

# **Continued Study of Hispanic Construction Worker Safety Perspectives**

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The purpose of this article is to discuss the results of a 2007 study exploring Hispanic construction worker perspectives about jobsite safety in Florida. The approach and objective of this study are similar to a 2004 study in which subjective one-on-one interviews were conducted to explore Hispanic workers' roles, behavior and attitudes concerning working relations, safety and quality of work. Observations from the 2007 study indicate positive change in Hispanic construction workers' safety perspectives. Further discussion relates these observations to changes in Hispanic construction industry data for the U.S. and Florida for the period of the studies. Though a limited study, it appears that industry's effort to create safer construction work environment and change Hispanic workers' perspectives is working.

**Key Words:** Bilingual, Construction worker, English, Hispanic, Safety, Spanish speaking.

## **Introduction**

There is much data available today verifying the attractiveness of the U.S. construction industry to Hispanic immigrant workers eager to earn a living. Data from the U.S. Census Bureau indicates many Hispanic immigrant workers have low education rates, few job skills, and a lack of proficiency in the English language (U.S. Census Bureau, 2007). These issues, along with the inherently dangerous nature of construction, contribute to disproportionate injury/fatality rates for Hispanic construction workers. It also continually presents management challenges to current and future U.S. construction worker safety, especially with the increases in the number of construction projects and Hispanic construction workers (Jenkins, 2007).

“According to a 2005 study conducted by the Associated Press, Hispanic workers are 80 percent more likely to die in the American workplace than workers of any other race” (Pierson, 2005). It is recognized that one of the keys to a safer work environment is better communication and understanding between Hispanic workers and management in the construction workplace. This is evident by the increased use of Hispanic bilingual field managers, the number of Spanish and English language classes offered by construction companies and industry organizations, the proliferation of safety publications, videos and training classes presented in both languages and increased company awareness and enforcement of standards and expectations. Improving safety has been the major motivator.

Along with fulfilling the legal and moral obligations of promoting a safe workplace to all workers, greater efforts to improve safety for Hispanic workers have proven to be a “profit center”. Results include reduced construction company Workers Compensation Experience Modifier Ratings. Many companies note increased worker moral leading to improved safer field production. The common goal of a safe workplace can be used as a management platform leading to “mutual benefit” for both parties. Today safety records are typically considered as part of evaluation criteria used for qualification based contractor selection. A company-wide emphasis on jobsite safety, coupled with a strong safety record, promotes a positive image of the company. This image can be used to gain strategic advantage through increased worker safety, work quality and ultimate profitability.

An initial study was performed by one of the authors and a University of Oklahoma Construction Administration graduate student in 2004 exploring regional Hispanic construction workers perspectives about jobsite safety. The increasing value of Hispanic construction workers to the construction industry, disproportionate safety statistics and the need for optimizing the existing relationship between management and Hispanic employees were motivators for this study. Observations from this study and a related paper by author James Jenkins exploring Hispanic safety statistics strongly supported the need to change perceptions and also promote safer construction work environments. Lack of recognition of the Hispanic worker culture, poor communication, inadequate appropriate training and biased management effort and attitude were highlighted as areas needing attention. It should be noted that at the time of the initial study the construction industry was already moving to improve the situation. Two primary reasons were obvious: moral obligation and company profitability.

The purpose of this article is to discuss the results of a 2007 study exploring Hispanic construction worker perspectives about jobsite safety in Florida. The approach and objective of this study are similar to the 2004 study. The authors consider this second study an extension or continuation of the first study and recognize that several key study parameters are different.

Perceptions from the 2007 study indicate positive change in Hispanic construction workers’ safety perspectives. Further discussion relates these observations to changes in Hispanic construction industry data for the U.S. and Florida for the period of the studies. Though a limited study, it appears that industry’s effort to create safer construction work environments is working in Florida.

### **Relevant Hispanic Population and Construction Workforce Data**

For the purpose of these studies and this discussion the authors considered Hispanic and Latino categorizations as the same. This included persons of Spanish or Latin American descent, including specifically persons from Mexico, Central and South America and the Caribbean islands colonized by the Spaniards, such as Cuba, Puerto Rico, and the Dominican Republic.

From 2004 to 2006, the U.S. Census Bureau category of Hispanic “Construction and Extraction” workers grew from approximately 25% to 30% of the workforce. (U.S. Census Bureau, 2007) “In the period from 2003-2006 Latino employment in construction increased from 1.9 million to

2.9 million. The industry added about 345,000 Latino workers in 2003-2004, 256,000 in 2004-2005 and 381,000 in 2005-2006. The proportion of Hispanic workers employed in the construction industry increased from 11% to 15%” (Kochhar, 2007). This percent increase is relative to all U.S. Hispanic workers. “More than half of the job growth (52%) was in the South, where Latino employment in construction increased by 513,000 workers between 2003-2006, by far the most for any region. The South, which includes Texas and Florida, is also home to 1.4 million Latino construction workers, again the most of any region” (Kochhar, 2007).

According to the Bureau of Labor Statistics, U.S. Private Industry Hispanic construction-related fatalities in 2004 accounted for 312 of the 1234 overall construction deaths (25%). The preliminary fatality count for 2006 shows Hispanic construction deaths in the U.S. numbered 348 of the 1226 nationwide construction fatalities (28%). Florida Private Industry Hispanic construction-related fatalities in 2004 numbered 39 of 115 construction deaths (34%). The preliminary count for 2006 indicates that Hispanics accounted for 39 of the total of 96 construction worker fatalities (40%) on Florida jobsites (Bureau of Labor Statistics, 2007). In 2004 Florida had the most fatalities among construction workers (115). Other States with large numbers included Texas (114) and California (108) (Meyer, 2006).

Overall, the 937 fatal work injuries among Hispanic or Latino workers in 2006 was up from the 923 fatal work injuries in 2005 and represented the largest annual total since the fatality census began in 1992. Due to increased employment, however, the fatality rate for Hispanic or Latino workers was lower (4.7 fatalities per 100,000 workers in 2006 versus 4.9 per 100,000 in 2005).

“Construction accounted for 1,226 fatal work injuries, the most of any industry sector (in 2006). The total for construction represented an increase of 3 percent over the 2005 total. Fatalities among specialty trade contractors rose 6 percent (from 677 fatalities in 2005 to 721 in 2006), due primarily to higher numbers of fatal work injuries among building finishing contractors and roofing contractors” (Bureau of Labor Statistics, 2007).

## **The Studies**

### *The 2004 Study*

The increasing value of Hispanic construction workers to the construction industry and the need for optimizing the existing relationship between management and Hispanic employees were motivators for the initial 2004 study. The objective of the study was to subjectively explore and make observations about Hispanic construction worker perspectives concerning roles, behavior and attitudes concerning jobsite working relations, safety and quality of work.

Responses were gathered by a University of Oklahoma Construction Administration graduate student from eleven mostly non-English speaking Hispanics living in Oklahoma and Texas. Respondents were employed by large commercial and residential construction companies. They all worked in diverse construction environments with Hispanic influenced surroundings. The group represented a cross-section of the industry’s various sectors including two project

managers, two labor foremen, two roofers, two rebar workers, one carpenter, one sheetrock hanger and one equipment operator. Ages for respondents ranged from eighteen to forty-five.

One-on-one interviews were conducted to explore current workers' roles, behavior and attitudes concerning working relations, safety and quality of work. Interviewees were asked questions from a prepared survey, but answers were not guided. They were also given the opportunity to speak about anything they felt was of concern to Hispanic construction workers pertaining to the topic. Interviews took place in a non-jobsite setting during non-working hours. Interviewees were informed that results would be completely anonymous and reported without any reference to the individual, the employing company or specific location. The majority of interviews were conducted in Spanish.

The following observations were made based on survey respondents same or similar opinions (Ryan, 2005).

1. Safety was the number one concern for all interviewed. All interviewees believed that safety was the only consideration more important than quality.
2. Managers lack sensitivity sometimes. They are too business-like and it appears that money, liability and rules are the primary safety influences. Hispanics are culturally too sensitive to say "no" to the risks or speak up and express their concern.
3. There is much greater appreciation for those who make an effort to speak their language,
4. Not speaking English does not affect their work as far as the task is concerned. However, comments by all participants in the interviews reaffirm that the lack of knowledge of the local language placed them at a disadvantage when receiving instructions prior to an assignment.
5. Language is the biggest barrier to assuming a position of responsibility. Communicating thoughts, encouraging productivity and filling out paperwork are among the top challenges.
6. Interviewees expressed that there was stubbornness about some safety issues and confessed to frequently taking risks at work. Hispanic workers are committed to pleasing managers, hard work and survival. As a result, Hispanics sometimes take risks at work that compromise their safety. They expressed that there is a fear that too much attention to safety will occasionally compromise work production. There is a prevailing feeling of "must do it" or the employee is seen as uncooperative.
7. Safety on occasion does not receive top priority from management because of the many pressures of finishing the job. There are so many concerns that at times it seems like safety unintentionally does not receive enough attention.
8. Provide more specifics about how to be safe. Statements like "be careful out there today" are not specific enough. Training should be more specific to the task.
9. On occasion Hispanics do not wear protective equipment because they are unaccustomed to wearing equipment when working in their home country. Safety equipment, such as safety glasses, gloves or support belts sometimes get in the way of the work.
10. Hispanic workers may not be accustomed to the tools or the local methods of construction.

## *The 2007 Study*

The opportunity for another University of Oklahoma Construction Administration graduate student to use a similar approach to collect input from Hispanic construction workers living in Florida became available in 2006. The objective of this study was to continue the evaluation of Hispanic construction workers' safety perspectives. It was hoped that the results from this effort would show improvement in perceptions and support efforts by the construction industry to improve jobsite safety.

Twenty-five interviewees were chosen based on similar criteria to the previous study. The authors note that interviewees included in this study were bilingual. One-on-one interviews were conducted in English at an extended stay hotel used by Hispanic construction workers when they are traveling from jobsite to jobsite. Ages of respondents ranged from 20 to 50 years old. The majority have been working in the United States for more than five years with many being in United States for over a decade.

### *Data Collection*

Interviewees were privately asked the questions below. They were also given the opportunity to speak about anything they felt was of concern to Hispanic construction workers. Interviews took place during non-working hours. Interviewees were informed that results would be completely anonymous and reported without any reference to the individual, the employing company or specific location.

The survey group represented a cross-section of the industry's various crafts including six from general construction labor, three from electrical, four from masonry, five from carpentry, three from concrete and four from site work. The group included seven foremen and three superintendents.

### *Survey Questions*

The following questions were included in the interview:

1. What type of work do you do?
2. What is your job title?
3. How long have you worked construction in the U.S.?
4. Have you ever been hurt on a job in the U.S.?
5. Do you feel that you are safe during your work?
6. Do you take safety risks on the jobsite in order to be more productive?
7. Is safety training an important part of your on the job training?
8. Do you feel there is enough safety training?
9. Is the safety training you receive on the same level/equal to that received by English speaking workers?
10. What is the best way to learn about safety?
11. What is the biggest safety issue today?
12. Should workers be rewarded for being safe?

13. What is the best reward for being safe you can receive?
14. Is safety more important than production?
15. Does working with others that do not speak English compromise your safety?
16. Does working with other Spanish speaking workers make you feel safer, not as safe or no difference?
17. Does working with English speaking workers make you feel safer, not as safe or no difference?
18. Do older or more experienced Hispanic workers act as safety mentors/teachers to younger less experienced workers?
19. Has the level of safety increased for all workers since you began working in the U.S.?

### *Results*

Survey questions answered with a yes or no response are listed by number in Table 1. The percentage of “yes” and “no” responses are listed in respective columns. Specified responses to questions 10, 11, 13, 16 and 17 are listed individually below Table 1.

Table 1  
*2007 Florida Hispanic Construction Worker Safety Perceptions Survey Results*

<b>Question</b>	<b>% yes</b>	<b>% no</b>
4: been hurt in US.	32	68
5: feel safe during work.	100	0
6: take safety risks to be productive.	4	96
7: safety training as part of job training.	100	0
8: is there enough safety training.	88	12
9: is same as English training.	84	16
12: rewards for safety.	28	72
14: safety more important than production.	96	4
15: not speaking English compromise safety.	16	84
18: older Hispanic workers act as mentors.	96	4
19: level of safety increased.	84	16

Question 10: “best way to learn about safety” responses: Experience 52%; Education 20%; Combination of others 20%; Working with someone 8%.

Question 11: “biggest safety issue today” responses: Fall prevention 76%; Electrical 12%; Eye protection 8%; Bad Technique 4%.

Question 13: “best reward for being safe” responses: Zero accidents 84%; Money 8%; No reward 8%.

Question 16: “working with other Spanish speaking workers” responses: No difference 60%; Safer 40%; Not as Safe 0%.

Question 17: “working with English speaking workers” responses: No difference 92%; Safer 8%; Not as Safe 0%.

### **Observations**

The 2007 survey response was more positive than the authors expected. The authors recognize that more positive perceptions might exist because the 2007 study interviewees were bilingual and 40% assumed some responsibility for implementing safety and training for their crews. Due to the large proportions of Hispanic construction workers and related fatalities in Texas and Florida the authors feel the markets are similar and very robust with high labor demands. It is also recognized that perceptions of illegal workers might differ from perceptions of the legal workers interviewed in these studies.

Results of Questions 5, 6, 7, 13, 14 and 19 strongly support a positive change in perspectives from the 2004 study. Many of the interviewees felt safety was the first priority on the jobsite today as supported by their 84% “zero accidents” response to question 13. Several superintendents included in this survey doubled as safety and quality control managers on their projects. Results to these questions signify a shift from the stubbornness to follow some safety guidelines, feeling that it is necessary to take risks in order to keep their jobs, fear that safety will compromise production or that speaking out will be viewed as uncooperative interviewees discussed in the 2004 study. Several respondents noted more willingness of Hispanic workers to speak-out about safety issues and management listens.

It is worth noting that almost 1 in 3 respondents had been hurt on a job in the U.S. (Question 4). This finding was not explored in this survey other than the yes or no answer, but reinforces the need for an all-inclusive consistent approach to safety in the industry.

Because of the 92% “no difference” response to question 17 the authors feel that the 40% “safer” response to question 16 indicates a natural bias based on the desire of those working together to communicate in the same language. The authors recognize that the positive answer to Question 17 might have been influenced by the interviewer not being Hispanic or Spanish speaking.

Several respondents discussed how the Hispanic workforce is becoming more mature with a senior group emerging as mentors. The authors believe this is a very positive development and the 96% yes response to question 18 strongly supports this. Several respondents noted that having more bilingual mentors and managers is having an impact on the safety of Hispanics, especially those only speaking Spanish.

About half of the respondents felt that experience is the best way to learn about safety. More bilingual mentors and training, combined with work experience should improve worker safety. It will be interesting to see the long term effect as more Hispanic mentors and workers assume responsibility for optimizing their relationship for a safer work environment. The authors feel that this is an area in which industry could become more involved by formally using and rewarding Hispanic mentors as part of safety and company training.

Comparison of 2004 and 2006 census data shows an increase in the number of Hispanic construction workers, in parallel to an increase of the overall Hispanic population in the U.S. (U.S. Census Bureau, 2005, 2007). The Hispanic fatality rate seems to have stabilized overall in the United States. In Florida, the number of fatalities in 2006 decreased, but the proportion of Hispanic deaths increased. It appears that this percentage is partly due to the increased number of Hispanic construction workers involved in unskilled trades with a typical higher incidence of accidents. The increase also mirrors similar national increases (U.S. Department of Labor, 2007).

Efforts like the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA), Jacksonville Electric Association (JEA) and the University of South Florida partnership have significantly reduced injuries among JEA contractors' construction employees. Between 1999 and 2005, the recordable injury rate dropped from 6.11 to 2.71; the lost time incident rate dropped from 2.08 to 0.92; and the contractors' average experience modification rate dropped from 0.92 to 0.89 (U.S. Department of Labor, 2006). Another successful proactive partnering approach to break down language barriers and increase jobsite safety was instituted during construction of the Dallas/Fort Worth, TX Airport (DFWA) expansion. The program called "Bilingual Construction Training: Best Practices" addressed key cultural differences between Hispanic and American workers along with mandatory training. This effort also yielded improved safety ratings and results (Nash, 2004).

The results of this study indicate that for this Florida Hispanic construction worker study group perceptions about jobsite safety emphasis, training and enforcement are improving. The commitment and partnering approach of OSHA, construction companies and Hispanic construction workers to improve jobsite safety appears to be working. The authors view these limited findings as strong support for continued efforts by these parties to improve jobsite safety.

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