USING LOCATION-SHARING TO IMPROVE LOGGING SAFETY

A McIntire-Stennis supported project

I
University of Idaho
College of Natural Resources

In most years, logging has the highest fatality rate of any profession in the United States. Hand fallers using chainsaws and ground workers on cable logging operations are at particularly high risk because they are exposed to numerous hazards in a fast-paced, dynamic environment without the protection of being in enclosed equipment cabs.

Researchers in the College of Natural Resources at the University of Idaho led by Dr. Robert Keefe are increasing situational awareness on logging operations by using GPS radio devices that display worker locations on smartphones and tablets in real-time. This technology makes it possible for heavy equipment operators to monitor the location of people most at risk of injury or death due to job-related accidents. A follow-up study using smartwatches to send smart alerts when loggers may have accidents is underway, funded in part by the Pacific Northwest Agriculture Safety and Health Center.

This research has generated widespread interest in location sharing as a way to help reduce injuries and save lives on logging operations as well as with wildland firefighting. It also is being used to help monitor effort and work, leading to increases in productivity.

About McIntire-Stennis

The McIntire-Stennis program, a unique federal-state partnership, cultivates and delivers forestry and natural resource innovations for a better future. By advancing research and education that increases the understanding of emerging challenges and fosters the development of relevant solutions, the McIntire-Stennis program has ensured healthy resilient forests and communities and an exceptional natural resources workforce since 1962.
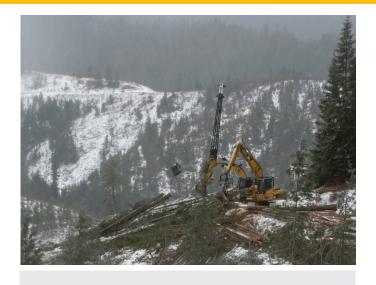
USDA

COLLABORATION

This research is a collaborative effort of faculty from the University of Idaho, College of Natural Resources, with additional funding through the National Institute of Health, CDC Institute of Occupational Safety and Health.

Outreach activities

have reached over 1,000 loggers and at regional logging conferences and training events

IMPACT

New technologies are available to help improve general situational awareness to increase the safety of logging operations.

~136 fatal accidents

per 100,000 workers associated with logging operations

$45,000

or more is the typical cost of an injury claim associated with logging and forestry accidents

Monitoring locations

of loggers helps to reduce risks and increase overall productivity by quantifying work