

## NOIRS 2000 Abstracts

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The most dangerous states to work (those with the highest occupational injury and illness costs per capita), are Alaska (highest), West Virginia, and Wyoming. The safest “states” to work are the District of Columbia (lowest), New Hampshire, and Massachusetts. These ranks account for event frequency and severity but not for state medical care price differentials or earnings differences for comparable jobs. Ranking by cost per DAFW case (i.e., by severity), in order, West Virginia, New Jersey, Texas, the District of Columbia, and Wyoming rank highest. New Hampshire, Florida, Hawaii, Idaho, and South Dakota rank lowest. Climate and the nature of available jobs bound health and safety levels. Controllable factors — employer attitudes toward worker protection, reporting enforcement, government occupational safety and health efforts — also are influential.

**A6.6 Years of Potential Life Lost in the National Traumatic Occupational Fatality Database**—Gilbert SJ, Bailer AJ, Stayner LT

Years of potential life lost (YPLL) may be a more meaningful and intuitive measure of the impact of occupational fatalities than traditional measure such as SMRs and rate ratios. We examine the YPLL for different industries, occupations, and causes of death over the years 1980 to 1995 using the National Traumatic Occupational Fatality Database (NTOF). The number of deaths, total YPLL, and average YPLL are calculated for different combinations of industry, occupation, and cause of death. The industries of Public Administration, Mining, and Construction have the highest average YPLL per death among those classified, with Public Administration and Mining losing a potential of at least 39 years per fatal injury. Construction makes the largest contribution to the total YPLL accounting for over 18 percent of the total YPLL for all industries. We also compare YPLLS over time for other causes of death such as suicide, motor vehicles, falls, and those struck by falling objects. A comparison of YPLL by cause of death may help target intervention strategies designed to prevent occupational fatal injuries in different industries.

**Session: B1.0**

**Title: Special Populations at Risk: Who are They? What are Their Injury Research Needs?**

Category: Special Session

Organized by the NORA Special Populations at Risk Team

Moderator(s): Sherry Baron

Organizer: Dawn Castillo

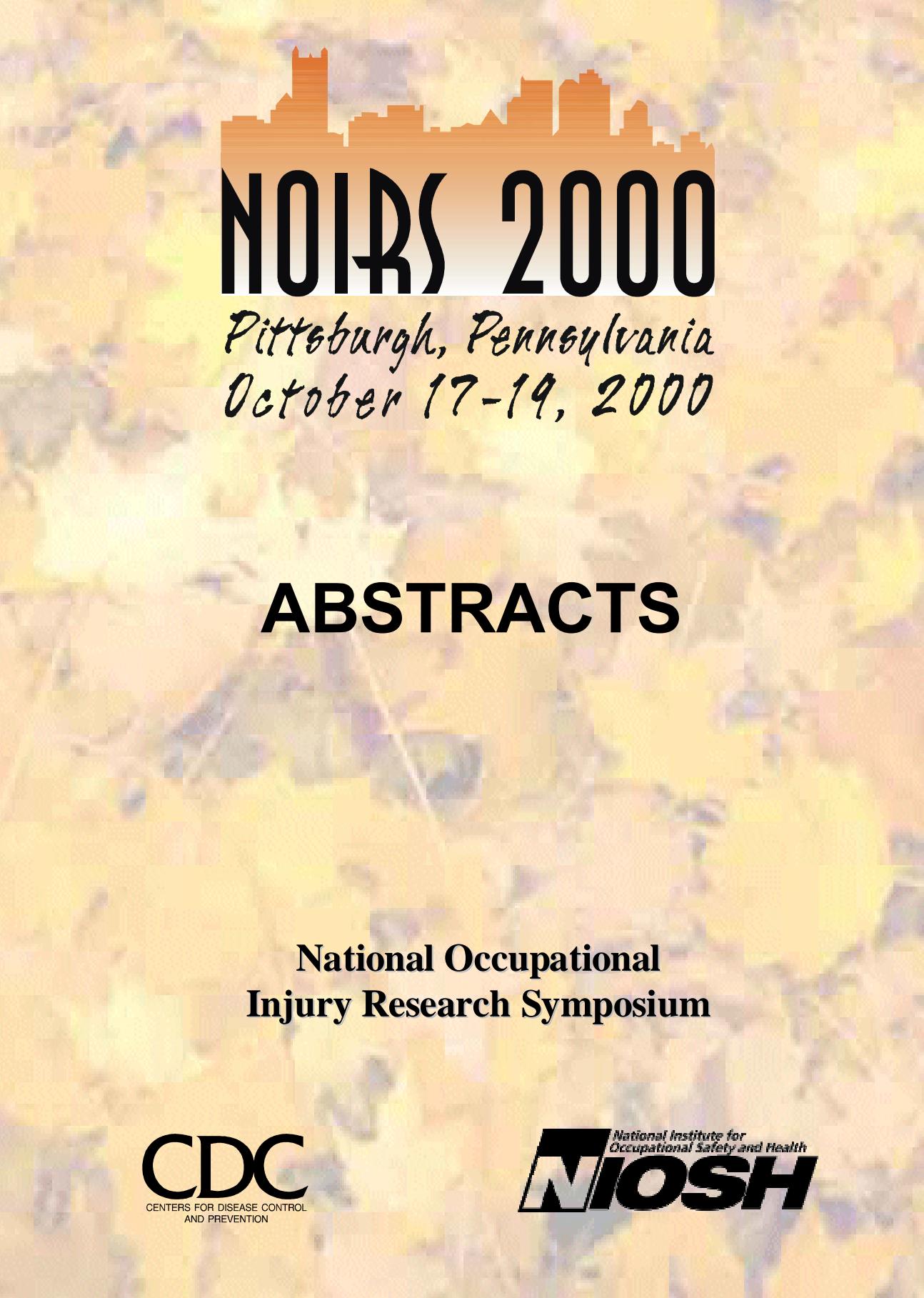
**B1.1 Special Populations at Risk: Who are They? What are Their Injury Research Needs?**—Frumkin H

Occupational hazards are known to be distributed differently. Workers with specific biologic, social, and/or economic characteristics may sustain increased risks of work-related diseases and injuries. This discussion will identify various

such special working populations. These include populations defined by age (both young workers and old workers); by ethnicity, educational attainment, or geographic location; by socioeconomic status; by gender; by disability status or by a disease or genetic predisposition; or by some combination of these. Some special populations seem to be defined by purely biological attributes, and others by social categories, but in nearly every case social policies and practices are superimposed on biological features to define populations as “special”; in this sense. Recognizing special populations is worthwhile for at least three reasons. First, since special populations may sustain increased risks, recognizing them identifies opportunities for high-yield interventions. Second, since specific approaches may be required by special populations, recognizing and better understanding them permits the design and delivery of more appropriate services. Third, since special populations have in some cases suffered employment discrimination, including being underserved by occupational health programs, recognizing them permits more just and equitable service delivery.

**B1.2 Work Injuries and Age: Is the News all Bad?**—Wegman DH

Broad reviews of age and injuries at work suggest that injury frequency decreases while injury severity and fatal occupational injuries increase with age. Reduced injury frequency with age probably relates to job experience and familiarity with tasks, but increased severity (generally measured as time-off-job) is less easily explained. Greater injury severity could result from aging of the neurologic and musculoskeletal systems, but other possibilities include that older workers may be less likely to report minor accidents or be advised to take more time before returning to work. More specifically, injury type and source are reported to vary by age with back injuries higher in older workers and eye/hand injuries higher in younger workers. Agents of injury also differ by age, for example, hand tools are a more common cause in younger workers and working surfaces are a more important cause in older workers. Studies of injury experience within occupations reveal a less clear pattern in part because both age-related injury risk and employment vary by specific job. When jobs are classified according to the relative importance of physical capacity and experience requirements, age-related injury risk patterns can be seen. Jobs “enhanced” by age show a negative relationship between injury and age while those “impaired” by age show a positive relationship. Longitudinal studies of worker and workplace characteristics suggest that when work teams accommodate age of workers better injury experience results. Other studies provide indirect evidence for the importance of organizational factors showing job dissatisfaction positively related to disability retirements and good supervisor support negatively associated. The presentation will review published evidence on age-related work injury risk and make recommendations for further study



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## ABSTRACTS

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