

Promoting Occupational Health with a Diverse Workforce: NIOSH's Experience with Latino Immigrant Workers

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Introduction

The United States' workforce is undergoing dramatic demographic shifts and will likely continue to do so in the following decades. Increasing participation of men and women in previously gender-segregated fields,¹ the aging workforce² and the integration of 2.4 million soldiers who have served in Iraq and Afghanistan since 9/11³ are just some characteristics of the emerging diversity in the workplace. Perhaps most noticeable is the growing ethnic diversity in the United States, as a result of immigration and higher birthrates, which has led to estimates that there will be no ethnic or racial majority in the United States by 2042.⁴ Each group brings unique experiences, assets and challenges to the workplace in general and occupational safety and health in particular. Effectively responding to this diversity will be increasingly important for institutions in the public and private sectors alike.

One of the key contributors to these demographic shifts is immigration. The Pew Hispanic Center estimates that immigrants will make up roughly 23% of adults of working age in 2050, up from 15% in 2005.⁵ It is also predicted that immigrants and their children, from all regions of the globe, will make up 83% of the growth in the working age population of the United States during this same time period.⁶ Immigration from Latin America to the United States has grown dramatically over the past two decades and will figure prominently in these numbers. There are currently about 18 million Latino immigrants living in the United States today.⁷ This growth has been accompanied by geographic expansion into non-traditional settlement areas such as the Midwest and Southeast regions of the United States as immigration patterns responded to job opportunities in these areas of the country.^{8,9} This rapid and unanticipated growth in both traditional settlement areas and areas without bilingual infrastructure or a history of a Latino community present unique challenges and opportunities for immigrants, employers, safety professionals and institutions charged with promoting occupational safety and health.

The growth and expansion of the Latino immigrant population has been accompanied by increased occupational health disparities for Latino immigrant workers. Latino workers suffer significantly higher rates of workplace mortalities (5.0 per 100,000) than all workers (4.0), non-Latino white workers (4.0) or non-Latino black workers (3.7).¹⁰ When taken alone, Latino

immigrants to the U.S. have a workplace fatality rate of 5.9 per 100,000 person-years, which is almost 50% higher than the rate for all workers (4.0) and even greater when compared to Latino workers born in the United States (3.5). During the same period, two-thirds of work-related deaths among Latinos were among foreign-born individuals, up from just over half in 1992. These data suggest that immigrant workers may be the driving force behind the elevated rates of workplace injuries and illnesses among Latinos in the United States.

The direct and indirect cost of occupational injury and illness in the United States increased 71% from an inflation-adjusted \$217 billion in 1992 to \$250 billion in 2007.¹¹ This economic burden is similar to that of cancer and greater than that of diabetes, coronary heart disease, or stroke. During 2007 workers' compensation benefits covered less than 25% (\$55 billion) of these costs leaving the injured workers and society as a whole to absorb these additional costs. If occupational safety and health (OSH) disparities are not reduced or eliminated for Latino immigrant workers the cost to society will increase as Latino immigrant participation in the workforce grows over time.

In order to remain effective, competitive, and safe, organizations will need to ensure they have the internal capacity to successfully integrate employees from an increasingly diverse workforce. This paper includes a general discussion of the immigrant work experience based on recent NIOSH research with Latino immigrant workers across the United States. It will cover some of the challenges that safety professionals and organizations face as they work to promote occupational safety and health with immigrant workers as well as some general guidelines for solutions. While the paper focuses largely on the Latino immigrant workforce the general themes and approaches are broad enough to inform efforts with other sectors of the workforce as well.

Promoting Occupational Health with Immigrant Workers

An essential first step in improving occupational safety and health for any group of workers is developing an understanding of the factors that contribute to their getting injured. It is important to remember that these demographic changes will not only require workers to integrate and adapt to the worksite but will also require institutions to adapt and change as well. For this reason it is important to focus on the diverse perspectives, backgrounds and experiences of all workers as well as those of the organization.¹²

Understanding how to work safely is crucial in avoiding occupational injuries and illnesses. Upon arrival to the United States, immigrant workers often take jobs in industries that they did not work in their home country.¹³ They are often unfamiliar with machines, chemicals and materials that they are required to work with and the hazards associated with them. Even immigrants who worked in the same industry often find the materials and procedures are different in the United States than in their jobs back home. For example, residential home construction in Mexico often relies on cinder blocks and cement whereas materials such as wood and drywall are more common in many areas of the United States. Finally, the regulatory structure and veracity of regulation enforcement in the United States may differ greatly from that of their home country.¹⁴ Therefore, even if a worker were aware of the safety regulations governing their work they may not know how to address an unsafe situation. Providing effective safety training is therefore an essential piece to ensuring a safe workplace. However, concerns have been raised about the quality of training that immigrant workers receive. A review of Spanish-language safety materials

found that many were of poor quality.¹⁵ In addition, immigrant workers frequently report not receiving any safety training on the job in the United States.^{16,17} Finding effective ways of providing safety training to immigrant workers is an essential step in combating occupational health disparities.¹⁸ Efforts must go beyond simple translations of existing English language and the format, content, and messages should be tailor made for the target audience.¹⁹

Language differences between immigrant workers and their supervisors and co-workers are one of the most frequently cited challenges companies face in promoting safety among immigrant workers.¹⁶ This is particularly common in areas of the United States, such as the Midwest and South, which have little to no bilingual infrastructure.^{8,9} A common practice in companies without bilingual staff is for the manager to identify the “best” English speaker among the immigrant workers and have him or her translate for the other workers. This can lead to miscommunication if the employee is not as competent in English as the supervisor assumes. Additionally, it puts this employee in a position to mediate the relationship between the supervisor and the other workers which can be exploited for his or her own personal gain, if they are so inclined, by communicating one thing to the manager and another to their co-workers.¹⁸ Developing a bilingual capacity within an organization, either through training or hiring, will become increasingly important in sectors of the economy with high immigrant participation such as the construction and service sectors. One way of dealing with this is for companies to provide English classes for their immigrant workers. While this is a laudable effort, anecdotal evidence suggests that this can be perceived by U.S-born workers as immigrants receiving “special treatment”. An alternate model is to provide both English and Spanish classes so that all workers have the opportunity to improve their communication skills and even their economic situation if proficiency with a second language is rewarded by a raise in salary or included as a consideration for promotions. The common struggle of learning another language may also help break down barriers within the workforce as coworkers, both immigrant and U.S. – born, can see each other struggle with the challenges of learning another language together. Indeed, classes could be structured in such a way that students could practice with each other which could also foster increased contact between workers of different backgrounds.

While the ability to communicate is essential, fixation on language can often lead to other important cultural differences being overshadowed. In order to effectively promote occupational safety and health, training must go beyond simple translation and should be culturally tailored for the target audience.^{18,20} In the context of occupational health and immigration, culture can be generally understood as a system of shared beliefs and behaviors, either brought from home or that develop after arrival, that impact how groups of workers perceive, understand, adapt to and address safety concerns at work. Examples of cultural factors that may impact safety at work include, how immigrants understand work and their relationship to their co-workers and employers, how these understandings compare to their experiences back home, how they perceive the dangers at work relative to other risks they face in their daily lives, how they adapt to dangers at the workplace and how these understandings are similar and different from other groups of workers. A recent study of a small group of Latino immigrant workers in Chicago documents how their behaviors reflect a culture that placed a high value on hard work and being perceived as such by their employer.²¹ They were observed making overt demonstrations of their productivity to curry favor with their employers and cultivate a reputation as better employees which led to a competitive edge in the labor market relative to U.S.-born workers. It also describes the various tactics the group used to ensure that members of the team maintained a high level of productivity. While this strategy may prove effective in securing employment it can also lead to an increased

risk of injury over time. Employers who are intent on creating a safe work environment need to be aware of these evolving value systems and adaptations so they can be addressed during trainings or in one-on-one interactions.

A common mistake made by U.S.-born managers is to overlook the significant diversity that exists in the Latino immigrant community.²⁰ Differences such as one's country of origin, ethnicity or race, primary language (Spanish or a pre-Columbian language), previous work experience, time in the United States, and level of formal education are among the many factors that contribute to diversity in the Latino immigrant community and impact how immigrant workers relate to their co-workers (both immigrant and U.S.-born), their employers and safety on the job. These differences can play a critical role in how workers respond to hazards at work and need to be accounted for in the content, format and messages contained in safety trainings for workers.^{18,19} It is also important to keep them in mind when making personnel decisions. Often times it is assumed that bilingual individuals hired as safety professionals or supervisors will easily relate to and be effective with the monolingual employees because they speak the same language. While language skills are essential for effective communication it is also important to account for factors such as social position, personality, and experience when hiring supervisors or safety professionals.²⁰ The ability to speak a language does not mean that an individual has the people skills or technical knowledge necessary to be an effective leader. Finding qualified individuals can be difficult especially in areas of the country where there are a limited number of bilingual individuals in the labor market which is why it is important for companies to not become overconfident that they have "solved" their language "problem" simply by hiring one bilingual individual.

Another common mistake is for managers and institutions to focus on the immigrant's culture without examining or accounting for the culture of the organization or that of workers from the dominant group. Space limitations do not allow for a detailed discussion of areas such as organizational culture, diversity and safety culture. Suffice it to say that it is important for organizations to develop an understanding of their own internal culture and the degree to which relying on "the way we do things here" may inadvertently exclude workers from different backgrounds. Some germane question might include; what value does management place on safety, is this consistently enforced in times of both high and low productivity, how is this communicated to employees, how might limited English proficiency impact this communication, what formal and informal channels are used to address safety concerns, are these open to all workers, how might a cultural disposition to non-confrontation with authority impact important safety information flowing from workers to supervisors and managers? Understanding and overcoming cultural barriers to safety requires sensitivity to the different cultural backgrounds of the employees in any given company, knowledge of the organizational culture, and an appreciation of where these may hinder or facilitate a common understanding and practice.

Effective communication and improved cultural understanding are not the only factors to improving safety for a diverse workforce. There are also structural realities that can contribute to the occupational health disparities for immigrant workers. Structural realities often refer to laws, policies and practices such as large macro-economic trends like globalization,²² systemic discrimination such as racism,^{23,24} and industry practices like a growing reliance on temporary workers,²⁵ that contextualize the work experience and impact the likelihood or ability of workers or specific groups of workers to raise concerns about safety. Likewise macro-economic trends and industry practices also contextualize and impact the safety practices and choices of individual

companies.²⁶ While it is beyond the scope of this paper to discuss how specific trends, policies and social attitudes may contribute to or hinder occupational safety and health, it is important for safety professionals to understand how these structural realities contribute to individual and organizational behavior.

By definition, elimination of structural barriers often requires changes in policies and practices at levels (e.g. industry, federal government, international regulatory body, etc.) beyond that of the individual worker or organization. While individual workers or organizations can advocate over time for structural change to eliminate barriers to safety, there are often steps they can take in the short term to mitigate the effects of structural barriers on safety. One such example is the problem of proper fitting safety equipment for diverse workers. Most personal protective equipment (PPE) in the United States is based on measurements taken from military male recruits in the United States during the 1950s and 1960's.²⁷ These data do not account for the range of body shapes and sizes of the modern civilian workforce and therefore structurally exclude many workers in today's economy. The result is that for women, non-whites, and individuals smaller than 5'5" or taller than 6' the ability to achieve good fits for PPE decreases.²⁸ This is problematic because poor fit not only reduces the ability of the PPE to protect the worker as designed but also may result in the worker choosing to reduce or eliminate its use because it is seen as either being ineffective or uncomfortable.²⁹ There are currently efforts under way to develop better methods for collecting anthropometric data and ensuring that the datasets used to design PPE are more inclusive. For example researchers at the National Institute for Occupational Safety and Health are currently involved in improving the fit of respirators and fall protection harnesses for a wider range of body shapes.^{30,31} While more needs to be done to update anthropometric data sets and PPE for the modern workforce, formative research by NIOSH suggests that alternative-sized PPE (PPE designed for women and unisex PPE) may be more widely available than previously thought. However poor advertising to people with purchasing authority and restrictive (e.g. bulk) purchasing policies within organizations often prevent the alternative-sized PPE from reaching workers who might benefit from it.³² Updating the anthropometric databases and creating better fitting PPE for a wider range of workers is essential in improving the health and safety of a diverse workforce, but it will take time. In the mean-time individual companies can take action to investigate what alternative-sized PPE is currently available and how they can adapt their purchasing procedures to make it more accessible to their workforce.

Conclusion

Promoting occupational safety and health will increasingly require tools – both practical and theoretical – that directly address diversity and inform necessary adaptations to current practices to make them more responsive to a diverse workforce. Organizations and safety professionals will increasingly be called upon to develop and implement safety promotion programs that account for this diversity in both the short and long term planning of the organization. Developing a detailed understanding of the diversity that currently exists in a company's workforce and how they understand and approach workplace safety is an important first step in building an institution's capacity to effectively promote occupational safety and health among their workers. Essential to this process is developing a more precise understanding of the workforce and appreciation for the diversity that exists within groups of workers such as Latino immigrants. Translating these diverse perspectives into tailored practices and interventions will help ensure that different levels of knowledge and cultural perspectives are specifically addressed in trainings. Efforts to create

institutional capacity to effectively work with a diverse workforce will require planning on both the short and long term. This capacity will likely be developed through targeted hiring as well as internal training. Finding inclusive ways to build institutional capacity by promoting a common destiny may be more effective than providing additional training for some groups of workers so that they “fit in”. This may be especially true if incentives are attached to skill building such as developing proficiency in another language. Structural barriers to safety are some of the hardest to address and will likely require organizations to simultaneously participate in long-term solutions as well as efforts to mitigate their impact in the short-term. Effectively addressing the diversity that currently exists in an organization will not only provide a foundation for integrating those workers into the organization but can also help develop institutional capacity that will allow the organization to more easily integrate diverse groups of workers in the future.

Disclaimer

The findings and conclusions in this report are those of the author and do not necessarily represent the views of the National Institute for Occupational Safety and Health.

Bibliography

- Sarkar, M. 2002. *Women in Construction*. Home Economics (retrieved January 24, 2013) (<http://secure.builderbooks.com/publications/HE/2002sep/Sarkar-0902.pdf>)
- Committee on the Long-Run Macro-Economic Effects of the Aging U.S. Population. *Aging and the Macroeconomy: Long-Term Implications of an Older Population*. Washington, D.C.: National Academies Press, 2012.
- Waterstone M. Returning Veterans and Disability *Law Notre Dame Law Review*, 2009. 85
- Johnson KM and Lichter DT. Growing Diversity among America's Children and Youth: Spatial and Temporal Dimensions. *Population and Development Review*, 2010. **36**(1).
- Passel, J.S. and D.V. Cohn, *U.S. Population Projections: 2005–2050*. Washington: Pew Research Center, 2008.
- Congretional Budget Office. *The Role of Immigrants in the U.S. Labor Market*. Washington, 2005.
- Batalova J and Terrazas A. 2010. *Frequently Requested Statistics on Immigrants and Immigration in the United States*. Migration Information Source. (retrieved January 24, 2013) (<http://www.migrationinformation.org/feature/display.cfm?ID=818#2>).
- Pew Hispanic Center. *The New Latino South: The Context and Consequences of Rapid Population Growth*. Washington, July 2005. p. 1-45.

- Gouveia L and Saenz R. *Global Forces and Latino Population Growth in the Midwest: A regional and Subregional Analysis*. Latino/a American Studies Faculty Proceedings & Presentation, 2000.
- Cierpich, H., et al., *Work-Related Injury Deaths Among Hispanics-United States, 1992-2006* (Reprinted from *MMWR*, vol 57, pg 597-600, 2008). *Jama-Journal of the American Medical Association*, 2008. **300**(21): p. 2479-2480.
- Leigh, J.P., Economic burden of occupational injury and illness in the United States. *The Milbank Quarterly*, 2011. 89(4): p. 728-772.
- Koonce R. Redefining diversity: It's not just the right thing to do; it also makes good business sense. *Training and Development*, December, 2001.
- Eggerth, D.E., et al., *Work Experiences of Latina Immigrants: A Qualitative Study*. *Journal of Career Development*, 2012. **39**(1): p. 13-30.
- Flynn, M.A., P. Check, and D.E. Eggerth, *Fomento de la seguridad y la salud ocupacional de los trabajadores inmigrantes de México en los Estados Unidos: Posibles esfuerzos de colaboración entre agencias estadounidenses y mexicanas* in *Reflexiones en torno a la emigración mexicana como objeto de políticas públicas* P. Leite and S.E. Giorguli, Editors. 2010, Consejo Nacional de Poblacion: Mexico City DF. p. 87-98.
- Brown MP. *An examination of occupational safety and health materials currently available in Spanish for Workers as of 1999*, in *Safety es Seguridad*, National Research Council. Washington: National Academies Press, 2003.
- O'Connor, T., et al., *Adequacy of health and safety training among young Latino construction workers*. *Journal of Occupational and Environmental Medicine*, 2005. **47**(3): p. 272-277.
- Gany F, et al. *Mexican Urban Occupational Health in the US: A Population at Risk*. *J Community Health*, 2011. **36**(2): p. 175-179.
- O'Connor T et al. *Education and Training for Underserved Populations*, presented at the Eliminating Health and Safety Disparities at Work Confernece. Chicago: 2011
- Brunette MJ. *Development of educational and training materials on safety and health - Targeting hispanic workers in the construction industry*. *Family & Community Health*, 2005. **28**(3): p. 253-266.
- Eggerth DE and Flynn MA. *When the Third World Comes to the First: Ethical Considerations When Working With Hispanic Immigrants*. *Ethics & Behavior*, 2010. **20**(3-4): p. 229-242.
- Gomberg-Munoz R and Nussbaum-Barberena L. *Is Immigration Policy Labor Policy?: Immigration Enforcement, Undocumented Workers, and the State*. *Human Organization*, 2011. **70**(4): p. 366-375.

- Siqueira CE, et al. *Effects of social, economic and labor policies on occupational health disparities*. Presented at the Eliminating Health and Safety Disparities at Work Conference. Chicago: 2011.
- Krieger N. *Workers Are People Too: Societal Aspects of Occupational Health Disparities-An Ecosocial Perspective*. Am J Ind Med, 2010. **53**(2): p. 104-115.
- Krieger N, et al. *Social hazards on the job: Workplace abuse, sexual harassment, and racial discrimination - A study of black, Latino, and white low-income women and men workers in the United States*. International Journal of Health Services, 2006. **36**(1): p. 51-85.
- Landsbergis, P.A., J.G. Grzywacz, and A.D. LaMontagne, *Work organization, job insecurity, and occupational health disparities*. Presented at the Eliminating Health and Safety Disparities at Work Conference. Chicago: 2011.
- National Institute for Occupational Safety and Health. 2008 *NORA Construction Agenda*. (retrieved January 24, 2013)
(<http://www.cdc.gov/niosh/nora/comment/agendas/construction/pdfs/ConstOct2008.pdf>).
- Spahr J, et al. *Anthropometric Differences Among Hispanic Occupational Groups*. Presented at the National Occupational Injury Research Symposium. Pittsburgh, PA: 2003.
- Hsiao H, et al. *Development of sizing structure for fall arrest harness design*. Ergonomics, 2009. **52**(9): p. 1128-43.
- Goldenhar LM and Sweeney MH. *Tradeswomen's Perspectives on Occupational Health and Safety: A Qualitative Investigation*. American Journal of Industrial Medicine, 1996. **29**(5): p. 516-520.
- Zhuang, Z., S. Benson, and D. Viscusi, *Digital 3-D headforms with facial features representative of the current US workforce*. Ergonomics, 2010. **53**(5): p. 661-71.
- Hsiao H. 2012. *Anthropometric Procedures for Protective Equipment Sizing and Design*. Human Factors: The Journal of the Human Factors and Ergonomics Society. (retrieved on January 24, 2013)
(<http://hfs.sagepub.com/content/early/2012/11/28/0018720812465640.full.pdf+html>).
- DeLaney S. *Web-based Marketing of Alternative-sized PPE for a Diverse Workforce*. Presented at the NIOSH-PPT Program Stakeholder Meeting. Pittsburgh PA: 2012.