Worker Profile
IN CITY OF SEATTLE CONSTRUCTION PROJECTS

An assessment of worker demographics on Public Works projects funded by the City of Seattle.

A Report by the UCLA Labor Center
February 2014

Worker Profile

IN CITY OF SEATTLE CONSTRUCTION PROJECTS

An assessment of worker demographics on Public Works projects funded by the City of Seattle.

Table of Contents

Acknowledgements

Thank you to the contractors that provided the data for the report. Special thanks to the City of Seattle Finance and Administrative Services Purchasing and Contracting Services Division, Daniel Villao, Anna Pavlik and Jeanne Fulcher for their guidance on the project and support in coordinating with contractors to attain the data. The report was compiled by Clarine Ovando-Lacroux, Saba Waheed and Lucero Herrera.

FOR MORE INFORMATION:
UCLA Labor Center
675 S Park View St Los Angeles
(213) 480-4155

Worker Profile
in City of Seattle Construction Projects

EXECUTIVE SUMMARY

The City of Seattle contracted the UCLA Labor Center to conduct an assessment of worker demographics in construction projects funded by the City to construct, repair and maintain municipal facilities and infrastructure. This assessment is intended to inform the City's efforts to develop economic opportunities and employment strategies, particularly for disadvantaged individuals.

For this purpose, 24 prime contractors provided researchers with payroll records of covered contracts in 33 public works projects for the period of 2009-2013. The data included employee information from project subcontractors. Data consisted of the number of hours per worker in each project, as well as demographic variables such as birth date, race, gender, work class, and resident zip code.[1] We received data on 2,780 employees working in the following key Public Works area:

- **9 Roadway projects** with 903 workers (48% of total expenditure)
- **5 Electrical Utility projects** with 458 workers (13% of total expenditure)
- **9 Facility projects** with 229 workers (6% of total expenditure)
- **6 Utility projects** with 1070 workers (29% of total expenditure)
- **4 Parks and Recreation projects** with 120 workers (4% of total expenditure)

In our analysis, we looked at demographics of workers including race/ethnicity, gender, age and job type. In addition, we also analyzed worker residency information to identify workers that come from economically distressed areas, defined as zip codes with a high density of residents: 1) living at 200% of the Federal Poverty Level or below, 2) unemployed and/or 3) without a college degree.

1. Though the data provides a robust sample, one major limitation of our data is that some of the contractor data included some but not all the requested demographic variables. For the main variables, we received data on gender (2,723), race/ethnicity (2,045), age (1,171), zip codes (2,255) and skills level (2,184).

Worker Residency

Seattle residents comprise 6% of the workers in the sample. Outside of Seattle, residents of King County comprise 25% of the workforce. Over half (53%) of the workers come from Pierce and Snohomish counties and 16% live outside of the tri-county area.

In regards to economically distressed areas, most of the workers in Seattle (77%) live in disadvantaged areas. Seventy-seven percent of all female workers living in the City of Seattle come from disadvantaged zip codes, and 90% People of Color and 83% apprentices come from disadvantaged zip codes. Thirty-five percent of King county[2] workers come from disadvantaged neighborhoods. In King County, 24% of all female workers and 55% of all workers of color live in disadvantaged neighborhoods.

TABLE 1: WORKERS BY GEOGRAPHIC AREA

Geographic Area	Total Workers (%) (n=2255)	Women (%) (n=105)	People of Color (%) (n=464)	Apprentices (%) (n=180)
Seattle	6%	13%	10%	13%
King County[3]	25%	39%	33%	31%
Pierce/Snohomish Counties	53%	37%	45%	42%
Outside Tri-County	16%	11%	12%	14%
Total	100%	100%	100%	100%

TABLE 2: WORKERS IN ECONOMICALLY DISADVANTAGED AREAS

Geographic Area	Total Workers (%)	Women (%)	People of Color (%)	Apprentices (%)
Seattle Disadvantaged	77%	77%	90%	83%
King County Disadvantaged*	35%	24%	55%	42%
Combined Disadvantaged	43%	36%	63%	54%

* Not including the City of Seattle.
Source: UCLA Labor Center, analysis of employee data, 2013

2. Not including Seattle residents
3. Not including the City of Seattle

People of Color

People of color comprise 27% of the workforce and performed 25% of all the hours worked.[4] Although not pictured here, of the POC workforce, 56% are Latino. Other ethnicities include African-American (18%), Native American (14%), Asian (9%) and Pacific Islander (3%).

FIGURE 1: RACE/ETHNICITY OF WORKERS

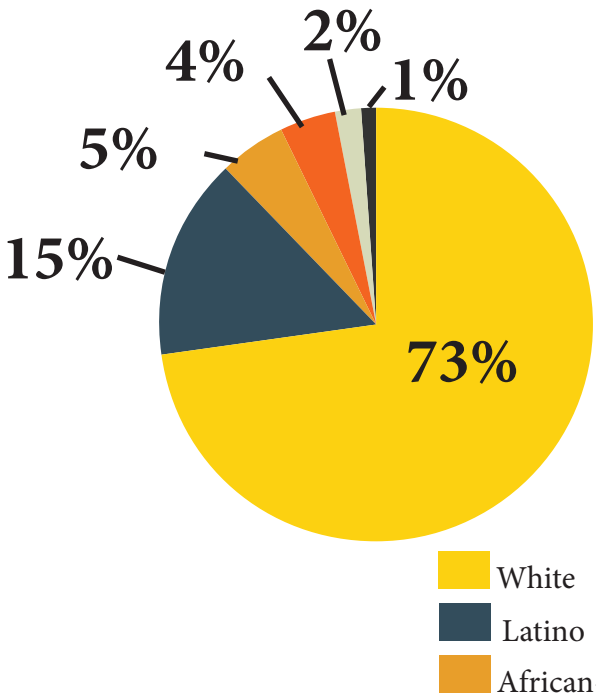
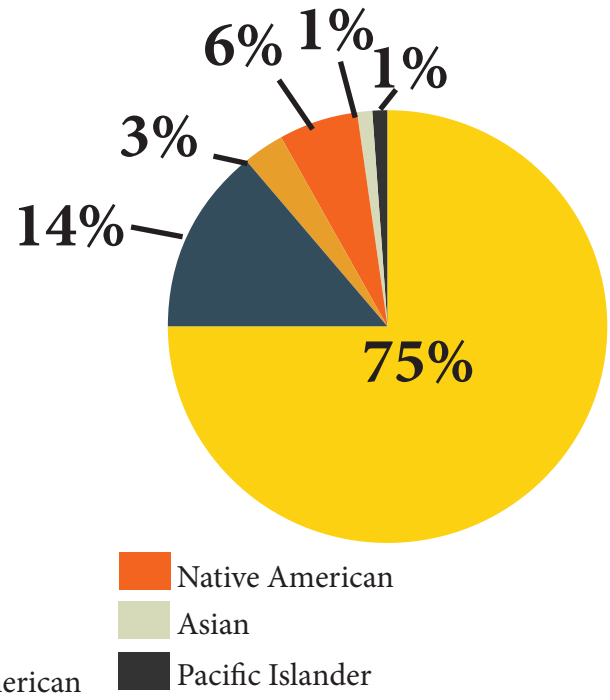


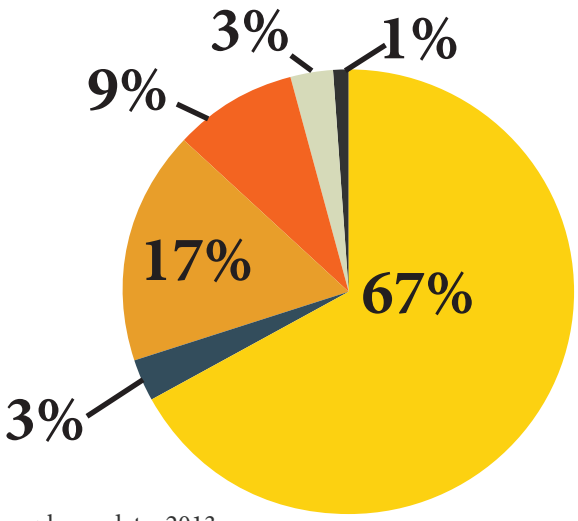
FIGURE 2: HOURS WORKED BY RACE/ETHNICITY



Women in Construction

Women comprise 5% of the workforce and performed 7% of hours worked.[5]

FIGURE 3: FEMALE WORKERS



Source: UCLA Labor Center, analysis of employee data, 2013

4. In comparison, people of color worked 29.87 percent of the labor hours on the majority of City funded construction projects in 2013 (source: City of Seattle EEO/ Apprentice Utilization Report Summary for All Projects).
5. In comparison, women worked 5.05 percent of the labor hours on the majority of City funded construction projects in June 2013 (source: City of Seattle EEO/ Apprentice Utilization Report Summary for All Projects).

Skill

Of the total journey-level hours worked in the sample, 95% were performed by men, and 5% by women. People of color performed 27% of all the journey-level hours in the sample.

Apprentices represent 10% of the workforce, and performed 12% of the hours worked. Women and people of color had greater participation as apprentices. Of the total hours performed by apprentices, women performed 24% of the hours. People of color performed 32% of all hours worked by apprentices. On average, apprentices are much younger than journey-level workers, and are more diverse in terms of gender and ethnicity, as shown in **Table 3** below.

TABLE 3: PROFILE OF APPRENTICES AND JOURNEYMEN

Age	Apprentices Workers	Apprentices Hours	Journeymen Workers	Journeymen Hours
Percent of Total	10%	12%	90%	88%
Male	86%	76%	95%	94%
Female	14%	24%	5%	6%
White	65%	68%	73%	76%
People of Color	35%	32%	27%	24%

Source: UCLA Labor Center, analysis of employee data, 2013

Age

Data shows that the average age for all respondents is 41. Workers' ages range from 18 to 77 years, though most workers fall between the ages of 25 and 54. The average age for women is slightly higher than that of their male counterparts, at 46 and 41 years respectively.

TABLE 4: AGE CATEGORY BY SKILL

Age	Journeymen (N=825)	Apprentice (N=98)	All Skill Levels (N=1171)
18-24	5%	5%	5%
25-34	28%	35%	28%
35-44	26%	29%	27%
45-54	27%	21%	26%
55-64	13%	10%	13%
>65	1%	0%	1%
Total	**100%**	**100%**	**100%**

1.Introduction

About this project

The UCLA Labor Center was contracted by the City of Seattle to conduct an assessment of worker demographics on projects funded by the City. The project uses contractor employee data to gain an understanding of the reach of public funds in providing jobs to a diverse range of workers including women, people of color (POC) and local residents.

Methodology

Over the past several months, the City of Seattle collected and compiled employee data from contractors who worked on City-funded construction projects between 2009 and 2013. The UCLA Labor Center analyzed worker data provided by 24 contractors of workers employed in 33 different public works projects. The data, obtained from each company's payroll database, included the number of hours per worker in each project, as well as demographic variables such as birth date, race, gender, work class, and resident zip code. We received data on 2,780 job placements and based on the demographics, identified 145 repeats in which an employee worked on more than one city project. Demographic variables were analyzed to better understand the composition of the workforce on City-funded projects.

In addition, we analyzed worker residency information to identify workers that come from economically distressed areas. As required by the Alaskan Way Seawall Replacement Project Community Workforce Agreement, the City of Seattle Purchasing and Contracting Services Division identified economically distressed zip codes and defined them based on the following indicators:

(1) People living under 200% of Federal Poverty; and/or
(2) Unemployment; and/or
(3) Those without a college degree.

Though the data provides a robust sample, one major limitation of our data is that some of the contractor data included some but not all the requested demographic variables. For the main variables, we received data on gender (2,723), race/ethnicity (2,045), age (1,171), zip codes (2,255) and skills level (2,184).[6]

6. The sample size may vary when cross tabulations are calculated of variables with differing sample sizes. In such cases, the sample size is indicated under the variable name (n=)

Public Works Projects

This analysis included a total of 33 public works projects between 2009-2013, divided among the following 5 public works categories:

- 9 Roadway projects with 903 workers (48% of total expenditure)
- 5 Electrical Utility projects with 458 workers (13% of total expenditure)
- 9 Facility projects with 229 workers (6% of total expenditure)
- 6 Utility projects with 1070 workers (29% of total expenditure)
- 4 Parks and Recreation projects with 120 workers (4% of total expenditure)

Table 5 provides additional information about the project areas.

TABLE 5: SUMMARY OF PUBLIC WORKS PROJECTS

Type of Work	Number of Projects	Average Budget	Number of Workers	Total Budget	Percent by Expenditure
Roadway	9	$9,231,646	903	$83,084,810	48%
Utility (electrical)	5	$4,593,748	458	$22,968,742	13%
Facilities[7]	9	$1,206,290	229	$10,856,609	6%
Utility	6	$8,453,442	1070	$50,720,650	29%
Parks and Development	4	$1,784,036	120	$7,136,143	4%
Total	33		2780	$174,766,954	100%

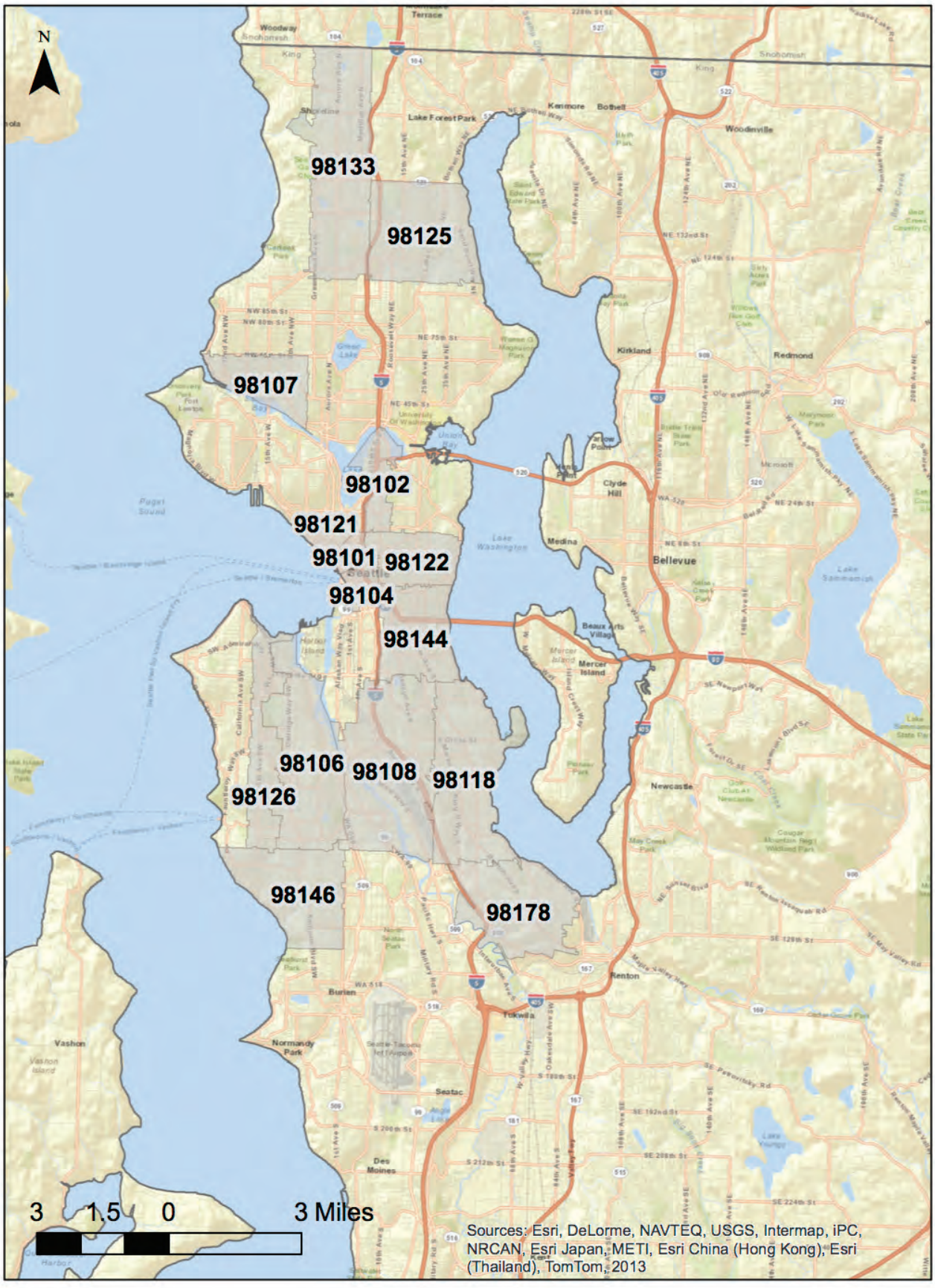
Source: UCLA Labor Center, analysis of employee data, 2013

7. Two projects undertaken by Seattle Parks and Recreation are classified under the "facilities" category (PW#2011-015r and PW# 2010-077)

MAP 1: GEOGRAPHIC FOCUS OF RESEARCH

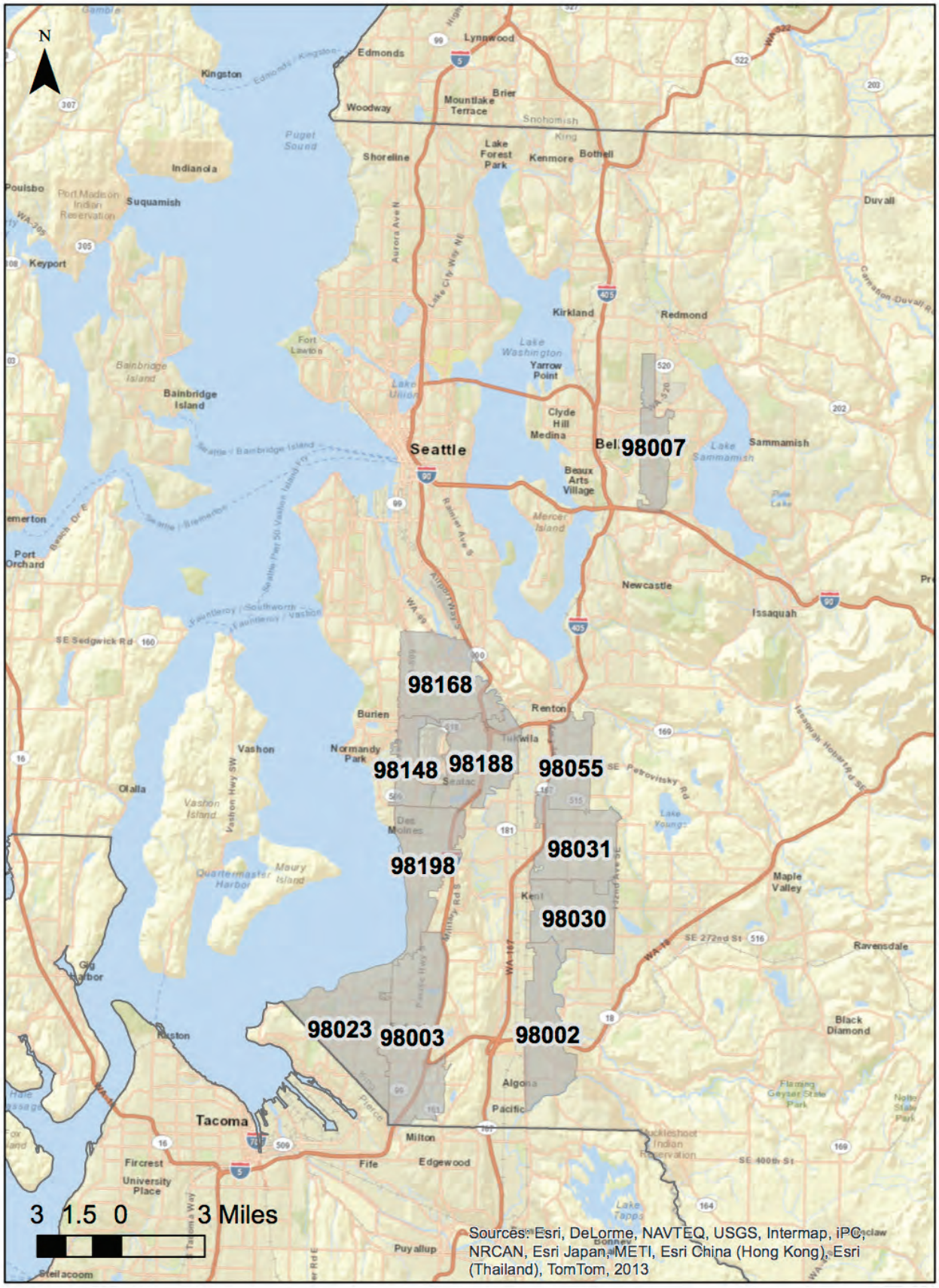
Source: UCLA Labor Center, analysis of employee data, 2013

MAP 2: ECONOMICALLY DISADVANTAGED ZIP CODES - SEATTLE



Source: UCLA Labor Center, analysis of employee data, 2013
Note: Several of the zip codes cross city boundaries (98146, 98108 and 98178) and were included in the City of Seattle list of zip codes

MAP 3: ECONOMICALLY DISADVANTAGED ZIP CODES - KING COUNTY



2.Location of Workers

Seattle residents comprise 6% of the workers in the sample. Outside of Seattle, residents of King County comprise 25% of the workforce. Over half (53%) of the workers come from Pierce and Snohomish counties and 16% live outside of the tri-county area.

TABLE 6: WORKERS BY GEOGRAPHIC AREA

Geographic Area	Total Workers (%) (n=2255)	Women (%) (n=105)	People of Color (%) (n=464)	Apprentices (%) (n=180)
Seattle	6%	13%	10%	13%
Seattle Disadvantaged	5%	10%	9%	11%
Rest of Seattle	1%	3%	1%	2%
King County[8]	25%	39%	33%	31%
King County Disadvantaged	9%	9%	18%	13%
Rest of King County	16%	30%	15%	18%
Pierce/Snohomish Counties	53%	37%	45%	42%
Outside Tri-County	16%	11%	12%	14%
Total	100%	100%	100%	100%

Out of all Seattle residents (6% of the total sample), most of the workers (77%) live in economically disadvantaged areas. Out of the King county residents living outside of Seattle (25% of the total sample), 35% live in economically disadvantaged areas.[9] In both the City of Seattle and King County,[10] a significant percentage of women, POC and apprentices come from economically disadvantaged areas. When looking at King County residents as a whole, including the City of Seattle, 43% live in economically disadvantaged areas.

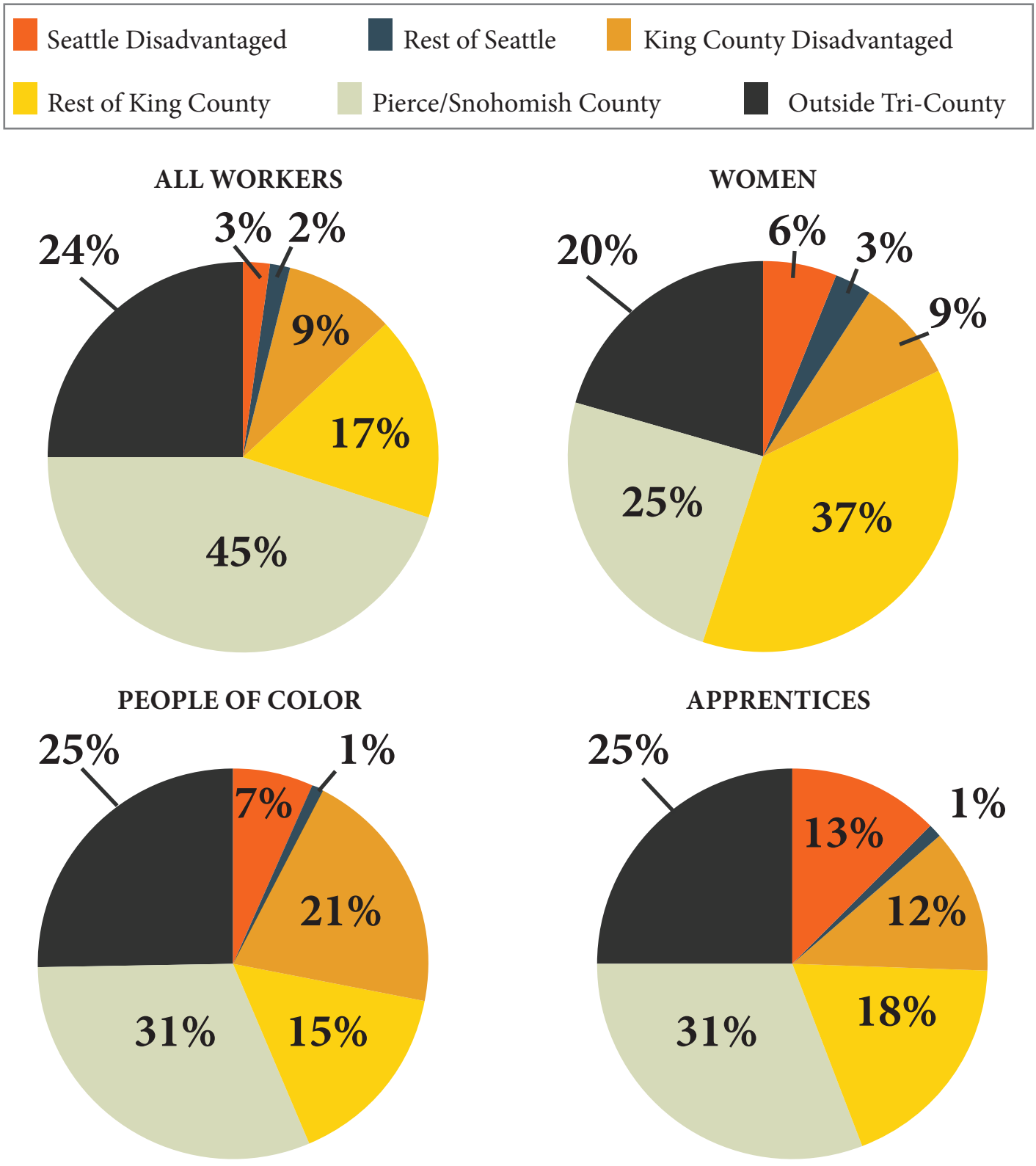
TABLE 7: WORKERS IN ECONOMICALLY DISADVANTAGED AREAS[11]

Geographic Area	Total Workers (%)	Women (%)	People of Color (%)	Apprentices (%)
Seattle Disadvantaged	77%	77%	90%	83%
King County Disadvantaged	35%	24%	55%	42%
Combined Disadvantaged	43%	36%	63%	54%

8. Not including the city of Seattle
9. Not including the city of Seattle
10. Not including the city of Seattle
11. Disadvantaged refers to economically distressed areas, defined as zip codes with a high density of residents living at 200% of the Federal Poverty Level or below, are unemployed and/or do not have a college degree. See table 10 for list of Seattle Disadvantaged zip codes.

The geographic distribution of hours worked by all workers, women, people of color, and apprentices can also be seen in **Figure 4** and **Table 8**.

FIGURE 4: HOURS WORKED GEOGRAPHIC PROFILE*



*Based on total hours worked in all 33 construction projects.
Source: UCLA Labor Center, analysis of employee data, 2013

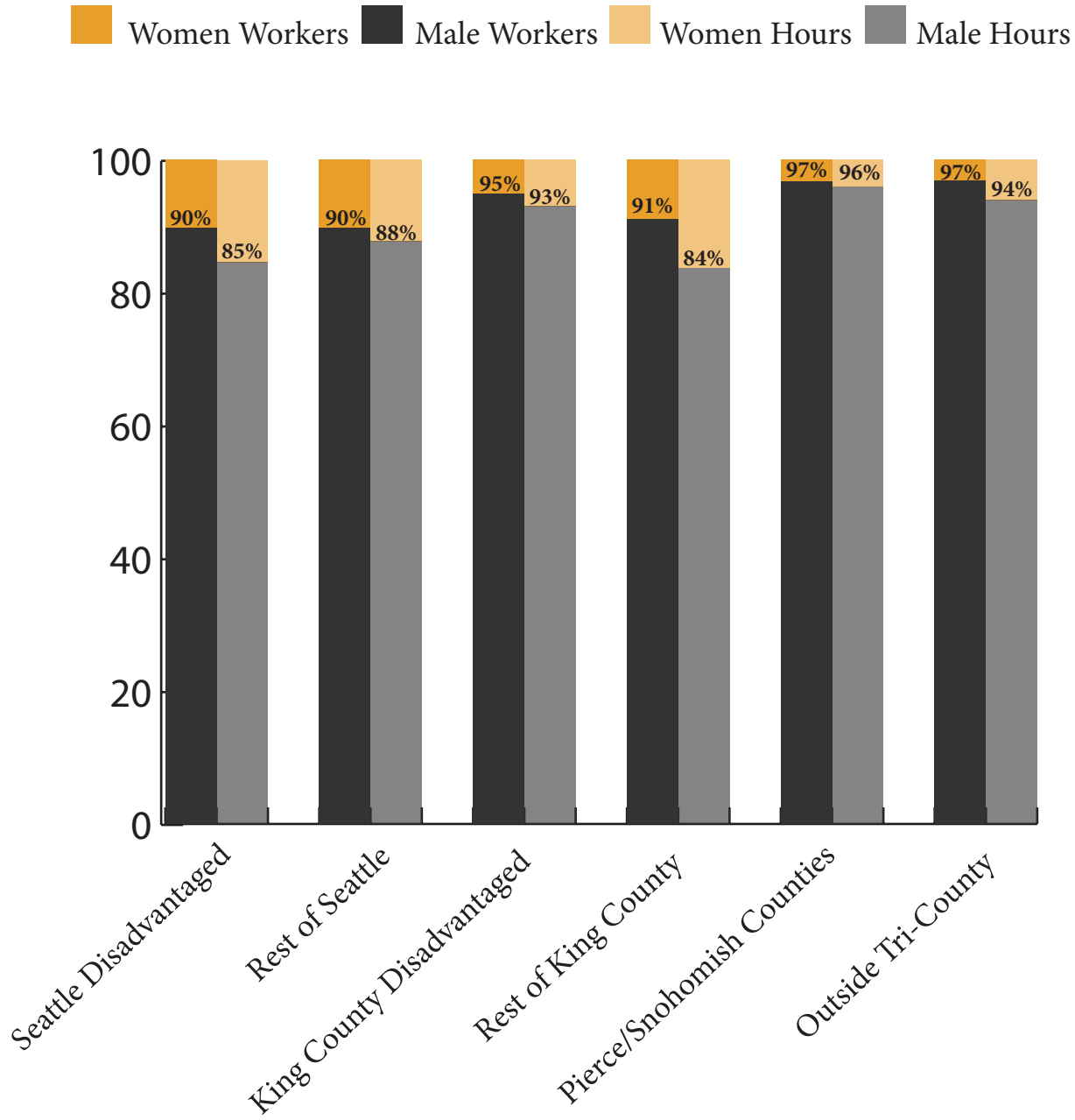
TABLE 8: WORKERS AND HOURS BY GEOGRAPHIC AREA

Geographic Area	Total Workers (%) (n=2255)	Hours Worked (%) (n=2255)	Women Workers (%) (n= 105)	Hours Worked (%) (n= 105)	POC Workers (%) (n=464)	Hours Worked (%) (n=464)	Apprentice Workers (%) (n=180)	Hours Worked (%) (n=180)
Seattle	6%	5%	13%	9%	10%	8%	13%	14%
Seattle Disadvantaged	5%	3%	10%	6%	9%	7%	11%	13%
Rest of Seattle	1%	2%	3%	3%	1%	1%	2%	1%
King County	25%	26%	39%	46%	33%	36%	31%	30%
King County Disadvantaged	9%	9%	9%	9%	18%	21%	13%	12%
Rest of King County	16%	17%	30%	37%	15%	15%	18%	18%
Pierce/Snohomish Counties	53%	45%	37%	25%	45%	31%	42%	31%
Outside Tri-County	16%	24%	11%	20%	12%	25%	14%	25%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: UCLA Labor Center, analysis of employee data, 2013

Just over half of the total number of workers (53%) reside in Pierce and Snohomish counties. While they represent the majority in terms of numbers, Pierce and Snohomish workers only account for 45% of all hours worked. The pattern of higher percentages of workers than hours worked is also visible when looking at the number of women, POC and apprentice workers in Pierce and Snohomish counties and comparing those numbers to their corresponding hours. In contrast, 16% of our sample resides outside the tri-county area but accounts for 24% of all hours worked.

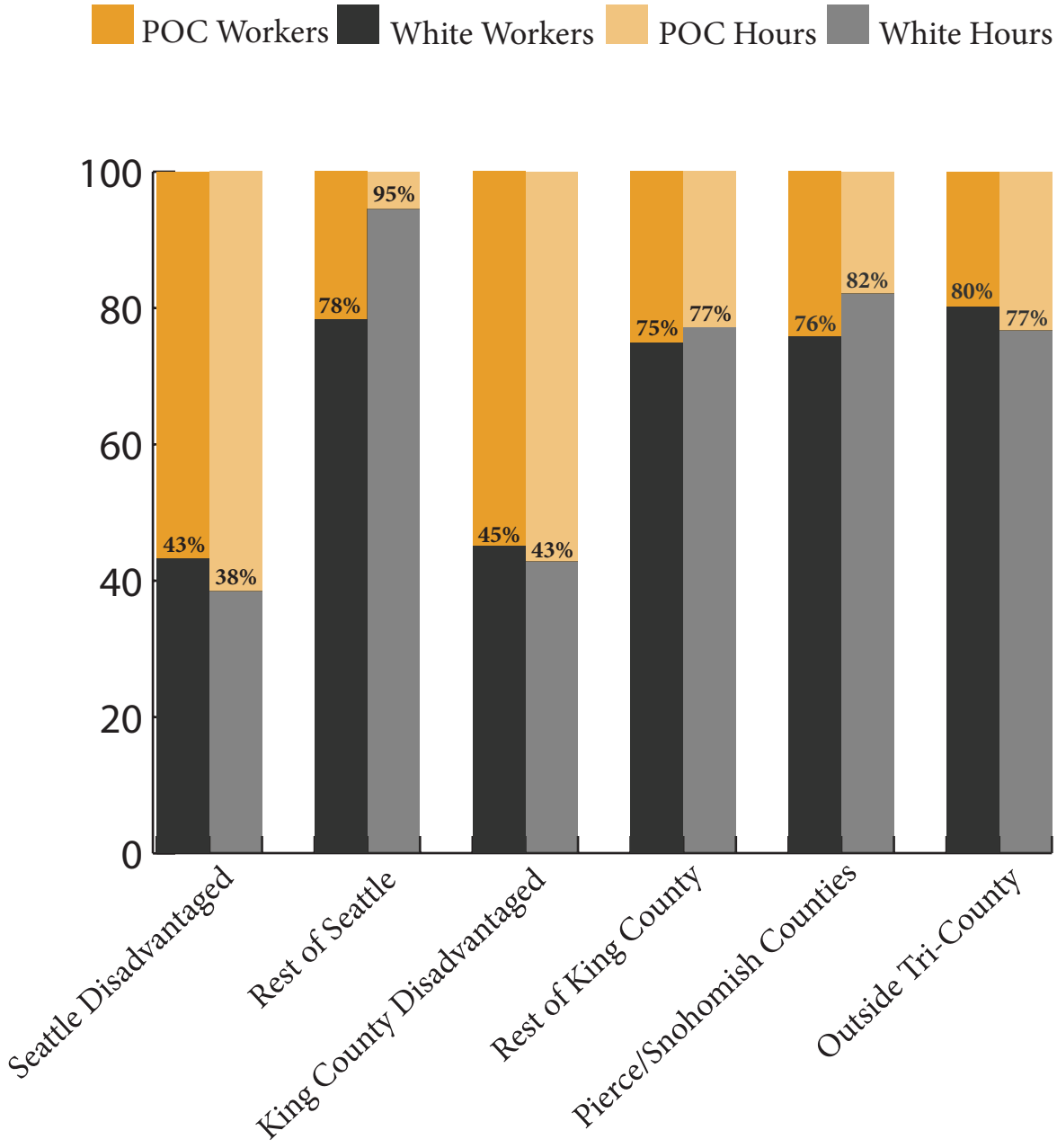
FIGURE 5: GENDER ACROSS ALL GEOGRAPHIC AREAS



Source: UCLA Labor Center, analysis of employee data, 2013

Women represent 10% of the workforce in Seattle disadvantaged zip codes and account for 15% of the total number of hours worked for that area. Similarly, women in King County (not including disadvantaged zip codes or Seattle residents) account for 9% of the workforce and work 16% of the total hours for the county. Data shows that with the exception of Seattle disadvantaged and the rest of King County, the number of workers is fairly consistent with the number of hours worked.

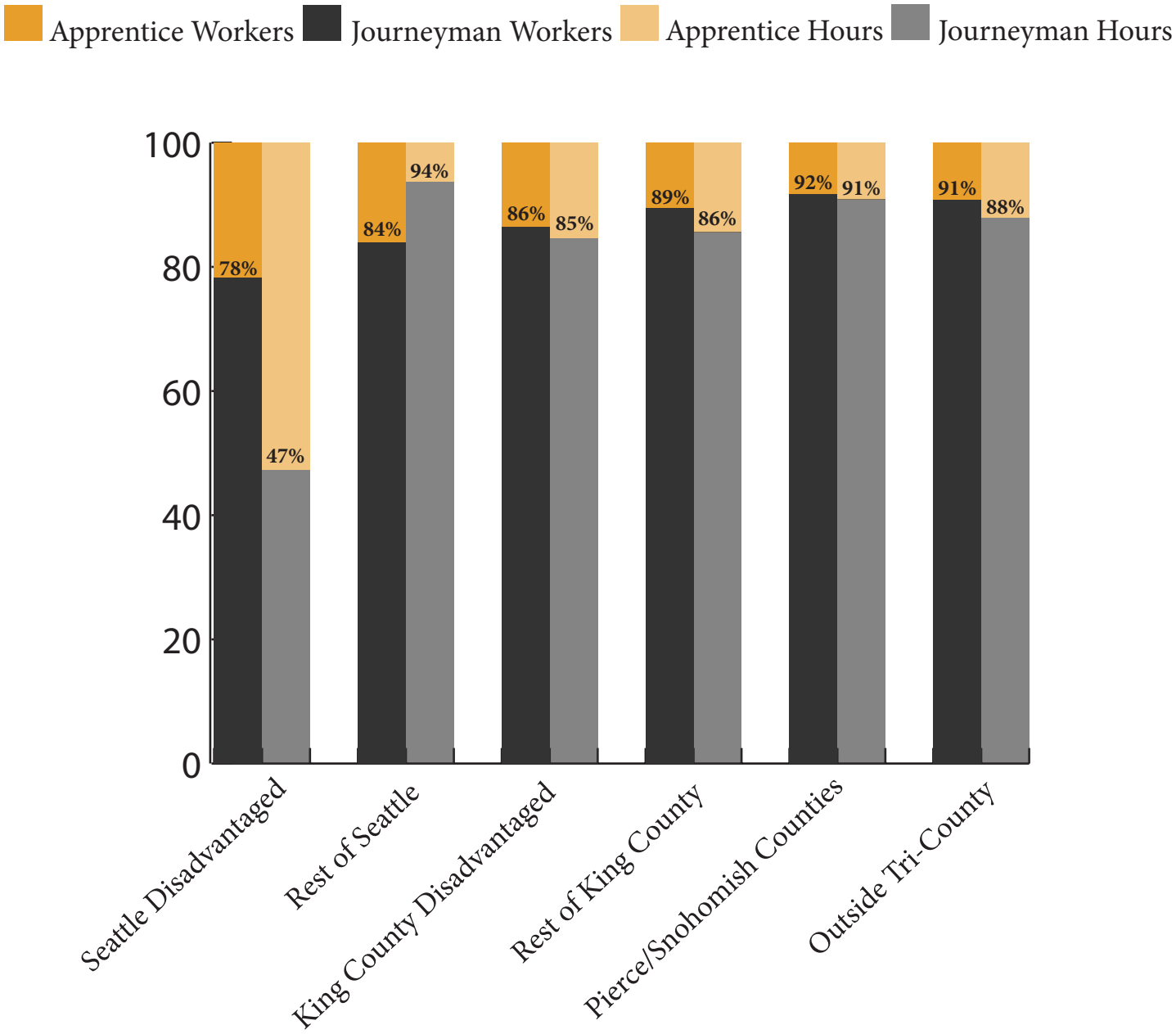
FIGURE 6: ETHNICITY BY GEOGRAPHIC AREA



Source: UCLA Labor Center, analysis of employee data, 2013

Both Seattle and King County disadvantaged areas have a greater concentration of POC workers than white workers. Fifty-seven percent of workers sampled that live in Seattle disadvantaged areas are POC who work 62% of the total hours for that area. In contrast, the rest of Seattle and Pierce and Snohomish counties, have 22% and 24% POC workers respectively who work 5% and 18% of the total hours for their respective areas.

FIGURE 7: SKILL BY GEOGRAPHIC AREA



Source: UCLA Labor Center, analysis of employee data, 2013

In Seattle's disadvantaged zip codes, the number of hours performed by apprentices is greater than that performed by journeymen, despite there being more journeymen than apprentice workers. On the other hand, while apprentices account for 16% of the rest of Seattle workers, they represent only 6% of the total hours worked. For all other areas, the data shows that the number of workers is fairly consistent with the number of hours worked.

Zip Code Analysis

Table 9 provides the distribution of workers among the top 20 residential zip codes in the sample. The workers living in the top twenty residential zip codes make up almost one third of all workers in our sample. Twenty-seven percent of all women workers in the sample live in these zip codes and 31% of all POC. None of the top 20 zip codes are in Seattle city limits.

TABLE 9: TOP 20 RESIDENTIAL ZIP CODES

Zip Code	County	Total Workers (N=2255)	Total (%)	Women (N=105)	Women (%)	People of Color (N=464)	People of Color (%)	City
98391	Pierce	62	2.7%	3	2.9%	3	0.6%	Bonney Lake
98272	Snohomish	57	2.5%	1	1.0%	9	1.9%	Monroe
98290	Snohomish	51	2.3%	2	1.9%	5	1.1%	Snohomish
98223	Snohomish	40	1.8%	0	0.0%	9	1.9%	Arlington
98270	Snohomish	40	1.8%	0	0.0%	8	1.7%	Marysville
98022	King	37	1.6%	3	2.9%	8	1.7%	Enumclaw
98258	Snohomish	37	1.6%	0	0.0%	7	1.5%	Lake Stevens
98168	King	34	1.5%	1	1.0%	16	3.4%	Boulevard Park/Tukwila
98374	Pierce	34	1.5%	1	1.0%	7	1.5%	Puyallup
98208	Snohomish	33	1.5%	2	1.9%	6	1.3%	Everett
98001	King	32	1.4%	6	5.7%	8	1.7%	Auburn
98271	Snohomish	30	1.3%	1	1.0%	6	1.3%	Marysville
98204	Snohomish	29	1.3%	0	0.0%	13	2.8%	Everett
98042	King	28	1.2%	1	1.0%	2	0.4%	Kent
98198	King Disadvantaged	28	1.2%	0	0.0%	12	2.6%	Des Moines
98003	King Disadvantaged	26	1.2%	2	1.9%	12	2.6%	Federal Way
98296	Snohomish	26	1.2%	1	1.0%	2	0.4%	Snohomish
98360	Pierce	26	1.2%	0	0.0%	1	0.2%	Orting
98032	King	25	1.1%	3	2.9%	11	2.4%	Kent
98292	Snohomish	25	1.1%	1	1.0%	0	0.0%	Stanwood
Total		700	31%	28	27%	145	31%	

Source: UCLA Labor Center, analysis of employee data, 2013

MAP 4: TOP 20 RESIDENTIAL ZIP CODES

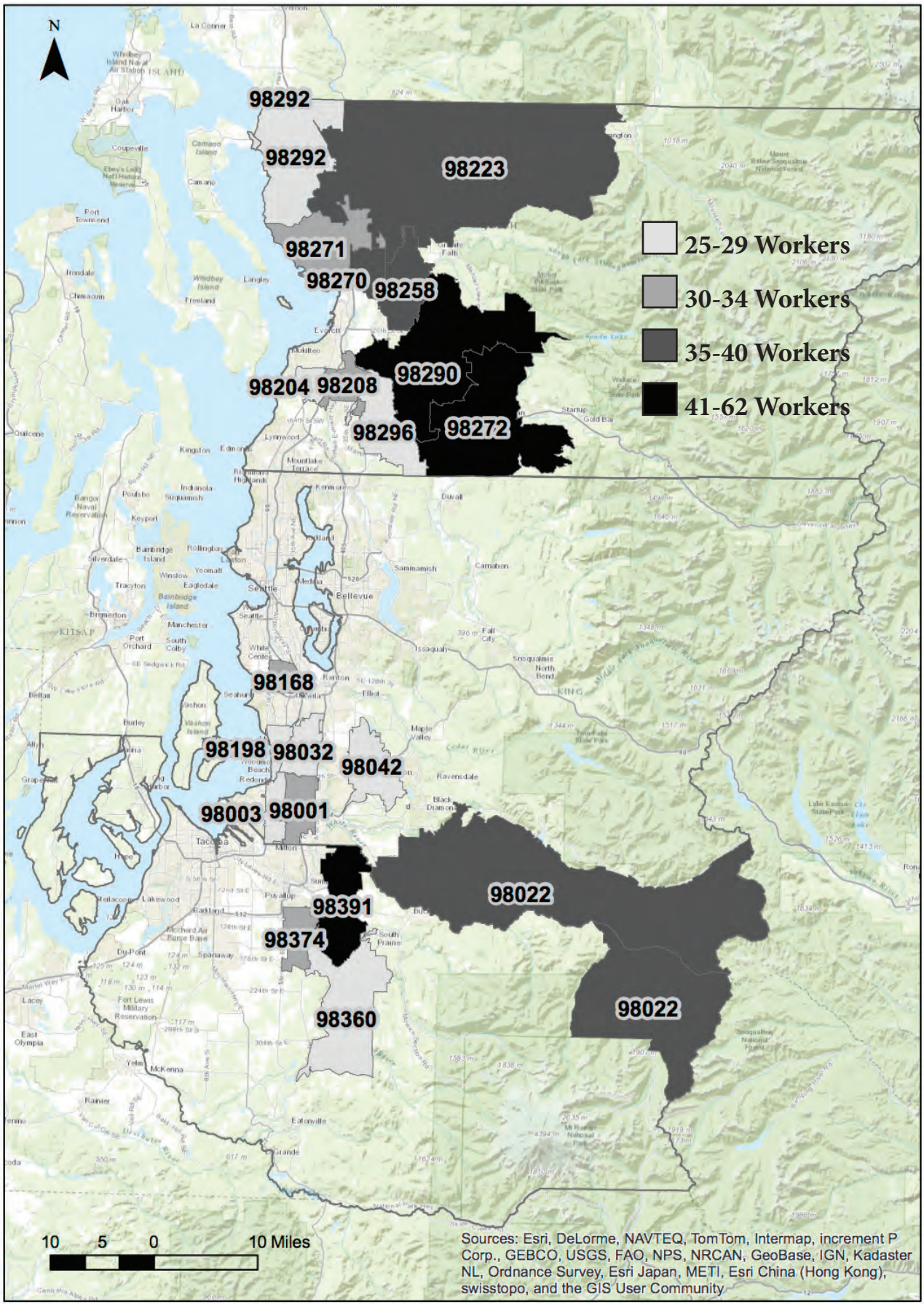


Table 10 compiles the distribution of workers among economically distressed City of Seattle zip codes. As mentioned on page 6, about 5% of all workers live in Seattle's economically distressed zip codes. Ten percent of all women sampled and 9% of all POC sampled also live in those zip codes.

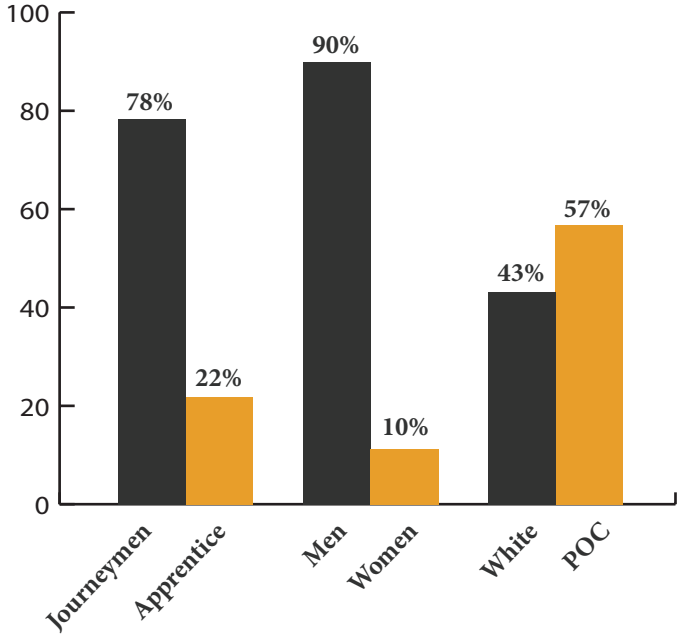
TABLE 10: ECONOMICALLY DISADVANTAGED ZIP CODES - SEATTLE

Zip Code	Total Workers (N=2255)	Total (%)	Women (N=105)	Women (%)	People of Color (N=464)	People of Color (%)	City
98106	16	0.7%	1	1%	4	0.9%	Delridge
98118	13	0.6%	2	1.9%	6	1.3%	Rainier Valley
98178	13	0.6%	1	1%	10	2.2%	Rainier Beach/Skyway
98144	10	0.4%	1	1%	7	1.5%	Beacon Hill
98146	10	0.4%	0	0%	4	0.9%	White Center/Fauntleroy
98108	9	0.4%	0	0%	5	1.1%	Beacon Hill/South Park
98107	7	0.3%	1	1%	0	0%	Ballard
98125	7	0.3%	1	1%	1	0.2%	Northgate
98126	6	0.3%	1	1%	1	0.2%	Highpoint/Admiral
98133	4	0.2%	0	0%	0	0%	Bitter Lake/NW Seattle
98102	2	0.1%	1	1%	0	0%	Capitol Hill/Eastlake
98104	2	0.1%	0	0%	2	0.4%	Downtown
98122	2	0.1%	1	1%	2	0.4%	Central District
98121	1	0%	0	0%	0	0%	Belltown
98101	0	0%	0	0%	0	0%	Downtown
TOTAL	**102**	**4.5%**	**10**	**10%**	**42**	**9%**	

Source: UCLA Labor Center, analysis of employee data, 2013

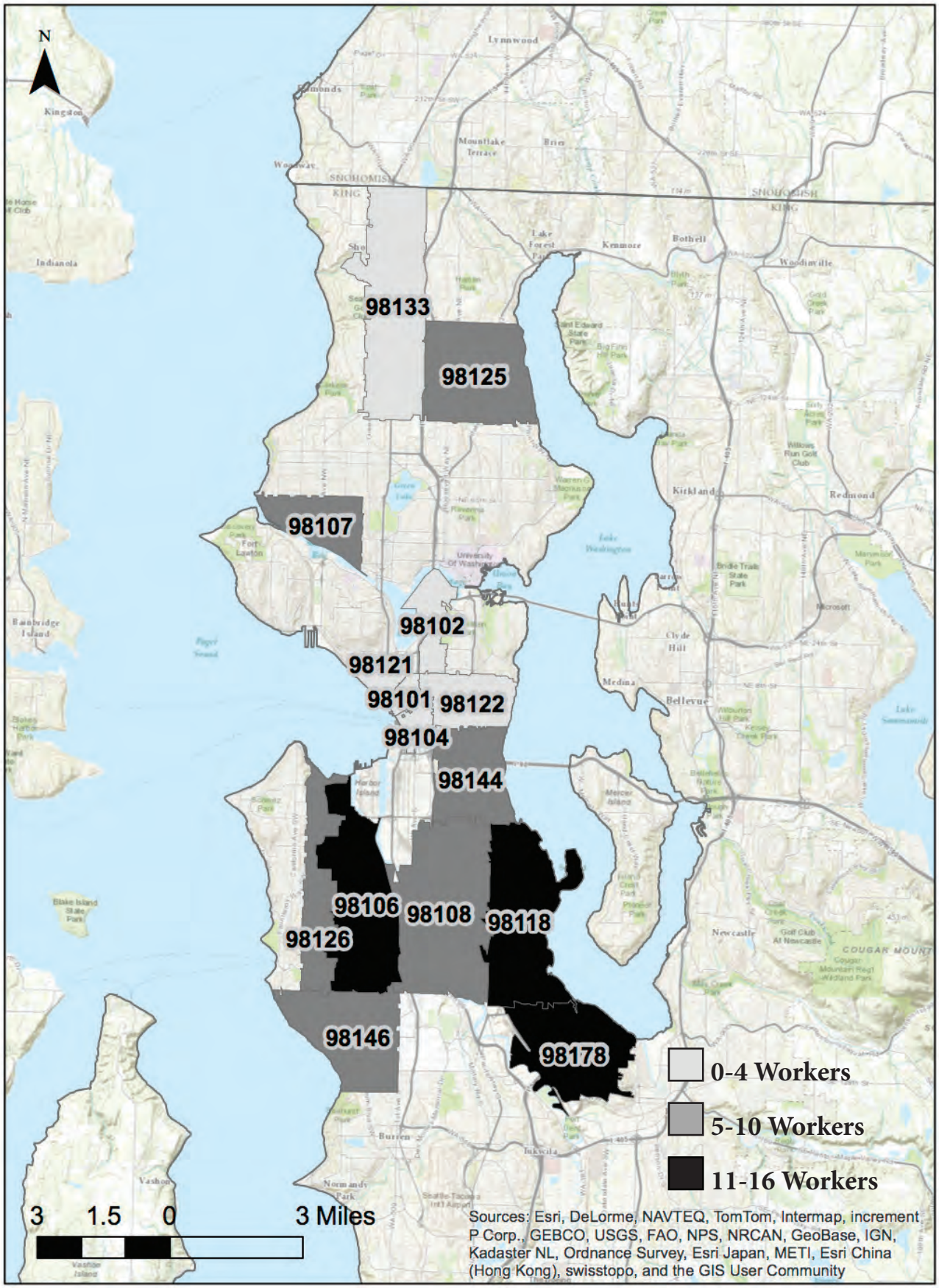
Out of all the workers living in the City of Seattle's economically disadvantaged zip codes, 90% are men, 57% are POC and 78% are journeymen.

FIGURE 8: WORKER PROFILE WITHIN SEATTLE'S DISADVANTAGED ZIP CODES**



Source: UCLA Labor Center, analysis of employee data, 2013
**Based on the number of workers.

MAP 5: WORKERS IN ECONOMICALLY DISADVNTAGED ZIP CODES - SEATTLE



Source: UCLA Labor Center, analysis of employee data, 2013

Note: Several of the zip codes cross city boundaries (98146, 98108 and 98178) and were included in the City of Seattle list of zip codes

Table 11 compiles the distribution of workers among economically distressed King County zip codes. As mentioned on page 6, 9% of all workers sampled live in the King County's economically distressed zip codes. Ten percent of all women sampled and 18% of all POC sampled also live in those zip codes.

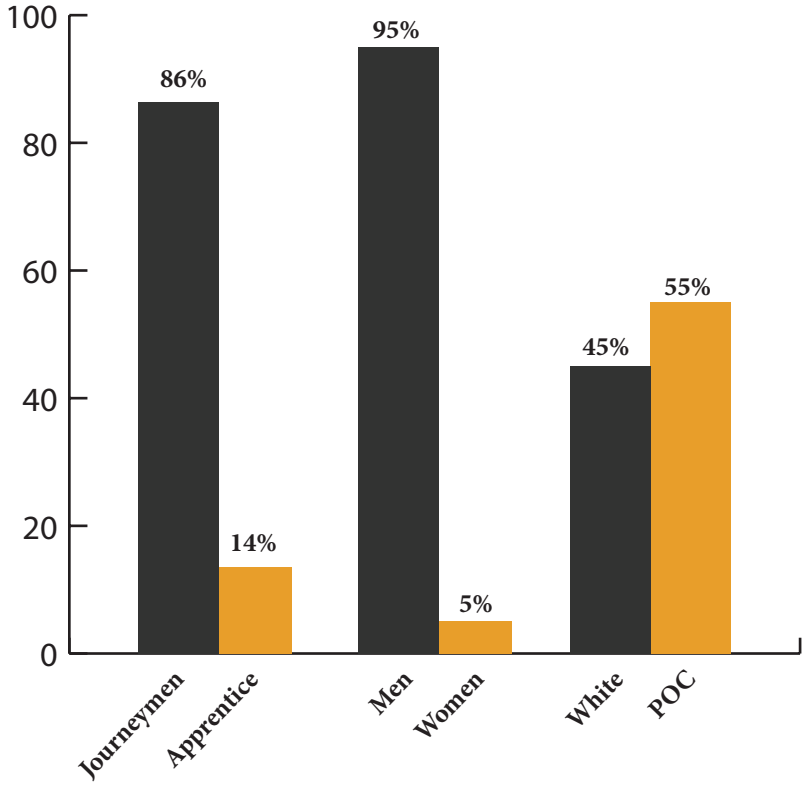
TABLE 11: ECONOMICALLY DISTRESSED ZIP CODES - KING COUNTY

Zip Code	Total Workers (N=2255)	Total (%)	Women (N=105)	Women (%)	People of Color (N=464)	People of Color (%)	City
98168	34	1.5%	1	1.0%	16	3.4%	Tukwila/Boulevard Park
98198	28	1.2%	0	0.0%	12	2.6%	Des Moines
98003	26	1.2%	2	1.9%	12	2.6%	Federal Way
98023	21	0.9%	2	1.9%	13	2.8%	Auburn
98002	20	0.9%	2	1.9%	5	1.1%	Kent/Auburn
98030	18	0.8%	1	1.0%	9	1.9%	Kent
98031	18	0.8%	1	1.0%	3	0.6%	Kent
98188	15	0.7%	0	0.0%	7	1.5%	SeaTac/Tukwila
98055	12	0.5%	1	1.0%	3	0.6%	Renton
98148	6	0.3%	0	0.0%	2	0.4%	Burien
98007	3	0.1%	0	0.0%	1	0.2%	Bellevue
TOTAL	**201**	**9%**	**10**	**10%**	**83**	**18%**	

Source: UCLA Labor Center, analysis of employee data, 2013

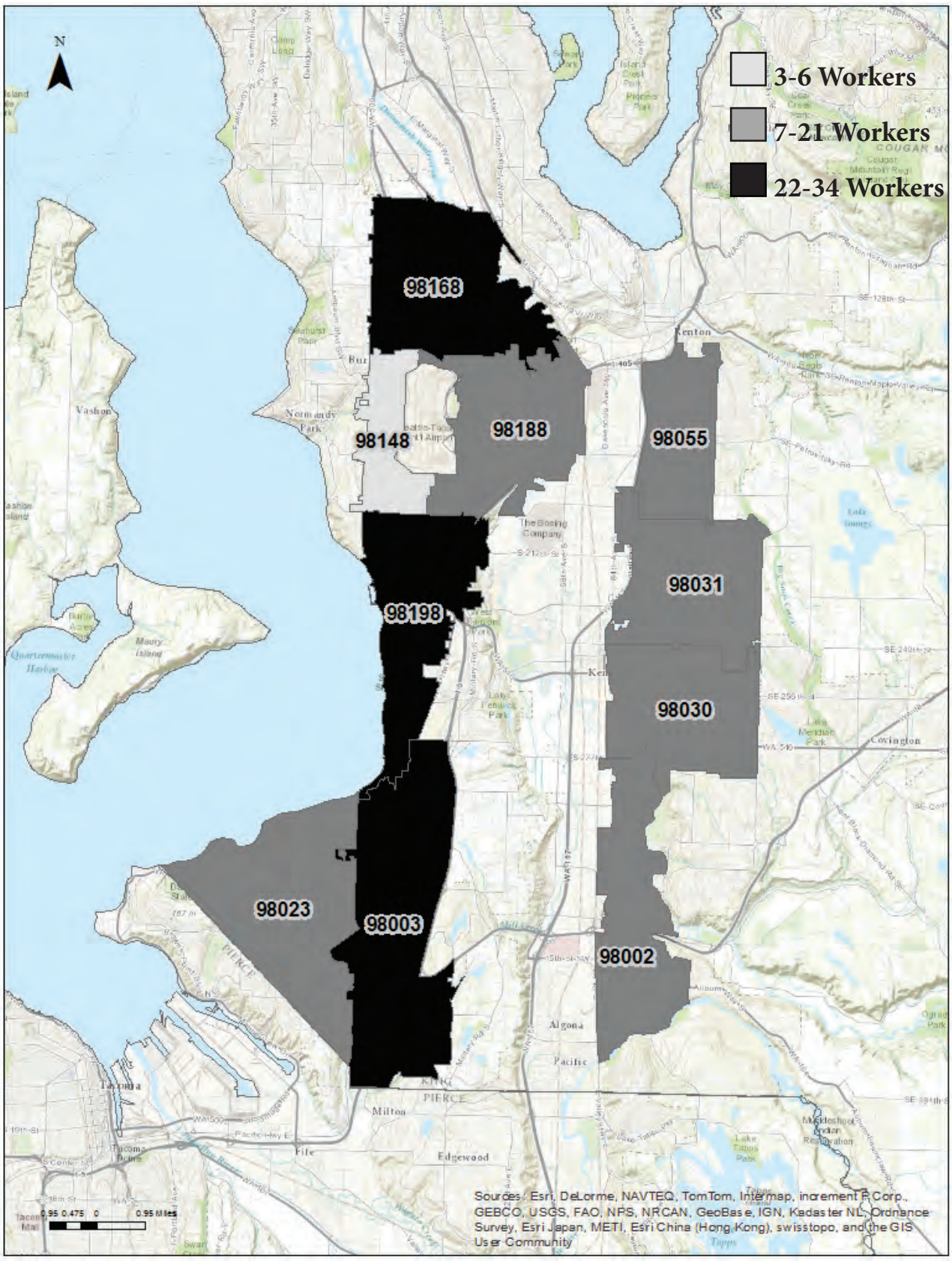
Out of all the workers living in King County's economically disadvantaged zip codes, 95% are men, 55% are POC and 86% are journeymen.

FIGURE 9: WORKER PROFILE WITHIN KING COUNTY'S DISADVANTAGED ZIP CODES**



Source: UCLA Labor Center, analysis of employee data, 2013
**Based on the number of workers.

MAP 6: WORKERS IN ECONOMICALLY DISADVNTAGED ZIP CODES - KING COUNTY



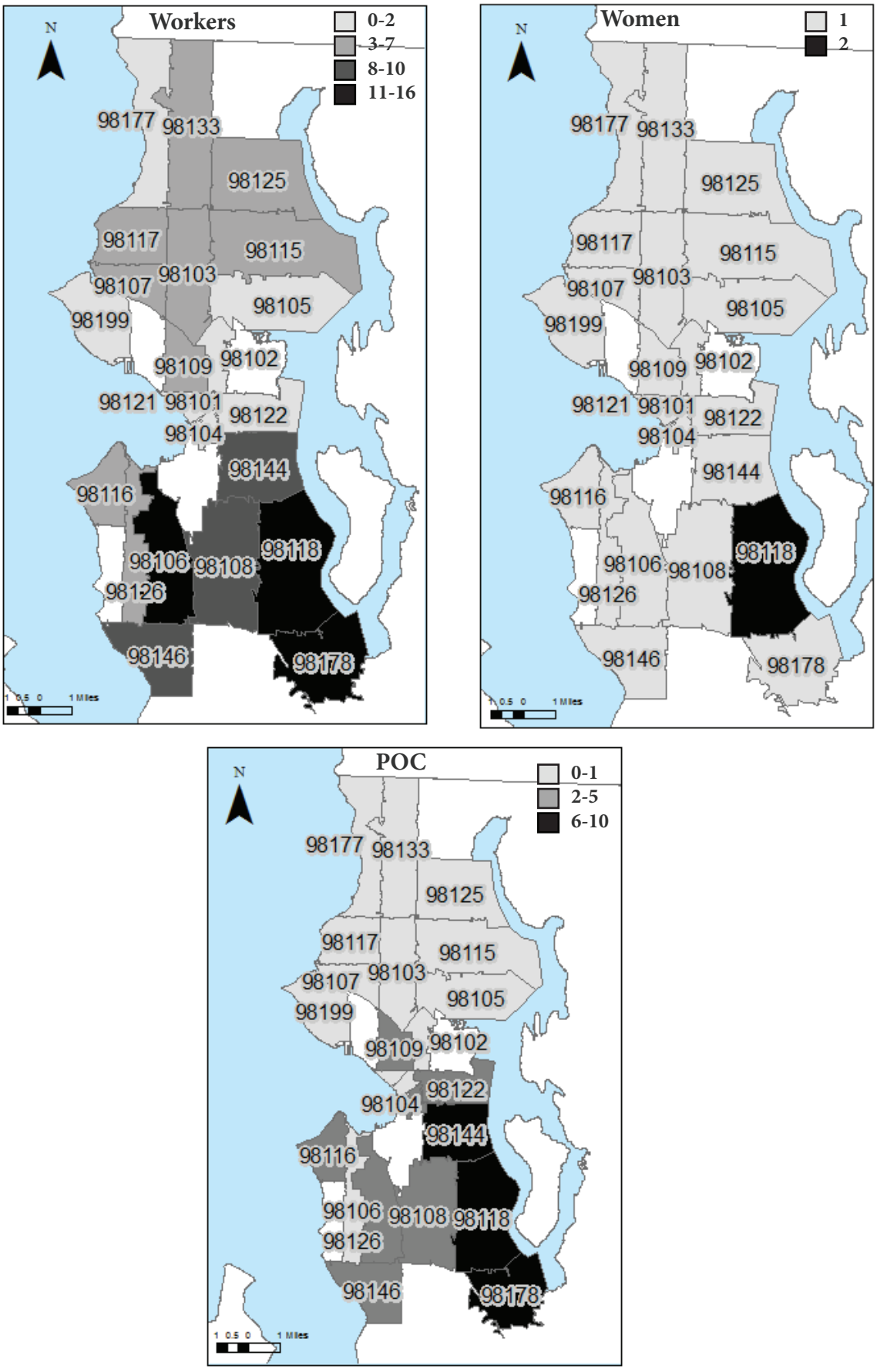
Source: UCLA Labor Center, analysis of employee data, 2013

TABLE 12: COMPLETE CITY OF SEATTLE RESIDENTIAL ZIP CODES

Zip Code	Total Workers (N=2255)	Total (%)	Women (N=105)	Women (%)	People of Color (N=464)	People of Color (%)	City
98106	16	0.7%	1	1.0%	4	0.9%	Delridge
98118	13	0.6%	2	1.9%	6	1.3%	Rainier Valley
98178	13	0.6%	1	1.0%	10	2.2%	Rainier Beach/Skyway
98144	10	0.4%	1	1.0%	7	1.5%	Beacon Hill
98146	10	0.4%	0	0%	4	0.9%	White Center/Fauntleroy
98108	9	0.4%	0	0%	5	1.1%	Beacon Hill/South Park
98107	7	0.3%	1	1.0%	0	0%	Ballard
98125	7	0.3%	1	1.0%	1	0.2%	Northgate
98116	6	0.3%	1	1.0%	2	0.4%	West Seattle/Alki
98126	6	0.3%	1	1.0%	1	0.2%	Highpoint/Admiral
98103	5	0.2%	0	0%	0	0%	Wallingford/Greenlake
98115	5	0.2%	1	1.0%	0	0%	Ravenna/Sand Point
98109	4	0.2%	0	0%	2	0.4%	Queen Anne/SLU
98117	4	0.2%	1	1.0%	1	0.2%	Ballard/Crown Hill
98133	4	0.2%	0	0%	0	0%	Bitter Lake/NW
98102	2	0.1%	1	1.0%	0	0%	Capitol Hill/Eastlake
98104	2	0.1%	0	0%	2	0.4%	Downtown
98105	2	0.1%	0	0%	0	0%	Ravenna/U Village
98122	2	0.1%	1	1.0%	2	0.4%	Central District
98177	2	0.1%	0	0%	0	0%	Broadview
98199	2	0.1%	0	0%	0	0%	Magnolia
98121	1	0.0%	0	0%	0	0%	Belltown
Total	**132**	**6%**	**13**	**13%**	**47**	**10%**	

Source: UCLA Labor Center, analysis of employee data, 2013
Note: Several of the zip codes cross city boundaries (98146, 98108 and 98178) and were included in the City of Seattle list of zip codes.

MAP 7: WORKERS, WOMEN AND POC IN CITY OF SEATTLE ZIP CODES



Source: UCLA Labor Center, analysis of employee data, 2013

3. Worker Profile

Race / Ethnicity

Data show that nearly three-fourths (73%) of workers are White, followed by 15% Latino, 5% African-American, 4% Native American, 2% Asian and 1% Pacific Islander.

TABLE 13: WORKER RACE / ETHNICITY

Race / Ethnicity	Total Workers	Total (%)	Hours (%)
White	1484	73%	75%
Latino	315	15%	14%
African-American	100	5%	3%
Native American	77	4%	6%
Asian	49	2%	1%
Pacific Islander	20	1%	1%
Total	**2045**	**100%**	**100%**

Source: UCLA Labor Center, analysis of employee data, 2013

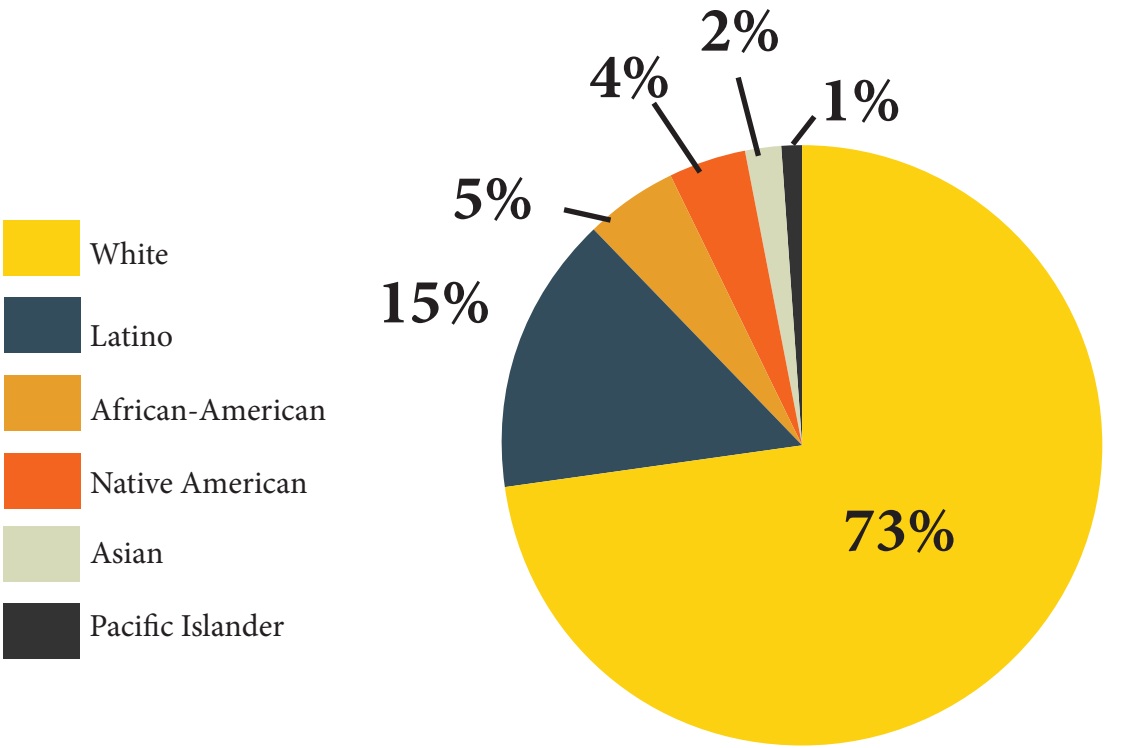
Out of all the POC in the sample (27%), Latinos make up over half of the POC worker population (56%), followed by 18% African-Americans.

TABLE 14: PEOPLE OF COLOR

Race / Ethnicity	Total Workers	Total (%)	Hours (%)
Latino	315	56%	56%
African-American	100	18%	12%
Native American	77	14%	23%
Asian	49	9%	6%
Pacific Islander	20	3%	3%
Total	561	100%	100%

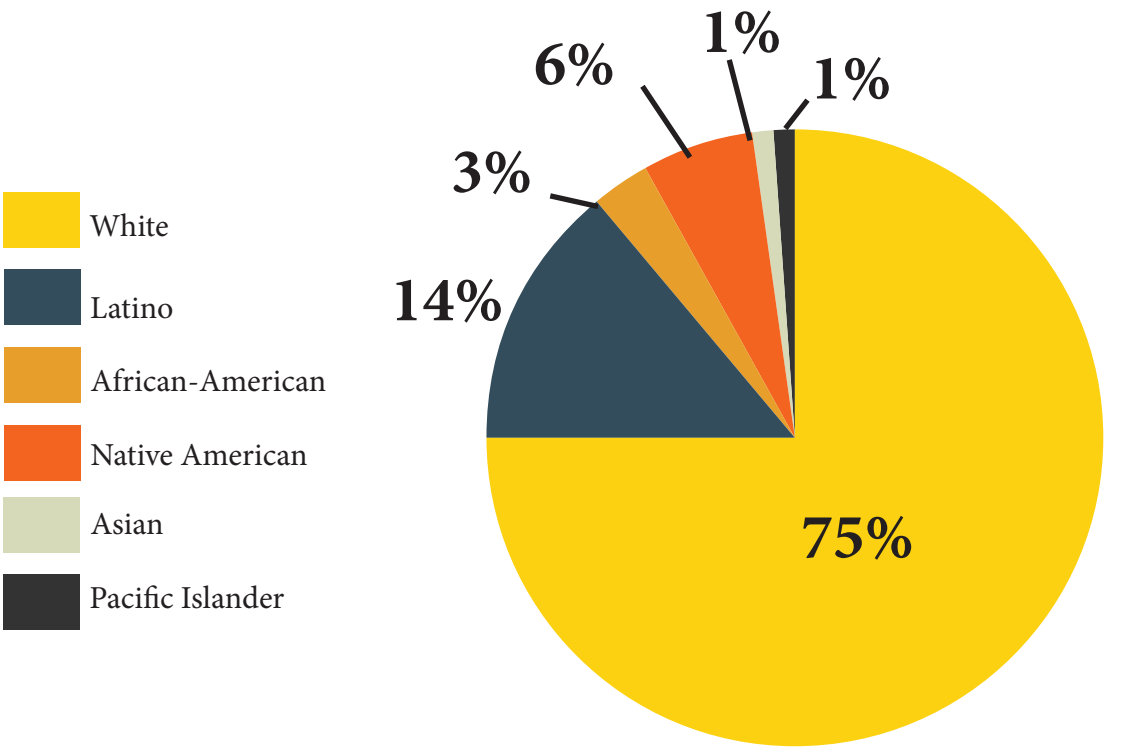
Source: UCLA Labor Center, analysis of employee data, 2013

FIGURE 12: WORKER RACE / ETHNICITY



Source: UCLA Labor Center, analysis of employee data, 2013

FIGURE 13: HOURS WORKED BY RACE/ETHNICITY OF WORKERS



Source: UCLA Labor Center, analysis of employee data, 2013

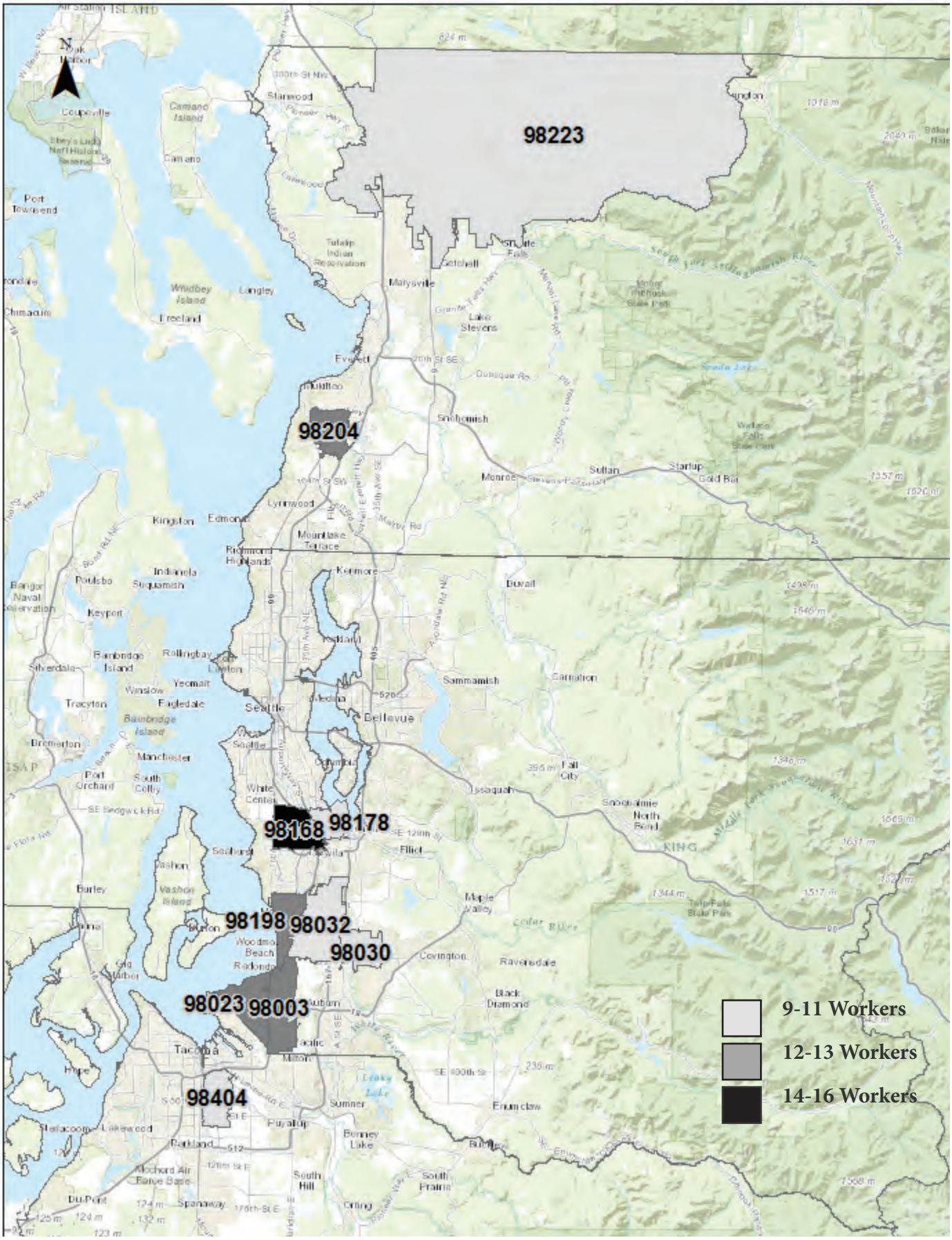
Table 15 provides the distribution of workers of color among the top 10 residential zip codes in the sample, which comprise 26% of all workers of color on these projects.

TABLE 15: TOP 10 RESIDENTIAL ZIP CODES FOR PEOPLE OF COLOR

Zip Code	Total Workers (N=2255)	Total (%)	People of Color (N=464)	People of Color (%)	City
98168	34	1.2%	16	3.5%	Boulevard Park/Tukwila
98023	21	0.8%	13	2.8%	Auburn
98204	29	1.0%	13	2.8%	Everett
98003	26	0.9%	12	2.6%	Federal Way
98198	28	1.0%	12	2.6%	Des Moines
98032	25	0.9%	11	2.4%	Kent
98404	18	0.7%	11	2.4%	Tacoma
98030	19	0.7%	10	2.2%	Kent
98178	13	0.5%	10	2.2%	Rainier Beach/ Skyway
98223	40	1.4%	9	2.9%	Arlington
TOTAL	**253**	**9%**	**117**	**26%**	

Source: UCLA Labor Center, analysis of employee data, 2013

MAP 8: TOP 10 ZIP CODES FOR PEOPLE OF COLOR



Source: UCLA Labor Center, analysis of employee data, 2013

Gender

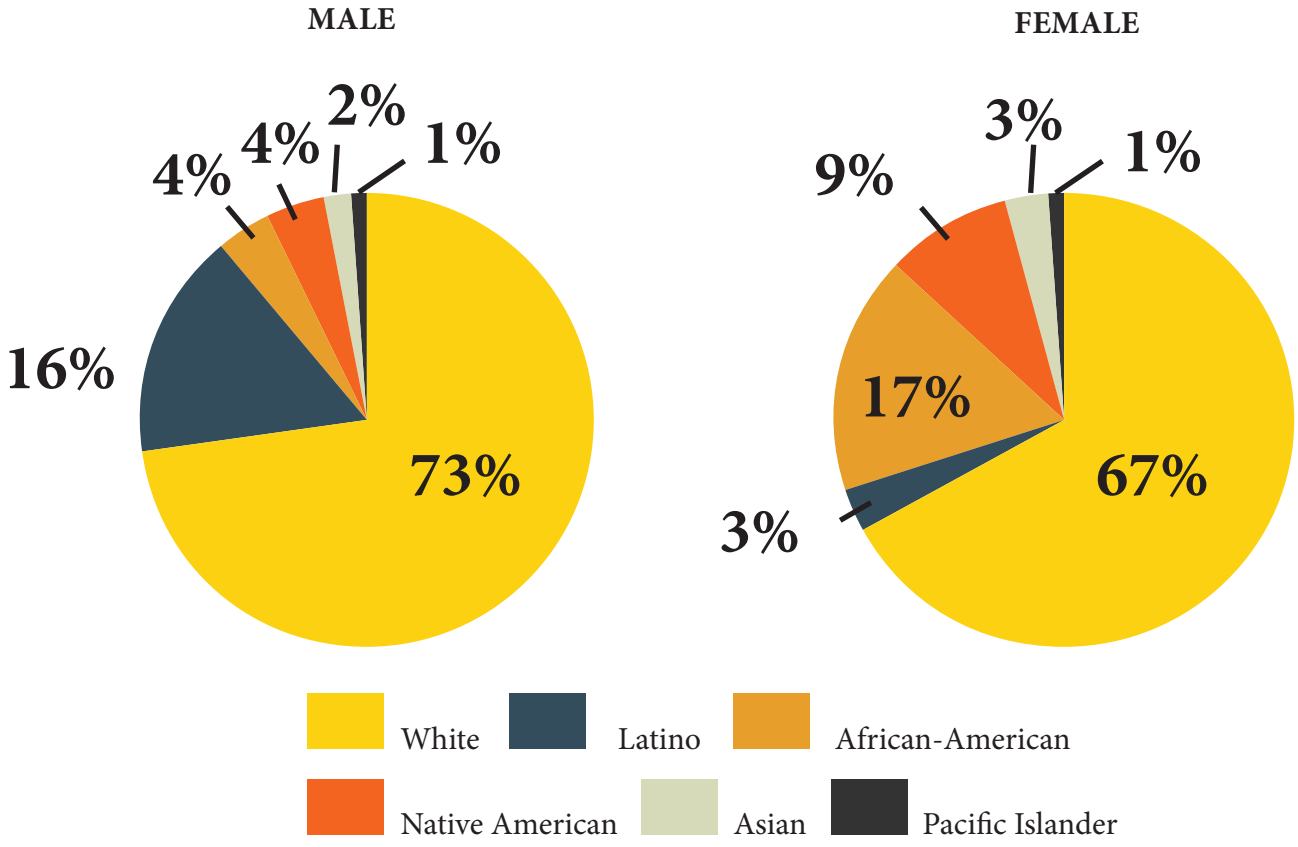
Ninety-five percent of all workers sampled are male. Of those, 73% are White and 16% are Latino. Women represent 5% of the total workforce.[12] Of all women sampled, 67% are White and 17% are African-American, followed by 9% Native American, 3% Latino, 3% Asian and 1% Pacific Islander.

TABLE 16: WORKER GENDER AND ETHNICITY

Ethnicity	Male (n=1890)	Male (%)	Female (n=116)	Female (%)
White	1373	73%	78	67%
Latino	308	16%	3	3%
African-American	79	4%	20	17%
Native American	66	4%	10	9%
Asian	45	2%	4	3%
Pacific Islander	19	1%	1	1%
Total	**1890**	**100%**	**116**	**100%**

Source: UCLA Labor Center, analysis of employee data, 2013

FIGURE 14: WORKER ETHNICITY BY GENDER



Source: UCLA Labor Center, analysis of employee data, 2013

12. In comparison national data indicates that in 2010, women accounted for 9 percent of the construction workforce. (source: http://www.census.gov/prod/2011pubs/12statab/labor.pdf)

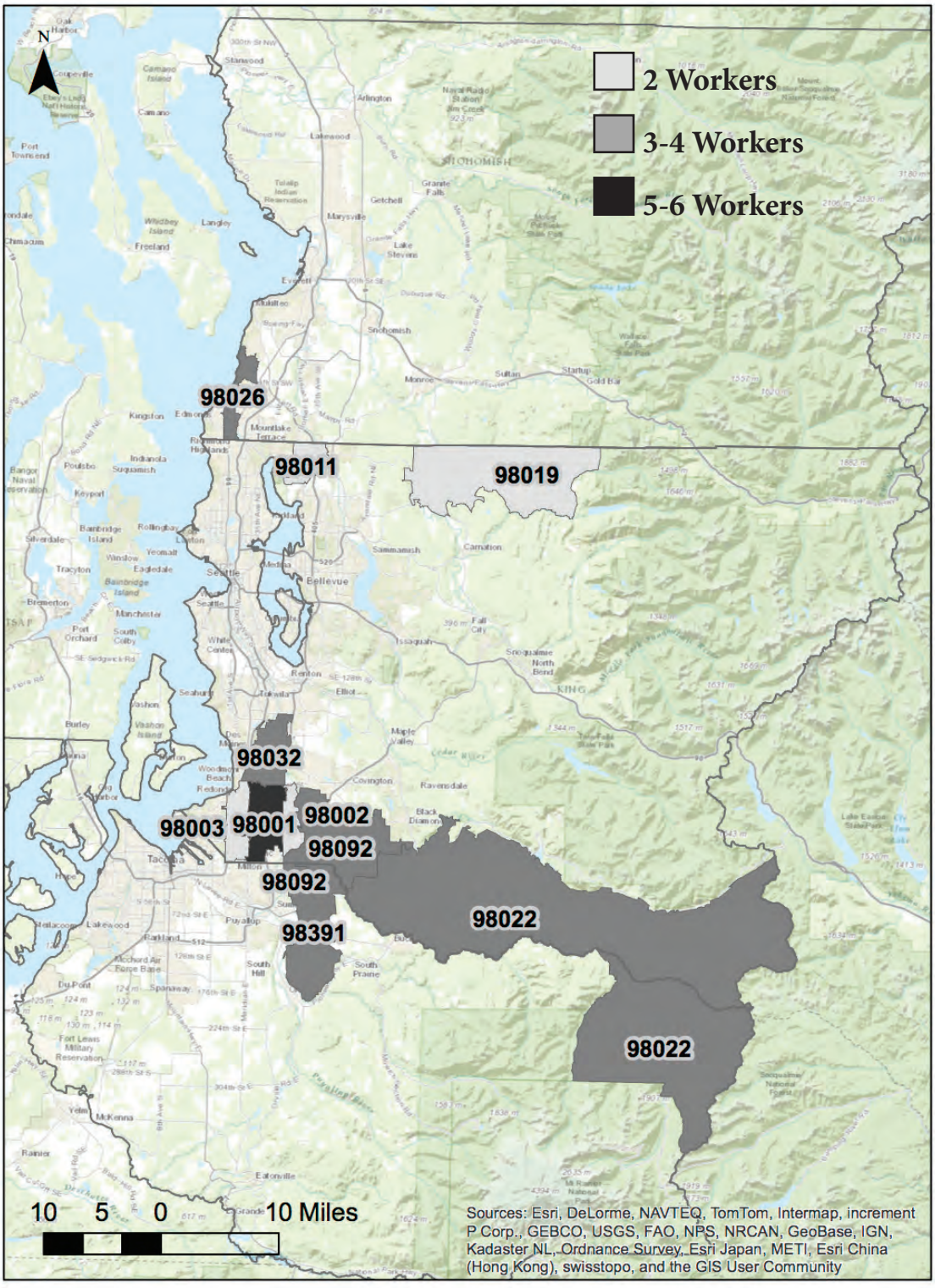
Table 17 provides the distribution of female workers among the top 10 residential zip codes in the sample, which comprise 29% of all women workers sampled.

TABLE 17: TOP 10 RESIDENTIAL ZIP CODES FOR WOMEN

Zip Code	Total Workers (N=2255)	Total (%)	Women (N=105)	Women (%)	City
98001	32	1.2%	6	5.7%	Auburn
98092	20	0.7%	4	3.8%	Auburn
98022	37	1.3%	3	2.9%	Enumclaw
98026	20	0.7%	3	2.9%	Edmonds
98032	25	0.9%	3	2.9%	Kent
98391	62	2.2%	3	2.9%	Bonney Lake
98002	20	0.7%	2	1.9%	Kent / Auburn
98003	26	0.9%	2	1.9%	Federal Way
98011	16	0.6%	2	1.9%	Bothell
98019	10	0.4%	2	1.9%	Duvall
TOTAL	**268**	**10%**	**30**	**29%**	

Source: UCLA Labor Center, analysis of employee data, 2013

MAP 9: TOP 10 ZIP CODES FOR WOMEN

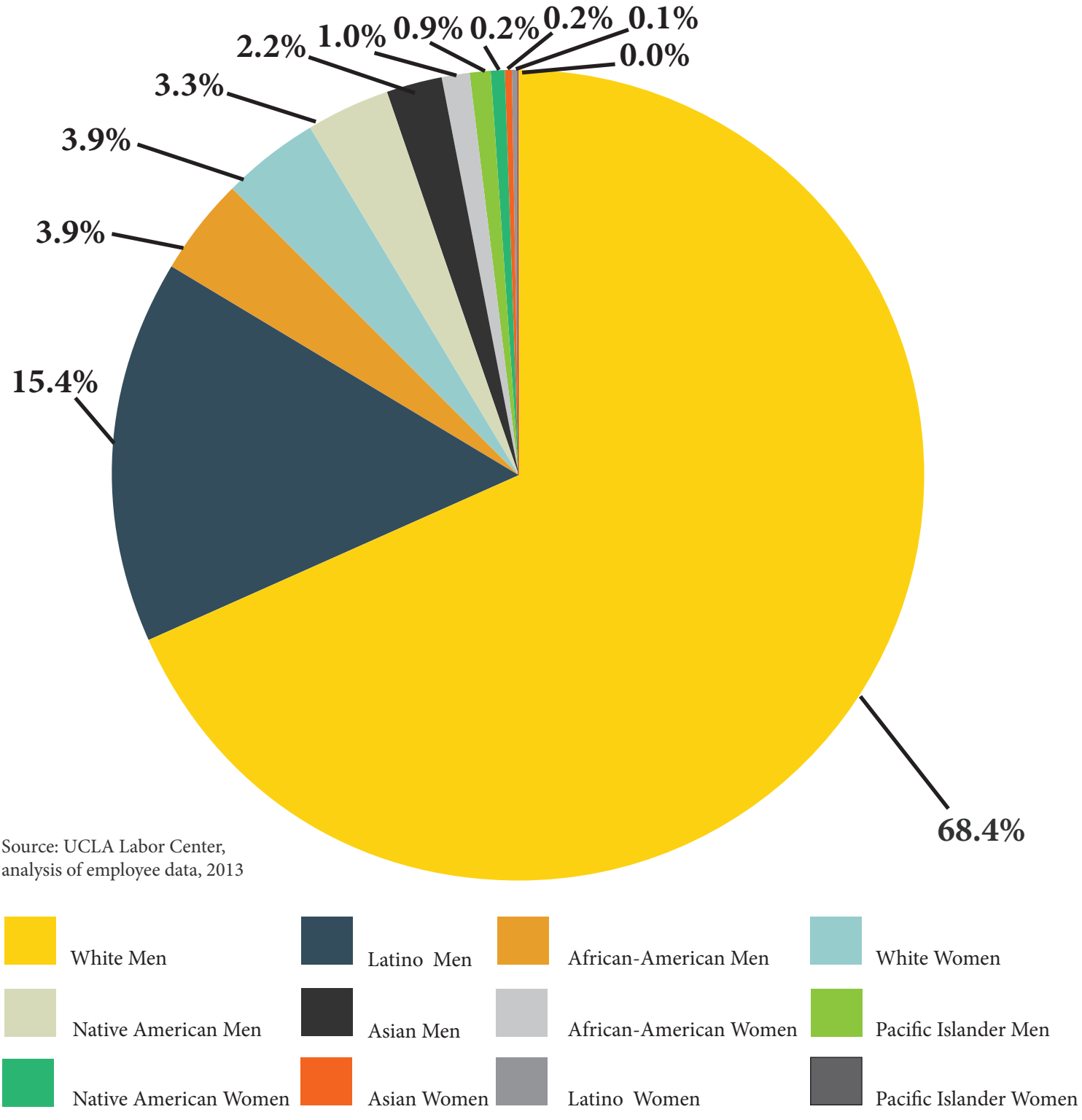


Source: UCLA Labor Center, analysis of employee data, 2013

Women and People of Color

Thirty-one percent of workers are historically underrepresented workers,[13] either women or people of color. **Figure 15** provides a breakdown of employees by race and gender as a percentage of the total workers sampled.

FIGURE 15: WORKERS BY GENDER AND RACE



Source: UCLA Labor Center, analysis of employee data, 2013

13. In comparison national data indicates that in 2010, minorities accounted for 32 percent of the construction workforce. (source: http://www.census.gov/prod/2011pubs/12statab/labor.pdf)

Age

Data shows that the average age for all respondents is 41. Workers' ages range from 18 to 77 years, though most workers fall between the ages of 25 and 54.The average age for women is slightly higher than that of their male counterparts, at 46 and 41 years respectively.

TABLE 18: AGE GROUPS

Age	Journeymen (N=825)	Apprentice (N=98)	All Skill Levels (N=1171)
18-24	5%	5%	5%
25-34	28%	35%	28%
35-44	26%	29%	27%
45-54	27%	21%	26%
55-64	13%	10%	13%
>65	1%	0%	1%
Total	**100%**	**100%**	**100%**

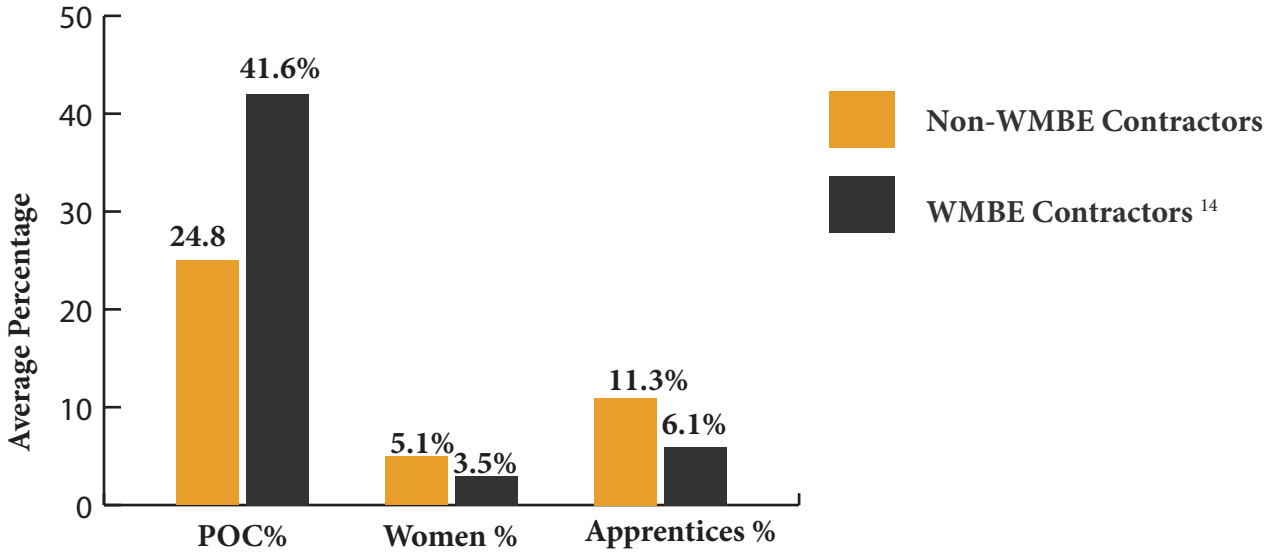
Source: UCLA Labor Center, analysis of employee data, 2013

Minority Hiring

For analytical purposes, the variables Latino, African-American, Asian, Native American, and Pacific Islander were grouped and recoded as the variable people of color. We find that the ratio between white and people of color, and that of male and female change dramatically from project to project.

Figure 16 shows the average percentage of people of color, women and apprentices hired by Women and Minority-owned Business Enterprises (WMBE) and non-WMBE firms. WMBE firms tend to hire more POC by project, but fewer women and apprentices than non-WMBE firms.

FIGURE 16: AVERAGE PERCENTAGE OF POC, WOMEN & APPRENTICES



14. Forty-five Prime contractors and subcontractors were identified as Women and Minority-owned Business Enterprises (WMBEs). The City defines WMBE firms as at least 51% owned by women and/or minority.

Figure 17 and 18 show the racial and ethnic profile of WMBE and non-WMBE firms. WMBE firms show a 23% Latino workforce compared to 14% for non-WMBE firms and an 6% Native American workforce compared to 3% for non-WMBE frms.

FIGURE 17: WORKERS BY RACE - NON-WMBE FIRMS

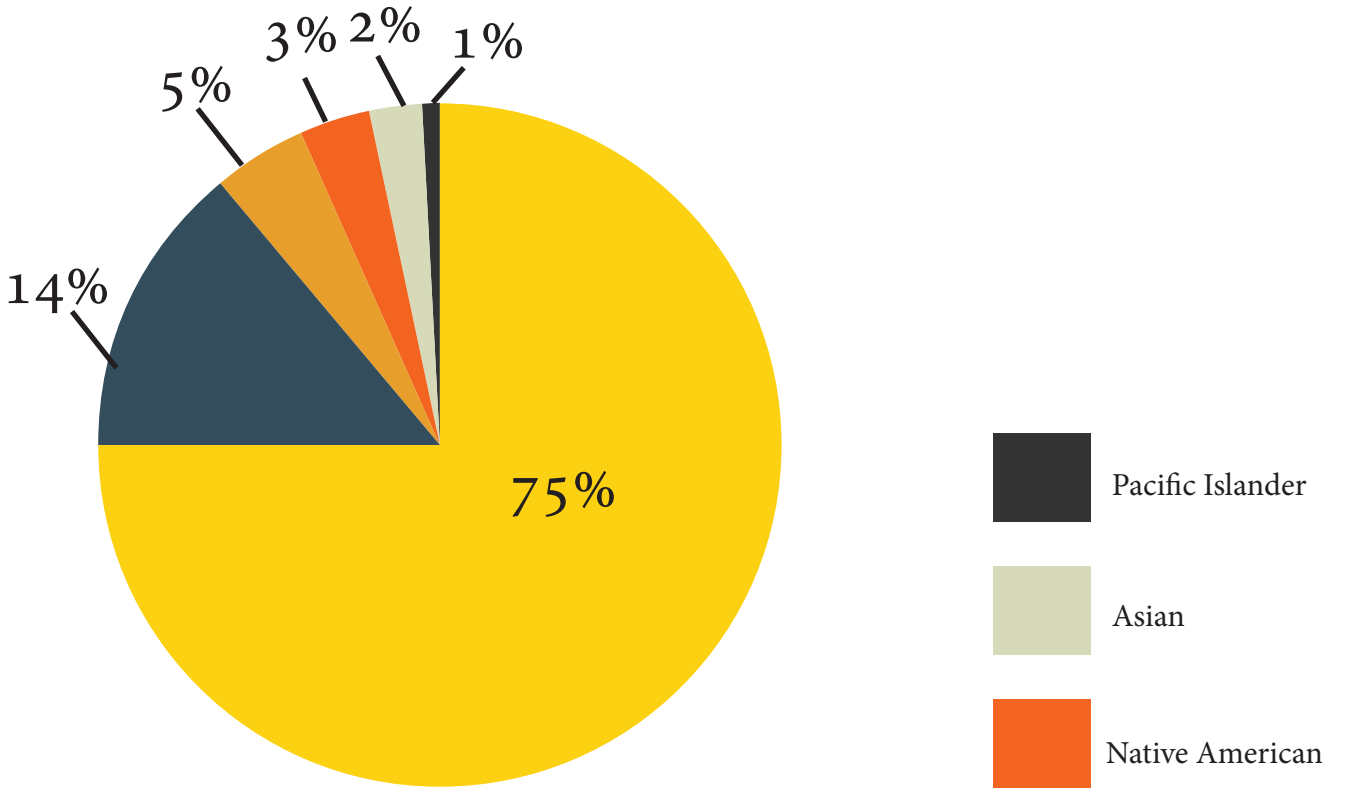
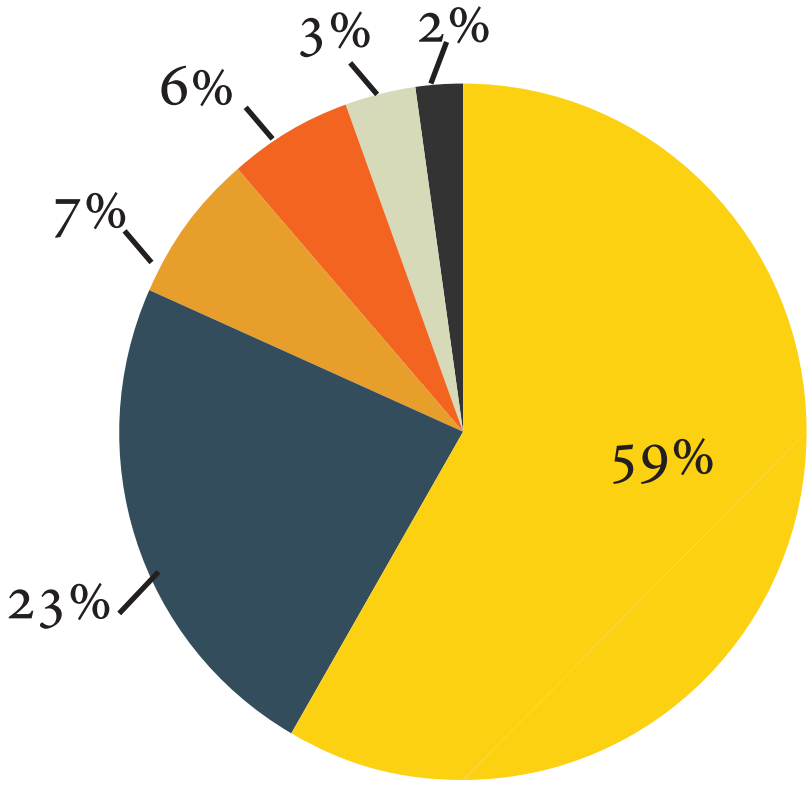


FIGURE 18: WORKERS BY RACE - WMBE FIRMS

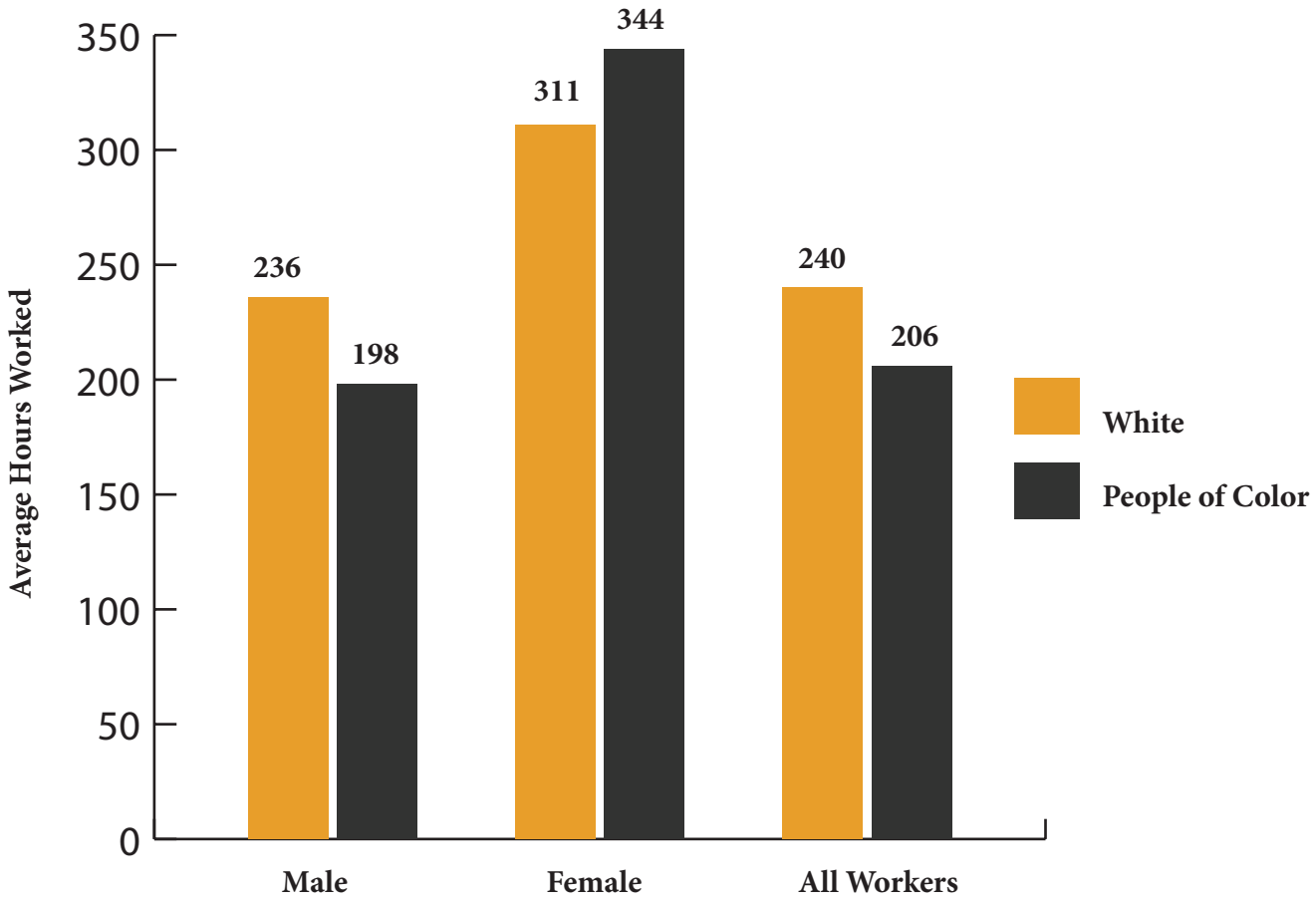


4.Skill Levels

Hours Worked

From the cases sampled, we find that the total number of hours worked for all workers is 566,533. The minimum number of hours recorded for a worker is 0.13, while the maximum was 6,777. The average number of hours per worker is 204, or about 5 weeks of full-time work. The average varied depending on gender and ethnicity as shown in **Figure 19.**

FIGURE 19: AVERAGE HOURS WORKED BY GENDER AND ETHNICITY



Source: UCLA Labor Center, analysis of employee data, 2013

To further understand if demographic factors affect the number of hours worked, respondents were divided into two groups: those who worked less than 700 hours, and those who worked 700 hours or more. The threshold of 700 hours is meaningful as it relates to the Seawall Replacement Project Community Workforce Agreement which includes a goal for contractors to provide 700 work hours for preferred entry apprentices. We assessed if demographics varied by those with more hours. Only 9% of all workers had significant hours, including 24% of all people of color, 13% of all apprentices and 7% of all women. No significant differences were found across demographics.

TABLE 19: PROFILE OF WORKERS BY HOURS WORKED

Age	Less than 700	700 or more
Percent of Workers	91%	9%
Female	5%	7%
People of Color	28%	24%
Apprentices	10%	13%
Average Age	43.1	40.6

Source: UCLA Labor Center, analysis of employee data,

Apprenticeships

Among all of the respondents, 10% of workers are in apprenticeships. Within that group, 14% are women and 35% are people of color. In contrast, 5% of the journeymen positions were filled by women and 27% by people of color. In terms of hours worked, data show that 12% of all project hours were performed by apprentices and 88% by journeymen. About 24% of the hours worked by apprentices were performed by women and 32% by people of color. Of the hours worked by journeymen, 6% were performed by women and 24% by people of color. Overall, of the total hours worked in all 33 projects, women performed 8% while people of color performed 25%. These findings are summarized in Table 20 below.

Table 20 provides a comparison between the profiles of workers in apprenticeships and those working as journeymen. The data illustrate that the apprentice sub-group is much more diverse. There is a higher percent of both women and people of color in the apprentice sample.

TABLE 20: PROFILE OF APPRENTICES AND JOURNEYMEN

Age	Apprentices Workers	Apprentices Hours	Journeymen Workers	Journeymen Hours	All Skill Levels	All Skill Levels Hours
Percent of Total	10%	12%	90%	88%	100%	100%
Men	86%	76%	95%	94%	94%	92%
Women	14%	24%	5%	6%	6%	8%
White	65%	68%	73%	76%	72%	75%
People of Color	35%	32%	27%	24%	28%	25%

Source: UCLA Labor Center, analysis of employee data, 2013

On average, apprentices are much younger than the overall sample, with an average age of 32.7. The average age of journeymen is much higher than that of apprentices, at 42.1 years.

TABLE 21: APPRENTICE AND JOURNEYMEN AVERAGE AGE

	Apprentices	Journeymen	All Skill Levels
Average Age	32.7	42.1	41

In terms of the geographical distribution of apprentices, those living in Seattle's economically distressed areas make up 11% of the apprentices in the sample. About 13% come from King County's disadvantaged areas, 42% from Pierce and Snohomish counties, and 14% from outside King, Pierce and Snohomish counties, as shown in **Table 22.**

TABLE 22: LOCATION OF APPRENTICES

Geographic Area	Total Number Apprentices (n=180)	Apprentices Percent	Apprentice Hours Worked Percent
Seattle Disadvantaged	19	11%	13%
Rest of Seattle	4	2%	1%
King County Disadvantaged	23	13%	12%
Rest of King County	32	18%	18%
Pierce/Snohomish Counties	76	42%	31%
Outside Tri-County	26	14%	25%
Total	180	100%	100%

Source: UCLA Labor Center, analysis of employee data, 2013

Repeat Cases

Data collected showed 145 repeat cases where an individual worked on more than one public works project. Twenty-six percent of those workers are POC while only 3% are women. Six percent of the repeats are apprentices.

TABLE 23: PROFILE OF REPEAT CASES

Women	People of Color	Apprentices
3%	26%	6%

Appendix 1. Worker Distribution by Residential Zip Codes

SEATTLE DISADVANTAGED

Zip Code	Total Workers	Women	People of Color	Zip Code	Total Workers	Women	People of Color
98106	16	1	4	98125	7	1	1
98118	13	2	6	98126	6	1	1
98178	13	1	10	98133	4	0	1
98144	10	1	7	98102	2	1	0
98146	10	0	4	98104	2	0	2
98108	9	0	5	98122	2	1	2
98107	7	1	0	98121	1	0	0
				98101	0	0	0
				TOTAL	**102**	**10**	**42**

REST OF SEATTLE

Zip Code	Total Workers	Women	People of Color	Zip Code	Total Workers	Women	People of Color
98116	6	1	2	98117	4	1	1
98115	5	1	0	98105	2	0	0
98103	5	0	0	98177	2	0	0
98109	4	0	2	98199	2	0	0
				TOTAL	**30**	**3**	**5**

KING COUNTY DISADVANTAGED

Zip Code	Total Workers	Women	People of Color	Zip Code	Total Workers	Women	People of Color
98168	34	1	16	98030	18	1	9
98198	28	0	12	98031	18	1	3
98003	26	2	12	98188	15	0	7
98023	21	2	13	98055	12	1	3
98002	20	2	5	98148	6	0	2
				98007	3	0	1
				TOTAL	**201**	**10**	**83**

REST OF KING COUNTY

Zip Code	Total Workers	Women	People of Color	Zip Code	Total Workers	Women	People of Color
98001	31	6	8	98052	10	0	3
98005	3	0	0	98053	3	0	1
98006	1	0	0	98056	15	0	2
98008	2	1	0	98057	11	2	6
98010	14	0	0	98058	12	0	3
98011	16	2	4	98059	22	0	3
98014	12	1	0	98065	8	0	0
98019	10	2	0	98068	1	0	0
98025	3	1	0	98070	3	0	3
98027	10	2	1	98073	1	0	0
98030	1	1	1	98074	4	0	0
98032	25	3	11	98075	1	0	0
98033	5	0	2	98077	2	0	0
98034	19	0	3	98089	1	0	0
98035	1	0	1	98092	20	4	5
98038	2	0	1	98093	2	0	1
98040	3	0	0	98133	1	0	1
98041	4	1	0	98138	1	0	1
98042	28	1	2	98155	22	2	3
98045	18	0	0	98166	4	0	0
98047	5	0	0	98192	1	0	0
98050	2	0	2	98223	1	0	0
98051	7	2	0	98367	4	1	1
				TOTAL	**372**	**32**	**69**

PIERCE/SNOHOMISH COUNTIES

Zip Code	Total Workers	Women	People of Color	Zip Code	Total Workers	Women	People of Color
98391	62	3	3	98028	10	0	0
98272	57	1	9	98294	10	0	1
98290	51	2	5	98072	9	0	1
98270	40	0	8	98328	9	1	0
98223	39	0	9	98390	9	1	1
98022	37	3	8	98335	8	1	3
98258	37	0	7	98406	8	0	1
98374	34	1	7	98407	8	0	0
98208	33	2	6	98499	8	0	4
98271	30	1	6	98020	7	1	1
98204	29	0	13	98405	7	0	1
98296	26	1	2	98445	7	0	1
98360	26	0	1	98580	7	0	0
98292	25	1	0	98206	6	0	1
98387	25	2	4	98408	6	0	3
98012	24	1	6	98418	6	0	0
98201	23	0	5	98424	6	0	2
98036	22	0	8	98396	5	0	0
98375	22	2	4	98205	4	0	0
98371	21	2	2	98329	4	0	0
98373	21	0	2	98443	4	0	0
98026	20	3	7	98349	3	0	1
98038	20	1	0	98385	3	0	0
98203	19	1	5	98394	3	0	0
98321	19	1	0	98446	3	0	0
98444	19	0	7	98323	2	0	0
98021	18	2	4	98327	2	0	2
98037	18	2	3	98332	2	0	0
98404	18	0	11	98465	2	0	2
98087	17	0	3	98506	2	0	0
98338	17	0	2	98511	2	0	0
98252	16	2	1	98001	1	0	0
98409	16	0	8	98304	1	0	1
98043	14	0	3	98333	1	0	0
98372	14	0	1	98342	1	0	1
98466	14	1	1	98388	1	0	0
98498	14	0	2	98403	1	0	0
98251	12	0	0	98426	1	0	0
98275	12	0	4	98439	1	0	0
98501	12	0	1	98448	1	0	0
98422	11	0	1	98460	1	0	0
98513	11	0	0	98467	1	0	1
				TOTAL	**1198**	**39**	**207**

OUTSIDE TRI-COUNTY

Zip Code	Total Workers	Women	People of Color	Zip Code	Total Workers	Women	People of Color
59802	1	0	0	98264	2	0	0
59828	1	0	0	98266	5	1	0
83110	1	0	0	98273	5	0	1
83252	1	0	0	98274	6	0	1
83850	1	0	0	98276	1	0	0
84404	1	0	0	98277	3	0	0
89443	1	0	0	98282	6	0	1
90650	1	0	1	98284	11	0	1
92040	1	0	0	98293	2	0	0
92595	1	0	0	98295	1	0	0
95563	1	0	0	98310	1	0	0
96520	1	0	0	98311	3	0	1
97009	5	0	3	98312	3	0	0
97030	4	0	4	98325	1	0	0
97045	1	0	0	98336	2	0	0
97051	1	0	0	98344	1	0	0
97080	3	0	3	98350	1	0	1
97128	1	0	0	98354	4	0	0
97203	1	0	0	98355	1	0	0
97220	1	0	0	98356	1	0	0
97233	1	0	0	98359	2	0	0
97281	1	0	0	98362	2	0	0
97302	1	0	0	98366	12	0	3
97526	1	0	0	98370	4	0	0
98221	5	0	1	98376	1	0	1
98225	3	0	0	98382	2	0	0
98226	6	0	0	98383	1	0	0
98229	5	2	0	98384	4	0	2
98230	2	1	0	98395	1	0	0
98231	1	0	0	98503	6	0	0
98232	6	0	0	98512	8	0	2
98233	11	0	1	98516	4	0	3
98236	1	0	0	98520	12	2	3
98237	3	0	0	98528	3	0	0
98239	2	0	2	98531	7	0	2
98240	1	0	0	98532	7	0	0
98241	1	0	0	98535	1	0	0
98242	1	0	1	98541	5	0	0
98244	2	0	0	98275	12	0	4
98247	3	0	0	98501	12	0	1
98248	11	2	4	98422	11	0	1
98249	2	0	1	98513	11	0	0
				Total	**287**	**8**	**49**

SUMMARY

Zip Code	Total Workers	Women	People of Color	Apprentice
Seattle Disadvantaged	102	10	58	19
Rest of Seattle	30	3	5	4
King County Disadvantaged	201	10	67	23
Rest of King County*	372	32	69	32
Pierce/Snohomish	1198	39	207	76
Total in Tri-County	1903	94	206	154
Outside Tri-County	352	11	58	26
Total	2255	105	464	180

*Not including the City of Seattle