

# Occupational Safety and Health of Forest Workers

by Carl Wilmsen,<sup>1</sup> Diane Bush<sup>2</sup> and Dinorah Barton–Antonio<sup>2</sup>

<sup>1</sup>Alliance of Forest Workers and Harvesters

<sup>2</sup>Labor Occupational Health Program, University of California, Berkeley



# Overview of Forest Work

Forest conservation workers do manual labor to develop, maintain, or protect forested areas, including planting trees, pest control, and thinning and cutting brush and small trees.

The work is inherently dangerous. Workers face hazards on a daily basis such as extreme weather, rough terrain, chainsaw accidents, falling trees and branches, poison oak, forest fires, contaminated drinking water, and snakes, bears, mountain lions and biting insects. In addition, workplace practices such as having inexperienced workers at the front of the work line, working too close together, not providing rest breaks, being pressured to work faster and harder, being pressured to work when sick or injured, and not carrying drinking water increase the chances of getting injured, contracting a work-related illness, and developing complications from a work-related injury or illness.

# Purpose

This survey was conducted to inform development of a pilot promotora (lay health educator) program for forest workers in Jackson and Josephine counties Oregon (described in a separate poster by Diane Bush, Carl Wilmsen, Dinorah Barton–Antonio, and Andrea Steege). The Alliance of Forest Workers and Harvesters (a worker, harvester and environmental advocacy organization), the Labor Occupational Health Program (LOHP) at the University of California, Berkeley, and the National Institute for Occupational Safety and Health (NIOSH), partnered in conducting the survey. Funding for the survey was provided by grants from NIOSH, OSHA's Susan B Harwood Grant program, and the Pacific Northwest Agricultural Safety and Health Center at the University of Washington.

# Methods


Four meetings were held with members of a project advisory committee that included forest workers and representatives of LOHP, NIOSH and the Alliance to develop the survey instrument. We compiled an initial draft of the survey using the National Agricultural Workers Survey and a survey of restaurant workers in San Francisco's Chinatown as guides. One committee member translated this draft from English into Spanish, and committee members then went over the questions to tailor them to the unique conditions under which forest workers work. A penultimate draft of the survey instrument was pretested in interviews with 8 forest workers. A final draft was produced based on feedback from these workers.

## Methods continued

Alliance staff trained two women from the forest worker community in interviewing techniques. Although the interviews were intended to be in-person, once the women started interviewing, it became evident that most workers did not want to sit through an lengthy interview that took 2 to 3 hours to complete. As a result, the survey became self administered. The women distributed questionnaires to workers, asking them to fill them out at their leisure at home, later returning to pick them up. The women clarified responses the workers gave on the questionnaires as needed.

The women distributed about 200 questionnaires and retrieved 151 completed ones of which 150 were usable.

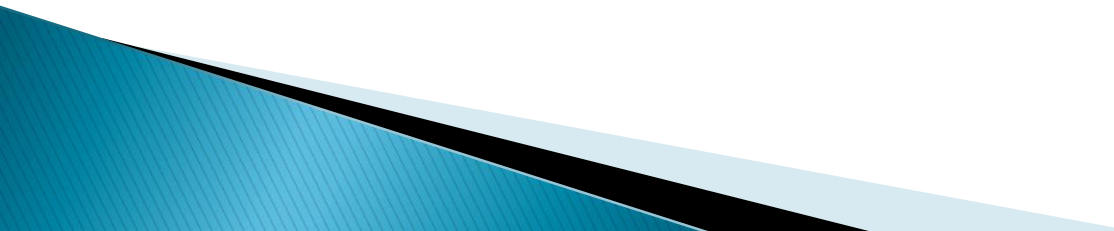
SPSS was used to analyze the data.



# Characteristics of Survey Respondents

The median age of the workers we interviewed was 30. The oldest respondent was 57, and the youngest was 18. The workers we interviewed were almost entirely from Mexico. Just one worker indicated that he was from Guatemala. On average they have been in the U.S. for 8 years, and have been working for their current employer for half that time. The vast majority of respondents were native speakers of Spanish. Only one worker indicated that his native language was not Spanish; his was Triqui. All of the interviewees were men. This is a reflection of the fact that women rarely, if ever, enter the labor-intensive forest workforce. Twenty-eight percent of the workers we interviewed were working in the U.S. as part of the temporary foreign labor (H-2B) program.

# Injuries and Illnesses on the Job

- ▶ Out of 150 forest workers who completed questionnaires, 61 (41 percent) reported being injured on the job during the last 12 months.
  - ▶ The most common injuries were scrapes and abrasions, insect bites, burns and bruises.
  - ▶ Yet, the rate of lacerations (34%), sprains (33%), dislocated bones (30%), and broken bones (25%) were not insignificant.
- 

# Reporting and Treatment of Injuries

In general, the more serious the injury, the more likely the worker was to report it to his supervisor and the more likely he was to have it treated. As the table 1 shows, workers were most likely to report lacerations and broken bones to their supervisors. Seventy-six and 73 percent, respectively, of the workers who reported receiving lacerations/puncture wounds and broken bones said they reported their injury to their supervisor. Burns/scalds and other unspecified injuries were reported the least: 48 and 42 percent respectively. Abrasions, bruises, sprains, dislocations and insect stings were reported at rates in between these extremes. This suggests that, depending on the severity of the injury, between 25 and 58 percent of on-the-job injuries are not reported to supervisors. The main reasons workers gave for not reporting their injuries were that they were afraid they would be fired, and that they were afraid they would get in trouble for reporting them.



## Table 1: Reporting and Treatment of Injuries

<b>Injury Type</b>	<b>Number of cases (n=61)</b>	<b>Percent of total cases</b>	<b>Percent reported</b>	<b>Percent treated</b>
Laceration	21	34%	76%	81%
Broken bone	15	25%	73%	80%
Sprain/abrasion	20	33%	65%	70%
Bruise	25	41%	64%	64%
Dislocated bone	18	30%	56%	72%
Scrape	50	82%	52%	66%
Insect bite	44	72%	50%	64%
Burn	34	56%	48%	74%
Other injury	7	5%	42%	57%
Amputation	0	0	0	0

# Treatment of Injuries

While the majority of workers got treatment for their injuries, regardless of injury type, more than half (52 percent) paid for the treatment themselves. Ten percent reported that their employer paid for the treatment with his own money, and the rest reported that the treatment was covered by some form of insurance. Twenty-four percent of those injured reported receiving compensation from the workers' compensation system for missed days of work.

# Illnesses

- ▶ Half of the workers we interviewed reported working with pesticides during the past 5 years. Of these, 25% reported get sick from pesticides.
- ▶ 61% of the respondents reported having a rash in the past 12 months. Of these, 74% said poison oak caused the rash. 6% said it was due to chemicals, and 20% said it was caused by something else.
- ▶ 18 (12%) of the respondents reported having diarrhea for more than 3 days during the past 12 months.
- ▶ 37% of the workers we interviewed reported that their fingers felt numb, and another 4% said that their fingers turned white during the past 12 months. On average this occurred 4 times per week.

# Access to Health Care

- ▶ 70% of the workers we interviewed feel that it is difficult to get the health care they need in the United States. The main reasons they gave for having difficulty getting access to health care were that health care providers don't speak Spanish (85%) and that the cost is too high (62%).
- ▶ When asked where they usually go for treatment if they are sick or injured, the respondents indicated the following places.

◦ Other	35%
◦ Hospital	22%
◦ Community health center	18%
◦ Private medical doctor's office	10%
◦ Healer/curandero	6%
◦ In my own country	6%
◦ Emergency room	1%
◦ Migrant health clinic	1%

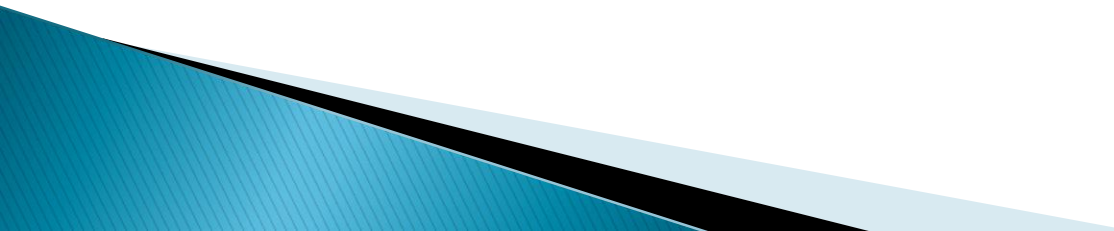
# General Working Conditions

- ▶ 97% of the respondents work on steep slopes sometimes or everyday
- ▶ 97% work on slippery surfaces sometimes or everyday
- ▶ 99% work in extreme heat sometimes or everyday (during the summer) (63%)
- ▶ 87% work in extreme cold sometimes or everyday (during the winter) (25%)
- ▶ 97% work around poison oak sometime or everyday (39%)
- ▶ 97% work around biting insects sometimes or everyday (50%)
- ▶ 92% encounter dangerous animals (snakes, bears, cougars) sometimes or everyday (12%)
- ▶ 61% sometimes work lighting fires (burning slash piles)
- ▶ 65% sometimes work fighting fires

# Workplace Practices

- ▶ 86% work with inexperienced workers in front sometimes or everyday (7%)
- ▶ 91% work too close together sometimes or everyday (24%)
- ▶ 88% feel they are forced to work in unsafe conditions sometimes or always (25%)
- ▶ 90% feel they are pushed to work too fast or too hard sometimes or always (60%)
- ▶ 75% feel that there is sometimes or never (32%) enough workers to complete the work safely and at a reasonable pace
- ▶ 60% feel pressured to work when sick or injured
- ▶ 81% were yelled at on the job during the past 12 months, and in 88% of these cases it was by the foreman or boss
- ▶ 59% went to work during the past 12 months even when they felt too sick to work
- ▶ 47% went to work during the past 12 months even when they felt a lot of pain from an injury

# Rest and Lunch Breaks

- ▶ 78% never get rest breaks, and an additional 17% only get rest breaks sometimes
  - ▶ 77% do not consistently get a lunch break every day
  - ▶ 52% reported skipping or taking shorter lunch or breaks, or working longer hours to complete their work during the past week.
- 

# Safety Equipment

- ▶ 85% always use a hard hat and gloves, and more than half of the respondents also always use protective lenses, chaps, ear protection, and protective boots. However, a large number of respondents report having to buy personal protective equipment themselves and some report having deductions taken from their paychecks for PPE. Oregon state law requires that employers provide all necessary PPE except boots to workers at no cost.
- ▶ 95% have worn out PPE sometimes or always (26%)
- ▶ 71% reported that there is a first aid kit at their workplace, but 38% of these respondents did not know if it was stocked with gauze, disinfectant, bandages, stretcher and other supplies.
- ▶ 24% did not know whether there was a first aid kit at their workplace.



# Training

- ▶ 60% of the workers we interviewed received some type of training on the job.
- ▶ However, only 59, or 39%, reported receiving safety training.

# Drinking Water and Sanitation

- ▶ The situation with drinking water is complicated. While 53 percent of the workers we interviewed said that the contractor they work for does not provide clean drinking water every day, this sometimes meant that there may have been drinking water in the van used to transport workers to the work site, but the workers themselves had to carry the water to the site where they were working, which could be some distance (greater than a mile) from the road where the van was parked. As a result 35% of the respondents said that they bring their own drinking water, 10% said that they drink from streams, and 55% said that they do both. By drinking untreated water from mountain streams, the workers risk getting E-coli or giardia infections.
- ▶ Ninety-two percent of the workers reported that their employer does not provide a toilet at the work site every day, and 86% said that the employer does not provide water for washing hands.