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(al., 2002

Myers and) (Leigh, 1987)

(Fosbroke, 1994

.Hull et al (1996)

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(Klen, 1989)

.Myers et al (1998)

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Helm)

Helmkamp and)

(Seresht and Delpishe, 2009

(Derk, 1999

Holman et

Derk and Willianms et al (1996) al (1987)

Helmkam (2007)

US Department of Labor,) Pine et al (1994)

(2001

(Frequency Rate)

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(Parker (Evanson et al., 2001)

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and Bently, 2000)

(Helm Seresht and Delpishe, 2009)

Parker et)

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Helm Seresht and)

(Severity rate)

.(Delpishe, 2009

$$= \frac{\quad}{\quad} *$$

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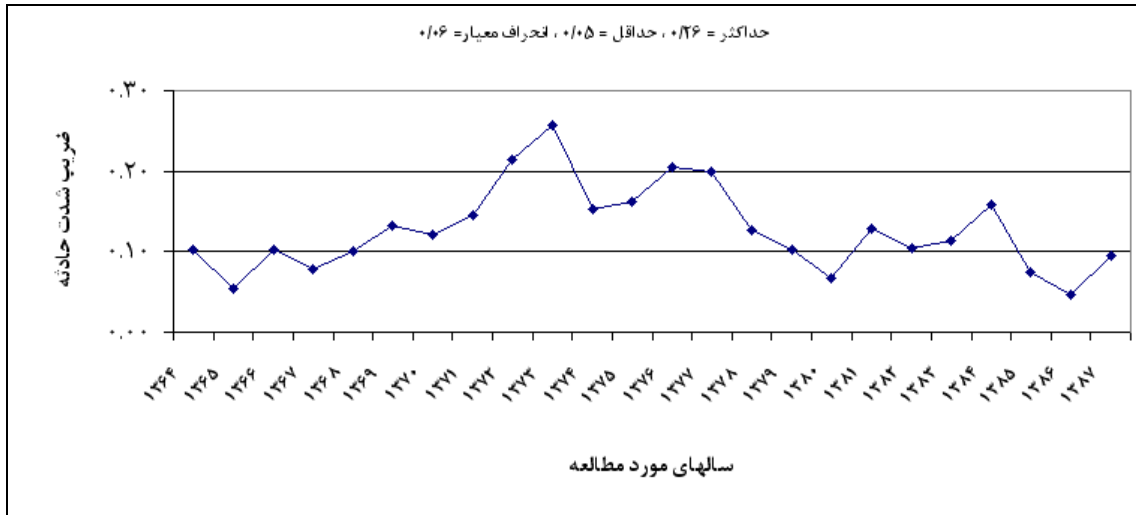
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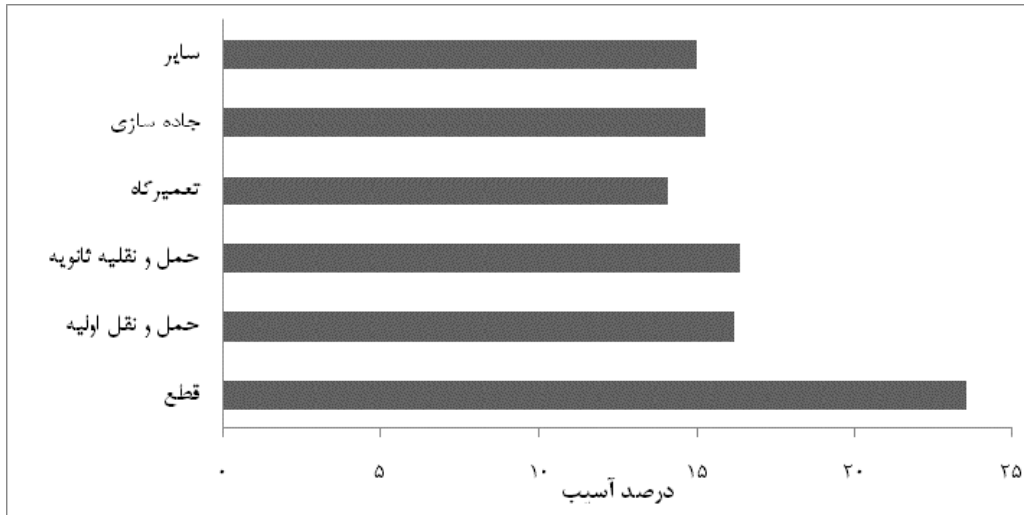
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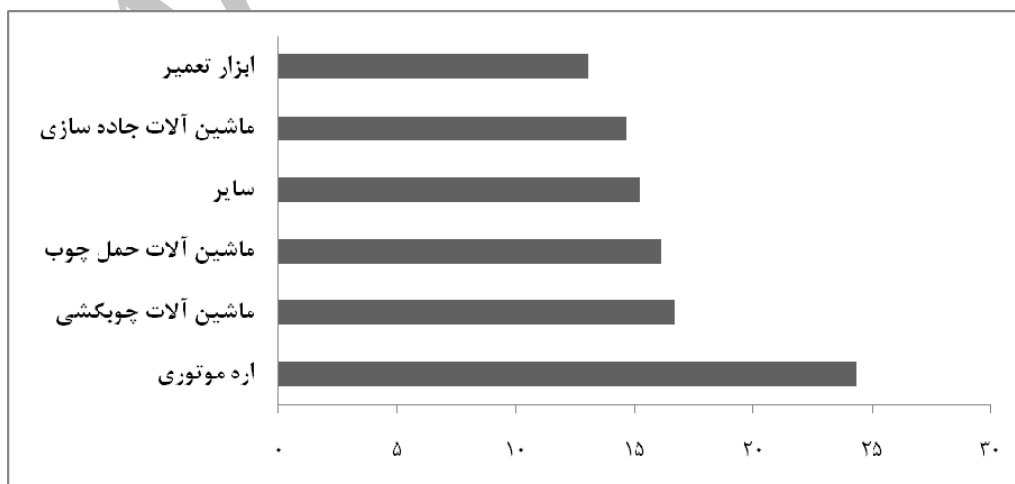


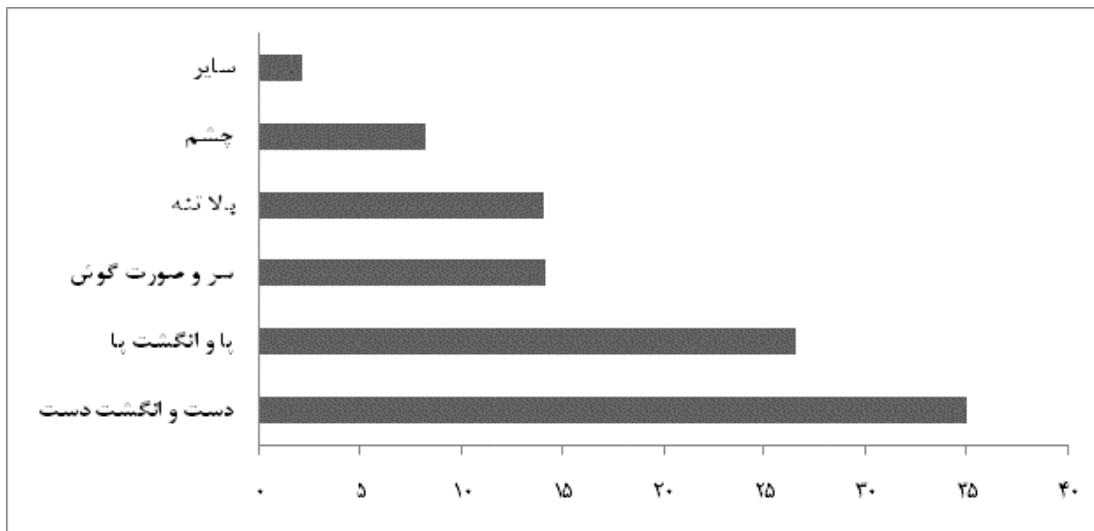
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(OSHA¹, 2000)

Potocnik et al (2009) .

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Ashby & Parker (2005) /

(Milburn, 1998)

¹ Occupational safety and health administration

(Peters, 1991)

Young and Guess (2003)

Bell and)

(Helmkamp,2003

(parker et al., 2000)

-
Richard Milburn, (1998)

Myres and fosborke,) (Bell and Helmkamp,2003)

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Bently and (2000)

(1994

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(Milburn, 1998)

(Milburn, 1998)

Nikooy et al (2010)

¹ On the job training

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Analysis of forest logging work accident Case study, West forest of *Guilan* province

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Abstract

The logging industry has a high rate of both fatal and non-fatal injuries in comparison to other industries. This paper deals with logging-related injuries in west forest of *Guilan* province. The data that had been collected by safety office of *Shafaroud* Company for the entire forestry sector were used. Accident and employment data were analyzed to examine patterns, frequency and severity rates of logging injuries in west forest of *Guilan* province from 1985 through 2009. The average annual frequency and severity rate of accidents were 17 and 0.13 over the 24 years study period. Felling operation and chainsaw were the main dangerous job and equipment in forest logging. The majority of logging injuries occurred to workers with 10-20 years of employment (those who have 30-40 years old). Forest logging accidents were more likely to occur in the late morning and early afternoon. The results of study are helpful for diagnosing the root-cause of forest logging worker accident and help in developing preventive safety programs. This research showed that decrease in the number of work related accidents in forests is only possible with an integral approach to suitable training and use of appropriate organizational and technological solutions. On the job training by foreman and put out work out equipment and machinery can be solution.

Key words: Forest logging, Work accident, Work safety in forest, *Shafaroud*

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