Labor Agreements as a Solution for Increasing Job Opportunities for African Americans and Females in the Construction Trades in Oregon

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June 2015
Framework Describing the Need for Alternative Solutions, Beyond Apprenticeships: *Status Report on the Disproportionately High Numbers of Terminations among African American Apprentices with an Exit Date between 2006 and 2010*

A joint public policy research project between Oregon Bureau of Labor and Industry and the Oregon Commission on Black Affairs, January, 2015

This framework for the “Status Report on the Disproportionately High Numbers of Terminations among African American Apprentices with an Exit Date between 2006 and 2010” [hereinafter “Status Report”] seeks to provide an alternate analysis of the data referenced in the Status Report (described in subsequent sections of this report).

The Status Report provides a cross-sectional study of completion and termination rates for minority apprentices in the years 2006 through 2010 based on the exit dates of apprentices. The Status Report’s cross-sectional study found that minority apprentices, in particular, African American apprentices, experienced disproportionately high rates of termination as compared to white, non-Hispanic male apprentices. The data in the Status Report was analyzed by looking at a given year and recording the number of completions and terminations for that year. This type of analysis is helpful to provide a broad overview of trends, but it may fail to take into account current social or economic factors impacting retention. In contrast, a longitudinal analysis provides a more detailed perspective of the data because it examines a group of people within a population and observes them over a period of time.

In this addendum, cohorts of apprentices were studied based on their year of registration in an apprenticeship program. If the apprentice finished their apprenticeship and fulfilled all the program requirements then they were counted as “completed.” However, if an apprentice left the program, whether it was voluntarily or involuntarily, they were counted as “terminated” from the program. The longitudinal study of the data reveals the same disproportionality as the cross-sectional study. In all of the trades, African Americans are more likely than white, non-Hispanic apprentices to be terminated from an apprenticeship.

The first graph below illustrates completion and termination rates for African American apprentices in the nine most common trades based on their year of entry into the program. This chart shows that African Americans are generally more likely to terminate from an apprenticeship program than they are to complete the program. The exception to this general rule is the Inside Electrician program, where completion rates exceed termination rates by a ratio of 19 to 4.
African American Apprentices, Registered 2004-2008, 9 Most Common Trades

Chart 1: This graph analyzes the completion and termination numbers for male and female African American apprentices based on their year of registration. Each color represents a group of apprentices based on their year of registration. Next the data is broken down into the nine most common apprenticeship trade programs. Finally, the data is further broken down into two categories: completions and terminations. This chart reveals that African American apprentices are generally more likely to terminate from an apprenticeship program than they are to complete the program, with the exception of the Inside Electrician apprenticeship program.

The next graph illustrates completion and termination rates of white, non-Hispanic apprentices in the nine most common trades based on their year of entry into the program. This chart reveals that white, non-Hispanic apprentices are also generally more likely to terminate an apprenticeship program than they are to complete it, with the exception of Inside Electrician and Plumber apprenticeship programs. However, the gap between completion and termination rates for white, non-Hispanic apprentices is significantly smaller than the gap between completion and termination rates for African American apprentices.
White, Non-Hispanic Apprentices, Registered 2004-2008, 9 Most Common Trades

Chart 2: This chart analyzes the completion and termination numbers for white, non-Hispanic male apprentices based on their year of registration. Each color represents a cohort of apprentices based on their year of registration. Next, the data is broken down into the 9 most common apprenticeship trade programs. Finally, the data is further broken down into two categories: completions and terminations. The chart reveals that white, non-Hispanic apprentices also struggle to complete apprenticeship programs. However, the gap between the completion and termination rates are significantly smaller for white, non-Hispanic apprentices than they are for African American apprentices.

For example, looking at the two programs with the highest termination rates of any of the trades, Carpenters and Laborers, we still see that the termination rates of African Americans are significantly higher than the termination rates of white, non-Hispanic apprentices. In the carpenter apprenticeship programs, on average only 17.6% of African American apprentices completed their program, as compared to 35% of white, non-Hispanic apprentices.¹ In the

¹Of the apprentices who registered for an apprenticeship between 2006–2008
laborer apprenticeship programs, the average completion rate for African Americans was 22.1%, while the average completion rate for white, non-Hispanic apprentices was 31.8%. The chart below illustrates these discrepancies.

**Completion Rates for White, Non-Hispanic and African American Apprentices in Carpenter and Laborer Apprenticeships**

![Chart 3](chart.png)

**Chart 3:** This chart compares completion rates of white, non-Hispanic apprentices with the completion rates of African American apprentices in Carpenter and Laborer apprenticeship programs. Each color represents a cohort of apprentices based on their year of registration, their ethnicity, and their apprenticeship program. This chart reveals that even in the two apprenticeships programs with the highest rates of terminations for all apprentices, African Americans still experience disproportionality higher rates of termination than their white, non-Hispanic counterparts.

The next chart breaks the numbers down further to illustrate the number of terminations and completions in the Union Carpenter and Union Laborer apprenticeship programs. On average only 19.6% of African Americans, who registered for a Union Carpenter apprenticeship (1057) between 2006 to 2010 successfully completed their apprenticeship, and only 27.5% of African Americans in Union Laborer apprenticeships (1058) completed their apprenticeship. While, these numbers are slightly higher than the overall completion rates for carpenter (17%) and laborer (23%) apprentices referenced above, this chart reveals that union programs are also struggling with retention of African American apprentices.
African American Apprentices, Registered 2004-2008, Union Carpenters and Laborers

Chart 4: This graph illustrates completions and terminations for cohorts of African American union laborer and carpenter apprentices based on the apprentice’s year of entry into the program. 1057 is the code for Union Carpenters and 1058 is the code for Union Laborers.

Finally, as was mentioned earlier, Inside Electrician apprenticeship programs appear to be doing fairly well in terms of retaining their African American apprentices. This was the only trade where the number of terminations for African American apprentices did not exceed the number of completions. Moreover, apprentices of all races have roughly the same proportion of completions to terminations. Thus, we do not see that any one race is disproportionality being pushed out of these apprenticeship programs. One possible explanation for the more favorable retention numbers is that Inside Electricians apprenticeship programs are more selective about whom they admit. Additionally, since this is a licensed trade, apprentices cannot switch back and forth between jobs that provide apprenticeship training and jobs that do not provide apprenticeship training, whereas in other trades, such as construction, an apprentice could easily transfer their construction skills to non-apprentice work. These programs may warrant further study, however, to determine if there are other reasons contributing to the higher retention rates for African American apprentices.
Inside Electricians with Completions between 2006 and 2010.

Chart 5: This graph represents the total number of completions recorded for different racial groups between the years 2006 and 2010.
Inside Electricians with Terminations between 2006 and 2010.

Chart 6: This graph represents the total number of terminations recorded for different racial groups between the years 2006 and 2010.

In conclusion, whether the data is viewed by conducting a cross-sectional analysis or a longitudinal analysis, the results are the same. Apprenticeship programs in Oregon consistently struggle with retention of African American apprentices. African American apprentices terminate their programs prior to completion at a disproportionately high rate in comparison to white, non-Hispanic apprentices.
Labor Agreements as a Solution for Increasing Job Opportunities for African Americans and Females in the Construction Trades in Oregon

Abstract:
This paper discusses three types of labor agreements utilized on public works projects in Oregon and studies the impact of these agreements on African American and female involvement in the building and construction trades. This paper then surveys best practices resulting from these agreements and offers suggestions to policy makers deciding whether to implement labor agreements as a tool for increasing diversity in the construction trades.

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I. Introduction

In 2014, the Bureau of Labor and Industries’ Apprenticeship and Training Division began conducting research, with the assistance of PSU graduate student Nora Arévalo-Meirer, and in cooperation with the Oregon Commission on Black Affairs and the Governor’s Offices of Diversity & Inclusion and Workforce Development, on the status of African American and female apprentices and their attainment of journey level status in Oregon.

This research revealed significant disparities in apprenticeship completion rates for African American apprentices. During the period studied, 2006 to 2010, the average termination rate without benefit of program completion for African American apprentices was 78.5 percent and 62 percent for female apprentices. In contrast, during that same period, the average termination rate without completion for Caucasian male apprentices was only 45.5 percent. Additionally, African American and female apprentices (collectively referred to as “minority apprentices”) were also terminated more often from an apprenticeship program during their probationary periods. The data revealed that 30.2 percent of African Americans and 21.3 percent of female apprentices terminated from

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4 The probationary period is defined in ORS 660.060 as a period of up to one year or 25 percent of the length of the program, whichever period is shorter, during which the apprenticeship agreement may be terminated by either party to the agreement for any reason upon written notice to the Apprenticeship and Training Division.
their program during the probationary period as compared to only 12.4 percent of white males who terminate from their program during their probation.

Earlier research conducted in 2010 by two other PSU researchers, Maura Kelly and Lindsey Wilkinson, identified three likely reasons for these disparities. First, minority apprentices frequently experience discrimination and harassment on the jobsite. African American apprentices anecdotally reported that the construction industry felt like an “old boys club” and that they often experienced hostile or harassing work environments.\(^5\) Second, minority apprentices also had longer periods of unemployment than male, Caucasian apprentices.\(^6\) Thus, for minority apprentices, working a full-time, minimum wage job that offers steady employment often seems to be a better alternative to dealing with job and wage instability in an apprenticeship program. The third identified problem was that minority apprentices lack adequate support networks or mentors to help them succeed in the construction industry. White males in the industry are more likely to come from a family or social network with direct ties to the trades. Thus, they have more connections in the industry, they understand that nature of the work and how to deal with frequent layoffs, and they have people they can turn to when they encounter workplace problems.\(^7\) These three problems explain in large part why minority apprentices are more likely to terminate prematurely from an apprenticeship program than white males.


Having established statistically that demographic disparities continue to persist in the construction trades and understanding the basic reasons for these disparities, the next phase of research looks at tools that can be utilized to address the barriers that minority apprentices face. This paper focuses specifically on the efficacy of three different types of labor agreements that have been utilized on public works projects: project labor agreements, grant funding requirements, and community benefits agreements. This paper will provide an explanation of each type of agreement and case studies to evaluate the effectiveness of each type of agreement. Section II will analyze the impact of Project Labor Agreements (PLAs) on minority involvement by studying the workforce utilization data from the Edith Green-Wendell Wyatt federal building modernization project in downtown Portland. Section III of this paper examines the workforce agreements that were utilized on the New Columbia Redevelopment Project and the Stephens Creek Crossing Project in North Portland and SW Portland respectively. Section IV will examine the effectiveness of Community Benefits Agreements (CBAs) by examining workforce data from the Kelly Butte Reservoir Project and the Interstate Maintenance project.

The workforce utilization data from the five case studies in this paper support the following recommendations. First, labor agreements need to set clear and enforceable equity goals. Second, equity goals should be trade-specific rather than project-wide. Third, workforce utilization data needs to be more detailed with clear reporting guidelines. Fourth, support services need to be developed to retain minority workers in the trades. Fifth, pre-apprenticeship programs should continue to be utilized to provide
minorities with pathways into the construction trades. Finally, policy makers should continue to explore the use of incentives to increase diversity in the trades.

II. Project Labor Agreements

A. About Project Labor Agreements

Project Labor Agreements (PLAs) are defined as “single-site collective bargaining agreements between building trade unions and site contractors that govern terms and conditions of employment for all craft labor on the designated construction project.”

A typical PLA includes agreements on “wage rates, strikes or work stoppages, collective bargaining, payment of union dues, and prohibitions against discrimination in hiring and employment.” In particular, PLAs often provide workforce utilization requirements in order to accomplish broader goals of the industry, project owner, developer or union. For example, a PLA might require that 20 percent of the labor hours on a project be reserved for apprentices or that a certain percentage of the total contract dollars are awarded to female, minority, disadvantaged, or emerging small businesses.

B. Case Study #1: Edith Green-Wendell Wyatt Federal Building

The Edith Green-Wendell Wyatt Federal Building (“Edith Green Building”), located at SW Third Avenue and Jefferson Street in downtown Portland, was originally built in 1974. Between 2009 and 2013 the building underwent a $139 million renovation that was funded by the American Recovery and Reinvestment Act of 2009. The renovation project

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9 Oregonian, Frequently Asked Questions, pg. 4
included upgrades to the existing building structure such as the, “exterior facade, accessibility, life safety, mechanical, electrical, elevators, and security.”

The Edith Green Building was also the first federal project to use a PLA since President Barack Obama endorsed this type of labor agreement with Executive Order 13502. The new Order encouraged consideration of, but did not mandate the use of PLAs on any federal projects worth $25 million or more.

1. Key Terms of the Agreement & Workforce Equity Goals

The parties to the Edith Green PLA were the prime contractor for the project, Howard S. Wright Companies Oregon JV, the General Services Administration and the signatory unions. The agreement contained typical collective bargaining agreement terms such as a management rights section; union security agreement; hiring procedures; wage, hours and overtime provisions; a no-strike clause; as well as dispute resolution procedures. The agreement also set up a Labor-Management Committee that was responsible for interpreting the terms of the agreement and resolving disputes.

The PLA contained several workforce goals. First, 15 percent of the total project hours were to be set-aside for registered apprentices. The PLA also gave preferences to...
veterans who were interested in construction trade jobs. The PLA, however, did not set
any specific goals for minority workforce involvement. The Agreement merely stated that
the union would “engage in active recruitment of minority and female applicants.”15
There was no definition, however, for what constituted “active recruitment.”16 Finally,
the contract also had a provision whereby all contractors and subcontractors agreed to set
aside $500 out of every $1 million dollars spent for a community construction training
fund.17

2. Data Gaps

Unfortunately, Edith Green workforce data was not sufficiently disaggregated to allow
for a complete analysis of the hours worked by minority apprentices or journey workers
by trade. One problem with the data is that hours were grouped by contractor. If a
contractor employed multiple trades, their workforce data was grouped into one category
such as “carpenters, labor, cement finishers” (see items highlighted in photo below),
making it difficult to evaluate the distribution of work hours.

<table>
<thead>
<tr>
<th>Subcontractor</th>
<th>Trade</th>
<th>TOTAL HOURS</th>
<th>Total Journeyman</th>
<th>Total Apprentice</th>
<th>Total Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSW</td>
<td>Carpenters, Labor, Cement Finishers</td>
<td>69,899.0</td>
<td>59,973.0</td>
<td>9,926.0</td>
<td></td>
</tr>
<tr>
<td>Akkurtar</td>
<td>Operators / Operating Engineers</td>
<td>28.5</td>
<td>28.5</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Alicata Glass Co.</td>
<td>Glazers</td>
<td>786.0</td>
<td>783.0</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>All Weather (Engineer Products)</td>
<td>Carpenters (Installers)- Ironworkers</td>
<td>25.0</td>
<td>25.0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Alliance Industrial (HSW)</td>
<td>Ironworkers</td>
<td>18,621.0</td>
<td>14,826.0</td>
<td>3,795.0</td>
<td></td>
</tr>
</tbody>
</table>

Image 1: Screen capture from Excel spreadsheet provided by WorkSystems Inc.

15 Find cite in Edith Green PLA
16 Find cite in Edith Green PLA
17 Find cite in Edith Green PLA
Additionally, the data did not separate minority hours by skill level, making it impossible to determine if minority apprentices were responsible for a larger proportion of the work than minority journey workers as observed in the other projects discussed later in this paper.

3. Key Findings

The Edith Green project was quite successful in terms of utilization of apprentices. The data reveals that apprentices accounted for 19.5 percent of the total project hours, exceeding the PLA goal of 15 percent of total work hours (See Figure 1).

The project was also somewhat successful at increasing female participation in the trades (see Figure 2). Females accounted for 7.6 percent of the total project hours.18 This is a significant improvement over the national average for overall female construction employment, which hovers around 2.6 percent.19 However, this number is pretty close to the percentage of female apprentices in Oregon, which is 6.4 percent.20

The Edith Green project did not, however, bring about increased opportunities for African Americans. African Americans only worked 2 percent of the total project hours on Edith Green (See Figure 3)21 even though they represent 6.3 percent of the population.

18 Data from WorkSystems, Inc.; "EGWW_SC_WF_Final.xlsx"

19 National Women’s Law Center, Women in Construction: Still Breaking Ground, pg. 2. No data was available for the average total participation rate for females in Oregon.

20 2015 Data from BOLI.

21 Data from WorkSystems, Inc.; "EGWW_SC_WF_Final.xlsx"
in Portland.\textsuperscript{22} This is also far below the national average for African American participation in the Construction Trades, which was at 10.8 percent in 2011.\textsuperscript{23} \textsuperscript{24}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{hours_worked_by_skill_level.png}
\caption{Data provided by WorkSystems Inc.}
\end{figure}

\begin{flushleft}
\textsuperscript{22} http://quickfacts.census.gov/qfd/states/41/4159000.html

\textsuperscript{23} U.S. Department of Labor, \textit{The African-American Labor Force in the Recovery}, pg. 6. No data was available for the average participation rate for African Americans in the construction industry in Oregon.

\textsuperscript{24} African Americans represent 3.3\% - 3.7\% of all registered apprentices in Oregon. Data from BOLI data base.
\end{flushleft}
Figure 2: Data provided by WorkSystems, Inc.

Figure 3: Data provided by WorkSystems, Inc.
C. Conclusions

The efficacy of the Edith Green-Wendell Wyatt PLA with respect to workforce diversity is mixed. The project did have successes in terms of female and apprenticeship utilization, but it did not seem to positively impact African American employment.

1. *Hard diversity goals should be negotiated for minority participation to ensure equal opportunities on public sector construction jobs for underrepresented populations.*

   The PLA for Edith Green did not set a hard goal for minority participation. Instead, the contract simply called for “active recruitment” of minorities. Such a vague term in a contract is hard to enforce and thus its impact on minority participation is limited. As the workforce data shows, African Americans only represented 2 percent of the workforce on this project as a result of using contract language that lacked a specific goal, much less enforceability.

2. *Strict reporting requirements should be set to ensure the efficacy of diversity initiatives.*

   The limited data for this project underlines the importance of setting strict reporting requirements for contractors. Unless data is sufficiently collected and disaggregated, it is impossible to get a complete and accurate picture of the degree of workforce diversity taking place on a given construction project. Reporting requirements need to be clear and specific with respect to reporting demographic categories and provide sufficient detail to determine when an individual is counted in multiple categories—such as a minority female apprentice. There also should be a monitoring system in place to ensure that hours are being reported accurately.
III. Grant Funding Requirements

A. HOPE VI Grant Program

The Departments of Veterans Affairs and Housing and Urban Development (HUD) created the HOPE VI grant program in 1993. The program was intended to assist public housing agencies (PHAs) with revitalizing their “severely distressed public housing units.” One key feature of the grant program is the emphasis on local hiring practices. Section 3 of the Housing and Urban Development Act of 1968 requires that to the extent that HUD funding for projects generates employment and contracting opportunities in a community, preference must be given to low-income individuals and businesses located within the community. A “Section 3 resident” is defined as: “1) a public housing resident; or 2) a low- or very low-income person residing in the metropolitan area or Non-metropolitan County in which the Section 3 covered assistance is expended.”

The HOPE VI Grant agreement also requires PHA recipients to encourage the involvement of the local community affected by the redevelopment project by convening a Community Task force to ensure that the needs of the community are heard.

Home Forward, formerly known as the Housing Authority of Portland, has received three Hope VI grants since 2006. The grants were used to fund the redevelopment of New

Columbia, Humboldt Gardens, and Stephens Creek Crossing housing projects. This section will provide a case study of the first Hope VI redevelopment project, New Columbia, which was completed in 2006, and the most recent project, Stephens Crossing, which was completed in 2014.

B. Case Study #2: New Columbia Redevelopment Project

New Columbia was a redevelopment project undertaken in North Portland in 2003 with the help of a $35 million HOPE VI grant. The original neighborhood, Columbia Villa, was a public housing project built more than 60 years ago for World War II shipyard workers. By early 2000, most of the buildings were no longer up to code and the maintenance costs were proving to be a financial liability for the city. Moreover, as the buildings deteriorated, violence and crime had increased. The area was badly in need of improvement.

The redevelopment plan called for a mix of housing options. There would be 556 rental units that would be managed by Home Forward. The rental units would be a mix of public housing and affordable housing units. The plan also featured 232 units that were available for purchase, some at market rates and others at reduced rates thanks to non-profit builders like Habitat for Humanity.

29 http://homeforward.org/development/property-developments
1. Workforce Equity Goals and Strategies for Increasing Minority Participation

Home Forward employed multiple strategies on the New Columbia Redevelopment project to increase minority, female, local community and apprenticeship participation.

Home Forward set a goal of “20 percent participation by disadvantaged, minority-owned, women-owned, and emerging small businesses (D/M/W/ESB) in contract opportunities.”\(^{30}\) In order to support this goal, Home Forward actively recruited D/M/W/ESB businesses for participation in this project with a special emphasis on communities of color and businesses in the North/Northeast Portland area. Home Forward also provided D/M/W/ESB employers with technical assistance to help small businesses with “bidding and estimating, establishing lines of credit, coordinating financial statements and accounting systems, building supplier relationships, and matching firms with opportunities.”\(^{31}\)

In order to increase apprenticeship participation, Home Forward set a goal that each trade with construction contracts over $100,000 should have 17 percent of their hours worked on the project by apprentices.\(^{32}\) Besides setting workforce goals, Home Forward also offered incentives to subcontractors who agreed to commit to at least 20 percent of their hours being worked by women and minorities.\(^{33}\) In order to help subcontractors meet the

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apprenticeship and diversity goals, first priority in hiring was given to pre-apprentices from the Evening Trades Apprenticeship Preparation (ETAP) program.\(^ {34} \)

The Housing Authority of Portland (now known as Home Forward) created the ETAP program in 1998 as a pre-apprenticeship program to provide low-income and minority residents in Portland with a pathway into construction careers and a path to self-sufficiency. During the New Columbia project, with the help of federal funding, ETAP grew from training 6 to 30 pre-apprentices per session.\(^ {35} \) The focus of the pre-apprenticeship program was on teaching low-income and minority participants basic skills for success in the construction industry. The program taught students soft skills such as work ethic, timeliness, attitude and how to survive on a fluctuating construction income. ETAP also taught students hard skills, such as tool safety and shop math, that a prerequisites for success on construction sites.\(^ {36} \) ETAP was an important partner for increasing participation by minorities and low-income residents during the project.

Finally, Home Forward set up strict reporting requirements and carefully monitored the program’s success through Home Forward’s Board of Commissioners and the project’s Community Advisory Committee. Contractors and subcontractors were required to submit monthly progress reports to ensure compliance with the contracting and hiring

\(^{34}\) Housing Authority of Portland, New Columbia: Report on Development Goals, pg. 5 (December 2007). Community Participation in Economic Opportunities Created by the New Columbia Project

\(^{35}\) Interview with Michael Burch, former ETAP program manager.

\(^{36}\) Interview with Michael Burch.
programs. Home Forward also worked with several community groups and leaders in communities of color to make changes to the program as needed.37

2. Key Findings

According to a report by Home Forward, the project was fairly successful in terms of minority involvement, “24 percent of all contracts—$27.5 million—went to D/M/W/ESB businesses, ETAP graduates and local residents filled 103 jobs, [a]pprentices accounted for 20 percent of the total construction hours, [and] [m]inorities and women worked 45 percent of the construction hours at New Columbia.”38

Data from the City of Portland39 confirms that the New Columbia Redevelopment Project had some successes in terms of minority involvement. The data reveals that minorities worked 40.8 percent of the total project hours and apprentices were responsible for 19.8 percent of the total project hours. Additionally, female apprentices were responsible for 18.1 percent and African American apprentices were responsible for 25.3 percent of the total hours worked by apprentices.

At first glance, these numbers seem promising, but a closer look at the data reveals that African American and female hours were concentrated in a small number of trades. Although 14 different trades were utilized by the New Columbia project, African

39 Data from City of Portland, Bureau of Purchases, which administered the workforce program for the Housing Authority.
Americans and females were concentrated in just 2 to 4 of the trades and were only marginally represented or not represented at all in the remaining trades.

i. Key Findings for African Americans

African Americans were far more likely to work as Laborers than Caucasians were (see Figure 4). 83 percent of all African American apprentice and journey level hours were worked in either the carpentry or construction laborer trades (see Figures 5 & 6). Additionally, an astounding 71.3 percent of the total African American journey level hours were worked in the construction laborer trade (see Figure 6).

Moreover, only a few of the trades on the project utilized African American workers (see Figure 7). African American apprentices were responsible for 50.7 percent of the total laborer apprentice hours, 29.1 percent of the total carpentry apprentice hours, and 27 percent of the total plumbing, pipefitting, and sprinkler apprentice hours. They were either not utilized at all or represented less than 2% of the total hours in the remaining 11 trades (See Figure 7). African American Journey persons also worked 14.1 percent of the total construction laborer hours, 10 percent of the roofer hours, 7.4 percent of the painter, paperhanger hours, and 4 percent of the equipment operator hours. African American journey workers were either not utilized or represented less than 2 percent of the total hours in the remaining 10 trades (see Figure 7).

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40 Data from City of Portland.
Figure 4: Data provided by City of Portland
Figure 5: Data provided by the City of Portland.

Figure 6: Data provided by the City of Portland.
ii. Key Findings for Females

Females were also highly likely to work as either a carpenter or a laborer at New Columbia. 65.9 percent of female apprentice hours and 71.8 percent of female journey hours were worked in either the carpentry or construction laborer trades (see Figure 8 & 9). However, female apprentices were also highly likely to work as electricians—33.1 percent of the total female hours were worked in the electrician trade (see Figure 8). Additionally, a significant proportion (18.5 percent) of female journey level hours were worked in the equipment operator trade (see Figure 9).
Overall, only a small number of the trades had a significant proportion of female workers. The electrician apprentices were the most gender diverse with 42.2 percent of all electrician apprentice hours being worked by females (see Figure 10). Female apprentices also worked 16 percent of the total carpentry apprentice hours and 25.6 percent of the construction laborer apprentice hours.

Figure 8: Data provided by the City of Portland.
Figure 9: Data provided by the city of Portland.

Figure 10: Data provided by the city of Portland.
iii. Key Findings for Section 3 Workers

Overall it appears that the Section 3 program (preferential hiring for low-income individuals from the affected community) was rather unsuccessful in putting workers from the impacted community to work during the New Columbia project. Section 3 workers were only responsible for 1.3 percent of the total apprentice hours and 1.1 percent of the total journey level workers.

The data shows that Section 3 workers were also concentrated in the carpentry and laborer trades. 100 percent of the Section 3 apprentice hours and 50.3 percent of the Section 3 journey hours were worked in the carpentry and laborer trades. 40 percent of the Section 3 journey hours were also worked in the Paper and Paperhanger trades. However, overall Section 3 apprentices only worked 3 percent of the total carpentry apprentice hours and 1 percent of the total construction laborer hours. Section 3 journey workers overall worked .6 percent of the carpentry hours, 1.1 percent of the construction laborer hours, 6.2 percent of the painter and paperhanger hours, and 6.8 percent of the roofer hours (see Figure 10).  

\[41\] City of Portland data.
iv. Key Findings Based on Skill Level

The workforce utilization data from New Columbia also shows that female and African American apprentices worked a significantly higher proportion of the hours than female and African American journeypersons. Female apprentices were responsible for 18 percent of the total apprentice hours while journey women only worked 3 percent of the total journey hours (see Figure 12). African American apprentices worked 25 percent of the total apprenticeship hours, but they were only responsible for 6 percent of the total journey level hours (see Figure 13).
Figure 12: Data provided by City of Portland

Figure 13: Data provided by City of Portland.
C. Case Study #3: Stephens Creek Crossing Redevelopment Project

In 2012, Home Forward received an $18.5 million Hope VI grant to renovate another housing project badly in need of repair.42 Hillsdale Terrace was originally built in 1968. The old apartments were constructed on a steep, muddy hillside in SW Portland and built out of cinder block masonry that was prone to mold. Maintenance and accessibility issues made the project one of Home Forward’s most expensive communities to maintain and thus a high priority for redevelopment.43

Stephens Creek Crossing, the name of the new development, cost $53.9 million to rebuild. The new development featured 122 apartments, doubling the number previously available at Hillsdale Terrace, and a 7,000 square-foot children’s center.44

1. Workforce Equity Goals and Strategies for Increasing Minority Participation

In 2006, Home Forward adopted an agency-wide aspirational goal of 20 percent participation by businesses certified as disadvantages, minority-owned, women-owned, emerging small businesses, or Section 3 businesses for all Home Forward construction contracts.45 Home Forward also adopted an aspiration goal of 20 percent participation by apprentices for all construction contracts worth $200,000 or more.46

In 2012, Home Forward’s board revised the policy, renaming it the Economic Equity Policy, and added stricter requirements for utilization of Section 3 residents and businesses.\textsuperscript{47} Home Forward received a $50,000 grant from HUD to help strengthen its Section 3 program. Home Forward began to focus on providing business support and training for Section 3 residents and monitoring utilization of Section 3 apprentices by the City of Portland.\textsuperscript{48} One of the main priorities on the Stephens Creek Crossing project was to increase opportunities for Section 3 residents.

\textbf{2. Key Findings}

In terms of involving Section 3 residents, Stephens Creek Crossing was a successful project. A Home Forward report indicates that 42 percent of the project’s new hires were Section 3 residents. Additionally, $6,230,000 of construction activity at Stephens Creek Crossing was awarded to Section 3 certified businesses.\textsuperscript{49}

In terms of increasing opportunities for apprentices and females, however, Stephens Creek Crossing was the least successful of all the projects studied. Apprentices worked 18 percent of the total project hours and females only worked 1.9 percent of the total project hours.

African Americans worked 5 percent of the total project hours—in contrast with New Columbia, where African Americans worked 9.6 percent of the total project hours.

\textsuperscript{47} http://www.homeforward.org/sites/default/files/Annual-Procurement-and-Equity-Report.pdf, pg. 3
\textsuperscript{48} http://www.homeforward.org/sites/default/files/Annual-Procurement-and-Equity-Report.pdf, pg. 3
\textsuperscript{49} http://www.homeforward.org/sites/default/files/Annual-Procurement-and-Equity-Report.pdf, pg. 3
However, this numbers makes sense in light of Home Forward’s Section 3, local hire goals, since African Americans made up a significantly smaller proportion of the population in southwest Portland (the neighborhood where the Stephens Creek Crossing project took place) than in North Portland (where the New Columbia project is located).\textsuperscript{50}

\textit{i. Key Findings for African Americans}

In terms of African American involvement, once again the data reveals that African Americans were much more likely (2.7 times more likely) than Caucasians to work as laborers or carpenters on the Stevens Crossing Project (see Figure 16). This is concerning as laborers are one of the lower paying occupations on a construction job.\textsuperscript{51} The prevailing wage rate for laborers in Multnomah and Clackamas counties in 2014 was $24.05.\textsuperscript{52}

African American apprentices were highly likely to work as either a laborer or a carpenter at Stephens Creek Crossing (see Figure 14). African American journey workers were also most likely to work as either as carpenter or laborer. However, a significant proportion of African American journey level hours were also reported for the carpet, floor, and tile installers trades (see Figure 15).

There were no African American hours reported for some of the highest paying and most skilled trades utilized by Stephens Creek Crossing—brick, block, and stonemason

\textsuperscript{50} http://www.portlandonline.com/portlandplan/index.cfm?c=52257&a=288623

(prevailing wage rate (PWR) $29.64); electrician (PRW $38.89); glaziers / glassworkers (PWR $29.74), or welder trades (PWR $33.04). Instead, Caucasian workers dominated these high paying trades (see Figure 17). 100 percent of the electrician hours, 93.5 percent of the brick / block /stone mason hours, 94.6 percent of the glazier / glassworker hours, and 100 percent of the welder hours were worked by Caucasians (see Figure 17). Additionally, African American hours were highly concentrated in just a small number of trades and were not evenly distributed across the project (see Figure 18).

![Distribution of African American Apprentice Hours by Trade](image)

Figure 14: Data provide by city of Portland

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Figure 15: Data provided by city of Portland.

Figure 16: Data provided by City of Portland.
Figure 17: Data provided by City of Portland.
ii. Key Findings for Female Workers

Women were grossly underrepresented in this project. Overall, females accounted for 1.9 percent of the total project hours. Female apprentices worked 5.4 percent of the total apprentice hours and journey women worked 1.5 percent of the total journey level hours. However, female hours were more evenly distributed on the Stephens Creek Crossing as compared with the New Columbia project (see Figure 20). Unfortunately, there were no
female electricians—one of the highest paying jobs—working on this project (see Figure 19).
iii. Key Findings for Section 3 Workers

Section 3 participation did increase dramatically on the Stephens Creek Crossing project as compared to the New Columbia project—most likely due to Home Forward’s new policy implemented in 2012. At New Columbia, Section 3 residents only accounted for 1.3 percent of the total apprentice hours and 1.1 percent of the total journey level hours. During the Stephens Creek Crossing project, Section 3 residents accounted for 39 percent of all hours worked by apprentices and 10.6 percent of all hours worked by journey level workers.54 42 percent or 12 of the project’s 28 new hires were Section 3 residents.55

Once again, however, Section 3 hours were concentrated in just a few trades. Section 3 apprentices worked 75 percent of the stone mason hours, 55 percent of the carpentry hours, 51 percent of the laborer hours, and 95 percent of the painter / paperhanger hours (see Figure 21 below). Section 3 journey workers were also concentrated in just a small number of trades—primarily among the carpenters, laborers, and the painters and paperhangers (see Figure 21). Additionally, Section 3 workers were far more likely to work as either a carpenter or a laborer than a non-Section worker on the Stephens Creek Crossing project (see Figure 22).

54 City of Portland Data.
55 see cite from above intro section.
Figure 21: Data provided by the City of Portland.
vi. Key Findings Based on Skill Level

Once again the workforce utilization data reveals that minority journey persons were responsible for a significantly smaller percentage of the available hours than minority apprentices. Female apprentices worked 5 percent of the total apprentice hours while journey women only worked 1 percent of the total journey hours (see Figure 23). African Americans apprentices worked 11.5 percent of the total apprentice hours, but only 3.9 percent of the journey hours (see Figure 24).

Section 3 journey level workers also worked a significantly smaller percentage of the available hours than Section 3 apprentices. Section 3 residents worked 39 percent of all
apprentice hours but only worked 10.6 percent of the journey hours. This difference seems to be due to the fact that Section 3 status is based on income and it is far less likely that a worker will qualify as Section 3 eligible once they have reached journey level status and are earning higher wages.

Figure 23: Data provided by City of Portland

Figure 24: Data provided by the city of Portland
D. Conclusions

1. **Offering incentives to subcontractors can increase participation by underrepresented groups**

The New Columbia project used incentives to increase participation by minorities and females. Subcontractors who committed to having minorities or females work at least 20 percent of their project hours were offered incentives. As a result of this incentive program during the New Columbia project, participation by African Americans and females was significant. African American apprentices represented 25 percent and females represented 18 percent of the total apprentice hours for the project.

2. **Pre-apprenticeship programs can be a key recruitment tool for increasing diversity in the construction trades**

The New Columbia project relied heavily on the ETAP pre-apprenticeship program to recruit from the local community (to fulfill Section 3 requirements) and to diversify the New Columbia workforce. ETAP served as an informal mentorship program for students. It helped prepare pre-apprentices who were accepted into apprenticeship program start at the same level as other apprentices who had grown up with families or friends in the trades and already had a working knowledge of the required skills necessary for success in the construction industry. ETAP taught pre-apprentices the soft skills—time management, finances, work ethic, etc.—and the hard skills needed to have a successful career in the trades. ETAP students learned the hard skills at the Willamette Carpenters Training Center. Through this training program, students received more

56 Interview with Michael Burch.
exposure to the carpentry trade and began to establish connections in that field. Thus, the high concentration of African American hours in this trade—42.8 percent of African American apprentice hours were worked in the carpentry trade—is partially explained by the ETAP program and the natural funneling of students into the carpentry apprenticeship program. The high number of hours worked by minorities in the carpentry trade at New Columbia is also an attestation to the success of pre-apprenticeship programs like ETAP.

3. The absence of trade specific equity goals may result in minority hours being concentrated in lower paying trades.

Workforce utilization data from New Columbia and Stephens Creek Crossing reveals that African Americans were far more likely than Caucasians to work as carpenters or laborers. Additionally, African Americans did not work a significant proportion of the stonemason, electrician, glazier / glassworker, or iron & steelworker hours on either project, which are some of higher paying trades in Oregon.

The reasons for the concentration of African American hours in the lower paying trades and the lack of participation in some of the highest paying trades are unclear. This may be due in part to the nature of the work on the project. However, in order to address the problem, it will be important to track diversity across all the different trades represented on a project to help ensure that minorities are being given opportunities to succeed in all trades.

57 BOLI data from 2008–2010, shows that 60.8 percent of ETAP grads that enter an apprenticeship program upon completion, enter a carpentry apprenticeship program.

of the trades. Additionally, policy makers and contracting parties should consider setting equity goals by trade instead of using project-wide equity goals.

IV. Community Benefits Agreements

A. About Community Benefits Agreements
Another possible solution for increasing participation of minority apprentices is through community benefits agreements (CBA). “A CBA is a legal contract between a developer and a set of nongovernmental groups whose support the developer considers necessary to obtain key public approvals or subsidies.” Using CBAs on large-scale development projects is intended to ensure that the community and local workers receive lasting benefits from the project.

CBAs are similar to PLAs in that they are project-specific agreements between labor and management. CBAs typically set out dispute resolution and grievance procedures, limit the ability of workers to strike, outline hiring practices, and define wages and benefits. However, unlike PLAs, CBAs allow community-based organization (CBOs) to come to the table and advocate for the needs of the local community.

In September 2012, Portland adopted a policy that requires CBAs to be used on all city construction contracts over $15 million. Since this policy was only recently adopted, there are no completed projects in Oregon that can be studied. However, there are three

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59 http://works.bepress.com/cgi/viewcontent.cgi?article=1010&context=laura_wolf_powers
60 http://works.bepress.com/cgi/viewcontent.cgi?article=1010&context=laura_wolf_powers
61 http://nwlaborpress.org/2012/09/cba-2/
ongoing projects in Oregon in which CBAs are being implemented and partial data is available to allow for a preliminary examination of the success of these agreements. The following sections will examine the efficacy of two of these projects: the Kelly Butte Reservoir Project and the Interstate Maintenance Project.

B. Case study #4: Kelly Butte Reservoir Project

1. Background of the Project

In 2012, the Portland City Council voted to replace Kelly Butte’s 10-million-gallon above the ground steel tank with a 25-million-gallon underground reservoir. The total estimated project cost was $90 million. This project was part of the city’s larger plan to disconnect its five open reservoirs by 2020 as required by stricter rules set by the U.S. Environmental Protection Agency.

Construction on the project began in fall of 2012 with road building and demolition of the existing tank. Excavation of the tank site began in winter 2013 and the underground tank concrete work began near the end of summer of 2014. The project will be completed in 2015.62

2. Equity Goals & Strategies for Increasing Minority Participation

The CBA agreement, signed by the prime contractor for the project, Hoffman Construction, the City of Portland, signatory unions, and signatory community based organizations, specified several workforce goals. First, the agreement set a project-wide goal of 20 percent apprenticeship utilization on all prime contracts of $200,000 or more

62 https://www.portlandoregon.gov/water/61285
and subcontracts of $100,000. The apprenticeship utilization requirement is not craft or trade specific and applies to overall utilization across all trades. The CBA also set a goal that minority apprentices would work 18 percent of the project apprentice hours and females would work 9 percent. To support this goal, the CBA requires the creation of a labor-management-community oversight committee to ensure that contractors are held accountable for the project’s diversity goals. Members of this committee consist of two representatives from each of the following groups: owner, project contractor, unions, employers, and community based organizations.

The agreement also requires that money be aside to support pre-apprenticeship training programs to ensure that community residents and minorities are recruited to work on the project.

In addition, the CBA set goals for utilization of minority and female journey workers. The agreement set a goal of 9 percent female hours and 18 percent minority hours out of the total project hours. These goals apply to the workforce of all Employers on the project. The agreement also listed strategies for recruiting and maintaining diverse employees. These strategies included maintaining a harassment-free workplace, participating in job fairs, aggressively recruiting and referring minorities, women, and

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63 CBA agreement, find pg. #
64 CBA Kelly Butte 10-05-2012_Final, pg. 12
65 CBA Kelly Butte 10-05-2012_Final, pg. 10
low-income people to employers, having adequate toilet facilities on the jobsite for female workers, and matching minority and female apprentices with mentors.66

Finally, all employers are required by the CBA to record the diversity of their on-site workforce. Exhibit B of the CBA agreement provides a sample reporting form for Employers to use (see Image 2 below). Additionally, employers must keep documentation regarding the number of hours worked by their employees such as paystubs. Each month, the employer is required to submit a report to the project owner and the oversight committee documenting their minority hours.

![Image 2: Screen capture from the Kelly Butte Reservoir CBA agreement, Exhibit B.](image)

If an employer fails to meet the diversity goals set by the CBA, the employer is required to develop an outreach plan to improve its workforce diversity. This plan is typically developed in coordination with the oversight committee. Signature community groups

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66 CBA Kelly Butte pg. 13
can offer the employer technical assistance with improving their diversity numbers. The employer must then report on the implantation of its plan to the committee.67

3. Data Gaps

Although the Kelly Butte project had strict reporting requirements, once again, the available data was not sufficiently disaggregated to allow a complete analysis of workforce utilization trends. The CBA reporting form (see Image 2 above) requires contractors with bids over $100,000 or more to submit a workforce report each month. This reporting form asks for the name, zip code, social security number, trade, level race, sex, and the hours worked for each employee during the reporting period. Thus, sufficiently disaggregated data should theoretically exist somewhere.

The available workforce data from the Kelly Butte Reservoir Project is current as of the December 31, 2014 reporting period. The data is once again organized according to contractors and subcontractors instead of by trade. While this practice permits analysis the total hours worked by African Americans and females, it is impossible to determine whether those hours are concentrated in lower paying trades as was the case with the New Columbia and Stevens Creek Crossing projects.

4. Key Findings

Because the data was not sufficiently disaggregated it is impossible to fully assess the full extent as to how minorities and females were utilized on this project. However, the data does reveal some initial successes. Apprentice participation was at 22.5 percent of the

67 Kelly butte CBA 13
total project hours. Overall, African American participation was the highest out of all of the projects studied at 8.9 percent. Females also worked 11.7 percent of the total hours.

\textit{i. Diversity by Skill Level}

The Kelly Butte Reservoir project has also been extremely successful at increasing apprenticeship diversity. Racial minorities worked 62 percent of the apprentice hours (as of December 31, 2014) with African Americans working 20.1 percent of the total apprentice hours (see Figure 28). Females accounted for 30 percent of the total apprentice hours (see Figure 29).

Once again, however, journey level workers were significantly less diverse than apprentices (see Figure 26-29). Caucasian journeypersons worked 38 percent of the apprenticeship hours, but 71 percent of the journey level hours. Female apprentices worked 30 percent of the apprentice hours, but journey women were only responsible for 6.4 percent of the journey hours (see Figure 29). African American apprentices worked 20.1 percent of the apprentice hours, but only 5.7 percent of the journey hours (see Figure 28).
Figure 25: Data provided by Worksystems, Inc.

Apprentice Hours Worked by Race

- African American: 38%
- Hispanic: 24%
- Asian: 12%
- Native American: 6%
- Caucasian: 1%
- Other: 1%

Figure 26: Data provided by Worksystems, Inc.

Journey Hours Worked by Race

- African American: 71%
- Hispanic: 16%
- Asian: 6%
- Native American: 6%
- Caucasian: 5%
- Other: 0%
Figure 27: Data provided by Worksystems, Inc.

Figure 28: Data provided by Worksystems, Inc.
ii. Employer diversity

Diversity also varied widely from employer to employer (see Figure 30 & 31). For example, females worked 80 percent of Castle Walls’ reported hours, but worked zero percent of the hours reported for Azuri Construction, Elder Demolition, and Town and Country Fence. African Americans also worked 100 percent of the hours for Carr Construction and TBH & Associates, but did not work any hours for Town & Country Fence, Elder Demolition, and Castle Walls.

Figure 29: Data provided by WorkSystems Inc.
Figure 30: Data provided by WorkSystems Inc.

B. Case study #5: Interstate Renovation Project

1. Background of the Project

The Portland Water Bureau’s Interstate Maintenance Facility, located near the Rose Quart on N. Interstate Avenue, is the base for maintenance of the city’s water system. The 11-acre facility “includes a water control center, water quality laboratory, material storage area, vehicle parking, and administrative offices. Construction and maintenance field personnel and associated heavy construction equipment are also supported and staged from this facility.” The facility’s oldest building is the Maintenance Building, which was built in 1925. In 2005, the building was assessed to determine how much it would cost to bring the building into compliance with ADA requirements, earthquake and
fire codes, and environmental regulations. The report determined that it would be more economical to replace the building than to rehabilitate it. The estimated cost for the project is approximately $35 million.68

Construction on the building began in 2012 with the start of a new 28,000-square-foot building that will provide office and public meeting space, craft workshops, warehouse storage space, and loading dock. In 2014, construction on phase 2 of the project began. The second phase of the project involves the construction of a 38,000-square-foot building to provide additional office space as well as conference and training facilities. Hoffman Construction Company is the prime contractor on the project.69

2. Equity Goals & Strategies for Increasing Minority Participation

The CBA agreement for the Interstate Maintenance Project was nearly identical to the Kelly Butte agreement. Once again, the CBA set a goal of 20 percent apprentice hours with 18 percent of those hours being worked by minority apprentices and 9 percent by female apprentices.70 The CBA set a goal of 18 percent minority journey workers and 9 percent female journey workers71 and established an oversight committee to ensure that these diversity goals were being met.

68 https://www.portlandoregon.gov/water/62791
69 https://www.portlandoregon.gov/water/62791
70 Interstate CBA, pg. 11, 12
71 Interstate CBA, pg. 13
3. Data Gaps and Accuracy Issues

Once again, the Interstate Maintenance Project CBA had the same reporting requirements as the Kelly Butte Project. Thus, in theory, there should be sufficiently disaggregated data available. However, the data received was once again not broken down in enough detail to provide a complete picture of how African Americans fared on this project. The hours reported for racial minority workers were grouped into one category and were not separated out by individual races. Thus, it is impossible to know what percentage of the minority hours were worked by African Americans or whether African Americans were being concentrated into certain trades. However, sufficient data was available to be able to assess the status of females on this project.

4. Key Findings

The data received for the Interstate Maintenance Project is current through October 2014. Like the Kelly Butte Project, the Interstate Maintenance Project also had some resounding successes in terms of minority and female involvement. Apprentices accounted for 23 percent of the total project hours with 32 percent of those hours being worked by female apprentices and 40.6 percent of those hours worked by minorities.

i. Key Findings for Minority Workers

Overall, minority workers were responsible for 24.5 percent of the total project hours. Minority apprentices worked 40.6 percent of the apprentice hours, and 19.7 percent of the journey level hours. Once again, however, minorities were more likely to work as either a carpenter or a laborer on the Interstate Maintenance Project than Caucasians (see Figure
32). Caucasians were also 11.9 times more likely to work as Construction Supervisors and 2.5 times as likely to work as electricians than minorities were (see Figure 32).

In terms of overall diversity of the trades, minority apprentices worked the majority of hours in six out of the 17 trades utilized by the project—bricklayers/stonemasons, drywall installers, glaziers, insulation workers, laborers, and the plumbers & pipefitters (see Figure 33). However, there were no minority apprentices in the electrician, painters/tapers, or plasterers trades (see Figure 33). Minority journey workers only worked the majority of the hours in one trade—the plasterers. However, all the trades utilized minority journey level workers (see Figure 33).
Figure 31: Data provided by Worksystems, Inc.
ii. Key Findings for Females

Overall, females worked 10 percent of the total project hours for the Interstate Maintenance Project. Female apprentices worked 32.1 percent of the apprentice hours, and journeywomen worked 3.1 percent of the total journey level hours.

Female apprentices made significant gains in terms of hours worked in some of the more skilled, higher paying trades. Females worked 78.2 percent of the electrician apprenticeship hours, 62.4 percent of the sheet metal apprentice hours, and 49.1 percent of the bricklayer / stonemason apprentice hours (see Figure 34). Unfortunately, there were zero hours reported for female construction supervisors on the project.
Despite female apprentices working the majority of the apprentice hours in some of the higher paying trades, overall, females were still more likely to work as either a carpenter or a laborer than males were (see Figure 35). 24.2 percent of all female hours were worked in the Carpentry trade, in contrast with only 13.4 percent of all male hours being working in the trade. 18.8 percent of female hours were worked in the laborer trade, as compared to 12.2 percent of all male hours being worked in that trade (see Figure 35). On a more positive note, though, females were also more likely to work as electricians than were males. 17.2 percent of female hours were reported for the electrician trade as compared to only 10.2 percent of all male hours.

Figure 33: Data provided by Worksystems, Inc.
iii. Key Findings Based on Skill Level

The Interstate Maintenance Project was quite successful at improving participation by minority and female workers, but once again was less successful at utilizing minority and female journey workers (see Figure 36 & 37). While female apprentices worked 23 percent of the total project hours, they were only responsible for 3 percent of the journey hours. This number falls well below the CBA’s goal of having 9 percent of the hours
worked by journey women (see Figure 36).\textsuperscript{72} Minority apprentices worked 40.6 percent of the hours, but only 19.7 percent of the journey level hours (see Figure 37).\textsuperscript{73}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure35}
\caption{Data provided by WorkSystems Inc.}
\end{figure}

\textsuperscript{72} cite Interstate Maintenance CBA

\textsuperscript{73} Data was not available to assess the percentage of hours worked by African American workers.
C. Conclusions

Community Benefit Agreements certainly seem like a promising option given the available data. Both CBA projects were extremely successful at increasing utilization of apprentices, minorities, and females.

1. **Community participation and community oversight can improve minority participation rates**

As the Kelly Butte and Interstate Maintenance projects demonstrate, involving community groups and putting in place an oversight committee to monitor compliance with equity goals can increase minority participation. Compliance committees, that consisted of representatives from community groups, subcontractors, signatory unions,
and the prime contractor, meet weekly to oversee both projects to ensure that the CBA equity standards were being met.\textsuperscript{74} The committee also provides support to contractors who are struggling to meet their equity goals and links them with organizations or community partners who can help them diversify their workforce.\textsuperscript{75}

As a result of support from community groups, female apprenticeship participation for these projects were the highest out of all of the projects studied. Female apprentices worked 30 percent and 32.1 percent of the apprentice hours for the Kelly Butte and Interstate Maintenance projects, respectively. In comparison, females only worked 18 percent of the apprenticeship hours on New Columbia’s 5.4 percent of the apprenticeship hours for Stephens Creek Crossing.\textsuperscript{76} African American apprentices also worked a significant amount of hours, accounting for 20.1 percent of the total apprenticeship hours on the Kelly Butte Reservoir Project.\textsuperscript{77}

\textbf{2. Data needs to be disseminated and disaggregated in order to ensure minorities are receiving equal opportunities}

Again, Kelly Butte and Interstate Maintenance projects underline the importance of setting strict reporting requirements with trade and demographic information disaggregated workforce data. It is difficult to track the efficacy of new programs when disaggregated data is unavailable.

\textsuperscript{74} Interview with John Gardner
\textsuperscript{75} Interview with John Gardner
\textsuperscript{76} Data for the percentage of hours worked by female apprentices was not available for the Edith Green project.
\textsuperscript{77} Data was not available for the Interstate Maintenance Project.
3. **Project-wide equity goals can result in minority hours being concentrated in lower paying trades.**

Once again, the Kelly Butte and Interstate Maintenance projects demonstrate how project-wide equity goals do not necessarily mean that jobs will be equitably apportioned. Often, racial minorities get steered into lower wage positions, and are underrepresented in the more high paying trades such as electricians and plumbers. Thus, equity goals may not translate into actual equality unless the distribution of hours is carefully monitored and efforts are taken to encourage and support racial minorities to enter into the higher paying trades.

**V. Conclusion**

**A. Summary of Equity Opportunities Provided by Each Project**

Overall, given the available data, the Interstate Maintenance Project ranks the highest in terms of utilization of apprentices (23 percent of total project hours were worked by apprentices) and the Kelly Butte Project comes in a close second (22 percent apprenticeship hours) (see Table 1 below). Kelly Butte was also the most successful project in terms of overall female involvement with females working 11.7 percent of the total project hours (as of December 31, 2014) (see Table 2). The Interstate Maintenance Project ties for second in terms of overall female involvement with 10 percent of the total project hours worked by females (see Table 2). Kelly Butte also came out on top for female apprentice involvement with 30 percent of the apprentice hours being worked by females (see Table 4).
New Columbia was the most successful in terms of African American involvement with 9.6 percent of the total project hours being worked by African Americans (see Table 2). African American apprentices were also responsible for 25 percent of the apprentice hours (see Table 3).

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<th>Journey Hours</th>
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Table 4: Female Apprentice and Journey Hours

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B. Recommendations

1. **Labor Agreements should set clear and enforceable equity goals**

   The first lesson that can be derived from these case studies is the importance of setting clear, enforceable equity goals for public works projects. The Edith Green Project Labor Agreement was the only agreement studied that did not have a clearly defined, enforceable goal. Instead, the agreement simply called for “active recruitment” of minorities. As a result of such vague language, African Americans were underutilized on the project and only represent 2 percent of the entire workforce. In contrast, both CBA projects had clearly defined goals for apprenticeship, female, and minority participation. The CBA also set up a community oversight committee to ensure that the CBA’s goals were being met. As a result, utilization of minority apprentices was significantly increased.

2. **Equity goals should be set by trade**

   The case studies discussed in this paper suggest that setting project-wide diversity goals on a construction project may not be the best way to ensure equal opportunities for
minority apprentices. The data shows that when diversity goals are project-wide, minority hours are frequently concentrated in the lower paying trades. Setting project-wide goals will hold individual trades individually accountable for a lack of diversity in their programs.

3. **Workforce utilization data needs to have clear reporting guidelines**

Another area for improvement is in the reporting of workforce utilization data. A significant problem for this research project was the lack of sufficiently disaggregated workforce data for each of the projects. The New Columbia and Stephens Creek Crossing Projects are excellent examples of appropriately disaggregated data. The data was broken down by the hours worked by individuals according to their race, level, gender, Section 3 status,78 bid number, and trade. In contrast, data from the other projects was not broken down to the same level of detail making it impossible on some of the projects to accurately track the hours worked by minority apprentices or to see whether minorities were being concentrated in just a small number of the trades. These data gaps suggest that labor agreements need to include detailed reporting requirements so that the status of minority workers can be fully assessed.

4. **Support services need to be developed to retain minority workers**

The data makes it clear that greater efforts are necessary to increase the number of female and minority journey workers. While all of the projects were fairly successful at

78 Section 3 residents are defined by HUD as “1) a public housing resident; or 2) a low- or very low-income person residing in the metropolitan area or Non-metropolitan County in which the Section 3 covered assistance is expended.” [http://www.hud.gov/offices/fheo/section3/FAQ08.pdf](http://www.hud.gov/offices/fheo/section3/FAQ08.pdf)
increasing minority apprenticeship participation, they were significantly less successful at involving minority journey workers. For example, on the New Columbia project, African American apprentices worked 25 percent of the apprentice hours, but African American journey workers only worked 6 percent of the total journey hours. Or, as another example, female apprentices worked 32.1 percent of the total apprenticeship hours for the Interstate Maintenance project, but only 3.1 percent of the journey level hours. This trend was observed in all of the case studies where sufficient data was available.

One likely explanation for this trend is that minority journey-level workers are simply harder to find because they slowly get pushed out of the trades due to the lack of available work, lack of mentorship, and the workplace hostility that has been documented by researchers like Arévalo-Meirer, Wilkinson, and Kelly. Thus, no matter how successful a large public works project may be at bringing in minority apprentices, unless there are supportive services to help retain these apprentices in the trades, it is likely that they will continue to drop out of their programs and seek other career opportunities. Supportive services might include informal mentorship programs for minority apprentices; placement assistance once an apprentice is out of work due to the completion of a job or mandatory anti-harassment trainings for all apprentices.

79 Cite to Arévalo-Meirer, Kelly, and Wilkinson research.
5. **Pre-apprenticeship programs should continue to be utilized to provide minorities with a pathway into the construction trades**

Pre-apprenticeship programs, such as the ETAP program utilized on the New Columbia project, are important tools for recruiting minorities to careers in the construction trades. These programs help pre-apprentices understand the construction culture and teach students important life skills such as time management, finances, work ethic, etc. Pre-apprentices also learn basic construction skills such as how to operate power tools and they gain some exposure to apprenticeship training centers and construction sites. Such programs also feed the pipeline for new female and minority apprentices, leading to successes such as the high proportion of women working on the CBA projects.

6. **Policy makers should continue to explore the use of incentives to increase diversity in the construction industry**

The New Columbia Project was the only project that offered incentives to subcontractors who committed to having minorities or females work at least 20 percent of their project hours. As a result of this program, African American participation was the highest out of all the projects studied with African Americans working 9.6 percent of the total project hours. Thus, the data suggests that incentives may actually be the best way to increase opportunities for African Americans.

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80 https://www.oxy.edu/sites/default/files/assets/UEP/Comps/2012/2013/Kowalczyk%20Senior%20Comprehensive%20Research%20Project%20FINAL.pdf

81 http://www.tradeswomen.net/pathways-to-success/
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