Proceedings of the 7th Annual World Conference of the Society for Industrial and Systems Engineering, Binghamton, NY, USA October 11-12, 2018

Workplace Risk Perception Between Foreign-Born and First-Generation Mexican-American Construction Workers

G. Ibarra-Mejía¹ and K.G. Gómez-Bull²

¹University of Texas at El Paso Department of Public Health Sciences El Paso, TX 79968, USA

²Universidad Autónoma de Ciudad Juárez-DMCU Department of Industrial and Manufacturing Engineering Av. Del Desierto 18100, Cd. Juarez s/n, México

Corresponding author's Email: gabmejia@utep.edu

Author Note: Authors Note: Gabriel Ibarra-Mejía has an MD and MS degree from Universidad Autonóma de Ciudad Juárez. He also has an M.S. degree in Ergonomics from Lulea Tekniska Universitet, Sweden, and a Ph.D. in Environmental Science and Engineering from the University of Texas at El Paso. He is currently part of the Public Health Sciences department at The University of Texas at El Paso. Karla G. Gómez-Bull has a Master's Degree in Industrial Engineering with a specialty in ergonomics. She holds a B.S. degree in Industrial and Systems Engineering from Universidad Autónoma de Ciudad Juárez, Mexico. Currently is a full-time faculty of the Industrial and Manufacturing Engineering Department at Universidad Autónoma de Ciudad Juárez. We acknowledge the support of the Programa de Investigación en Migración y Salud (PIMSA) Health Initiative of the Americas at the University of California –Berkeley for funding this project. Author's mailing address: Gabriel Ibarra-Mejia. 500 West University, El Paso, TX, 79928. Ph: (915)747-7270. E-mail: gabmejia@utep.edu

Abstract: The injury rate among construction workers affects Hispanics at a disproportionate rate compared to other ethnicities. Purpose: The purpose of the study is to assess workplace risk perception between recent foreign-born Mexican-migrant and first-generation Mexican-Americans construction workers, using an adapted questionnaire based on a previous survey on constructing individual and collective safety practices. A survey questionnaire was administered to a sample of one hundredsixteen construction workers and assigned to either of two groups (1) Sixty-six foreign-born Mexican migrants (65 males; 1 female), and 2) fifty first-generation Mexican migrants). Level of perceived workplace risk behaviors and perception was scored using a 5-point Likert scale. Risk behaviors were explored using a 21-item questionnaire. Risk perception was evaluated based on a subjective evaluation of probability and the severity of the consequence of an event. Mean values of each item were then compared between groups. Results showed differences in the perceived agreement of engaging in risk behaviors, and risk perception between the groups. Differences were identified in five behavior items with lower values in the foreign-born Mexican-American group. A higher than the average scale value for three items in the first-generation Mexican-American. Overall higher perception of risk was reported by first generation Mexican-American workers. These findings translate that both groups of workers perceived being exposed to risk during these activities most of the time, and the consequences of it may produce a severe injury. There we also significant differences in risk perception between the groups. Although a value above the mean was reported by both groups, the US-born Mexican-Americans had a greater risk perception on three items. Further results from this research project on foreign-born Mexican-American migrants and US-born first-generation Mexican-Americans are expected to generate useful, translational information for designing interventions that allow for a reduction of occupational risk behaviors.

Keywords: Mexican-American, construction work, workplace safety, risk perception