The analysis showed that in the Laborers' profile, CFOI code 879, the number of fatalities was found to be 156.

Results from CFOI and FACE showed that most fatalities occurred to males within the age range of 25-44, and that all laborers lost their lives within four days of falling. Most of them hit concrete surfaces, head first.

From FACE summaries, the most common violations were 29 CFR 1926.104, 105, and 451.

Recommendations included: 100% tie off, covered/marked manholes, skylights, and other roof openings, the utilization of nets, and extensive employee training.

Questionnaire-based Ergonomic Hazard Assessment of Construction Workers with Musculoskeletal Injuries—Anderson J

Since 1990, we have conducted surveillance of construction worker injuries treated in George Washington University's Emergency Department. Musculoskeletal injuries were the second-most prevalent type of injury, accounting for 21% of these emergency department cases. Since June 1996, we have telephoned workers to collect details on the injury circumstances as well as return-to-work programs, ongoing musculoskeletal symptoms, and subsequent or recurrent injuries. By interviewing workers from a number of construction trades, we hope to characterize both the short- and long-term effects of these WMD injuries on physical health, emotional health, and livelihood.

One of the questions in the telephone interview addresses day-to-day trade-specific tasks. The nature and frequency of the most common tasks were identified for each worker. From initial interviews to date, we generated a preliminary listing of the tasks reported by two trades — carpenters and plumbers. From this list, we standardized and coded the tasks for the two trades. For each standardized task, we used available data (trade-specific ergonomic analyses, checklists, expert opinion, etc.) to produce a trade-specific ergonomic hazard rating that addresses posture, force, and repetition. Once an ergonomic hazard rating was developed for each task, the ratings were weighted by frequency and summed across the identified tasks for each worker.

This paper will focus on the methods for developing individual ergonomic hazard ratings from questionnaire-based data on tasks. We plan to develop similar trade-specific task-based ergonomic hazard ratings for all workers in our followup study.

These task-specific hazard ratings will enable us to compare the ergonomic hazard in the WMD-injured population to that of an age- and trade-matched comparison population who were asked the same question about their daily tasks. When the analyses are complete, we hope to have determined: (1) whether the level of ergonomic hazard influences the occurrence of ongoing musculoskeletal symptoms and subsequent or recurrent injuries; and (2) whether any specific tasks or ergonomic factors appear to put workers at risk for ongoing symptoms or recurrent WMD injuries.

Construction Injuries in Alaska—Husberg B, Conway G

Introduction: Construction takes place year 'round in Alaska, and the harsh arctic environment introduces factors that can interfere with worker safety. This study uses injury surveillance data from the Alaska Trauma Registry (ATR) to examine injuries in the construction industry.

Methods. Data from the ATR for the years 1991 - 1995 was used to characterize the causes of injury in the construction industry in Alaska. The ATR is a statewide, population-based data base that tracks moderate to severe injuries that occur in Alaska. Data is collected retrospectively from hospital medical records at each hospital in Alaska, then sent to the Alaska Department of Health and Social Services, Division of Public Health, Section of Community Health and Emergency Medical Services to be compiled into the ATR. Occupational injury surveillance data goes through additional data cleaning and coding by personnel at the National Institute for Occupational Safety and Health, Division of Safety Research, Alaska Field Station. The ATR only includes those moderate to serious injuries which require hospitalization. The only fatalities that meet the case definition for inclusion into the ATR are those who have been seen and treated in a hospital prior to death.

Results. The total number of hospitalized injuries in the construction industry ranked second (n=371) in number only to commercial fishing (n=396). Six (1.6%) of the construction injuries resulted in fatalities. There was a mean of 74 injuries each year in the construction industry ranging from 66-88. Falls lead all other causes of injury, accounting for 198 of the cases. The most common falls are from or out of a structure (67), while using a ladder (52), while using scaffolding (36), from one level to another (18), and slipping or tripping (10). The upper extremities are the most common body region injured followed by the head. The most common injury is a musculoskeletal injury - usually a broken bone. There is no pattern suggesting a seasonal variation to falls. It is not possible to reliably ascertain from ATR abstracts if the fall was directly caused by ice or snow.

Conclusions. Previous studies have ranked occupational fatalities in the Alaskan construction industry in the bottom third. However, construction injuries rank second in number of all industries recorded in the ATR. Even though construction continues year round in Alaska, our data show no consistent pattern suggesting an increase of falls when arctic conditions are present. From these data, further research into fall prevention and protection in the Alaskan construction industry is currently underway by a interagency working group in Alaska.

Trade-Specific Injury Patterns among Construction Workers
Nessel-Stevens L, Hunting K, Welch L

In order to learn more about the causes of non-fatal construction worker injuries, we established an emergency department-based surveillance program. Between November 1990 and June 1996, we reviewed the medical records of 2,280 construction workers who have been treated in the GWU Emergency Department for work-related injuries and illnesses. These injured workers were overwhelmingly (98%) male, and most (66%) were between the ages of 25 and 44. Laborers, carpenters, and electricians led the list of occupations, though workers from over twenty construction trades were represented. The most common injuries treated were lacerations (38%) and strains and sprains (21%). Four percent of the workers had injuries serious enough to require hospital admission. Contact with sharp objects (28%), falls (16%), and overexer-