Oregon Department of Transportation

Report on the Use of Federal Funds to Increase Diversity and Prepare Those Entering the Highway Construction Workforce (ORS 184.866)

INTRODUCTION

Oregon law (ORS 184.866) requires the Oregon Department of Transportation (ODOT) to expend one-half of one percent, up to an amount of $2.1 million, of the federal funds received each biennium by ODOT pursuant to 23 U.S.C. 140(b), to increase diversity in the highway construction workforce and prepare those interested in entering the highway construction workforce.

ORS 184.866 requires the Department to submit a report to the Legislative Assembly by December 1 of each even-numbered year with an analysis of the results of the agency’s efforts; the amount available to the Department from federal funds for on-the-job training supportive services activities and the amount expended by the Department for those activities; and the performance outcomes achieved from each activity, including the numbers of persons receiving services, training, and employment.

BACKGROUND

ODOT’s Highway Construction Workforce Development Program (“Program”) helps build a diverse, skilled construction workforce that will meet the needs of Oregon’s heavy-highway construction industry now and in the future. The program provides support and services to individuals who are preparing to enter or have entered a trade associated with highway construction. ODOT partners with the Oregon Bureau of Labor & Industries to provide services to expand diversity in employment, increase apprenticeship participation, and increase training resources and opportunities for highway construction jobs throughout the State of Oregon.

Program services broadly cover outreach and recruitment, pre-apprenticeship classes, and case management for individuals preparing to enter a trade. The Program also provides transportation (fuel), some travel-related expenses (per diem when eligible), job readiness supplies, child care subsidies, and one-time hardship assistance for apprentices under certain circumstances.¹

¹ ORS 184.866 describes the type of services and focus areas in this program. It includes: pre-apprenticeship programs, pre-employment counseling, orientations on the highway construction industry, basic skills improvement classes, career counseling, remedial training, entry requirements for training programs, supportive services and assistance with transportation, child care and other special needs, and job site mentoring and retention services.
To implement the Program, the ten focus areas listed in statute are grouped into a range of service types that fall along a continuum based upon an individuals’ status as a member of the highway construction workforce. Roughly, the continuum begins when an individual first learns of an opportunity in the industry and concludes upon the individual becoming a journey worker in an associated trade. The Program provides varying levels and types of supports to individuals along that spectrum. The service types focus on providing:

(A) Career exploration (including career education with youth and reaching adults in career transitions);
(B) Preparation of apprenticeship seekers (including technical assistance to Local Joint Committees on selection procedures and technical assistance to contractors (training agents) to develop career ladders);
(C) Preparation of apprenticeship applicants and pre-apprentice graduates; and
(D) Support for and retention of registered apprentices.

PORTLAND STATE UNIVERSITY STUDY

Findings on Overall Program Efficacy

Portland State University recently evaluated the Program using BOLI-maintained apprentice data and data collected through a phone survey of apprentices. The research found that among 2005 to 2017 cohorts of apprentices in eligible trades who completed or terminated their apprenticeship by the end of 2017, those receiving ODOT-BOLI financial or non-financial support services were more likely than those not receiving these services to complete their apprenticeships (Figure 1). The effect of support services on completion was largest for women of color, with 58% of those receiving support services completing, compared to 26% of those without services completing.

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ODOT-BOLI supportive services also have an impact on continuation in the construction trades after apprenticeships are completed. Figure 2 shows the percentage of apprentices in eligible trades who are working as journey workers after apprenticeship. Those in eligible trades receiving ODOT-BOLI supportive services are more likely than those not receiving services to be working as a journey worker after their apprenticeships (57% vs. 31%).
Finally, researchers considered income and public assistance use before and after apprenticeship given the role that economic resources play in successful completion. Results from the 2018 survey indicate that service recipients report less individual and household income prior to apprenticeship than do those not receiving support services. Yet these differences in income are minimized after apprenticeships begin. While 39.6% of financial support recipients reported household income less than or equal to 100% of the federal poverty level prior to apprenticeship (compared to 19.3% of those not receiving services), only 9.4% of respondents receiving financial services reported this same income level during their apprenticeship (compared to 4.8% of those receiving no services), indicating an increase in household income.

The difference in income before and after apprenticeships is most dramatic among those receiving both financial and non-financial supports (compared to those receiving no services) and among those completing pre-apprenticeships (compared to those not completing pre-apprenticeships). Similar to the ways in which each financial support service interacts to impact apprentices’ overall financial lives, financial and non-financial supports are likely interrelated. For example, non-financial support services may help apprentices better manage their finances and may also provide access to additional services such as unemployment benefits or public assistance.

*Continued Concern about Harassment and Discrimination*

Researchers found that survey participants continued to report high rates of discrimination or harassment based on various identities, particularly gender and race/ethnicity. Reports of gender and racial discrimination were, however, slightly lower in their 2018 sample relative to the 2016 sample. Continued high rates of workplace discrimination in combination with high rates of *witnessing* discrimination demonstrate that construction sites commonly represent hostile work environments for some workers.

While women and racial/ethnic minority apprentices were most likely to report experiences of harassment, white men also reported feeling disrespected at work, even reporting gender and racial discrimination on the job. Such reports by white men raise questions about how discrimination/harassment on the worksite is defined and the potential for a white (male) backlash against attempts at reducing gender and race/ethnic discrimination on construction sites.

Importantly, additional analyses of 2018 survey data indicate a negative association between reports of discrimination and apprenticeship completion: among survey respondents leaving their apprenticeship, 60% reported experiencing some type of discrimination, compared to only 33% of apprentices who completed their apprenticeship. Similarly, while 45% of apprentices leaving their apprenticeship reported gender discrimination, only 15% of those completing reported gender discrimination.
The Program has responded to these ongoing concerns by partnering with Oregon Tradeswomen and Alteristic in sponsoring a pilot project focused on bystander intervention strategies. The Program has developed a curriculum for supervisors, and is delivering a train-the-trainer session to prepare both BOLI staff (in the Technical Assistance for Employers Unit) and community partners to deliver the classes in Oregon.

PROGRAM GOALS AND RESULTS

An analysis of the results of the department’s activities to increase diversity (measure results by comparing the rate of remaining active and completing training based on sex and race/ethnicity) in the highway construction workforce:

Analysis of Specific Services Provided by the Program to Increase Diversity and Improve Retention

Awareness and Access to the Program’s Supportive Services

Between 2014 and 2018, awareness and use of the Highway Construction Workforce Development Program continued to increase. In the 2014 survey, 33.6% of apprentices in eligible trades (or working on a highway/bridge project) not currently being served were aware of the program; in the 2016 survey, 46.4% of these apprentices were aware of the program; in 2018, this number had increased to 55.2 percent.

There has been a continued increase in the percentage of apprentices in eligible trades receiving financial support services. Among apprentices active in eligible trades in the earliest reporting period (2011-2014), 14.5% received ODOT-BOLI financial support services; among apprentices active in eligible trades in the most recent reporting period (2016-17), 24.6% received ODOT-BOLI financial support services (Table 1). This increase is evident across all gender and racial/ethnic groups, except white men. While women and people of color are not specifically targeted for financial support services, women, particularly women of color, are receiving financial support services at higher rates than white men. In 2016-17, 58% of eligible women of color received some type of financial supportive service, compared to 22% of eligible men. Since the last reporting period, the percentage of apprentices receiving financial support services increased at a greater rate among women, particularly among white women, than among men.


Table 1. Percentage of Eligible Apprentices Receiving BOLI-ODOT Financial Support Services

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<tr>
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<tr>
<td></td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>2011-2014 Reporting Period</td>
<td>14.5</td>
<td>13.3</td>
<td>24.5</td>
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<tr>
<td>2014-2015 Reporting Period</td>
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<tr>
<td>2016-2017 Reporting Period</td>
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Source: Authors’ analysis of Oregon Apprenticeship System (OAS) data; Burd-Sharps, Lewis, & Kelly. 2014

Most Common Financial Supportive Services Provided by the Program

Similar to the previous reporting periods, in the 2016-17 reporting period there was variation in the type of financial support received. Among apprentices active in 2016-17 who received financial support, 90.2% received support to purchase tools and protective equipment, 26.6% received fuel assistance, 15.7% received lodging/per diem assistance, and 9.5% received child care support (Table 2). Financial assistance to pay for required tools and equipment continues to be the most common financial support provided to eligible apprentices.

Table 2. Percentage of Eligible Apprentices Receiving BOLI-ODOT Financial Support Services by Type of Service

<table>
<thead>
<tr>
<th>% Receiving Each Type of Financial Support Service (among apprentices receiving any financial supports)</th>
<th>2011-2014 Reporting Period</th>
<th>2014-2015 Reporting Period</th>
<th>2016-2017 Reporting Period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Childcare</td>
<td>Lodging/Per Diem</td>
<td>Fuel</td>
</tr>
<tr>
<td>2011-2014 Reporting Period</td>
<td>11.8</td>
<td>37.3</td>
<td>52.7</td>
</tr>
<tr>
<td>2014-2015 Reporting Period</td>
<td>11.6</td>
<td>29.9</td>
<td>42.2</td>
</tr>
<tr>
<td>2016-2017 Reporting Period</td>
<td>9.5</td>
<td>15.7</td>
<td>26.6</td>
</tr>
</tbody>
</table>

Source: Authors’ analysis of OAS data; Burd-Sharps, Lewis, & Kelly. 2014
There continues to be variation in type of financial support service received by race-gender groups. A greater percentage of women (10.4%) than men (9.3%) receiving financial support services received support for childcare, yet this gender difference is smaller than was reported in the previous reporting period. Women of color receiving financial services are the most likely of all race-ethnic groups to utilize the child care support service. The overall percentage of financial support recipients receiving child care support has declined from 11.8% in 2011-2014 and 11.6% in 2014-2015, with only 9.5% of apprentices receiving financial support services receiving child care support. Because Oregon Apprenticeship System (OAS) data does not include information on household composition, we are unable to determine the percentage of all eligible parents who are utilizing child care support services.

Among 2018 survey respondents, 4.8% of parents received child care support services, with 8% of white fathers, 7% of minority fathers, 1.5% of white mothers, and 0% of minority mothers surveyed receiving child care support (race-gender differences not reported in App J in the Wilkinson and Kelly 2018 report). Parents surveyed with children five or younger were not more likely to report receiving child care support than those with children older than five, yet parents surveyed living with a partner/spouse were more likely to receive child care support: while 2.1% of single parents reported receiving child care support, 5.6% of partnered parents reported receiving child care support. Survey respondents receiving child care support used a variety of child care arrangements: 20% relied on a spouse/partner; 10% used an unpaid friend or family member; 60% used a paid child care provider, and 10% reported having children old enough to take care of themselves. These patterns, however, are likely shaped by the over-representation of male survey respondents receiving child care support.

Mothers, regardless of child care support status, were more likely than fathers to report being single (40% vs. 11%) and were more likely to report an individual income below 226% of the federal poverty level. Mothers also reported a greater number of months out of work during their apprenticeship (1.9) than fathers (1.2). Mothers were more likely than fathers to rely on a paid child care provider or to state children were old enough to take care of themselves. Forty-six percent of fathers reported relying on a spouse or partner for child care, compared to only 18% of mothers. Apprentices who are mothers appear to have fewer resources and face more child care challenges than those who are fathers: mothers were more likely than fathers to report problems paying for child care and finding consistent child care.

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In the 2016-17 reporting period, the majority (90%) of those receiving financial support services received support to pay for tools and other job readiness items. Women were slightly more likely than men to utilize this support. Also similar to previous reporting periods, a greater percentage of men (29%) than women (17%) receiving financial supportive services received fuel support, and a greater percentage of men (18%) compared to women (9%) received per diem support. The gender difference in fuel support and per diem receipt mirrors that found in the previous reporting period. It may be that male apprentices travel out of town more frequently for work than do female apprentices and may require more support for per diem and fuel. In the 2014 survey of apprentices, men were more likely than women to report traveling out of town for jobs (79% vs. 61%), and this gender difference was larger among apprentices of color (79% vs. 46%) than among white apprentices (79% vs. 66%).

Non-Financial Supportive Services provided by the Program

A smaller percentage of apprentices received non-financial supportive services. In the 2016-17 reporting period, only 1.4% of apprentices in eligible trades received non-financial support services (i.e., counseling, mentoring, social support), down from 2% in the 2014-15 reporting period. A much larger percentage of women (9%) than men (0.5%) received non-financial supportive services, a gender difference that has increased since the 2014-15 reporting period. While overall rates of receiving non-financial supportive services decreased since the 2014-15 reporting period, rates among women have increased.

a) **prepare individuals** (measure results by remaining active and completing an apprenticeship program) interested in entering the highway construction workforce by providing:
   1. Pre-apprenticeship programs; (preparation of apprenticeship seekers)
   2. Pre-employment counseling; (preparation of apprenticeship applicants and pre-apprentice graduates)
   3. Orientations on the highway construction industry; (career exploration)
   4. Basic skills improvement classes; (preparation of apprenticeship seekers)
   5. Career counseling; (preparation of apprenticeship seekers)
   6. Remedial training; (preparation of apprenticeship seekers)
   7. Entry requirements for training programs; (preparation of apprenticeship seekers)
   8. Supportive services and assistance with transportation; (support for registered apprentices)
   9. Child care and other special needs; (support for registered apprentices) and
   10. Job site mentoring and retention services; (support for registered apprentices).
Analysis of Program’s Specific Activities to Prepare Individuals

The Program seeks to build a more diverse pipeline of applicants for apprenticeships in the highway construction trades by supporting pre-apprenticeship programs. These programs are designed to help individuals develop qualifications and skills necessary to learn a trade, particularly through an apprenticeship program. Pre-apprenticeships can help to reach not only women and people of color, but also people without family or friends in the trades, a common conduit for employment in this sector. Pre-apprenticeship programs incorporate basic skills improvement classes (such as support to get valid driver’s licenses in some programs) as needed and assist all pre-apprentices with entry requirements for apprenticeship programs of interest to them. These programs are not reported separately from the pre-apprenticeship classes as they are integral to the pre-apprenticeship service. Pre-apprenticeship programs also offer case management, ongoing mentoring, social support, and events for their graduates, through apprenticeship and beyond.

In 2016 and 2017, 286 individuals completed a pre-apprenticeship through Oregon Tradeswomen, Inc. and Constructing Hope. This included 40 white men, 74 men of color, 122 white women, and 50 women of color.

For apprentices active in 2016-2017, 5% of those in eligible trades completed a pre-apprenticeship. Women and people of color are more likely to enter the trades via a pre-apprenticeship: 25% of white women, 24% of women of color, and 4.5% of men of color in eligible trades completed a pre-apprenticeship. This is a decline from the 2014-15 reporting period; for example, in the previous reporting period, 35% of women of color in eligible trades had completed a pre-apprenticeship. Pre-apprenticeship programs continue to increase the overall number of women (and, to a lesser degree, men of color) in heavy highway construction apprenticeships by recruiting more diverse workers into trade apprenticeships.

PROGRAM FUNDING AND EXPENDITURES

A description of the amount available to the department from federal funds for the activities and the amount expended by the department for those activities:

Program Funding

Oregon law requires ODOT to expend one-half of one percent up to $2.1 million of the federal funds ODOT receives under 23 U.S.C. 140(b) to increase diversity in the highway construction workforce and prepare individuals interested in entering the highway construction workforce.

2015-2017 Biennium:
Total Federal Funds Available for Activities: $2,100,000
Total Amount Expended (July 1, 2015 – June 30, 2017): $2,034,048.25
2017-2019 Biennium:
Total Federal Funds Available for Activities: $2,100,000
Total Amount Expended July 1, 2017 through September 30, 2018: $804,084.04

a) The performance outcomes achieved from each activity including the numbers of persons receiving services, training and employment.
   i) Pre-apprenticeship programs; (preparation of apprenticeship seekers)
      Persons Receiving Service
      October 1, 2016 – September 30, 2017: 188
      October 1, 2017 – September 30, 2018: 170

   ii) Pre-employment counseling; (preparation of apprenticeship applicants and pre-apprentice graduates)
      Persons Receiving Service
      October 1, 2016 – September 30, 2017: 188
      October 1, 2017 – September 30, 2018: 170

   iii) Orientations on the highway construction industry; (career exploration)
      Persons Receiving Service
      October 1, 2016 – September 30, 2017: 231
      October 1, 2017 – September 30, 2018: 191

   iv) Basic skills improvement classes; (preparation of apprenticeship seekers)
      Persons Receiving Service
      October 1, 2016 – September 30, 2017: 188
      October 1, 2017 – September 30, 2018: 170

   v) Career counseling; (preparation of apprenticeship seekers)
      Persons Receiving Service
      October 1, 2016 – September 30, 2017: 188
      October 1, 2017 – September 30, 2018: 170

   vi) Remedial training; (preparation of apprenticeship seekers)
      Persons Receiving Service
      October 1, 2016 – September 30, 2017: 31
      October 1, 2017 – September 30, 2018: 37

   vii) Entry requirements for training programs; (preparation of apprenticeship seekers)
      Persons Receiving Service
      October 1, 2016 – September 30, 2017: 188
      October 1, 2017 – September 30, 2018: 170
viii) Supportive services and assistance with transportation; (support for registered apprentices)

Persons Receiving Service
October 1, 2016 – September 30, 2017: 72
October 1, 2017 – September 30, 2018: 40

ix) Child care and other special needs; (support for registered apprentices) and

Persons Receiving Service
October 1, 2016 – September 30, 2017: 39
October 1, 2017 – September 30, 2018: 33

x) Job site mentoring and retention services; (support for registered apprentices)

Persons Receiving Service
October 1, 2016 – September 30, 2017: 288
October 1, 2017 – September 30, 2018: 282

The “activities” are arranged into a range of service types that fall along a continuum based on where individuals are in the process of being prepared to enter the highway construction workforce as journey workers. The service types are directed toward providing (A) outreach, recruitment, and pre-apprenticeship training; and (B) apprentice retention.

SUMMARY

The Program continues to show progress in recruiting, training, and retaining diverse workers in highway construction trades as measured by the third party evaluation of researchers at Portland State University. Areas of concern include the ability of the Program to continue meeting the need for assistance when demand for diverse workers is increasing and the number of active apprentices is reaching new records; and the continued reports of harassment and discrimination on the job that disproportionately impacts women and people of color in the trades. While we have implemented pilot programs to address the latter, we are not yet able to reach large numbers of workers with these initiatives.