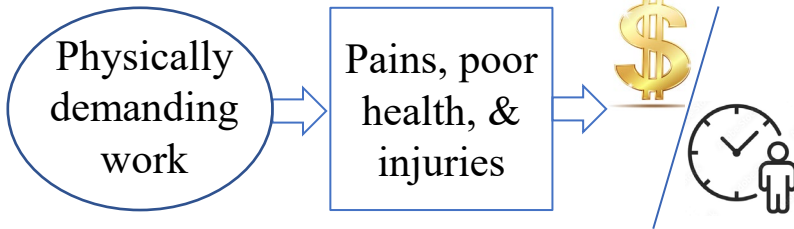


CNS-2128823 & 2128716, FW-HTF-P: Collaborative Research: Exoskeleton-Assisted Worker Performance Augmentation in Construction, PIs: Z. Zhu & P. Adamczyk, University of Wisconsin - Madison, & F. Dai, West Virginia University

Background

- High work-related musculoskeletal disorders (WMSDs) rate in construction

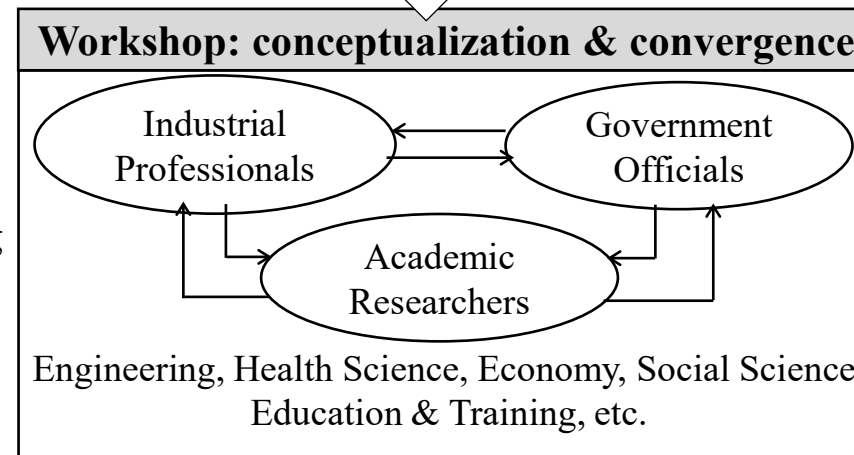
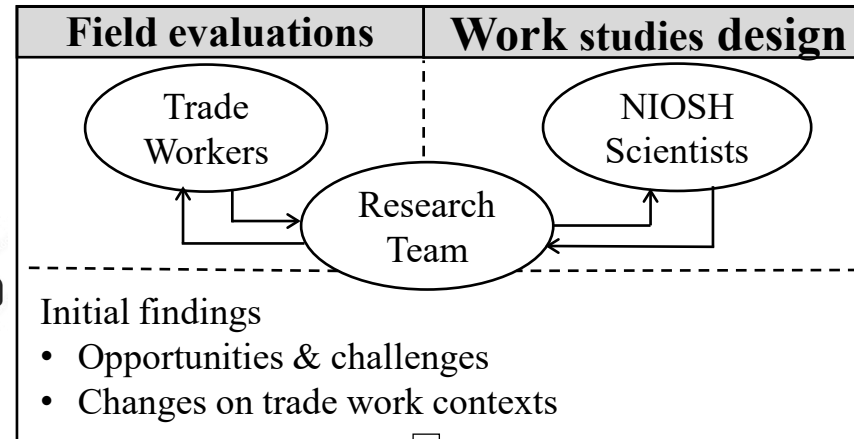


- Exoskeletons & Exosuits (collectively called EXOs): physically relief and/or strength amplification

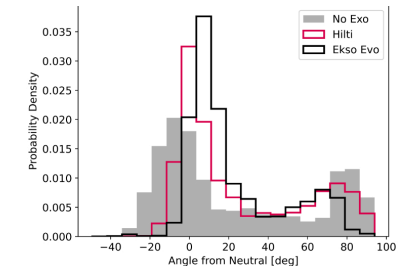
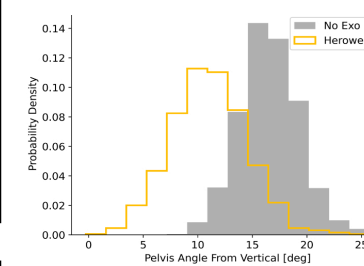
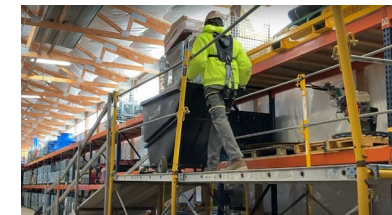
Objectives

- A human-centered investigation on wearing EXOs in construction workplaces
- A full research agenda development for tackling EXO adoption challenges

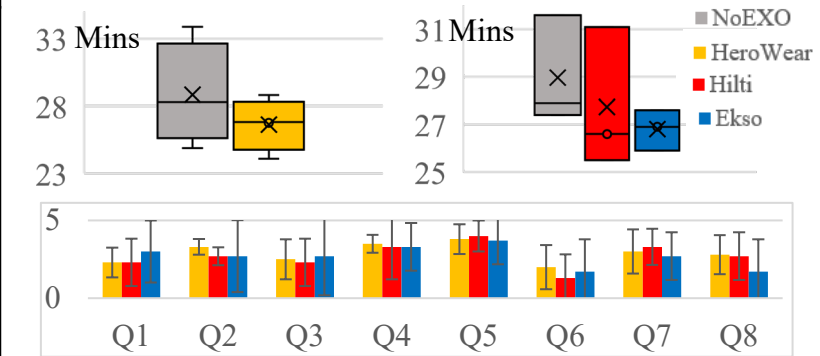
Research Plan



Preliminary Results



Impacts on worker's motions



Task completion time & worker's opinions on EXOs