

# Creating a Safer Workforce

*Training needs for Hispanic and foreign-born workers*

*By Susan M. Smith, Teresa Perry and Diana Moyer*

**T**O ADDRESS THE TRAINING NEEDS of Hispanic and other foreign-born workers, the following questions must be considered: 1) Are there cultural or attitude barriers to safety that training should address? 2) Which training approaches have been successful in multilingual and culturally diverse worksites?

Statistics show that Hispanic and foreign-born workers occupy lower-wage, higher-hazard jobs and sustain more work-related injuries than non-Hispanic, native-born workers. Lower education levels, illiteracy and limited English proficiency increase the possibility of injury or death associated with higher risk occupations (Loh & Richardson, 2004). This article focuses primarily on Hispanic workers—a population that is expected to be the largest U.S. ethnic minority by 2010. The goal is to illustrate how safety and technology education, and recent labor union and industry innovations can contribute to a safe, healthy work environment.

## **U.S. Workforce Statistics**

The U.S. workforce is becoming older and more racially and ethnically diverse. The retirement of the baby boomer generation, immigration and differences in population subgroup birth rates will significantly change future demographics of the U.S.

**Susan M. Smith** is an associate professor at the University of Tennessee (UT), Knoxville, where she is also coordinator of the UT Safety Program and director of the UT Safety Center. She coordinates and teaches graduate courses and conducts research in the areas of injury prevention for special populations, emergency planning and evacuation, and environmental health. In 2004, Smith received the National Safety Council's Distinguished Service for Safety Award. She is a member of ASSE's East Tennessee Chapter.

**Teresa Perry** is a doctoral student in the community health program with a specialization in safety and emergency management at UT. Perry has more than 27 years' experience in engineering, assessment and safety performance evaluation.

**Diana Moyer** is an assistant professor at UT. She teaches graduate-level courses in cultural studies within the Department of Instructional Technology, Health and Cultural Studies. Her research interests include cultural studies of education and the history of education.

workforce. Between 2000 and 2050, Hispanics and Asians are expected to double their percentage share of the workforce. By 2050, it is projected that Hispanics will make up 24% of the workforce, African-Americans will account for 14% and Asians will represent 11% (Toossi, 2002).

Foreign-born workers made up 15% of the workforce in 2005 and will continue to be a vital component of the U.S. economy. Immigration will account for 63% of U.S. population growth in the next 50 years (Camarota, 2001). Currently, 49% of foreign-born workers are Hispanic; 22% are Asian; and 20% are white (non-Hispanic). In comparison, the native-born workforce is 7% Hispanic and 1% Asian (BLS, 2006). Regional distribution patterns of recent U.S. immigrants are 34% western U.S.; 30% southern; 23% northeastern; and 12% midwestern (NAM, 2005).

With regard to formal education, 72% of foreign-born workers who are 25 years old had completed high school, whereas 93% of native-born workers had completed high school. In addition, foreign-born workers were more likely than their native-born counterparts to be employed in service, construction, maintenance and transportation jobs, and were less likely to be employed in professional, sales and office jobs. Foreign-born workers also earned a median weekly income which is 75% of that of native-born workers (BLS, 2006).

An immediate challenge to employers and safety professionals is the high rate of occupational fatalities among Hispanics and foreign-born workers. Hispanic immigrants have a higher percentage of work-related injuries than any other ethnic group (Vazquez & Stalnaker, 2004). Hispanic workers are 48% of the foreign-born workforce, yet account for 6 of 10 fatalities among this group (Richardson, 2005).

The rise in the fatal work injuries from 4.0 per 100,000 workers in 2003 to 4.1 in 2004 was the first increase in the overall U.S. worker fatality rate since 1994. Among Hispanic workers, the fatality rate increased even more sharply—from 4.5 per 100,000

## Definitions

**Civilian labor force.** Includes persons employed or unemployed who are at least 16 years old and are not institutionalized or serving in the military (BLS, 2006).

**Foreign born.** Persons residing in the U.S. who were born in countries other than the U.S. or an outlying area of the U.S. (e.g., Puerto Rico) to parents who are not U.S. citizens (BLS, 2004).

**Hispanic.** Hispanic or Latino is used to describe persons from Mexico, Puerto Rico, Cuba, Central or South America, or other (Spanish or not-classifiable) origins (BLS, 2004). Although the terms Hispanic and Latino are often used interchangeably, Hispanics and Latinos have different histories, political connotation and group allegiances (Granados, 2000).

**Native born.** Persons born in the U.S. or one of its outlying areas who were born in a foreign country and have at least one parent who is a U.S. citizen (BLS, 2004).

**Racial minority.** The U.S. Census Bureau has grouped racial/ethnic minorities into five categories: Hispanic or Latino; Black or African-American; Asian; Native Hawaiian and Other Pacific Islanders; and American Indian and Alaskan Native populations. Unlike the other categories, Hispanic refers only to ethnic origins and may include people from any racial background.

in 2003 to 4.9 in 2004. Eleven percent more Hispanics died on the job in 2004 than in 2003. Fatalities due to falls and transportation incidents both increased 27%. Foreign-born Hispanic workers accounted for approximately 65% of the 883 Hispanic worker fatalities. Fatal work injuries also increased 12% among workers of Asian, Native Hawaiian or Pacific Islander descent. This statistic includes two multiple fatality incidents in 2004, in which 24 Asian workers were killed (BLS, 2004). The construction industry accounted for the second highest percentage of Hispanic fatalities and the highest percentage of nonfatal injuries.

### Findings on Worker Training Needs

Research is growing on the safety, health and job skill training needs of the U.S. workforce, which includes increasing numbers of non-English-speaking workers. In 2000, the National Academy of Science Committee to Assess Training Needs for Occupational Safety and Health Personnel published recommendations for increasing safety and health services for culturally diverse workplaces. The report advocated evaluating current worker safety and health training, establishing minimum quality standards and increasing attention to the needs of older, female and ethnic/cultural minority workers (IOM, 2000).

In a study of 45 open-shop (nonunion) construction companies, researchers reported that 89% provided safety and health training to workers, but only 22% provided safety training to subcontractors. Reasons for not conducting training included expectations that subcontractors did their own safety training; expectations that the training had to meet contractual requirements; and lack of time. Only 65% of companies tried to make the training job-specific and only 63% used some means to measure effectiveness (Goldenhar, Moran & Colligan, 2001).

Research on culturally diverse students suggests links between ethnicity and learning styles (Irvine & York, 1995). Irvine and York's literature review on Hispanic student learning styles found a tendency to "prefer group learning situations; be sensitive to the opinions of others; remember faces and social words; be extrinsically motivated; learn by doing; prefer concrete representations to abstract ones; [and] prefer people to ideas." Despite the significant differences between adult and youth Hispanic learners, preference for group learning and hands-on activities is a common theme.

Culturally influenced attitudes toward authority can have serious consequences for workplace safety. Vazquez and Stalnaker (2004) found that respect for authority makes many Hispanics reluctant to disagree with individuals in leadership positions. Non-Hispanic employers often misinterpret head nods and apparent compliance as an indication of the worker's comprehension of instructions. Workers' concerns about keeping their jobs and not causing conflict also leads to fewer questions about safety procedures and the underreporting of injuries and worksite hazards. Illegal immigrants are significantly less likely to report injuries or unsafe working conditions because of fear of deportation.

Disreputable businesses that exploit the fears of undocumented workers do widespread harm to worker safety efforts. Particularly alarming was federal immigration agents' false call for a mandatory OSHA meeting for Seymour Johnson Air Force Base workers in North Carolina as a ruse to arrest illegal immigrants. Cecilia Muñoz, policy vice president of the National Council of La Raza, noted that "our ability to keep the workforce safe depends on workers being able to complain, and by masquerading as OSHA officials, immigration authorities will clearly discourage immigrant workers from coming forward. This will not only affect immigrant workers, but it will also affect the safety of all workers" (Greenhouse, 2005).

Creating trust between management and workers takes time. Workers who move frequently to different worksites have fewer opportunities to build trust and communicate openly. Hispanic culture exhibits strong family ties and many workers see other Hispanics in the workplace as an extended family. Safety concerns are often voiced to peers rather than management or supervisors. Vazquez and Stalnaker (2004) recommend that safety and health training, and on-the-job safety meetings and briefings be con-

**Abstract:** *Statistics indicate that Hispanic and foreign-born workers occupy lower-wage, higher-hazard jobs and incur more work-related injuries than their non-Hispanic, native-born counterparts. This article provides a review of research, publications and current demographics in the area of worker fatalities, injuries and illnesses in the U.S. workforce and the role of safety and technology education in improving worker safety.*

ducted in Spanish for workers with limited English proficiency and that they be led by a Hispanic person. Safety and health training should have a low student-to-trainer ratio and focus on the job being performed. Demonstrations of safety equipment should include both how to use the equipment and why it is needed. Vazquez and Stalnaker (2004) also encourage making injury-free job completion—not simply finishing the job—the top priority.

Culture is just one factor that influences individual learning and communication styles. Safety educators should avoid overgeneralizations that equate culture or ethnicity with one particular style of learning. Country of origin, age, literacy level, level of family/community support, experiences with discrimination, dialect differences, previous work experience and worker turnover are some factors that might influence safety training effectiveness (University of Tennessee, 2006; University of South Carolina, 2001). The term Hispanic applies to a diverse group. People of Hispanic origin can be of any race and come from many different countries. Based on data collected between 1997 and 2001, Zsembik and Fennell (2005) emphasize the variations in health risks, cultural values and socioeconomic circumstances among Mexicans, Puerto Ricans, Cubans and Dominicans. The authors concluded “that racial/ethnic comparative health research should avoid pan-ethnic groupings, and explicitly acknowledge ethnic group distinctiveness” (Zsembik & Fennell).

Understanding the differences among national and ethnic groups is particularly important with Asian-American and Pacific Islander employees. Representing 50 nations and more than 100 languages and dialects, Asian-American and Pacific Islanders are the fastest-growing and most diverse minority populations in the U.S. To be effective, worker education programs must address the differences that exist within and between ethnic groups.

In addition to safety training, researchers identify job skill training as a need for immigrant workers. Evanciew and Wither (2004) cites the 2000 census data, which indicated that 29% (8.8 million) of foreign-born workers came from Mexico. They note that this has presented both pluses and minuses for U.S. industry. Evanciew and Wither note that immigrants fill lower-wage jobs, but do not have the technical skills and knowledge needed for many manufacturing and industrial trade jobs. Many immigrants are looking to learn skills rather than teach them to others. Although companies are spending less in wages, they spend more resources addressing immigrant worker training to overcome language barriers and improve skills.

The problem of filling skilled labor needs now and in the future has been compounded as the U.S. education system has changed its emphasis over the past few decades toward college-bound preparation and away from technology and vocational education, leaving a void in the future skill base of the workforce. Maintenance and repair of complex machinery requires skills that are becoming more rare, and appren-

## Diverse Origins: Asian-American & Pacific Islanders (A APIs)

- Immigrants from Cambodia and Laos suffer the highest poverty rates among all U.S. racial and ethnic minorities.

- Southeast Asians have one of the highest rates of being uninsured.

- 37% of A APIs have graduated from college, compared to only 20% of the total U.S. population. A different picture emerges when looking at specific populations of A APIs: Only 11% of Pacific Islanders have graduated from college and only 40.7% of Mhong-Americans graduate from high school.

- Asian immigrants have the highest rate (80%) of naturalization among U.S. minority groups.

- The socioeconomic status of Pacific Islanders has more commonalities with African-Americans and Hispanics than Asians.

*Note. From Asian and Pacific Islander American Health Forum., <http://www.apiahf.org>, and National Council of Asian Pacific Americans, Call to Action: Platform for Asian Pacific Americans National Policy Priorities, [http://www.ncapaonline.org/2004\\_Call\\_to\\_Action.pdf](http://www.ncapaonline.org/2004_Call_to_Action.pdf).*

ticeship programs have declined. Evanciew and Wither (2004) propose introducing a national standard for industrial maintenance workers and reintroducing technology education in the general educational curriculum of U.S. schools to begin to address future workers. They also encourage partnerships between schools and local businesses.

Transportation occupations continue to account for higher numbers of work fatalities. Research suggests that the unsafe driving practices of some immigrant workers are tied to attitude and beliefs. In a study of immigrant Mexican agricultural workers living in labor camps in California, safe driving practices were not followed, both when traveling back roads and when transporting family members and small children (Stiles & Grieshop, 1999). The researchers collected two sources of data on the use of safety devices when operating vehicles for both personal and work-related travel. They interviewed workers and secretly observed workers' use of safety devices. The researchers also obtained accident and driving citation records of the workers. Workers interviewed by researchers reported much higher safety belt and child carrier use than was actually observed by researchers.

Workers were also quizzed on their knowledge of safety rules for driving and transporting children and on their knowledge of which types of roadways are more hazardous. The researchers noted, “Much of the resistance to using the safety devices is ingrained in basic behaviors and beliefs.” They

found that several workers, especially those who had not obtained a driver's license in the U.S., had misconceptions about safe driving practices. Drivers with no license or with non-U.S. licenses had a higher accident and ticket rate than those who had obtained U.S. licenses. The authors advocated three items to reduce risk and accidents for diverse, migratory workers and for those who must share the roadways with them: "culturally sensitive materials, easy access to risk-reducing devices," and easy-to-comprehend training strategies (Stiles & Grieshop, 1999).

Walter, Bourgois and Loinaz (2004) shared accounts of treating hundreds of workers at a clinic and documented some 40 workers and their lives over an extended period. The workers were undocumented immigrants separated from their families for weeks, months or years in order to earn more money in the U.S. to support their families. Many immigrants regularly stood on corners in the Mission District of San Francisco looking for daily work. Work-related injuries ranged from minor to severe, and the workers would hide their injuries for fear of not being chosen to work. These injuries were in addition to published high statistics of immigrant Latino injuries (Walter, Bourgois & Loinaz).

In a study of pre-apprentice training (36-week course) for refrigeration mechanics, Bell (2000) reported that many students did not speak English as a native language or first learned to read in English although it was not their native language. Bell found that the text and long reading and writing assignments made it difficult to learn the basic skills needed to perform refrigeration and air conditioning repair and maintenance. Based on interviews with the other students, many reported not being able to understand the text, which had more than 1,000 pages. The instructor followed the standard course syllabus, requiring students to read at least 20 pages before the lecture on the material and write answers to chapter questions. Students reported that it was too hard to comprehend and found it much easier to read after the instructor had covered the material in class.

Bell noted that instructors for trade programs must be well-versed and experienced in their trade but are not required to have any teacher training or language education training. Bell also noted "many workers in job-training programs are contending with challenges that relate to the literacy demands of the training rather than the demands of the potential job." Although they did not like the text or writing assignments, the students were very complimentary of the instructor's interaction during class and encouragement to ask questions. The researcher suggested "displaced workers of all language backgrounds clearly need support to develop the skills to work critically with texts; working within a primarily oral and context-embedded mode is helpful" (Bell).

### **Union & Company Involvement**

In a study of 3,300 injured construction workers treated at the Emergency Department of George Washington University in Washington, DC, re-

searchers found that the injured Hispanic workers performed lower skilled trades work, had a higher proportion of serious injuries, were off work 3 to 4 times longer than other injured workers, and had lower union representation. Only one-quarter of Hispanic workers reported belonging to a union, whereas one half of white and black workers had such affiliations. The researchers concluded that injury patterns observed were "largely a function of employment patterns." Most were laborers; few were in higher skilled trade occupations. "Hispanics had a higher proportion of serious injuries and were disadvantaged in terms of training and union status" (Anderson, Hunting & Welch, 2000).

In September 2004 in North Carolina, after more than 5 years of pressuring the Mt. Olive Pickle Co. and the North Carolina Growers Association, migrant farm workers were successful in gaining union representation and improved pay, benefits and workers' compensation. The unionized workers entered the U.S. under a federal visa program and worked on cucumber farms during the growing and harvesting seasons. With the new agreement reached between the Farm Labor Organizing Committee, which represents several thousand workers, and the North Carolina Growers Association, workers would receive a pay increase of 10% over the subsequent 3 years. In addition, the agreement included a 3% annual bonus for growers that provided workers' compensation insurance to employees (Edwards, 2004).

### **Underlying Causes**

Language barriers and lack of education can hamper a worker's understanding of the potential hazards they may face and the job skills needed in the workplace. Workers whose first language is not English face an additional challenge in learning safe and efficient ways to perform work or what avenues are available for questioning practices they consider unsafe. Trainers may be using traditional classroom methods and texts that hinder rather than enhance the learning process for language-challenged workers.

Underlying attitudes and unsafe driving behaviors that may have been acceptable practice before coming to the U.S. may continue once workers have immigrated. Unsafe practices at home may influence family and children to continue these behaviors as these individuals enter the future workforce. Some immigrant and undocumented migrant workers may have family and financial pressures that override personal safety as a priority and may hide injuries or be afraid to report injuries or unsafe working conditions for fear of losing work and income.

While job safety training is offered both formally and informally to 58% of U.S. workers, the quality

*Language barriers and lack of education can hamper workers' understanding of the potential hazards they may face and the job skills needed in the workplace.*

## Checklist for Safety Training Providers

1) Training materials can be obtained in various media formats to assist the trainer in the challenges of training a changing workforce. Resources are available in multiple languages from numerous online sources, particularly government or government-sponsored sites.

2) Review materials prior to use. Remember to verify the quality of the training materials. While most multilingual training materials are good quality, some are poor translations and should have been reviewed by a native speaker/writer in the language.

3) Assess or confirm worker understanding and retention of the safety and health topics covered. If possible, include exercises, demonstrations, hands-on activities and visual aids to reinforce understanding of the materials presented, especially if language barriers exist.

4) Involve others as needed to refine and improve the training experience. Adding a teaching partner from the same cultural and language background as the students supports increased acceptance and participation. Obtain feedback from students and observers to help improve future training classes.

5) No single training method is the best for presenting safety training. Workers of various cultures and languages may prefer a variety of teaching methods for an optimal learning environment. Be willing to experiment with different teaching techniques and levels of student interaction and involvement in the training process.

and consistency of the information provided is unknown. In addition, according to a BLS report released in 1996, the amount of time per worker allocated to occupational safety training is limited, averaging only 2.4 hours in a 6-month period with just 36 minutes of the total time in formal safety training (BLS, 1996). In the same document, BLS reported that only 18 minutes per worker of training was provided in basic skills during the same 6-month period. In the area of race and ethnicity, white workers (48.5 hr) received more total hours of training than either black (27.7 hr) or Hispanic workers (32.7 hr). Younger (24 and under) and older workers (55 and older) received far less training per worker than those age 25 to 54 (BLS, 1996). In addition, many contractors do not provide subcontractor safety training and expect subcontractors to provide their own safety training—which may meet the general contract provisions but may result in inconsistent implementation at the same site.

The level of skilled craftspeople and apprentice programs has declined, which leaves lower-knowledge and less-skilled workers to perform the same tasks, which in turn creates the potential for increasing the risk to both the worker and the useful life and reli-

ability of machines and equipment. In addition to language and educational barriers, many migrant and foreign-born workers have no organized representation or union to provide apprenticeship or mentoring programs and to seek better working conditions and workers' compensation insurance.

### Recommendations/Actions/Countermeasures

Safety training and job skills training—both formal and informal—support the objectives of working safely and efficiently. The targeted workers benefit most from this training when it is in their language and presented in an easy-to-understand manner. As noted, training programs must be developed with consideration of the ethnic makeup of the workforce. In addition, this safety training should be presented by trainers of the same ethnic background who speak the same language whenever possible. Another possibility is team-teaching, meaning one instructor is the same ethnicity as the workforce. Because of the lower education level of many foreign-born workers, more basic education may be needed in order to provide a better foundation for learning safety and health practices and regulations.

While a growing amount of training materials and safety literature and media are available in Spanish, the quality of training should be carefully considered. In a workshop conducted by the National Research Council Committee on Communicating Occupational Safety and Health Information to Spanish-Speaking Workers, participants noted that translation of training materials needs more emphasis. They found that while most materials on safety and health that had been translated from English to Spanish were good quality, some were badly in need of review and revision by a native Spanish speaker/writer (NRC Committee, 2003).

The decline of technology education over the past 25 years and the decreased emphasis on skilled manufacturing and maintenance workers has left an insufficient number of skilled workers to perform maintenance and repairs, and to train the newer, inexperienced workers. This knowledge and experience gap will continue to grow unless new strategies are developed and implemented. Less-experienced and less-skilled workers are more prone to accidents and injury. Training programs and trainers for trades and labor need to adapt their methods and materials to the trainees.

More emphasis must be placed on earlier safety and health and technology education of the younger population and the foreign-born workers performing manufacturing, maintenance, transportation and agricultural work. Safety and health training must move beyond the workplace and be provided in the community, schools and home. In particular, emphasis is needed on safe driving, obtaining a license, following roadway regulations, and proper use of safety belts and child seats.

Improvements in occupational safety and health emphasis, training and workers' compensation benefits for immigrant and less-skilled laborers and farm workers have been made for workers who have organ-

## Safety Training Tips from Spanish-Speaking Construction Workers

- Develop videos in Spanish.
- Provide bilingual training (e.g., recognizing English warning signs).
- Supply more graphics and statistics in Spanish.
- Offer more hands-on training and demonstrations (e.g., donning safety harnesses).
- Combine longer training with refresher training.
- Employ more Spanish-speaking trainers.

*Note.* Ruttenberg, R. & Lazo, M. (2004).

ized and sought both public and political involvement. Based on gains made for day laborers in California and farm workers in North Carolina, a foundation and a roadmap have been established for other workers to follow in improving their working conditions and benefits and lowering their safety and health risks.

The checklist on page 24 integrates some current research recommendations into a concise format. It is intended to be an additional resource for those developing safety and health training for workers with varied cultural and language backgrounds.

### Conclusion

Occupational safety and health education as well as training materials and training providers in the U.S. must continually adapt to the changing characteristics and demographics of the workforce. Training and experience needs for some sectors of the workforce extend beyond safety and health to include general education, technology education, use of safety devices while operating vehicles and equipment, and skill of the craft. Research and recent events indicate that as workers become more educated and organized, and have stronger representation and leadership, demands for improved working conditions and legal and union victories should improve worker health benefits and reduce the disproportionately greater safety risks for immigrant and non-English-speaking workers. ■

### References

- Anderson, J., Hunting, K. & Welch, L. (2000). Injury and employment patterns among Hispanic construction workers. *Journal of Occupational and Environmental Medicine*, 42(2), 176-186.
- Bell, J.S. (2000). Literacy challenges for language learners in job-training programs. *Canadian Modern Language Review*, 51(1), 173-200.
- Bureau of Labor Statistics (BLS). (1996, Dec. 19). *BLS reports on the amount of formal and informal training received by employees* [News release]. Washington, DC: Author. Retrieved March 23, 2005, from <ftp://ftp.bls.gov/pub/news.release/sept.txt>.
- BLS. (2004). *Census of fatal occupational injuries summary* [News release]. Washington, DC: Author. Retrieved Aug. 25, 2005, from <http://www.bls.gov/news.release/cfoi.nr0.htm>.
- BLS. (2006, April 14). *Foreign-born workers: Labor force characteristics in 2005* [News release]. Washington, DC: Author. Retrieved Oct. 17, 2006, from <http://www.bls.gov/news.release/forbrn.toc.htm>.

Camarota, S. (2001, Aug. 2). The impact of immigration on U.S. population growth. (Testimony prepared for the U.S. House of Representatives Committee on the Judiciary Subcommittee on Immigration, Border Security and Claims). Washington, DC: Center for Immigration Studies.

Centers for Disease Control and Prevention (CDC). (2002). *The construction chart book*. (3rd Ed.). Washington, DC: Author. Retrieved April 16, 2005, from <http://www.cdc.gov/elcosh/docs/d0100/d000038/glossary.html>.

CDC. (2004a). CDC: Protecting the health for life—The state of the CDC, fiscal year 2004. Washington, DC: Author. Retrieved April 10, 2005, from <http://www.cdc.gov>.

CDC. (2004b). *Worker health chartbook*. Washington, DC: Author. Retrieved April 16, 2005, from <http://www.cdc.gov/niosh/docs/chartbook>.

Edwards, B. (2004, Sept. 16). Boycott against Mt. Olive Pickle finally over. *Goldsboro News-Argus Newspaper*, Wayne County, NC. Retrieved Oct. 18, 2006, from <http://www.newsargus.com/news/archives/2004/09/16>.

Evanciew, C. & Wither, S. (2004). Replacing technically skilled workers: Challenges and suggestions. *Journal of Industrial Teacher Education*, 41(1), 20-36.

Goldenhar, L., Moran, S. & Colligan, M. (2001). Health and safety training in a sample of open-shop construction companies. *Journal of Safety Research*, 32(2), 237-252.

Granados, C. (2000, Dec.). "Hispanic" vs. "Latino": A new poll finds that the term "Hispanic" is preferred. Retrieved Oct. 24, 2006, from [http://www.hispaniconline.com/hh/hisp\\_vs\\_lat.html](http://www.hispaniconline.com/hh/hisp_vs_lat.html).

Greenhouse, S. (2005, July 16). An immigration sting puts two federal agencies at odds. *The New York Times*, A5: p. 11.

Institute of Medicine of the National Academies (IOM). (2000). *Safe work in the 21st century: Education and training needs for the next decade's occupational safety and health personnel*. Washington, DC: National Academy Press.

Irvine, J. & York, D.E. (1995). Learning styles and culturally diverse students: A literature review. In J.A. Banks (Ed.), *Handbook of research on multicultural education* (pp. 484-497). New York: Simon & Schuster Macmillan.

Loh, K. & Richardson, S. (2004). Foreign-born workers: Trends in fatal occupational injuries, 1996-2001. *Monthly Labor Review Online*, 127(6), 42-53.

National Association of Manufacturers (NAM) Center for Workforce Success. (2005). *Closing the immigrant skills gap: A report on challenges and opportunities facing the manufacturing sector*. Washington, DC: Author. Retrieved Oct. 19, 2006, from [http://www.nam.org/s\\_nam/bin.asp?CID=201501&DID=235689&DOC=FILE.PDF](http://www.nam.org/s_nam/bin.asp?CID=201501&DID=235689&DOC=FILE.PDF).

National Research Council (NRC) Committee on Communicating Occupational Safety and Health Information to Spanish-speaking Workers. (2003). *Safety is seguridad: A workshop summary*. Washington, DC: National Academy Press.

Richardson, S. (2005). Fatal work injuries among foreign-born Hispanic workers. *Monthly Labor Review*, 128(10), 63-67.

Ruttenberg, R. & Lazo, M. (2004). Spanish-speaking construction workers discuss their safety needs and experiences. Silver Spring, MD: The Center to Protect Workers' Rights.

Stiles, M.C. & Grieshop, J.I. (1999). Impacts of culture on driver knowledge and safety device usage among Hispanic farm workers. *Accident Analysis & Prevention*, 31(3), 235-241.

Toossi, M. (2002). A century of change: U.S. labor force from 1950 to 2050. *Monthly Labor Review*, 125(5), 15-28.

University of South Carolina, Darla Moore School of Business. (2001, June). Hispanic needs assessment field study. Columbia, SC: Author.

University of Tennessee-Knoxville, School of Information Sciences. (2006). A conference on the new Latino immigration to Tennessee: Opportunities and challenges.

Vazquez, F. & Stalnaker, C. (2004, June). Latino workers in the construction industry: Overcoming the language barrier improves safety. *Professional Safety*, 49(6), 24-28.

Walter, N., Bourgois, P. & Loinaz, H. (2004). Masculinity and undocumented labor migration: Injured Latino day laborers in San Francisco. *Social Science & Medicine*, 59(6), 1159-1168.

Zsembik, B. & Fennell, D. (2005). Ethnic variation in health and the determinants of health among Latinos. *Social Science and Medicine*, 61(1), 53-63.