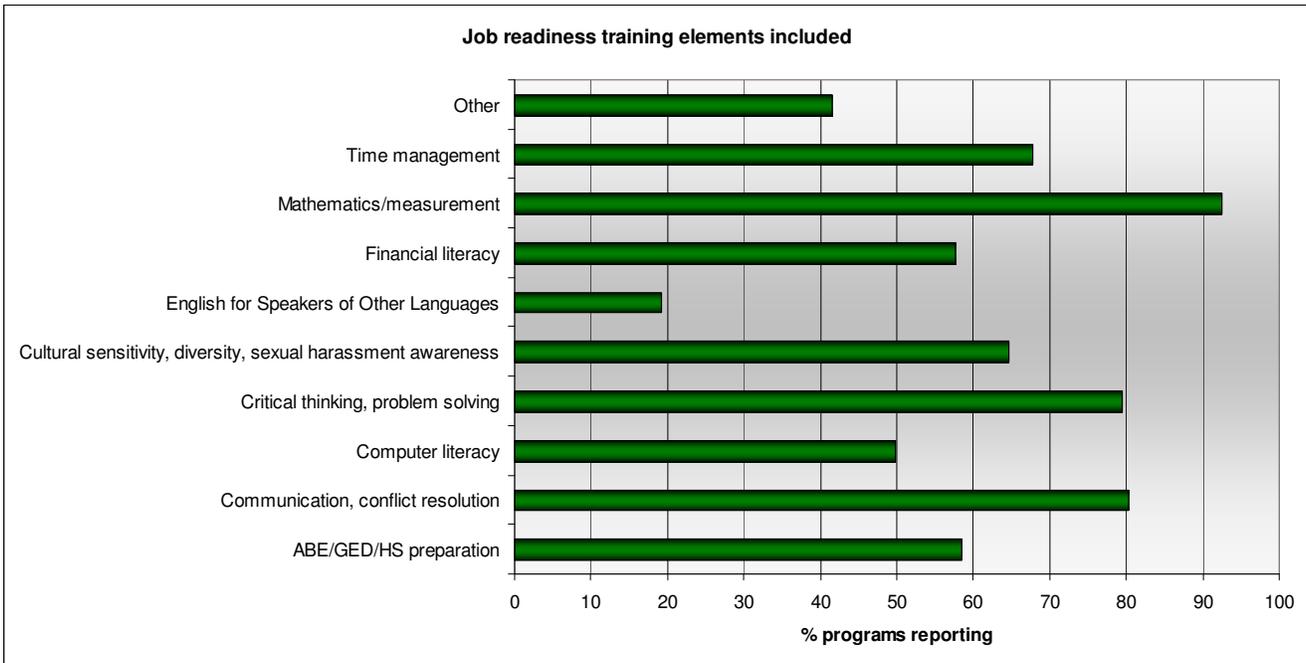
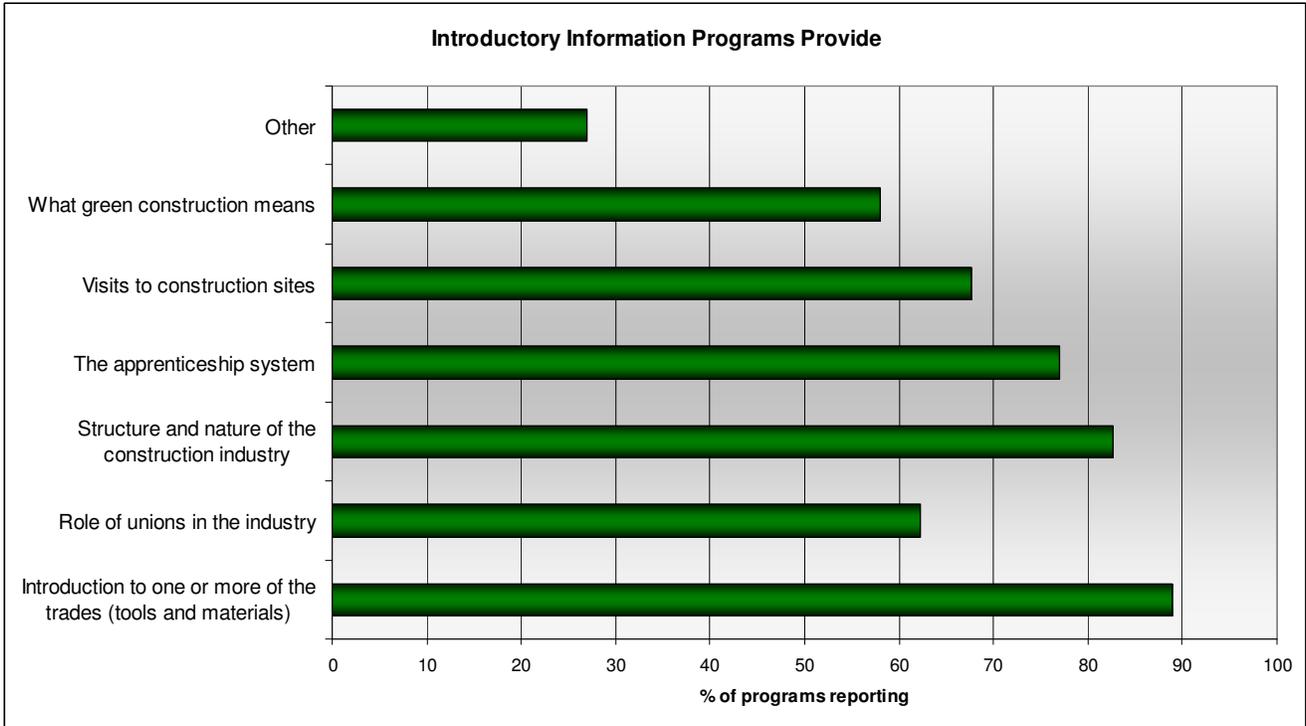
Outcomes and other information: The TEC program operates in a relatively rural area and enrolls about 20 students per year. Seventy percent of students enrolled in the TEC program successfully complete the training. Approximately 15 percent of those who complete the program go onto an apprenticeship position, while 45 percent are placed in other construction jobs, and 35 percent continue their education. Graduates typically enter the field as carpenters, roofers/waterproofers or painters and usually work in the commercial, residential or industrial segments of the market. The TEC program tracks program graduates for one year through direct contact such as phone calls and in-person meetings and, as a result, is able to communicate with 75 percent of graduates.

Program Services

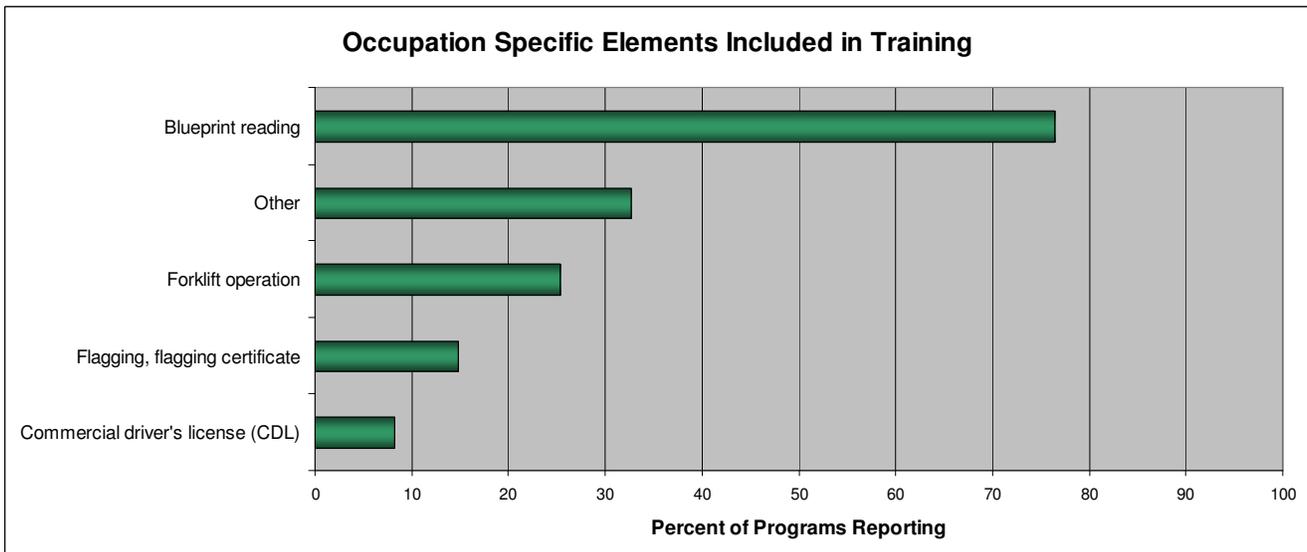
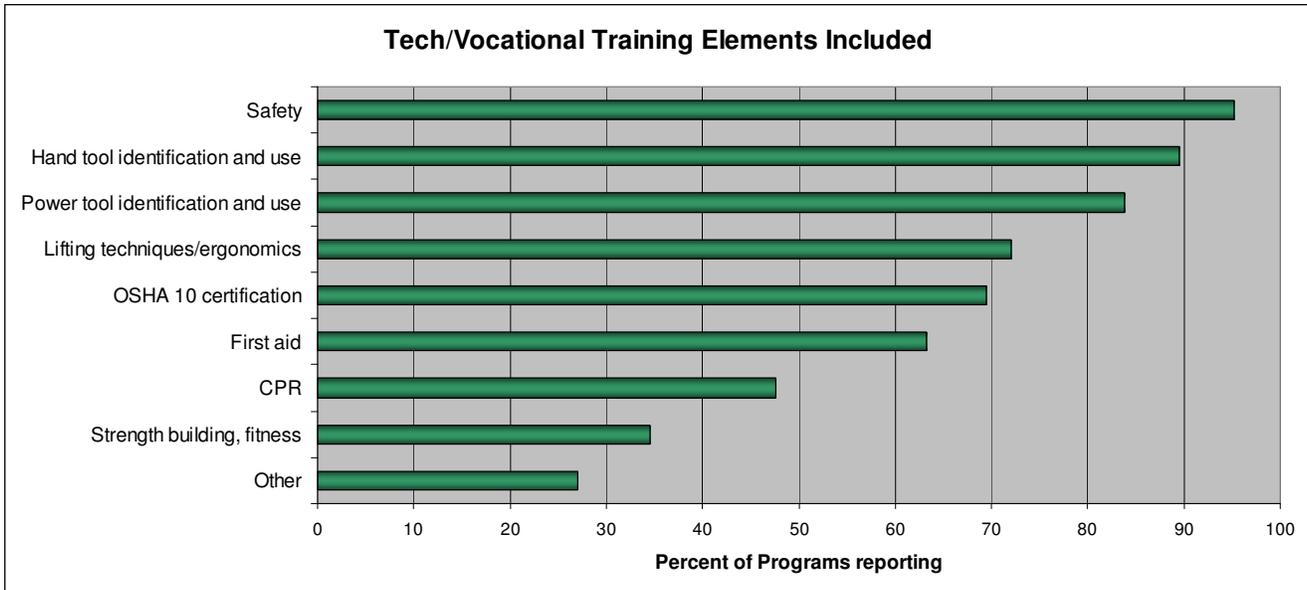
Programs were asked a series of questions about the types of information and training they offer participants. In particular, respondents were asked about the types of introductory information they provide about the industry, and then were asked about the training they provide. Some respondents did not report providing training – often these organizations provide information about the industry and then either make direct connections to jobs or apprenticeships, or refer clients to other organizations. However, the overwhelming majority – 88 percent (229 respondents) – reported providing training services.

Training Services

The programs that report providing training services were asked about particular curricular elements or topics that are included in their training program. In order to keep the length of the list manageable, topics were divided into three broad categories: job-readiness training, technical/vocational training, and occupation-specific training. List order was randomized. The figures below show the percentage of programs reporting that they include various topics, as well as the number of programs that responded to each topic category. The figure showing the percentages providing various types of introductory information also includes responses from programs that do not provide training services (total of 260 respondents).



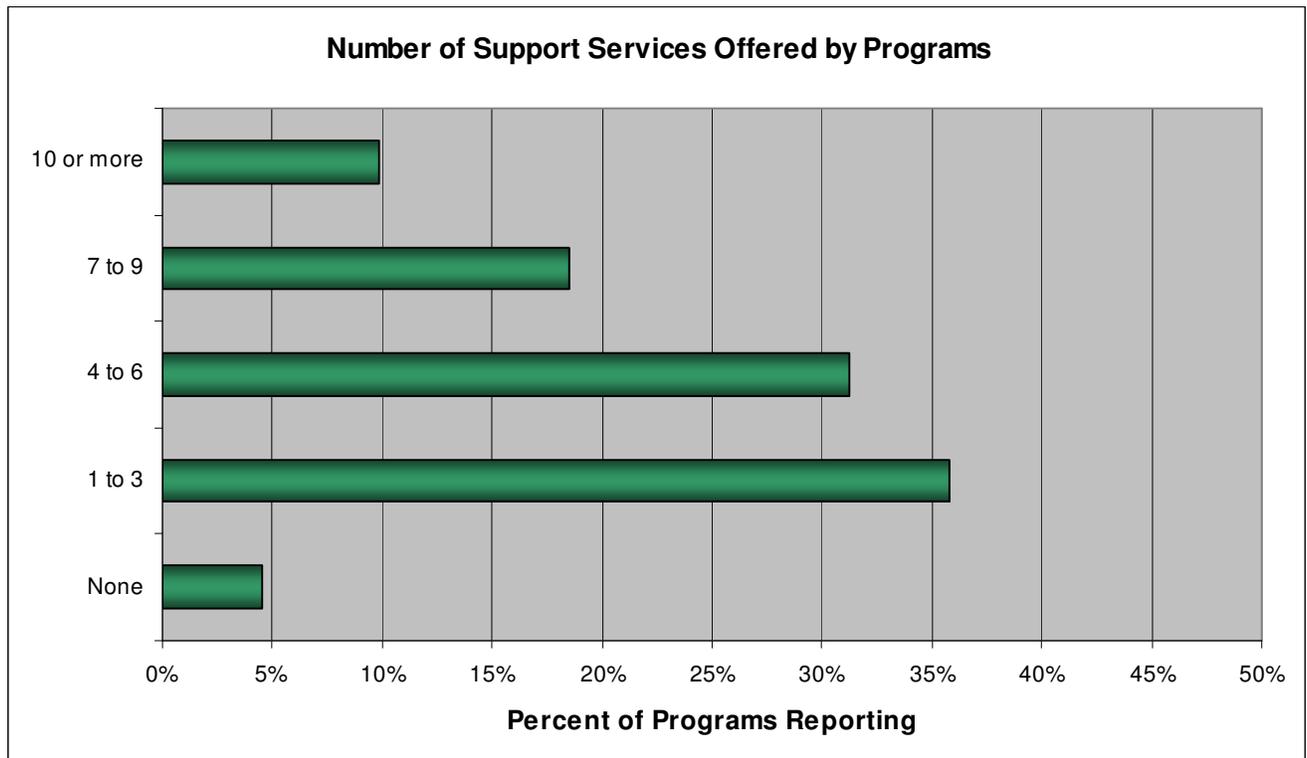
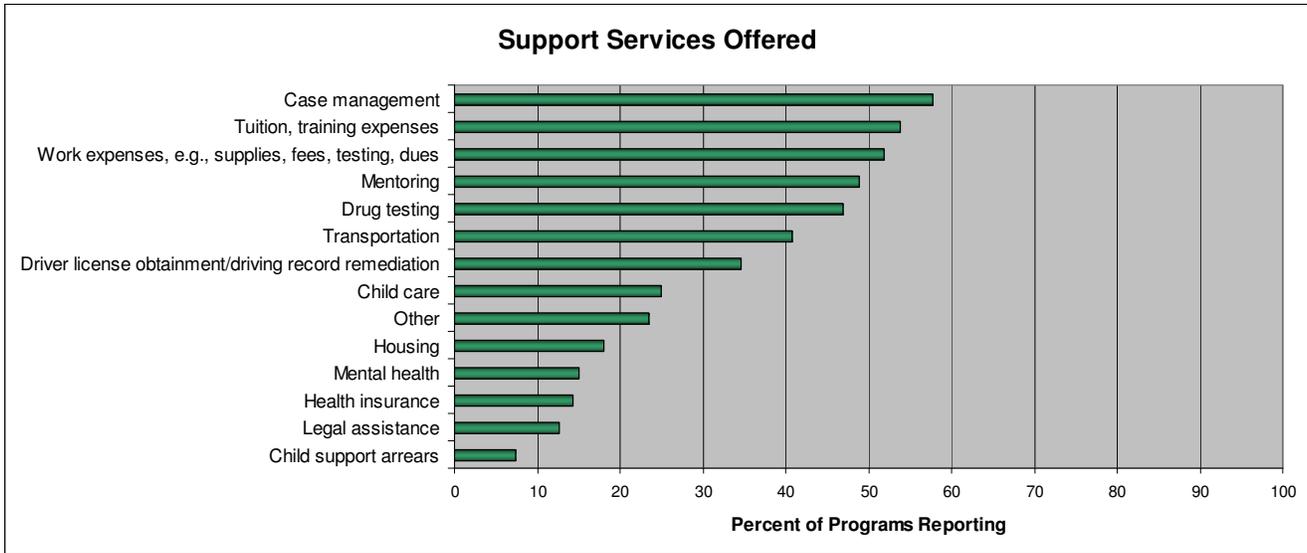
The "other" category included in job readiness encompassed such issues as: the importance of punctuality and attendance, taking supervision and other specific basic work skills. A few also specifically mentioned leadership training as part of their program.



Items under “other” for the categories “Occupation Specific” program elements and “Technical Vocational” program elements were very similar, although there was wide variation among specific types of training mentioned. Specific training topics mentioned included: welding, rigging, scaffolding, asbestos and other hazardous materials handling, HVAC, masonry, surveying, computer-assisted design, project layout, and the operation of various types of heavy equipment such as cranes, backhoes and others.

Non-Training Services

Respondents also were asked about the kinds of non-training services they offer clients to help them complete training and successfully transition to employment. Often these are referred to as “support services” or “wrap-around” services. Such services were not as commonly offered as training services. Among the 243 programs that answered the question, the most commonly offered support service was case management, offered by slightly more than half of the respondents. The charts below show responses to the categories of support services offered, and the numbers of support services programs offer.



The relative lack of support services, compared to training services, might be surprising, given the types of individuals respondents mentioned serving: low-income adults, women, minorities, adults with limited work histories, and other populations that commonly face barriers to employment or advancement in the trades. However, as mentioned above, there were a fair number of respondents who indicated that, even though their program served these particular groups, their program was not specifically designed for them.

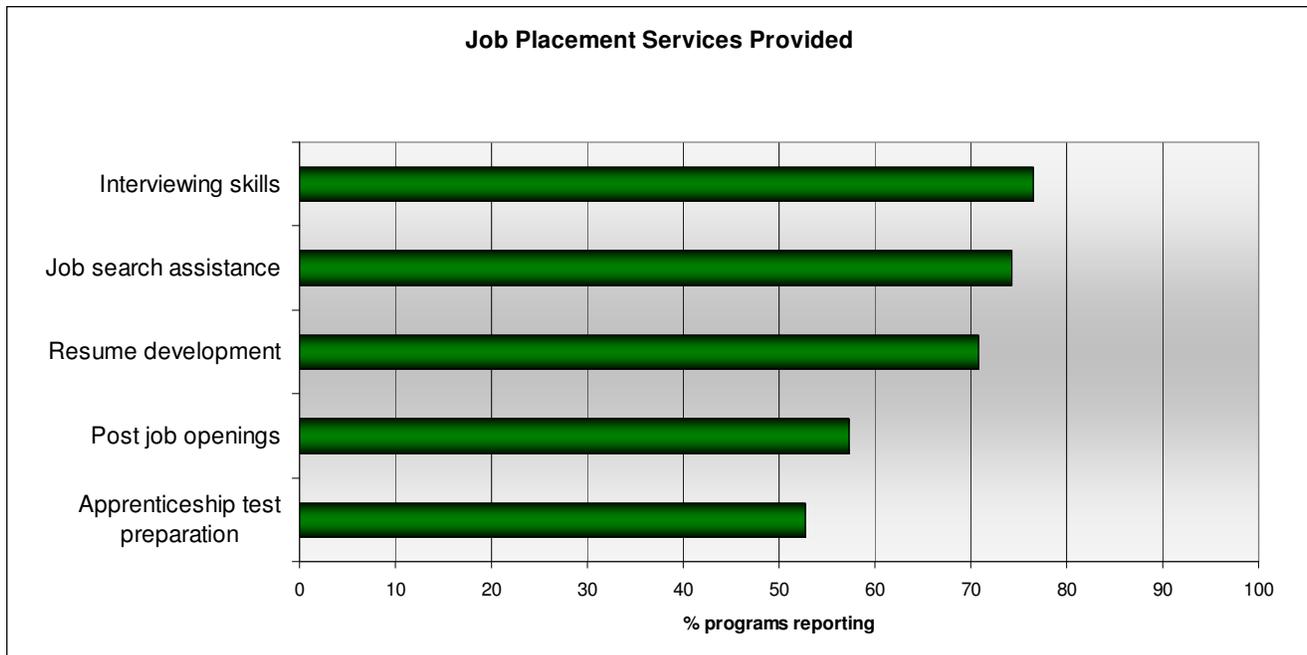
In order to unpack this result a little further we examined whether offering case management, the most commonly mentioned support service, was associated with respondents' organizational type.

Organizational type was suspected of playing a role, given that the different organizational types mentioned generally have different missions. For example, community colleges and other educational institutions are charged with providing educational services to the full range of individuals in their communities. On the other hand, many local nonprofit organizations seek to meet the needs of vulnerable populations in particular, and may offer a broader range of services in response to those needs. Looking at responses this way, it appeared that organizational types that would be more accustomed to tailoring services to meet the needs of disadvantaged job seekers were indeed those that were more likely to offer case management. The chart below shows by organizational categories of respondents how respondents answered the question about case management.

	Provide Case Management?		Total Responding	Percent Yes
	Yes	No		
Unions & joint apprenticeship training programs	6	27	33	18%
Post-secondary and secondary schools	15	38	53	28%
Businesses and business associations	6	7	13	46%
Nonprofit/CBO, including faith-based	86	28	114	75%
WIB/one-stop operator	17	5	22	77%
Local or state government agency	14	3	17	82%

However, these results should be interpreted with caution, particularly since the number of respondents in some categories is fairly small. In addition, respondents work with a number of partners, as mentioned above. And even if the services are available through a partner agency (e.g., a union that partners with a community-based nonprofit), the respondent may not be aware of the full range of services that the partner provides. Further, while the survey was pre-tested on a sample group of respondents to work out language and question clarity issues, it is possible that a respondent may not use the same terminology to describe a service, leading to a misleading result.

Respondents also provide services to help their participants find employment or entry into apprenticeship programs. These types of services were more commonly provided than the wrap-around services discussed above. The chart below shows the percentage of respondents offering various types of placement services.



Program Example: Large Program with Link to Union Apprenticeship Opportunities²⁰

Participants: The Enter Apprenticeship Right Now (EARN) program is designed to encourage the participation of women, minorities and low-income individuals in the trades, and is a free program for qualifying students. Participants in the program are not required to have a high school degree or GED, but must pass a reading and math skills assessment at least at the 6th grade level. In addition, participants need a valid driver’s license, reliable transportation, and evidence of legal work status. Participants also must pass a drug screen, and should demonstrate interest in construction careers.

Training Program: The EARN program serves as an intermediary between the public sector and the private sector, including unions, to help train and place women, youth and minorities in the construction trades. The program recruits through area high schools and the local community seeking individuals interested in construction careers. EARN offers more than 40 programs, ranging from one to eight weeks, that provide an introduction to trades careers including: measurement, blueprint reading, tools, an overview of craft occupations, the role of unions, what “green construction” means and others. Interested participants may receive training in commercial and residential weatherization retrofitting, and in lead and asbestos abatement to prepare them for “green jobs.” Hands-on experience is provided, including internships, and frequent visits to construction sites provide participants with valuable exposure to potential careers. Safety is an important component of the curricula and students complete an OSHA 10 and CPR certification as part of their training. Communications and conflict resolution, time management, and financial literacy and personal budgeting also are part of the curriculum.

Supports: EARN students receive case management and mentoring services, which includes job search assistance, resume development, job interview skills training, and apprenticeship test preparation. Participants may be eligible for tuition waivers and initial stipends covering work supplies, testing fees and union dues.

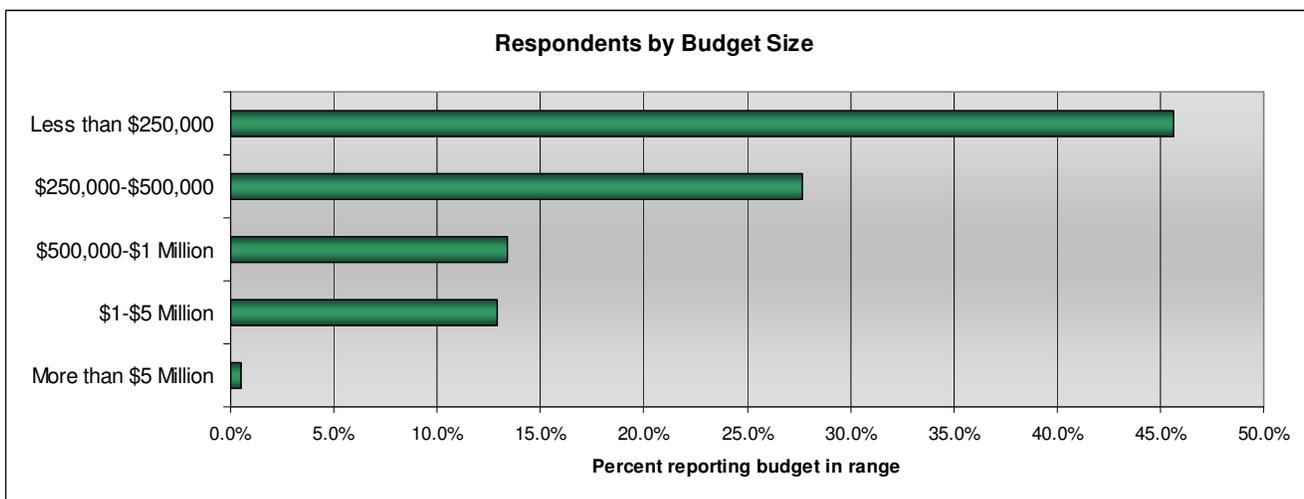
²⁰ This response is drawn from information provided by a nonprofit organization that operates a large pre-apprenticeship program designed to serve union and industry needs, as well as a diverse low-income population. The program name is fictitious.

Funding and Affiliations: The program is run by a nonprofit organization with very strong support from local unions, joint apprenticeship programs and businesses that provide both in-kind and direct financial support to the program. The program also receives local, state and federal government funds, and receives additional funding from philanthropic foundations.

Outcomes and other information: EARN operates in an urban area and typically enrolls 700 students per year, with nearly 60 percent completing training. Of those who complete training, EARN reports that nearly 40 percent, or 150 participants, are placed in apprenticeships, and that over 90 percent of program graduates are placed in either an apprenticeship or another construction-related job. The program works in the commercial, residential, industrial, institutional, and heavy and highway segments of the regional construction market, and program graduates are typically employed in a wide range of positions. Though EARN has little trouble connecting with employers and unions in the region, attracting and retaining flexible funding to build staff capacity, construct effective data collection methods, create additional partnerships, and meet all of their clients' needs remains challenging.

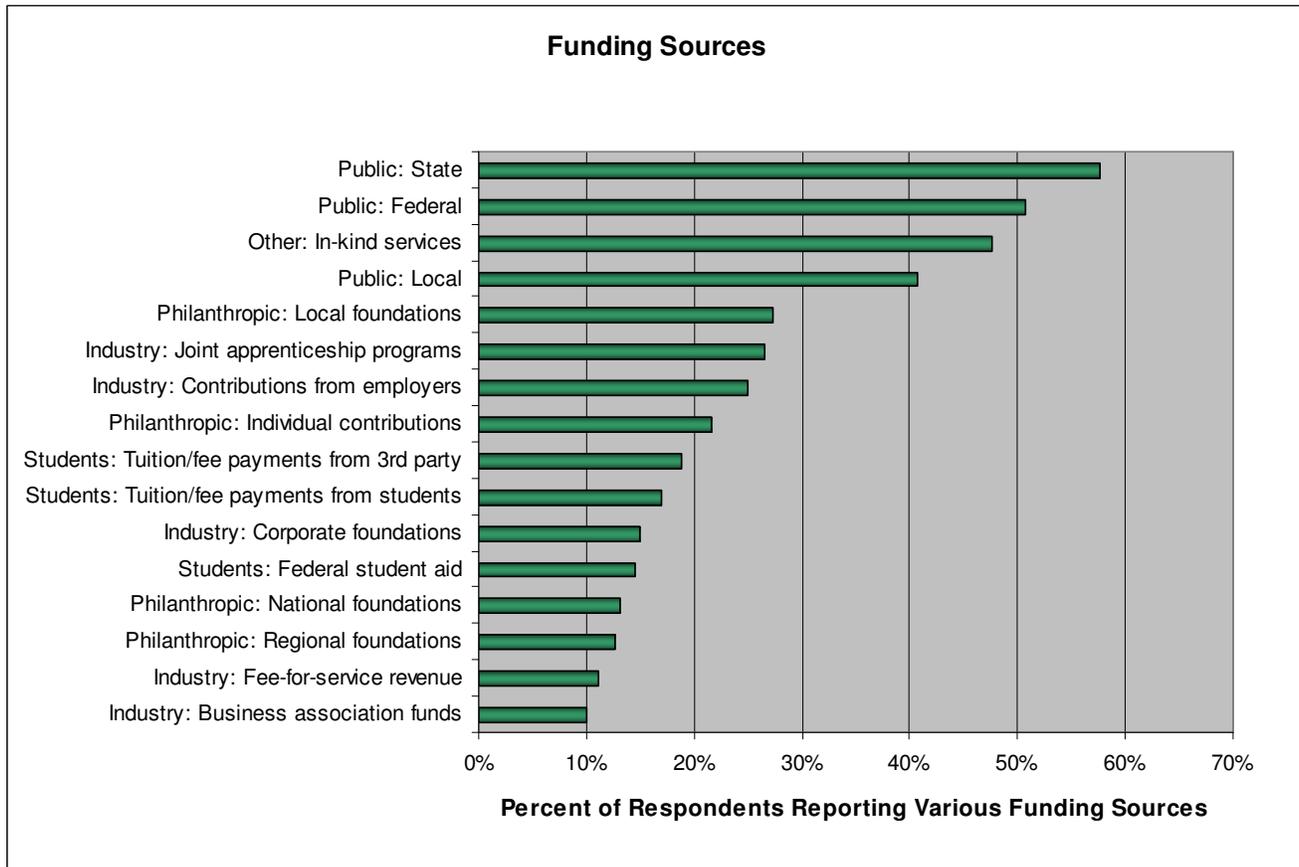
Program Budgets and Funding Sources

Respondents indicated having limited budgets to operate their programs. Only 58 of the 217 respondents who answered the question (about 27 percent) indicated having a budget of \$500,000 or more. Given that the survey was fielded at a time when many government and philanthropic budgets were being cut back, we also asked respondents to note whether their budget was about the same, more than usual, or less than usual. In response, about 20 percent of respondents noted that their budget was less than usual, but 70 percent said it was about the same and nearly nine percent indicated that it was more than usual. Again, caution is needed in interpreting this result, as programs also indicated a range of partners who may also bring additional resources to the program that are not indicated in the respondents answer to the question. The chart below shows the respondent distribution by size of budget.



Respondents reported receiving funding from a variety of sources. Respondents were asked about types of funding, organized into four broad categories: public funding, philanthropic funding, industry funding and student contributions. Respondents also were asked about in-kind support and to note any other sources not covered in these categories. Overall, nearly 90 percent of respondents reported receiving some public funding and nearly 60 percent reported receiving some industry funding, while about 50 percent reported receiving some philanthropic funding and about 39 percent reported

receiving some funding from students. The chart below shows the sources respondents reported utilizing, ordered by the percentage of respondents reporting receiving the type of funding.



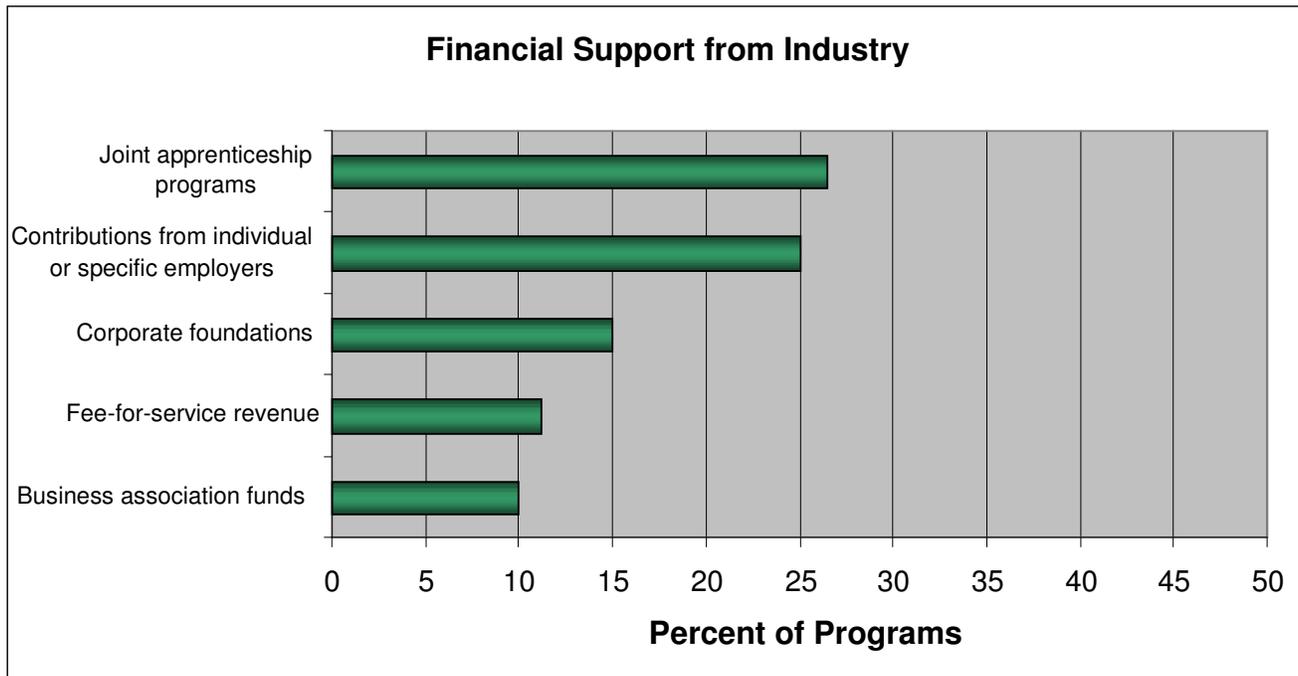
When asked which funding sources were most important to their overall budget, respondents indicated even more strongly the key role that public-sector funding plays. Respondents were asked to list their three largest funding sources for the previous program year. Of those answering the question, nearly 70 percent of respondents named a public source among their most important sources of funding, while only 18 percent cited a philanthropic source and roughly 17 percent cited industry sources. Slightly more than 8 percent reported student contributions as important.

Industry Connections

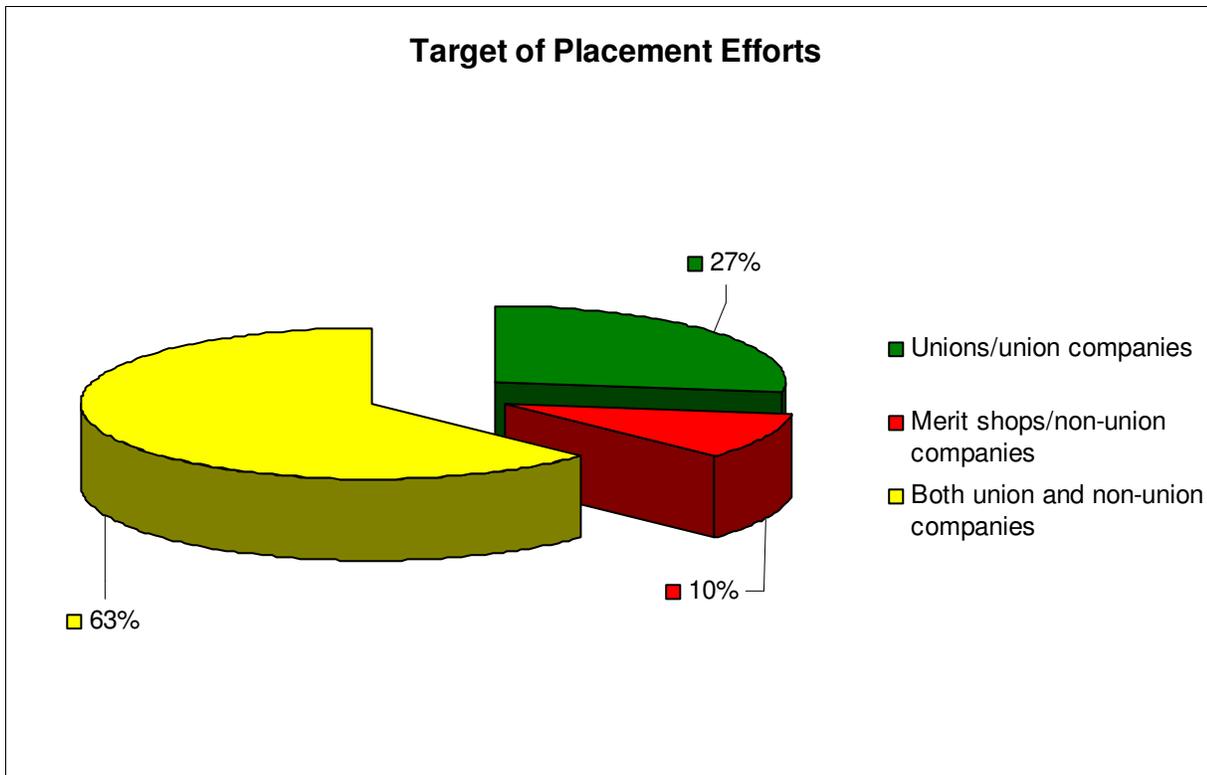
Survey Responses

Some of the core questions stakeholders had about pre-apprenticeships involved the nature and depth of their relationships to business. Are business or industry partners involved in their programs? Do they leverage business resources? How do they navigate the union/non-union divide? Are there particular segments of the industry do they connect to? How do they get people jobs? And, what are the jobs they connect people to? Do they, in fact, connect people to apprenticeships? And, what are some of the difficulties they encounter in working with industry? Given these questions, the survey asked respondents a series of questions about their connections to industry and placement strategies.

As described above, while businesses and business representatives were not likely respondents to the survey, respondents often cited them as program partners. However, the intensity of these relationships and the specific ways business partners were involved in pre-apprenticeship program activities is difficult to discern. A potential proxy for substantive industry engagement could be seen in whether the program receives financial support from industry. Almost 60 percent of respondents reported receiving some sort of financial support from industry partners and, interestingly, as mentioned above, 18 percent of respondents note industry as among the most important supporters of their program. The most common type of industry financial support came from joint apprenticeship programs, followed by contributions from individual employers, and corporate foundations. Fee-for-service arrangements and contributions from business associations were less common. The chart below shows the proportion of respondents that reported receiving various types of industry-related financial support.

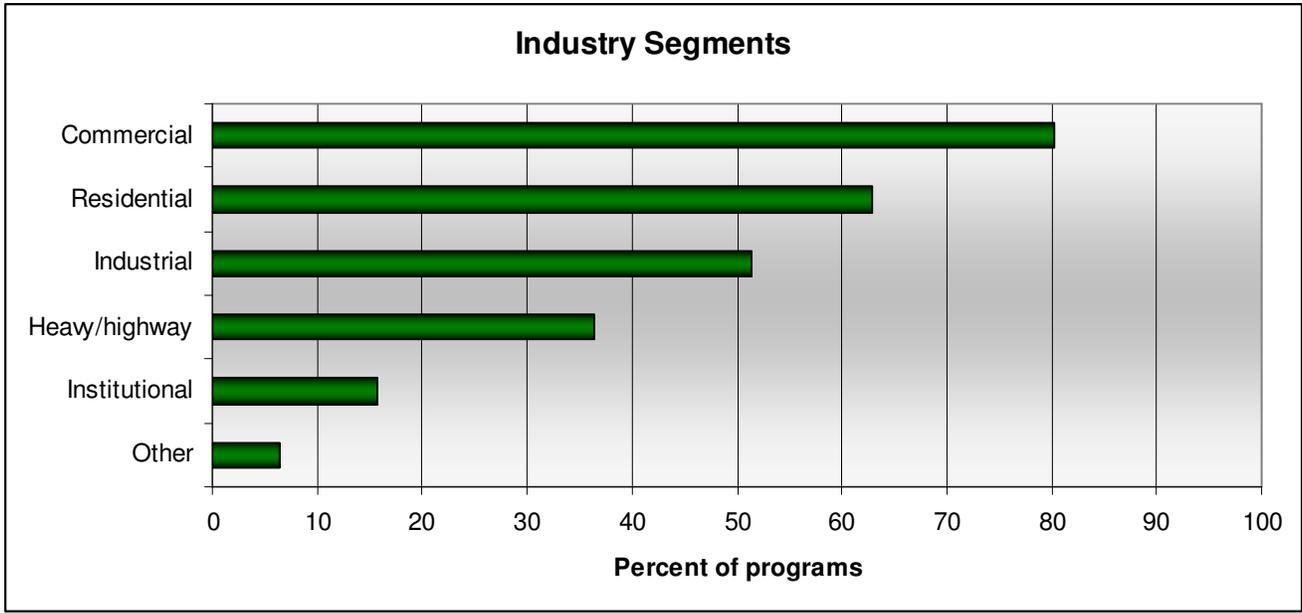


During pre-survey interviews, stakeholders expressed interest in learning about how pre-apprenticeship programs navigate a perceived union/non-union divide in the construction industry. As depicted below, when asked if their placement strategy was primarily *targeted* toward union companies, non-union companies, or both, the majority of respondents – 63 percent – answered both. Twenty-seven percent of respondents reported that they targeted unions or union companies and 10 percent reported targeting non-union companies.

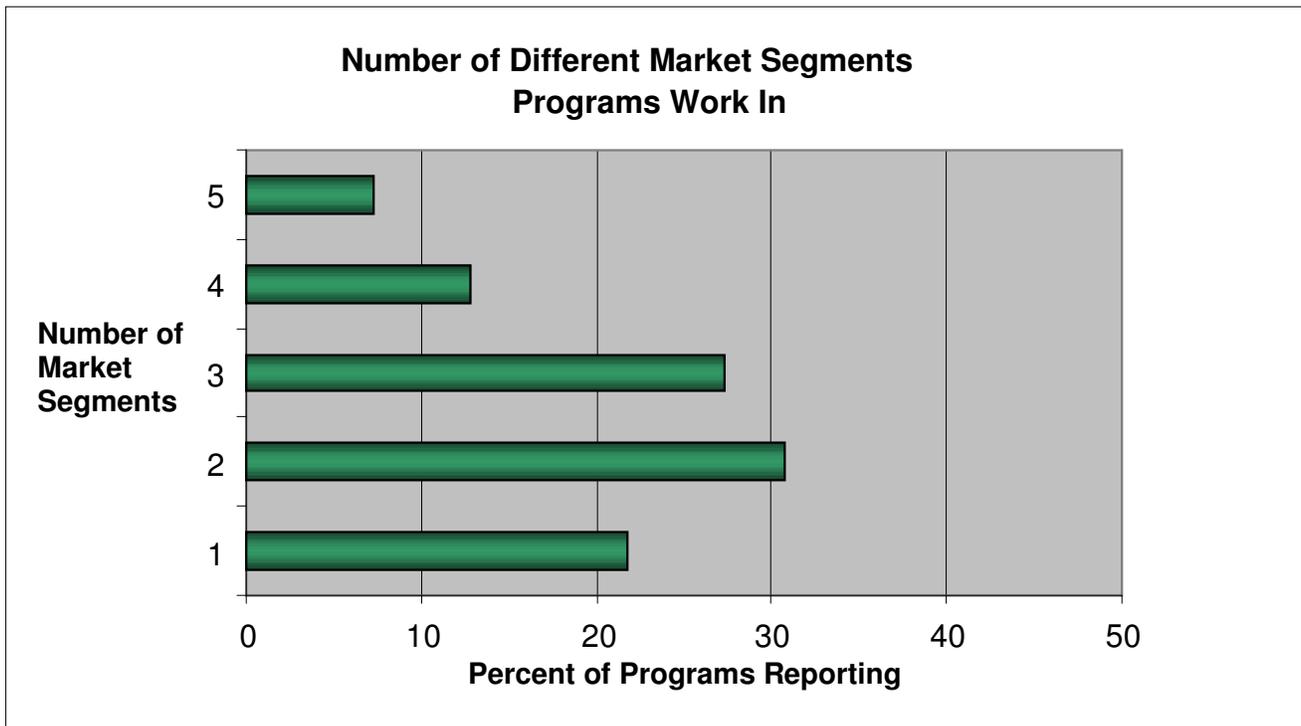


Given the geographic spread of the respondent pool, together with the variability in union density from place to place, and the possibility that distinctions between union and non-union apprenticeships may be difficult for practitioners without strong industry connections to discern, it is perhaps not surprising that pre-apprenticeship programs are targeting both union and non-union placements on behalf of their graduates.

Since construction also is made up of several different market segments, such as commercial and residential, survey respondents were asked to identify the segments of the industry in which they place individuals. The survey presented respondents with six options – commercial, heavy and highway, industrial, institutional, residential and other. As depicted below, commercial was the most frequent choice, with 72 percent of respondents indicating they place individuals in that segment of the market. Residential was the second most common response, with 57 percent indicating they place individual in jobs related to residential construction, followed by industrial, heavy and highway, and institutional. Of the respondents who chose “other,” two reported targeting “green jobs,” two mentioned ongoing education, and seven reported having trouble placing students in the industry generally.

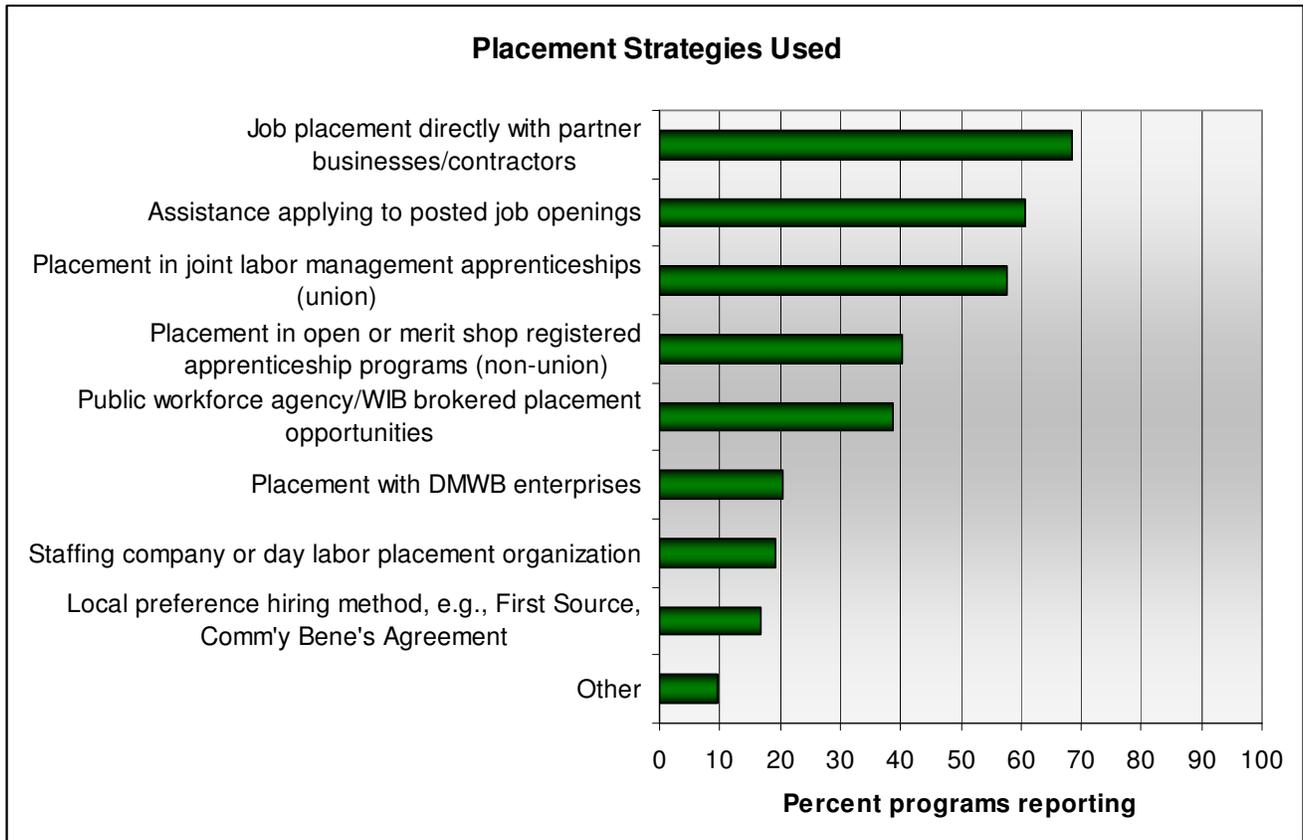


As depicted below, respondents commonly reported working with several segments of the market. For instance, 30 percent of programs indicated they find placements for their participants in two different market segment, and 27 percent find placements in three.

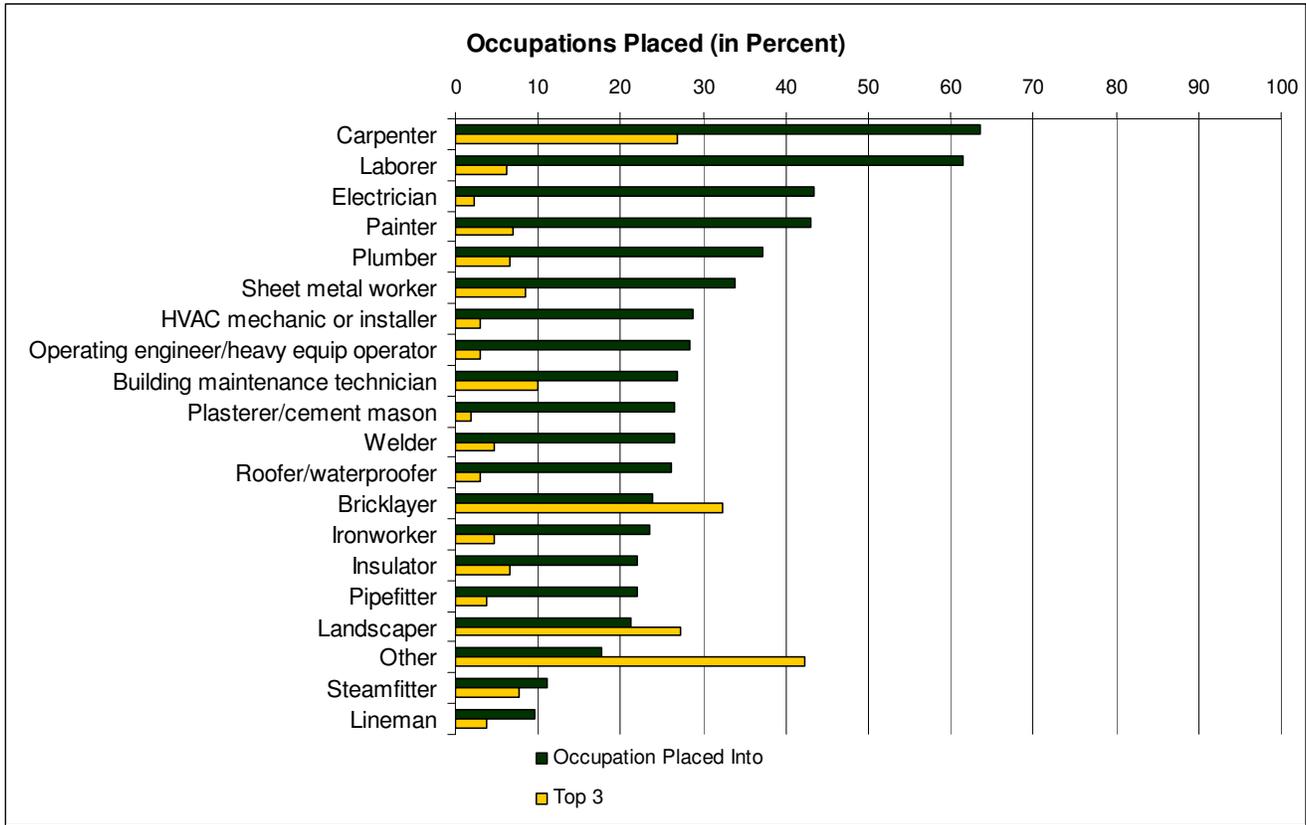


Respondents were further asked to indicate the strategies used to place individuals in the construction industry. Respondents were presented with a list of nine options, including “other.” The chart below shows the lists of strategies as well as the proportion of respondents stating that their program employs that strategy. Among the “other” strategies, respondents often described working with a partner agency that is responsible for placement, or mentioned some sort of direct-entry agreement with an

apprenticeship or employment program.

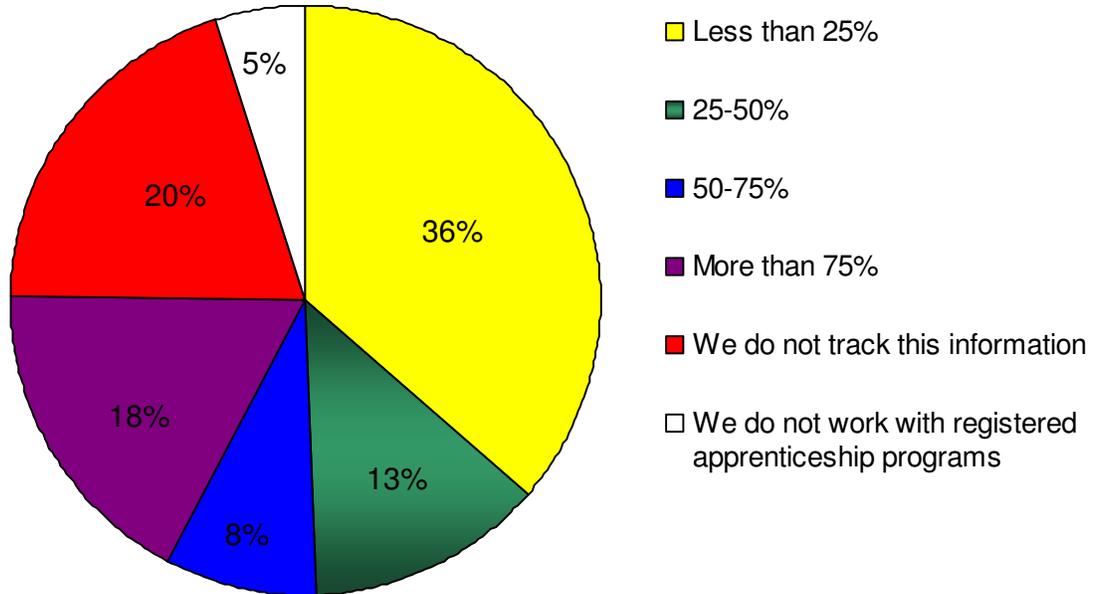


In an effort to ascertain the type of jobs that pre-apprenticeship programs connect individuals to, the survey provided respondents with a list of 20 randomized occupations, including an “other” choice, and asked respondents to indicate which types of jobs they typically placed people into. The responses indicated that, as a whole, programs place individuals in a wide range of occupations. Respondents commonly identified carpenter, laborer, electrician, painter, plumber, and sheet metal worker. More than 25 percent of respondents also indicated they place individuals as building maintenance technicians, HVAC mechanics or installers, operating engineers or heavy equipment operators, plasterers/cement masons, roofer/waterproofers, and/or welders. Respondents were then asked to use the same list of occupations to indicate the “top three” occupations program participants were typically placed into. The occupations most frequently chosen were carpenter (42 percent), laborer (32 percent), and electrician (27 percent). In addition, more than 25 percent of respondents indicated that some “other” occupation was one of the top three in which program graduates were placed. Of the occupations mentioned under “other,” the most common appear to be cabinet maker, glazier, tile setter, and weatherization-related.

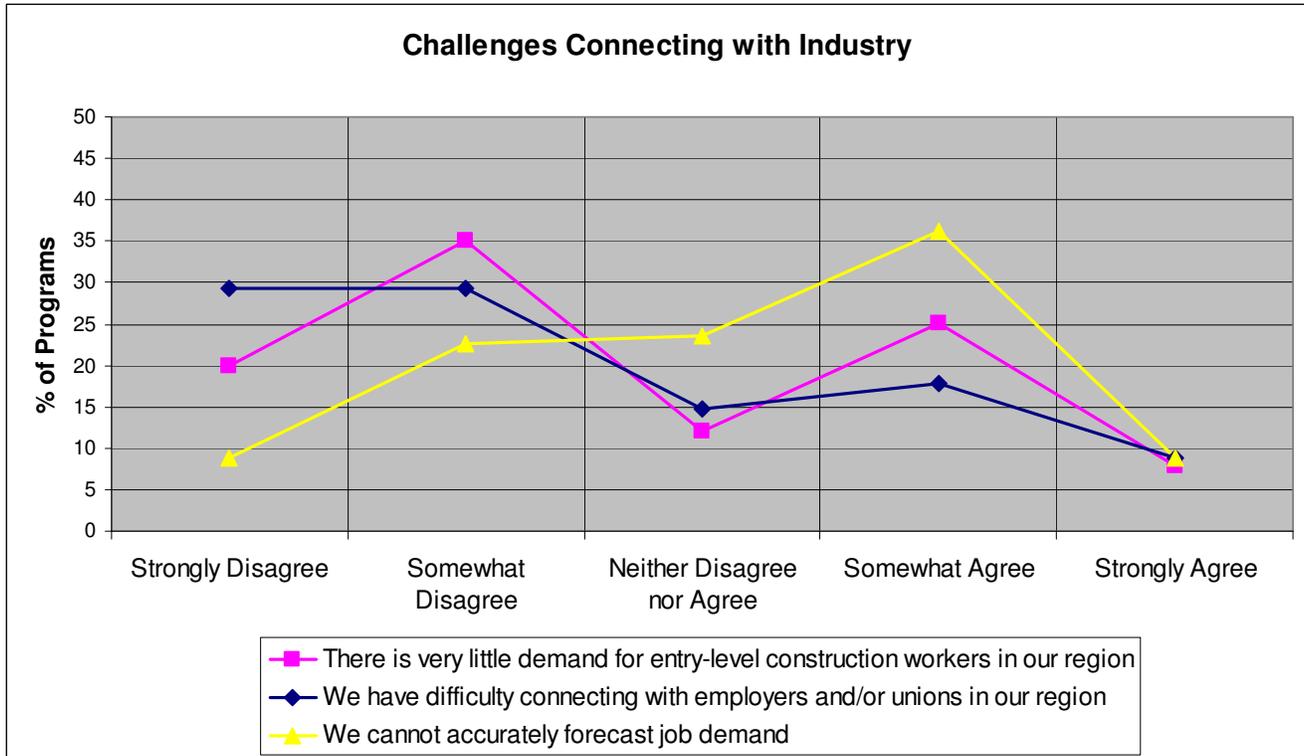


Finally, respondents were asked to estimate the proportion of program participants placed in federal- or state-registered apprenticeships. Respondents were given ranges and the pie chart below shows their responses.

Proportion of Placements in Registered Apprenticeships



As part of an optional section at the end of the survey, respondents were asked to respond to three statements concerning potential challenges they may experience in connecting with the construction industry. Questions focused on the level of industry demand for workers, the ability to forecast that demand, and the ability to connect with individual employers or unions. As depicted below, the majority of the 196 practitioners responding to this section somewhat disagreed with the statement, “There is very little demand for entry-level construction workers in our region.” Similarly, the majority of respondents disagreed with the statement, “We have difficulty connecting with employers and/or unions in our region.” However, respondents reported some agreement with the statement, “We can’t accurately forecast job demand.”



Next, respondents were asked to briefly describe any challenges they experienced or successes they have had in connecting to industry. In looking at the 75 responses to this open-ended question, 44 discussed concerns around demand or placement opportunities. The responses indicate some tension between whether there is, in fact, declining demand for entry-level construction workers in their area and whether they are simply experiencing a temporary slow-down, particularly given the seasonal nature and overall variability of demand in construction. As one respondent stated, the “economic downturn has resulted in job loss in the skilled trades in the short term but [the] demographics of [the] industry indicate retirements will cause [a] large gap in next few years. The labor market data does not support current training but since skilled trades take several years to learn we know we have to begin preparing workers now.”

Aside from such concerns, a roughly equal number of respondent mentioned experiencing success connecting industry, employers, unions, and/or apprenticeship, as mentioned experiencing difficulty making connections. A few respondents mentioned specific problems connecting specific populations, like minorities, women, and youth to employment opportunities in the industry. And, one respondent described having trouble working with both union and non-union employers.

Program Example: Program Focused on Youth²¹

Participants: Participants in Tools For Youth (TFY) must pass a reading assessment at the 5th grade level or higher, but do not need a high school diploma or GED to enter the program. Students must be between the ages of 16 and 24, out of school, and must show evidence of their legal work status.

Training Program: The TFY program typically is 40 weeks or 1,300 hours. Students gain skills and knowledge related to the construction trades through classroom instruction and through a substantial amount of hands-on training in which they help build affordable housing for low-income families in the local community. Highly experienced and qualified instructors provide instruction and closely supervise students at the construction sites. During training, students gain a deep understanding of the construction industry, are introduced to one or more of the industry trades, build skills in blueprint reading and tool identification and use, and receive OSHA 10 and CPR certifications. The program also heavily focuses on helping students earn their GED or high school diploma and emphasizes job readiness training in areas such as financial literacy, time management and conflict resolution.

Supports: Students are assigned a case manager who helps them overcome obstacles related to transportation, child care, housing, health and other areas that may prevent successful completion of the program. Since many students come from troubled backgrounds or a history of trauma, TFY provides legal assistance, crisis counseling, medical advocacy and other forms of mental health assistance.

Affiliations and Funding: TFY is operated by a nonprofit organization with partners in the public sector, including the local school districts. Federal, state and local governments are the main sources of funding for TFY, though local foundations and in-kind contributions from individuals also help finance the program.

Outcomes and other information: The TFY program enrolls approximately 40 students per year, the vast majority of whom are male. On average, 75 percent of enrollees graduate from the program. Typically 35 percent of these graduates are placed in construction-related jobs in the residential segment, and 35 percent choose to continue their education. Thus far, the program has placed very few graduates in apprenticeships. TFY reports difficulty in establishing relationships with local unions and union companies and, as a result, targets non-union companies as placements for program graduates. The economic downturn led to a funding shortfall that resulted in some budget cuts, though TFY's organizational capacity remains strong.

Focus on Green Jobs Among Pre-Apprenticeship Programs

In response to an open-ended question asking respondents to describe “green” training curricula elements or placements, 120 of the 260 pre-apprenticeship respondents provided some information. Respondents mentioned a wide range of elements, most commonly citing elements related to energy efficient construction or retrofitting. This latter category includes weatherization, by far the most commonly mentioned element respondents reported including in their programming, with more than one-third of the 120 mentioning weatherization specifically. However, respondents also described offering training in proper insulation, energy audits, leak testing and sealing, proper insulation of hot water pipes, environmental roofing, and even planting shade trees as a means of reducing building energy use. Renewable energy also was frequently mentioned, with about 20 percent of those answering the question mentioning solar, and a few others also mentioning wind or geothermal.

²¹ This program example is based on the survey response from an organization that specifically targets youth. The program name is fictitious.

Respondents' activities with respect to renewable energy sources, however, ranged from generally making participants aware of these elements, to actually training in, for example, the installation of solar panels.

General green construction practices also was a very commonly mentioned category. Quite a few respondents – roughly 15 percent – commented that they incorporate “green” as appropriate to the trade or job situation. These respondents cited a range of ways that they promote energy efficient construction/renovation, proper water management, and the efficient use and re-use of materials. Specific activities or training elements mentioned included: recycling of job site materials, use of green construction materials, and incorporating up-to-date training in how to insulate water pipes for plumbers or buildings for carpenters, etc.

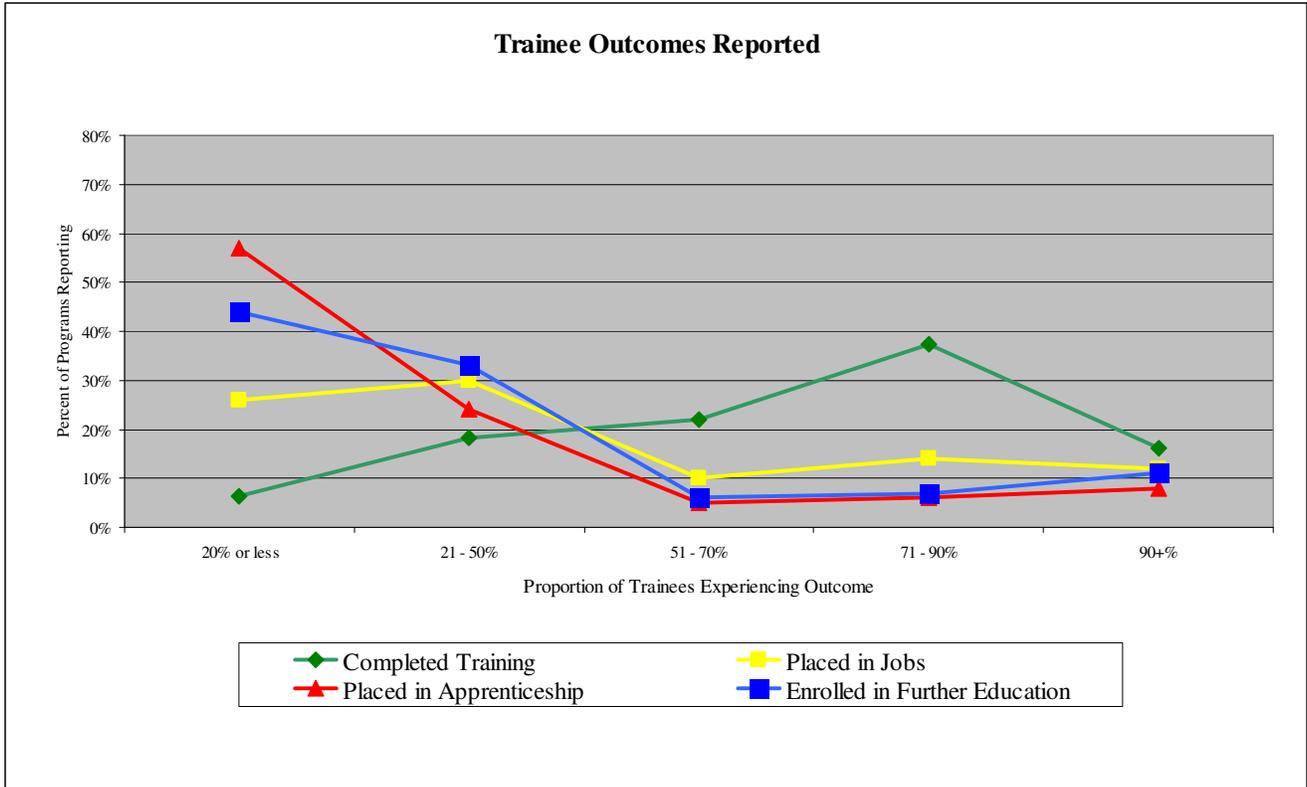
Water conservation was another element that crossed responses, with several mentioning a focus on water conservation appliances, such as low-flow shower heads. Training in proper drainage and water distribution, grey water systems, and rain garden construction also were mentioned. A few respondents mentioned the abatement of hazardous materials, lead or asbestos, or brownfield remediation, as part of their “green” efforts.

LEED (Leadership in Energy and Environmental Design) was the primary “green” certification respondents mentioned, noting that they either oriented participants toward those standards or worked with companies that build LEED-certified buildings.

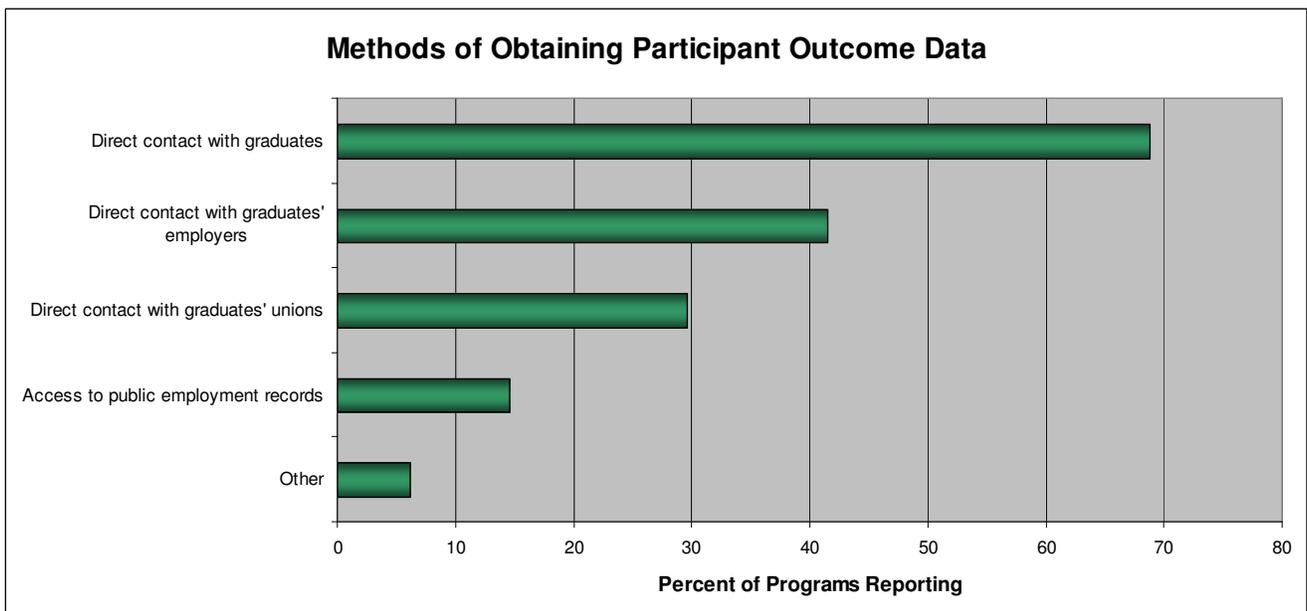
While most of the 120 who answered the question had at least some current work that they categorized as “green,” about 20 percent mentioned that they did not yet have green training elements, but were in the process of developing them. Generally these respondents mentioned a similar range of proposed “green” elements as those described above, and occasionally referred to specific curricula or training elements that they might adopt from a community college or from a national organization such as NCCER (National Center for Construction Education and Research) or YouthBuild.

Program Outcomes for Workers

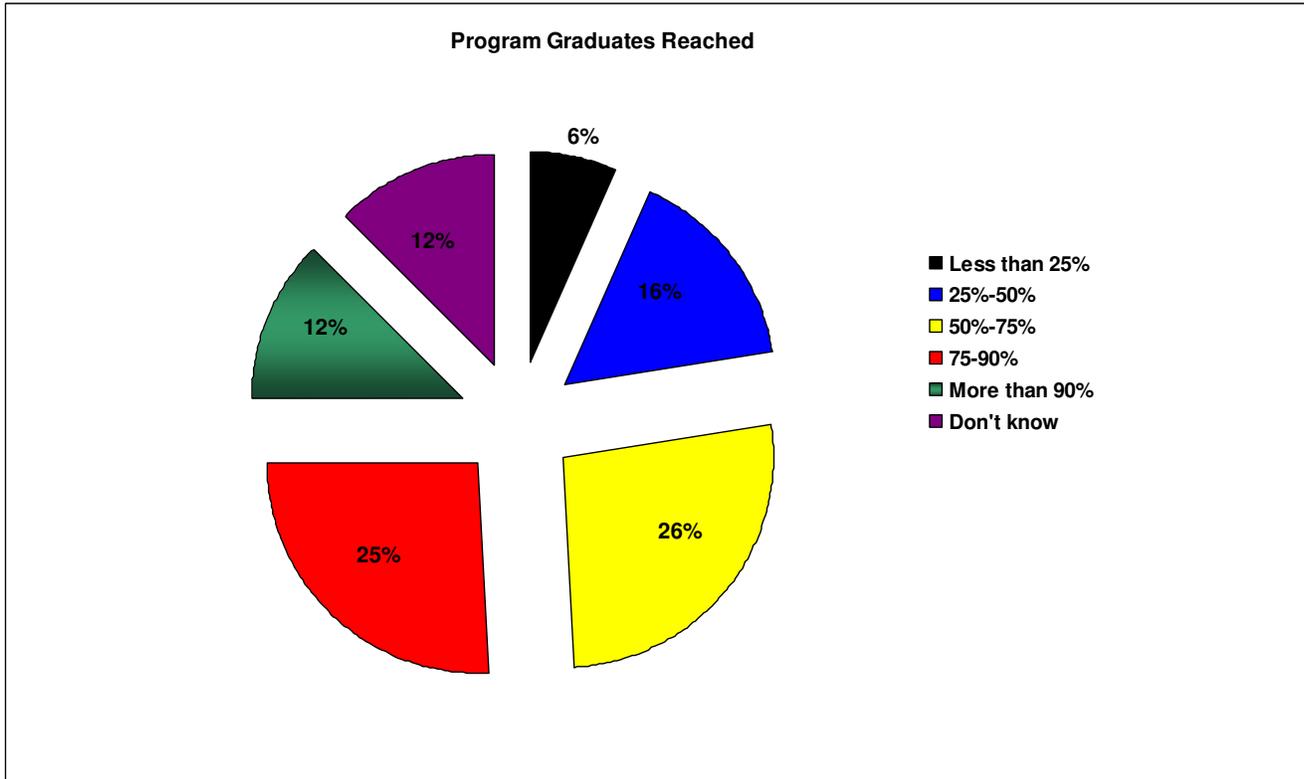
Respondents who provide training services were asked to estimate the number of participants who complete training, who are placed in a registered apprenticeship, who are placed in a construction-related job, and who continue education or training of any kind. Overall, respondents reported a reasonably high rate of training completion. As noted above, however, entry into registered apprenticeships was not necessarily the next step for most training participants. Job placement, however, also appeared to be a struggle for many programs, and while it appeared that most programs were trying to place individuals in construction-related jobs, comments from some respondents indicate that they could be placing participants in a wide range of jobs, which are likely not reflected in the results reported here. It should be noted that at the time of the survey, demand was down for construction workers nationally, although there was variation from market to market. Further education did not seem to be a common outcome for most program participants, although it was more likely to be reported than apprenticeship placement, a result that could, at least in part, be an indicator of the difficult economic climate programs were operating in. The chart below shows how programs reported participant outcomes in these areas.



Programs also were asked about how they collect data on their outcomes and whether they are able to collect reasonably complete data. Programs were asked about various methods and to check all that apply, as well as to indicate any other methods used. In addition to those listed in the chart below, programs noted using social networking sites, such as Facebook, to keep in touch with participants, contacting family members and friends of participants, contacting parole officers, and engaging in contractual relationships with other agencies that would supply information. The chart below shows the methods programs reported using to collect data on participant outcomes.



The data available to programs through which they assess their participant outcomes in many cases may not be complete. A little more than a third of respondents reported that they were able to follow up with 75 percent or more of their participants in order to assess programmatic outcomes. About one-fifth had data on only half or fewer of their graduates, and 12 percent did not seem to track outcome data. The chart below shows the proportion of graduates programs reported being able to reach to gather outcome data.



Conclusion

One of the key conclusions that can be drawn from the results of this survey is that there are, in fact, a sizable number of programs across the country that work to prepare people to enter jobs in the construction trades. It is important to remember, however, that this survey only reached a segment of existing pre-apprenticeship programs. Further, it is unclear what percentage of the total number of programs the respondents to this survey represent, but it certainly was not 100 percent. So while we cannot say exactly how many programs exist, it is nonetheless clear that there is capacity to prepare people for construction trades jobs, and in particular to prepare low-income individuals and people who historically have been underrepresented in the trades.

Another observation is that, while these programs are often more accessible than, and can potentially provide a pathway to, registered apprenticeship programs, many of these entry-level training programs do not report placing substantial numbers of graduates into the apprenticeship system. A number of factors likely contribute to this outcome. First is the availability of apprenticeship openings. Several respondents noted that there were many fewer slots available this year than expected, and a number commented that, in general, their ability to predict the availability of apprenticeship slots was limited. Also, as noted in the introductory section about the industry, the number of apprenticeship slots is low

relative to the total volume of work in the construction industry. In addition, some segments, such as residential construction, reportedly are less reliant on the apprenticeship system than others, and thus programs targeting opportunities in residential construction may find entry points other than apprenticeship. Moreover, the reliance on apprenticeship also varies geographically, with some states having much stronger apprenticeship systems than others. A second factor relates to the larger goals and purpose of the program. For example, some respondents focus on serving the needs of a specific population, and do not necessarily expect all participants to enter an apprenticeship. A number of youth-serving programs fit this type. For example, they may be working with out-of-school youth and be more focused on encouraging them to finish high school or earn a GED and to think more seriously about their career goals; the program may not, in fact, expect many participants to enter an apprenticeship, although that would certainly be a good outcome for those that did. Some programs may find that participants are not prepared to enter an apprenticeship when they complete the program, but may do so later after gaining further experience through some type of work. Therefore, it is not necessarily surprising that many such programs, while connecting participants to jobs in construction, are not connecting large numbers of participants directly to apprenticeship slots.

While pre-apprenticeship programs are finding opportunities for their graduates outside of apprenticeship, questions remain about the nature of those placements. Wage rates, working conditions and ability to learn new skills and advance are key elements in considering the quality of a job placement. These aspects are all well understood with respect to apprenticeship slots; less so with respect to other types of entry-level positions in construction. Questions about these placements are important both for the job seeker, and his or her ability to continue to advance professionally and earn higher wages, and for the industry as a whole, which needs to grapple with the challenge of building a new generation of skilled craftspeople, as current experienced workers approach retirement. Further research is needed into the nature of the different career pathways in construction careers and opportunities that might be available for strengthening skill-building and advancement opportunities in the industry.

It is also worth noting that the pre-apprenticeship programs that responded to the survey are in large part publicly financed programs, working toward a public mission. To this end, these programs appear to be well-positioned to play a role in supporting the public goal of building a “green economy.” Many programs have been adding, and continue to add, a wide range of programmatic elements that respondents would place under the “green” umbrella. Also, for about half of the respondents, their mission seems to explicitly involve helping underrepresented or disadvantaged jobseekers, whereas for others the mission may be to encourage general education or some other goal.

In thinking about pre-apprenticeship programs and their potential to link low-income, disadvantaged individuals to jobs in the construction industry, it is important to note that training and placement is only one potential strategy for expanding access to quality jobs and apprenticeship opportunities. There are also demand-side interventions that can be used to help expand the number of apprenticeships and entry-level job opportunities available, as well as link these opportunities to economic inclusion and diversity related goals. Project labor agreements and apprenticeship utilization requirements are examples of two such tools. Given the relative scarcity of registered apprenticeship positions, and the lack of understanding of the quality of opportunities outside that system, some research regarding demand-side interventions that would support high-quality employment experiences that will build the skills of the construction workforce seems warranted.

During the design phase of this survey, one issue stakeholders frequently raised revolved around identifying program models or elements deemed “best” by some measure. That is: Which programs

were best at raising participant skill levels? Which were best at linking women and people of color to jobs? Which were best in connecting participants to high-quality jobs or to apprenticeships? Which were best in serving participants in a cost-effective manner? Which were best at responding to employer needs? Program services and content seem to vary substantially from program to program. In part this may be based on the particular markets programs serve and the educational and service needs of the individuals programs work with. However, given that questions about “best” program models abounded among national stakeholders, a lack of knowledge about effective practice may also explain some of the variation in program strategies among local programs.

One common practice among programs, however, seemed to involve partnership. Our initial guiding question in designing and fielding the survey was to determine which institutions were providing training and other services to help individuals connect to the trades. As discussed above, the programs operate under a variety of auspices, including local nonprofits, colleges, government entities, industry organizations and others. The majority of programs, however, seem to involve several kinds of organizations operating a program, with only a few not citing any partners involved in program delivery. How these partnerships operate and the key roles played by the various agencies should be part of further research into effective program practice.

In analyzing the survey results, it seems there is a subset of programs that may have some particularly promising approaches related to participant services and employer relationships. For example, some programs report much higher job placement rates, even though they report working with disadvantaged populations; others report high levels of success in connecting participants to apprenticeship slots. These programs warrant further exploration and analysis as we consider which program models seem worthy of investment and expansion. This is a particularly timely line of inquiry, given that as investments in transportation, infrastructure and a “green economy” are made, jobs that require the type of skills commonly found in the construction trades will result. Commensurate investments in programs that have the capacity to assist low-income and underrepresented individuals in developing those skills and accessing those jobs will be needed. And critical to the success of those investments will be a more robust understanding of the program models that are likely to accomplish those goals.

Appendix A

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- Kermit Kaleba, Senior Policy Associate, The Workforce Alliance
- Nancy Mills, Executive Director, AFL-CIO Working for America Institute
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- Sandi Vito, Secretary of Labor & Industry, State of Pennsylvania

Individuals Consulted

- Laura Barrett, Gamaliel Foundation
- Scott Cheney, National Association of Workforce Boards
- Jim Conley, Office of Apprenticeship, U.S. Department of Labor
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- Bob Pleasure, Building & Construction Trades Department, AFL-CIO
- Martin Simon, National Governors Association
- Dennis Torbett, Home Builders Institute
- Mike Trupo, Business Relations Group, U.S. Department of Labor
- Anne Wright, YouthBuild USA

Appendix B

Related Resources: The Construction Industry

Bureau of Labor Statistics, U.S. Department of Labor. *Career Guide to Industries, 2008-09 Edition*, Construction. Available from <http://www.bls.gov/oco/cg/cgs003.htm>; Internet.

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Center for Construction Research and Training. *The Construction Chart Book: The U.S. Construction Industry and Its Workers*. 4th ed. Silver Spring, MD: Center to Protect Workers Rights, December 2007. Available from <http://www.cprw.com/pdfs/CB%204th%20Edition/Fourth%20Edition%20Construction%20Chart%20Book%20final.pdf>; Internet.

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National Institute for Occupational Safety and Health. *Construction: Input: Economic Factors*. Available from <http://www.cdc.gov/niosh/programs/const/economics.html>; Internet.

U.S. Census Bureau. *Industry Statistics Sampler: NAICS 23, Construction*. Available from <http://www.census.gov/econ/census02/data/industry/E23.HTM#T1>; Internet.