

National Academies' Review of the NIOSH Construction Research Program

Subgoal 4.1 - Use and Improve Surveillance
Resources to Identify and Track Construction
Safety and Health Risk

Janie Gittleman, Ph.D.

Associate Director, Safety and Health Research

Center to Protect Workers' Rights

jgittleman@cpwr.com



WORKPLACE SAFETY AND HEALTH



Issues

- Surveillance data foundation of Safety and Health research
- National Surveys have identified construction workers at risk for occupational cancers, lung and heart disease, fatalities and injuries
- Surveillance has grown involving state, federal and academic institutions
- Surveillance data provide guidance for stakeholders and intervention research



External factors

Limitations in current data sources

- Lack denominators
- Incomplete data (e.g. SOII excludes self-employment and government workers)
- Missing data (FACE, SOII, CIFOI)
- Limited information on occupational illnesses (e.g. SOII CIFOI)
- Non-Randomly selected data (e.g., IMIS)
- Non-standardized data (e.g. FACE)
- Outdated data (e.g. NHIS Occ. H. Supp., NOES)
- No information on effects of training
- No information on working environment and work
 - Organization
- No productivity and cost measures
- Difficulty in obtaining access

Activities

Sub-goal (1): Develop a Construction Data Center

Evaluate injury, illness, and morbidity patterns

- Estimate the magnitude, distributions and trends
- Define populations at risk
- Generate hypotheses

Assess reliability of existing surveillance systems

- Survey exposure risks (industry-wide, task-based)
- Mortality studies (PMRs 12 construction trades, death certificate data)
- Injury studies (workers' comp. data, hospital ER data)
- Occupational illnesses (noise, lead, MEPS linked to NHIS)



Outputs

Sub-goal (1): Construction Data Center

Construction Database Development

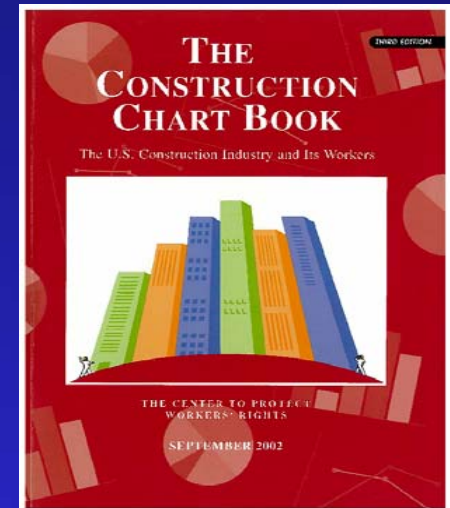
- Safety
- Industry
- Workforce
- Health

Construction Overview Publications (State of the Art Review)

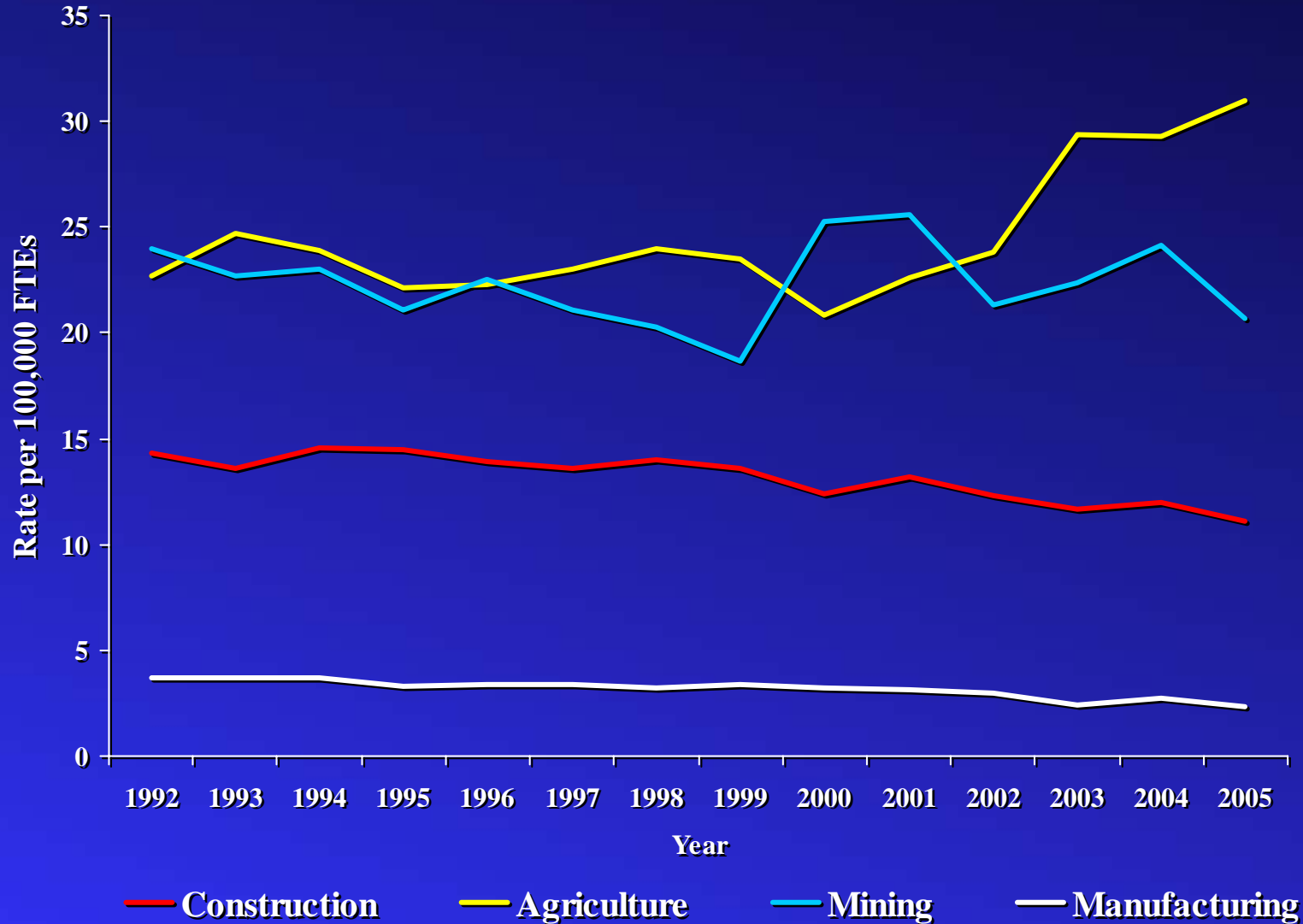
- First explanation of safety and health of construction workers
- First epidemiologic study using medical claims data from group health plan
- First reference work for health professionals
- First overview aimed at informing developing countries

Construction Chart Book (1997, 1998, 2002)

- Characterizes the industry, workforce
- 64 pages, for decision makers and researchers
- > 18,000 copies distributed, thousands downloaded electronically

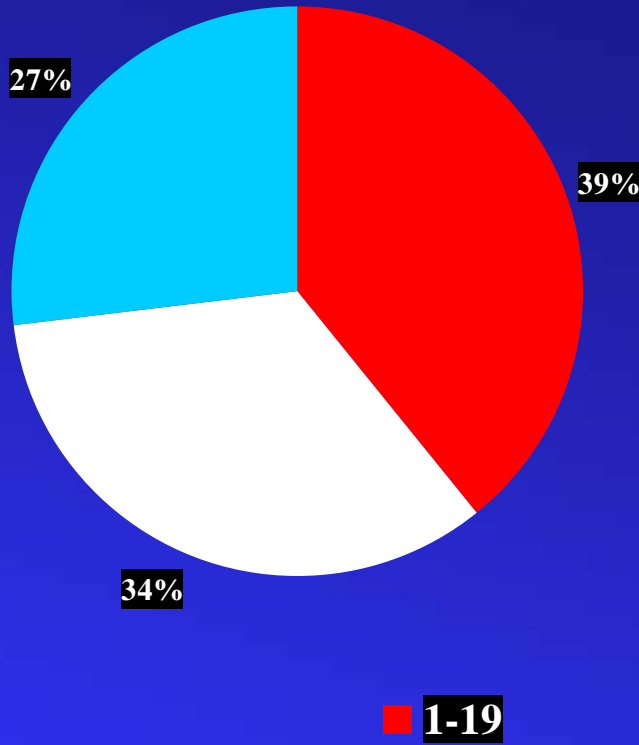


32a. Rate of work-related deaths from injuries, selected industries, 1992-2005

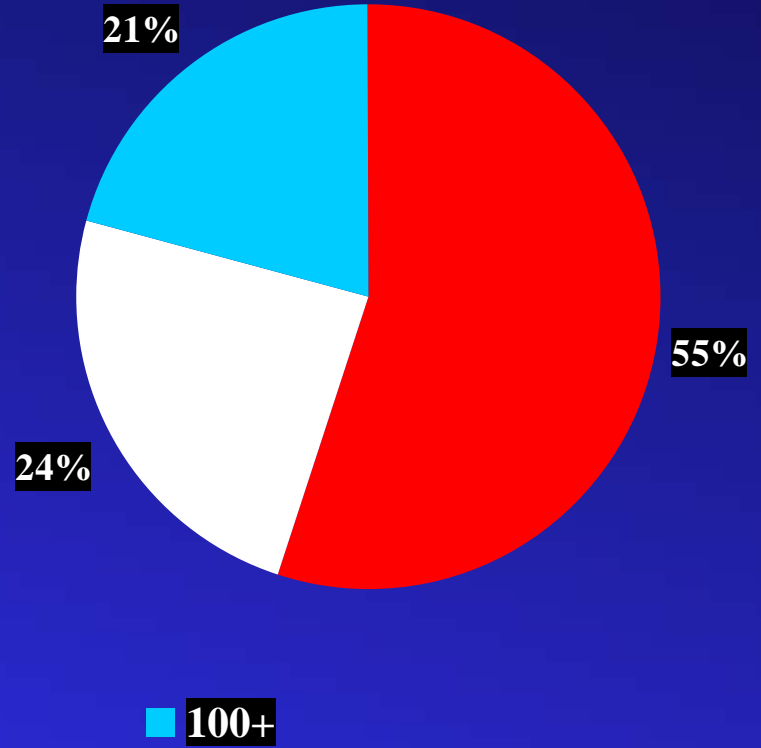


33b. Distribution of construction employment and work-related deaths from injuries, by establishment size, 2005

Employment



Work-related deaths



■ 1-19

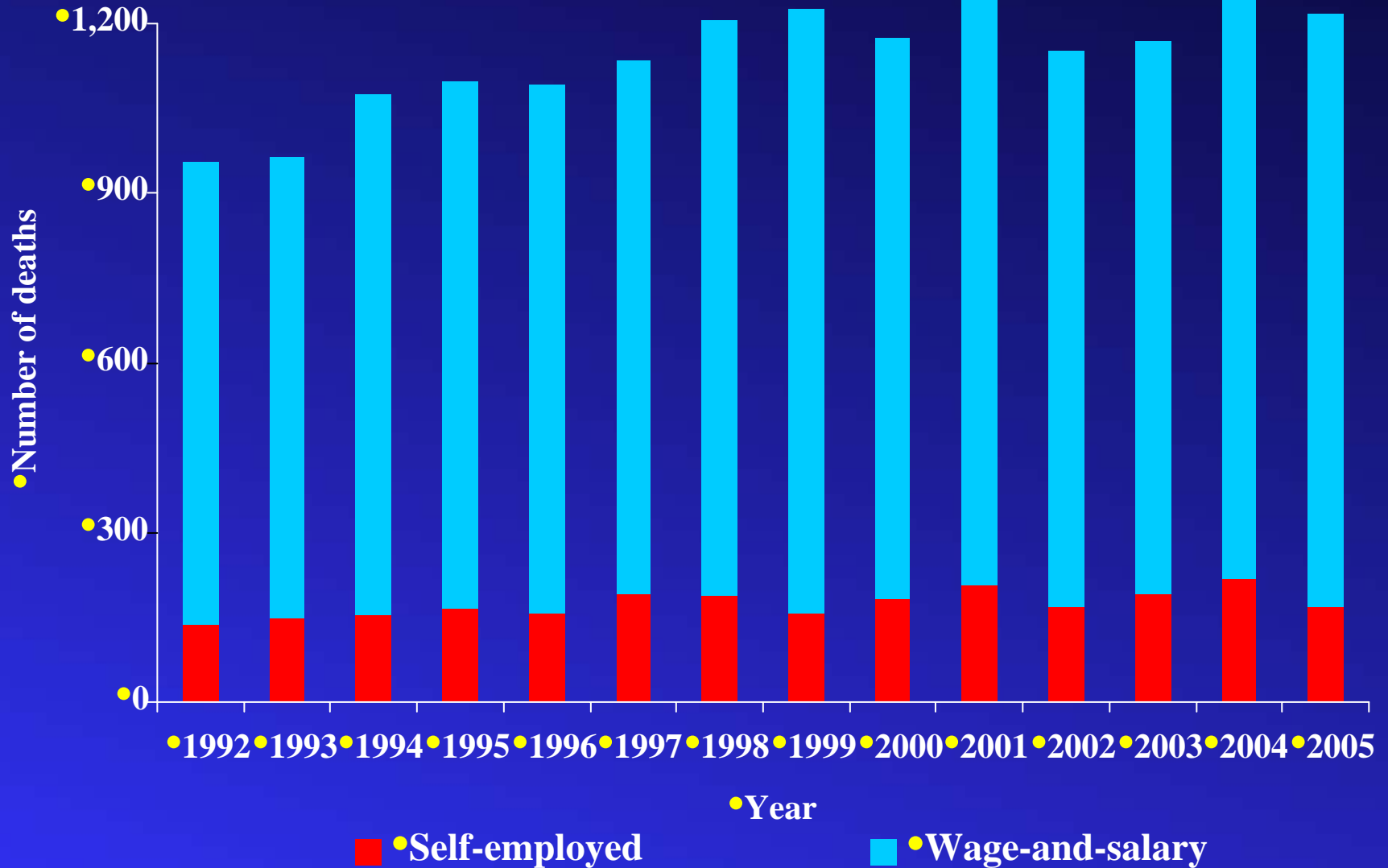
■ 20-99

■ 100+

32c. Rate of work-related deaths from injuries, by major industry, 2005 (Production workers)



33a. Number of deaths from work-related injuries in construction, by employment status, 1992-2005



Intermediate Outcomes

Sub-goal (1): Construction Data Center

Publications/Presentations

15 peer - reviewed papers on mortality studies

21 peer - reviewed papers on injury and illness studies

45 presentations made to OSHA, labor, trade associations and professional symposiums

Intermediate Outcomes

Sub-goal (1): Construction Data Center

Independent contractors

- Numbers increased from 7-24% since 1972
- Implications for safety and health surveillance legislative policy changes (Washington State Commission)

Hispanic workforce

- Explosive growth in construction work force with significantly higher risk of injury--Interviews on NPR and presentations to congress

DOE workers

- PMR data identifies high risk groups for active medical monitoring at DOE Facilities –ongoing surveillance, identified struck by injuries in highway work zones

Nail Gun Injury Hazard

- Identified using workers' compensation data in NC
- International Staple, Nail and Tool Association and American National Standards Institute targeted interventions



Construction Organizations using the Construction Data Center and/or Chart Book

- Construction Unions
- Construction Associations
- Construction Contractors/Management/Engineering
- Safety and Health Professionals
- Researchers
- Educators
- International organizations
- Government



Emerging Issues

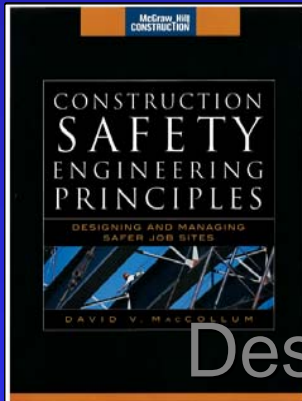
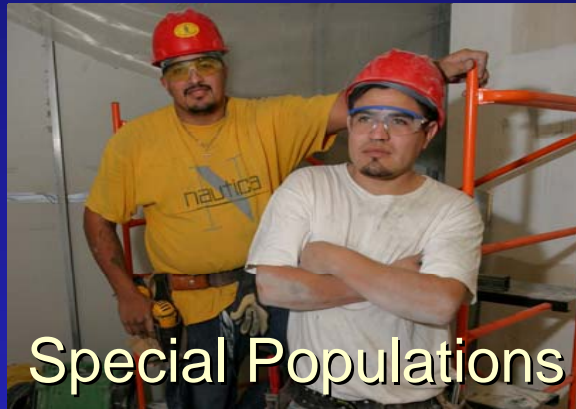
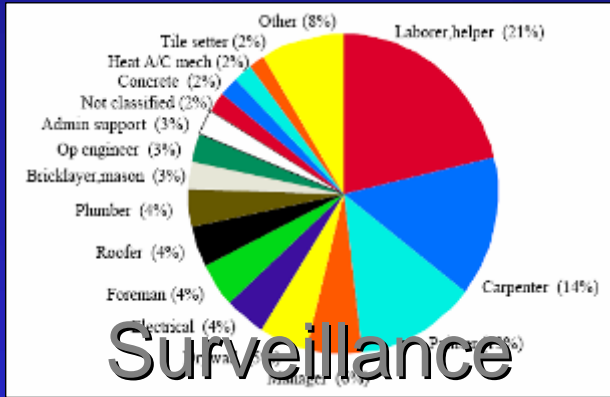
- Strategic goals for surveillance with intermediate goals to improve current systems and promote surveillance among stakeholders
- More detailed statistics in next Construction chart book effects of NAICS and other data system changes
 - job openings, hires, and separations
 - foreign-born workers
 - time use and hours worked
 - injury rates by demographics, employment category, and state
- Intranet and internet web sites with direct access to analytic results

What's Ahead

- Development of Draft Strategic Goals to improve current data systems
- Targeted by NORA Construction Sector Council as “Top Problem”—developing data needs for the next decade
- Fourth Edition of the Construction Chart Book due out in Fall 2007
- Plans for automated coding of Industry and Occupation
- Web-based access to analytical results

Five sub-goal areas

Note: Separate special focus presentation on surveillance



REGISTER NOW!
The 1st Prevention through Design Workshop
July 9-11, 2017
Washington, DC

It's Better to Design It Right, than Fix It Later

Join the National Institute for Occupational Safety and Health (NIOSH), its partners, and numerous leaders from diverse disciplines and industries sectors to discuss the good design of equipment, tools, structures, processes, and operations to reduce or eliminate workplace hazards.

Move beyond Policies to Practice
Learn from the experts about new tools and approaches to integrate business objectives throughout the design process. Experts will elaborate what conditions a "good design."

Invest in Prevention
See a return on investment through smart spending of a workforce to minimize hazards and reduce rework.

- Hear the business case for Prevention through Design from top companies.
- Learn how good design can address occupational safety and health and business goals.

Join the Prevention through Design National Initiative
Begin on the ground floor at the first Prevention through Design (PTD) summit and let your organization join a role in the national initiative.

- Hear and interact to help shape a PTD Strategic Plan.
- Leave with a greater understanding and appreciation of the value of PTD principles.

Register Now! (Early registration ends June 1, 2017)
To register for the workshop go to: http://www.niosh.gov/ptdworkshop
For more information and to see the agenda: http://www.niosh.gov/ptdworkshop/PTD1/

Hotel Information

- Hotel reservation info: 1-202-461-3000
- Hotel reservation code: Prevention through Design
- Hotel reservation cut-off date is June 8, 2017

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Diffusion



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