Characteristics and Relative Risk of Occupational Fatalities of Hispanic Construction Workers

NIEHS Technical Workshop
Research Triangle Park, NC
December 3-5, 2003
The Center to Protect Workers’ Rights
James Platner and Sue Dong
Profile of Hispanic workers in construction

- 1.4 million Hispanic workers in construction in 2000, 15% of the total construction workforce; a 312% increase between 1980-2000
- >25% construction workers are Hispanic in the West
- 20% of total fatal occupational injuries occurred in construction
- Hispanic construction fatalities nationally more than doubled from 1992 to 2000 (108-278)
Number of Hispanic workers in construction, selected years 1980-2000

Hispanic workers as a percentage of construction & all industries, selected years, 1980-2000 (All types of employment)

Hispanic workers as a percentage of each industry, 2000
(Wage-and-salary workers)

<table>
<thead>
<tr>
<th>Industry</th>
<th>% of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>37%</td>
</tr>
<tr>
<td>Construction</td>
<td>17%</td>
</tr>
<tr>
<td>Service</td>
<td>13%</td>
</tr>
<tr>
<td>Wholesale</td>
<td>13%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>12%</td>
</tr>
<tr>
<td>Sanitation</td>
<td>10%</td>
</tr>
<tr>
<td>Public Admin</td>
<td>9%</td>
</tr>
<tr>
<td>Mining</td>
<td>9%</td>
</tr>
<tr>
<td>Retail</td>
<td>9%</td>
</tr>
<tr>
<td>Finance</td>
<td>7%</td>
</tr>
<tr>
<td>Communication</td>
<td>7%</td>
</tr>
<tr>
<td>Transportation</td>
<td>7%</td>
</tr>
<tr>
<td>All industries</td>
<td>11%</td>
</tr>
</tbody>
</table>

Date of entry the U.S. for Hispanic construction workers (Non-citizen only)

- Before 1980: 21%
- 1980-1989: 32%
- 1990-1997: 25%
- After 1996: 22%
Hispanic construction workers, by country of origin, 2000

- Mexican: 55%
- Am./Chicano: 20%
- Central/S. Am.: 14%
- Puerto Rican: 3%
- Cuban: 3%
- Other Spanish: 5%
Construction Workers as Hispanic by State 1998-2000

Percent

- 30% and Up
- 15.0-29.9%
- 2.0 -14.9%
- Under 2%

[Map showing distribution of construction workers as Hispanic by state across the United States]
Distribution among occupations in construction, 2000

Hispanic workers as a percentage of each construction occupation, 1998-2000

% of occupation that is Hispanic

- Drywall: 33%
- Tilesetter: 31%
- Concrete: 27%
- Painter: 26%
- Roofer: 23%
- Laborer, helper: 21%
- Bricklayer, mason: 18%
- Const., exp.: 17%
- Welder: 16%
- Carpenter: 16%
- Carpenter: 14%
- Repair: 12%
- Plumber: 12%
- Truck driver: 11%
- Heat A/C mec: 11%
- Electrical: 9%
- Op engineer: 9%
- Foreman: 8%
- Support: 6%
- Elevator: 5%
- Manager: 5%

Union membership among Hispanic and non-Hispanic construction workers, 2000

- Hispanic: 13%
- Non-Hispanic: 21%
- All: 19%
Age distribution in construction, Hispanic and Non-Hispanic workers, 2000 (All types of employment)
Educational attainment, Hispanic and non-Hispanic, 2000

Percentage of Hispanic construction workers who speak Spanish

452,840 Hispanic workers speak Spanish only

Spanish only 32%

Others 68%
Hourly wage in construction by union status, 2000

Percentage of construction workers with health insurance provided by employer / union, 2000

- Hispanic: 33%
- Non Hispanic: 57%
- All production: 51%
# Fatal occupational injuries by industry, 2000

<table>
<thead>
<tr>
<th>Industry</th>
<th>Fatal Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>1,182 (P)</td>
</tr>
<tr>
<td>Transport &amp; utility</td>
<td>1,012</td>
</tr>
<tr>
<td>Services</td>
<td>852</td>
</tr>
<tr>
<td>Agriculture</td>
<td>724</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>670</td>
</tr>
<tr>
<td>Retail</td>
<td>596</td>
</tr>
<tr>
<td>Wholesale</td>
<td>231</td>
</tr>
<tr>
<td>Mining</td>
<td>156</td>
</tr>
</tbody>
</table>


P: preliminary
Fatal occupational injuries of Hispanic construction workers, 1992-2001


P: preliminary
Rates of fatal and non-fatal work-related injuries in construction, Hispanics vs. all workers, 1992-2000

Fatal injury rates by selected occupation in construction, 2000

Carpenters: Hispanic 10.9, Non-Hispanic 5.7
Roofer: Hispanic 44.5, Non-Hispanic 27.6
Construction Laborer: Hispanic 37.7, Non-Hispanic 25.5

Rate per 100,000 FTE
## Relative Risk of Hispanic Fatal Injury 1996-2000 (95% C.I.)

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Relative Risk</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpers, Constr Trade</td>
<td>2.31</td>
<td>(1.41-3.80)</td>
</tr>
<tr>
<td>Roofers</td>
<td>1.77</td>
<td>(1.38-2.28)</td>
</tr>
<tr>
<td>Drywall Installers</td>
<td>1.75</td>
<td>(0.95-3.25)</td>
</tr>
<tr>
<td>Carpenters</td>
<td>1.39</td>
<td>(1.08-1.79)</td>
</tr>
<tr>
<td>Construction Laborers</td>
<td>1.31</td>
<td>(1.17-1.46)</td>
</tr>
</tbody>
</table>
## Hispanic Fatal Injuries 1996-2000 in Construction

<table>
<thead>
<tr>
<th>Year</th>
<th>Hispanic Fatalities</th>
<th>RR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>137</td>
<td>1.48(1.24-1.77)</td>
</tr>
<tr>
<td>1997</td>
<td>167</td>
<td>1.44(1.22-1.70)</td>
</tr>
<tr>
<td>1998</td>
<td>215</td>
<td>1.82(1.57-2.12)</td>
</tr>
<tr>
<td>1999</td>
<td>225</td>
<td>1.62(1.40-1.88)</td>
</tr>
<tr>
<td>2000</td>
<td>278</td>
<td>1.84(1.60-2.10)</td>
</tr>
</tbody>
</table>
### Percent of Fatalities from Falls, 1996-2000

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall, Lower Level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>35.0%</td>
<td>34.1%</td>
<td>38.6%</td>
<td>35.6%</td>
<td>38.9%</td>
<td>36.8%</td>
</tr>
<tr>
<td>Non-His</td>
<td>28.4</td>
<td>33.6</td>
<td>28.9</td>
<td>30.0</td>
<td>28.8</td>
<td>29.8</td>
</tr>
<tr>
<td><strong>Fall, Other</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.7%</td>
<td>1.2%</td>
<td>0.5%</td>
<td>0%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Non-His</td>
<td>0.7</td>
<td>0.4</td>
<td>0.9</td>
<td>0.7</td>
<td>0.4</td>
<td>0.6</td>
</tr>
</tbody>
</table>
Event & Nature of Fatal Injuries

- Hispanic Construction Workers die more in falls to lower level (36.8% vs. 29.8%)
- Hispanic Construction Workers die more frequently of head injuries (30% vs 25%)
- Hispanic Construction Workers may be somewhat less likely to die in Vehicles
Construction Fatal Injuries by Establishment Size, 1992-2001

<table>
<thead>
<tr>
<th></th>
<th>1-10 employees</th>
<th>11-20</th>
<th>21-50</th>
<th>51-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hispanic</strong></td>
<td>45.0%</td>
<td>13.0%</td>
<td>17.3%</td>
<td>9.4%</td>
<td>15.3%</td>
</tr>
<tr>
<td><strong>Non-Hispanic</strong></td>
<td>51.5%</td>
<td>11.8%</td>
<td>14.9%</td>
<td>8.0%</td>
<td>13.6%</td>
</tr>
</tbody>
</table>

The Center for Construction Worker Protection Rights (CPWR)
Conclusions

• Hispanic Construction Workers are in higher risk occupations
• Even considering their occupations, Hispanic Construction Workers are at significantly higher risk of fatal injury
• Higher rates of Falls to a lower level and associated head injuries are primary
• 45% of Hispanic Construction Fatalities are in Employers ≤10 employees
Consider Language & Culture in:

- Management and union services
- Worker involvement & communication
- Worker training
- Information (labels, documents, etc.)
- Knowledge and skill evaluation
- Research and IH/Safety services
For more information, please read:

The Construction Chart Book
The U.S. Construction Industry and Its Workers

September 2002
(Third Edition)
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