

Construction Industry Institute

An Update

Hans Van Winkle
CII Director

Northwest Construction Consumer Council
Seattle, Washington
February 25, 2004



Construction Industry Institute



A consortium of leading owners, contractors,
suppliers, and academia
interested in improving the constructed project
and the capital investment process.

CII Mission

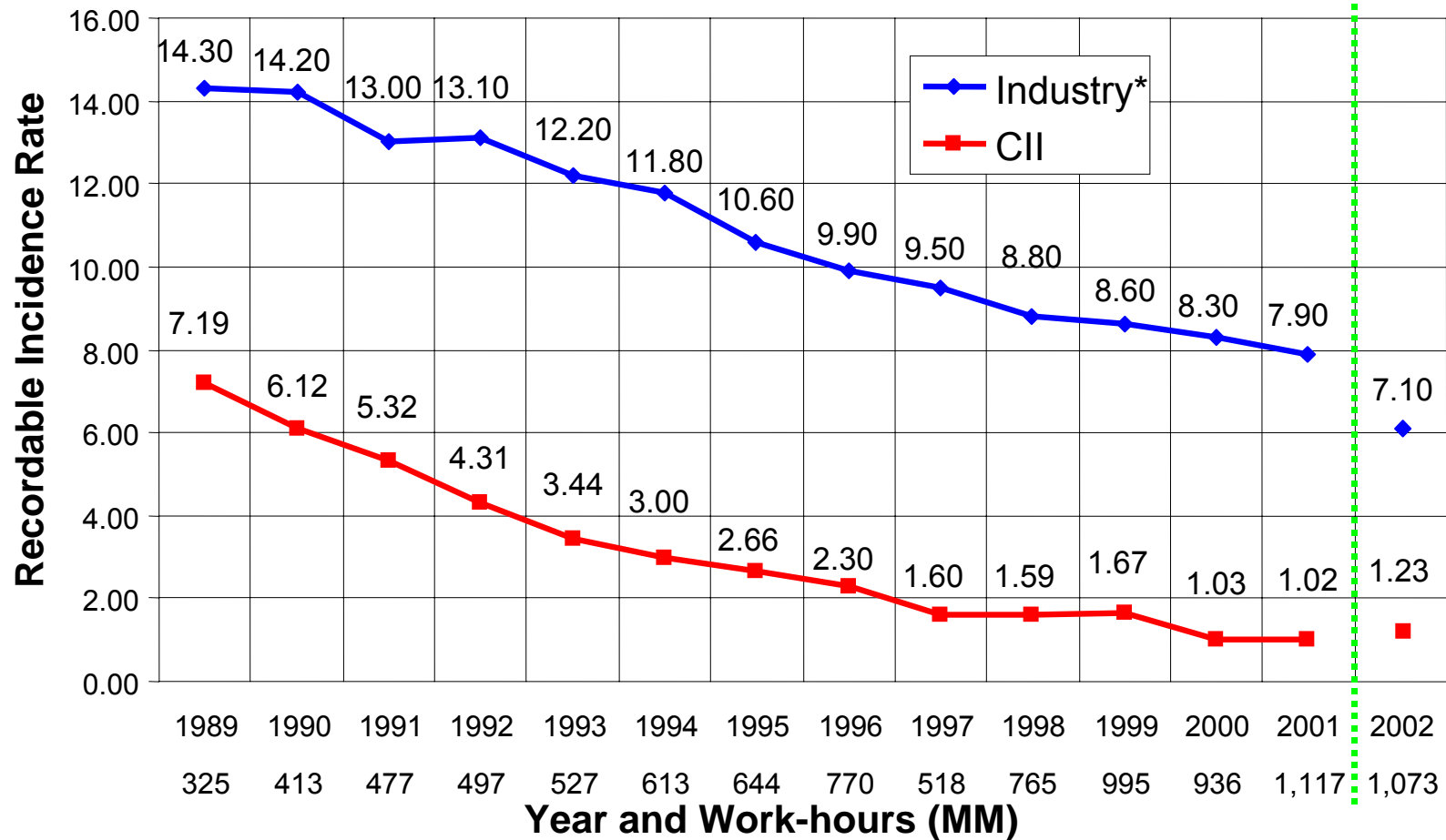
To improve the business effectiveness of the capital facilities life cycle, including safety, quality, schedule, cost, security, reliability, and operability.

CII provides members the opportunity for a competitive advantage in the global marketplace.



3M	NASA	ABB Lummus Global	Honeywell
Abbott Labs	NOVA Chemicals	ALSTOM Power	Jacobs
Air Products/Chemicals	Ontario Power Generation	AMEC	Johnson Controls
Amgen	Petrobras	AZCO	Kellogg Brown & Root
Anheuser-Busch	Pfizer	BE&K	Kier/CCC USA
Aramco Services	Praxair	BMW Constructors	Kiewit Construction
BP America	Procter & Gamble	Baker Concrete	Kværner
CITGO	PSEG Power	Bechtel Group	Lockwood Greene
Cargill	Rohm and Haas	Black & Veatch	M. A. Mortenson
Celanese	Shell Oil	Bovis Lend Lease	Parsons E&C
ChevronTexaco	Smithsonian Institution	Burns & McDonnell	Perot Systems
ConocoPhillips	Solutia	Butler Manufacturing	Primavera Systems
Dofasco	Southern Company Services	CB&I	S&B
Dow Chemical	TVA	CDI Engineering	Shaw Group
DuPont	U.S. Army Corps of Engineers	CH2M HILL	Siemens Westinghouse
Eastman Chemical	U.S. Dept. of Commerce/NIST	CSA Group	Technip USA
ExxonMobil	U.S. Dept. of Energy	Day & Zimmermann Int.	Turner Construction
General Motors	U.S. Dept. of Health/Human Svcs.	Dick Corporation	Victaulic
GlaxoSmithKline	U.S. Dept. of State	Emerson Process Mgmt.	Walbridge Aldinger
Intel	U.S. General Services Admin.	Fluor	Washington Group
International Paper	U.S. Steel	Foster Wheeler USA	Williams Group
Kraft Foods	Weyerhaeuser Company	Fru-Con Construction	Yates Construction
Eli Lilly and Company		Hatch	Zachry Construction
		Hilti	Zurich North America

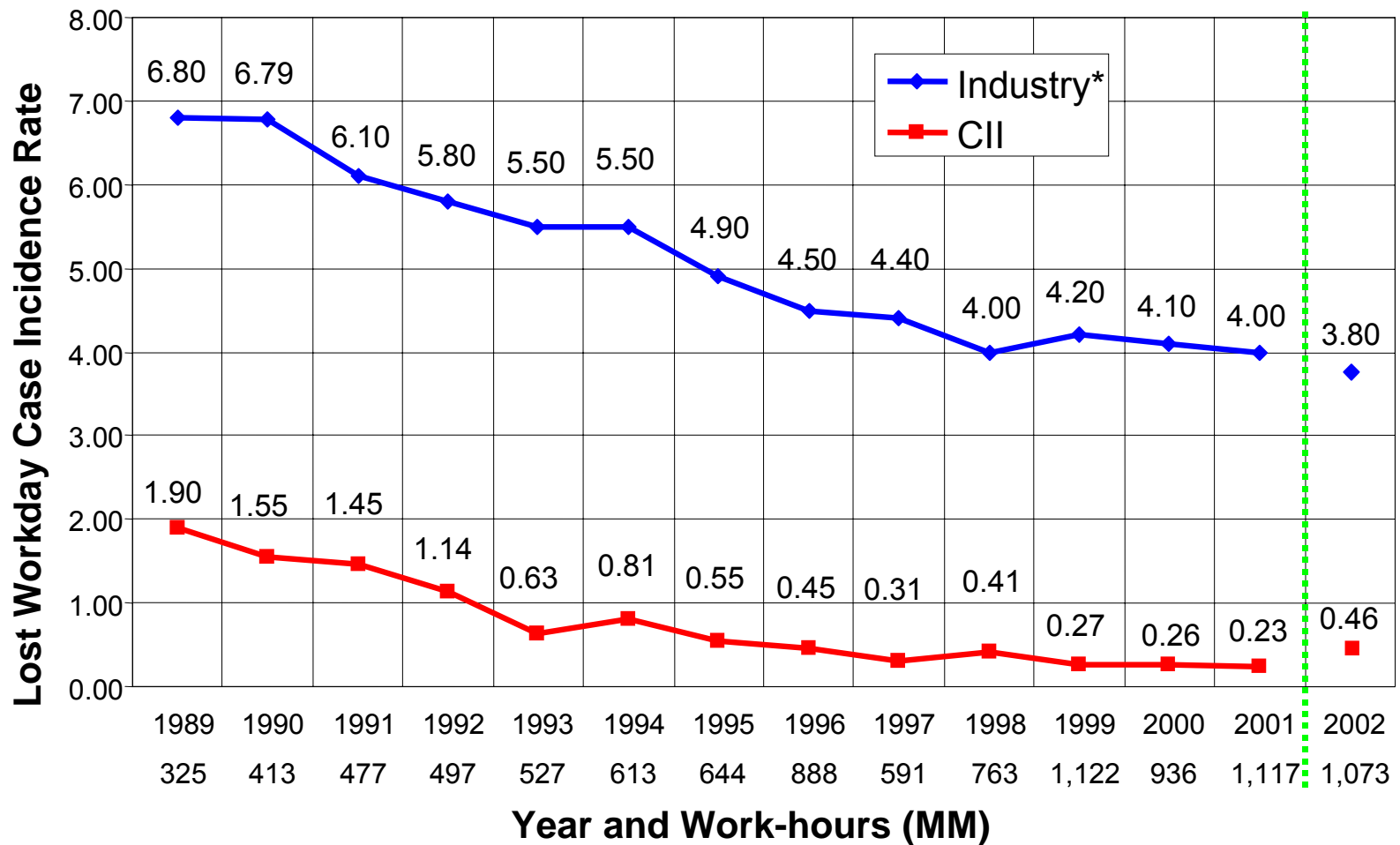
SAFETY: Recordable Incidence Rate



* OSHA Construction Division, SIC 15-17

..... Reflects OSHA Reporting Change

SAFETY: Lost Workday Case Incidence Rate



* OSHA Construction Division, SIC 15-17

..... Reflects OSHA Reporting Change

CII Today: Providing Members with Value

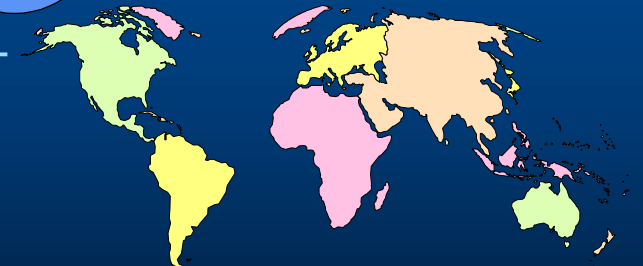
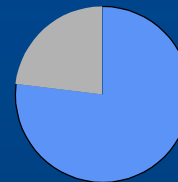
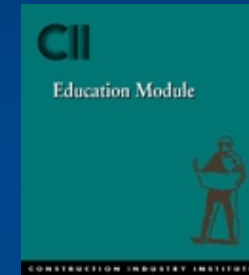
- Member organizations are providing “best of the best” employees to participate.
- Research that identifies “best practices” benefits industry.
- Unique professional experience.
- Members improve project performance, especially with consistent CII membership and participation.



Annual Conference 2003, Orlando

CII Core Processes

- **Research**
- Implementation
- Education
- Benchmarking & Metrics
- Globalization
- Breakthrough
- Knowledge Management



Current Research

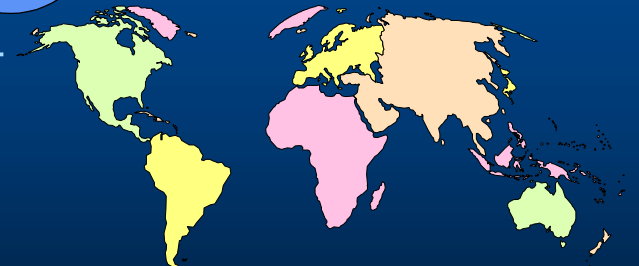
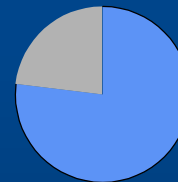
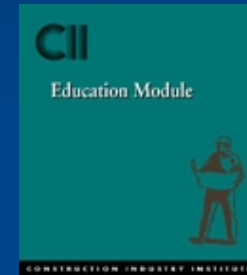
- Radical Reduction in Cycle Time
 - Recruit-Retain Leaders
 - Learning Organizations
 - Project Team's Contribution to Business
 - Do It Right the First Time
 - Owners' Role in Project Success
 - Commodity vs Value-Added
-

Started in 2004

- Work Force View: Productivity
- Support Pre-Project Planning
- Critical Staff Skills — Training
- Appropriate Risk Allocation
- Cost vs Schedule Trade-offs
- First Cost vs. Best Value
- Global Engineering Work Force
- Target Safety

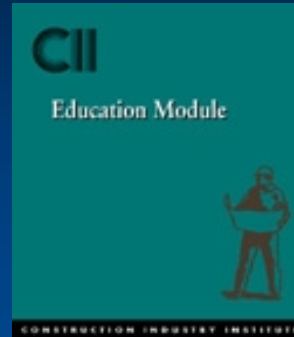
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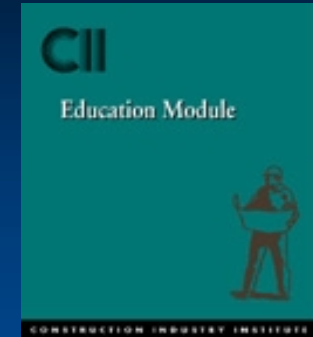
Education Tools

- Education Modules
 - In-house instruction
 - Facilitator as instructor
 - Self-paced
- CII Continuing Education Courses
 - Arizona State University
 - Clemson University
 - The University of Texas at Austin
- Technology Assisted Learning (24/7 & online)



New Education Modules

- Using Project Delivery & Contract Strategy Tools
(Published Dec 2003)
- Executing Small Projects
(Published Dec 2003)
- Under Development
 - Making Zero Accidents A Reality
 - Prefabrication, Preassembly, Modularization, Offsite Fabrication
 - International Project Risk Assessment
 - Value Management Toolkit



CII Core Processes

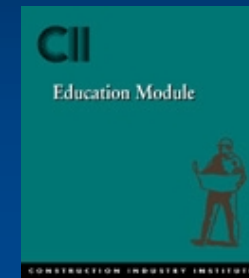
- Research _____



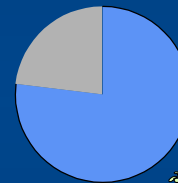
- Implementation _____



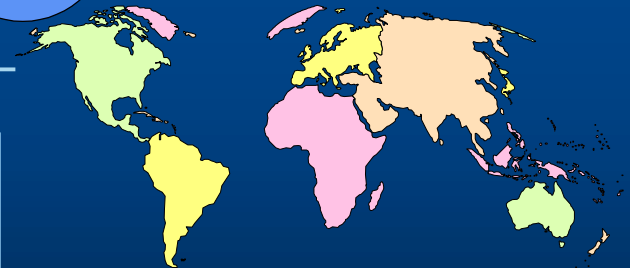
- Education _____



- **Benchmarking & Metrics** _____



- Globalization _____



- Breakthrough _____



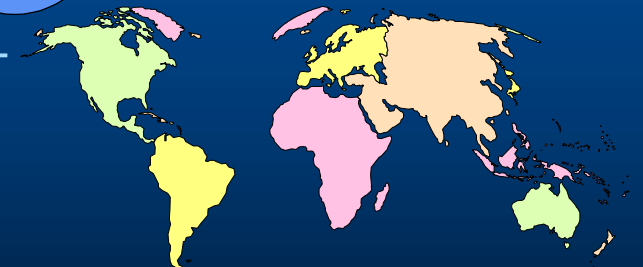
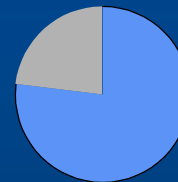
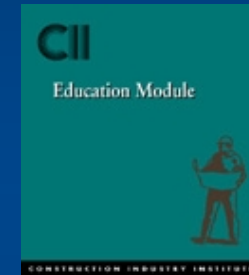
Benchmarking: NIST Study Update

➤ **CIJ's Homeland Security study:**

- **Collaboration with National Institute of Standards and Technology (NIST).**
- **Assembled industry experts.**
- **Developed best practices for project security.**
- **Developed Security Rating Index.**
- **Released questionnaire for data collection.**
- **Drafted and submitted report to NIST.**

CII Core Processes

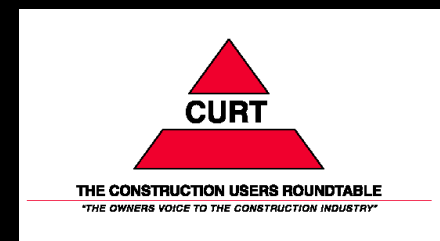
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- **Globalization**
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The Globalization Challenge for EPC



FIATECH



February 11, 2004
Houston, Texas

Annual Conference 2003 Presentations: Examples of CII Research Results



CII Annual Conference

Orlando, Florida

July 29-31, 2003

Research Presentation

Safety — Owner Involvement Makes a Difference



CII Annual Conference

Orlando, Florida

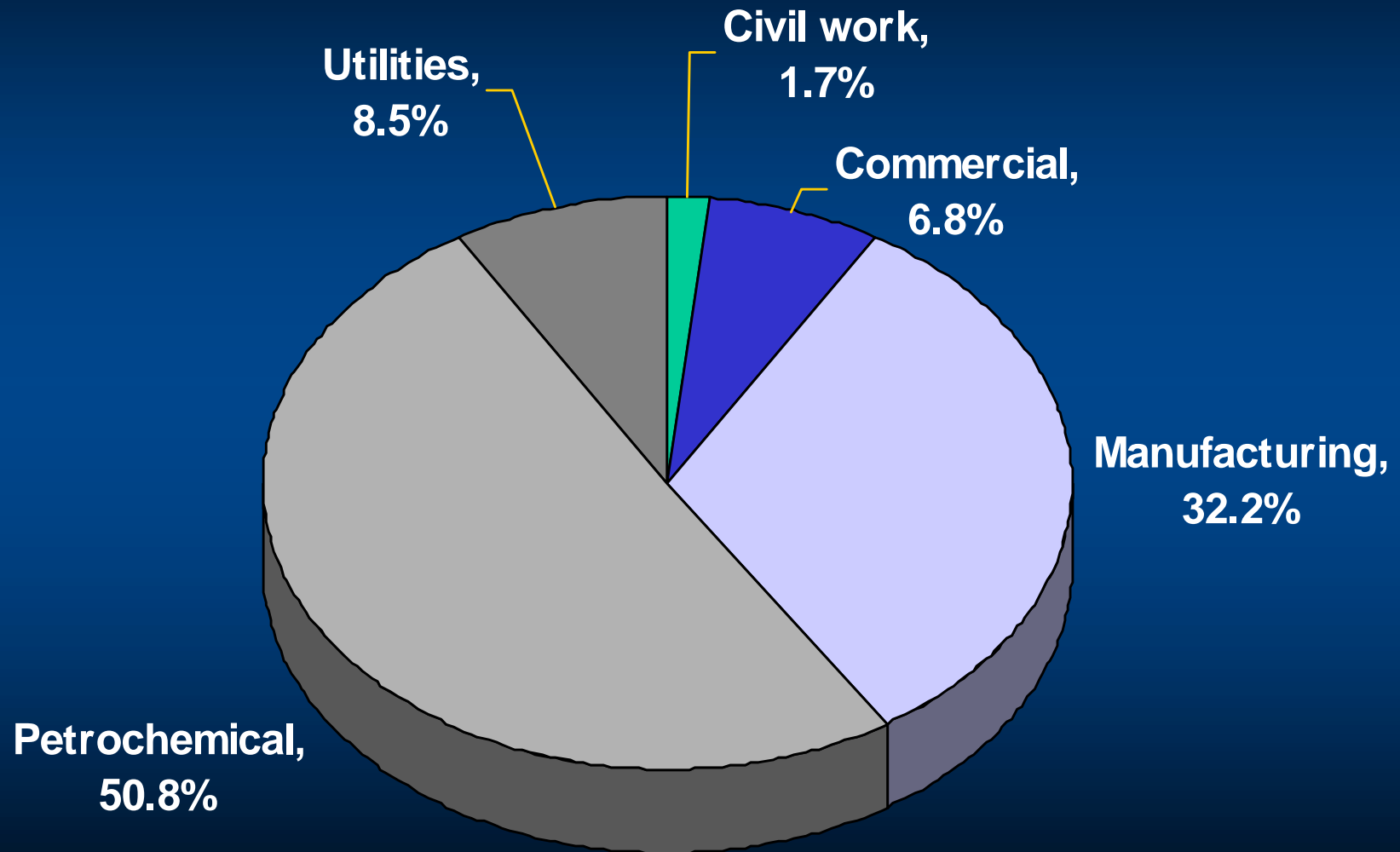
July 29-31, 2003

The Study

- Personal interviews on large projects:
 - Owner project management (majority)
 - Contractor project management
- Total study sample 59 projects:
 - 49 United States
 - 7 Canada
 - 3 International



Types of Projects



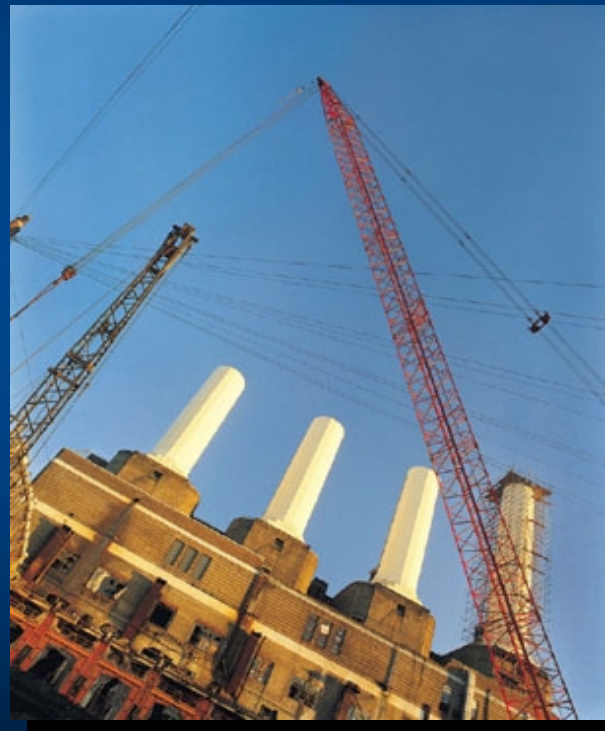
Owner Involvement Makes A Difference

Projects where owners exhibited aggressive project involvement had almost six times fewer injuries per 1000 employees.



Research Presentation

Risk Assessment for International Projects



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International Project Risk Assessment (IPRA) Publication



- **Identifies potential risks not typically considered.**
- **Rank orders potential risk areas.**
- **Insight into risk issues for entire project life cycle.**
- **Communicates risk within the team and with the project sponsors.**
- **Initiates the mitigation process.**

International Project Risk Assessment (IPRA) Publication

(continued)



- **Provides a standardized risk evaluation process.**
- **Validated by significant owner and contractor input.**
- **Focuses on international project life cycle risk identification and assessment.**

Research Presentation

Skilled Craft Worker Shortage Strategies



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Research Conclusions: The Work Force






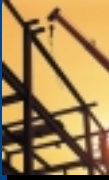
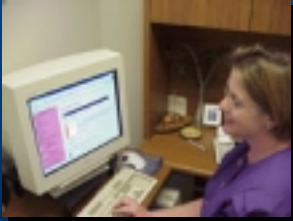
- Does not fit image: relatively stable, more educated, more satisfied than assumed.
- May actually be two work forces.
- Not as diverse ... in spite of best efforts.
- Industry not utilizing formal, coordinated effort to institutionalize known industry solutions.

Need: Structured Approach



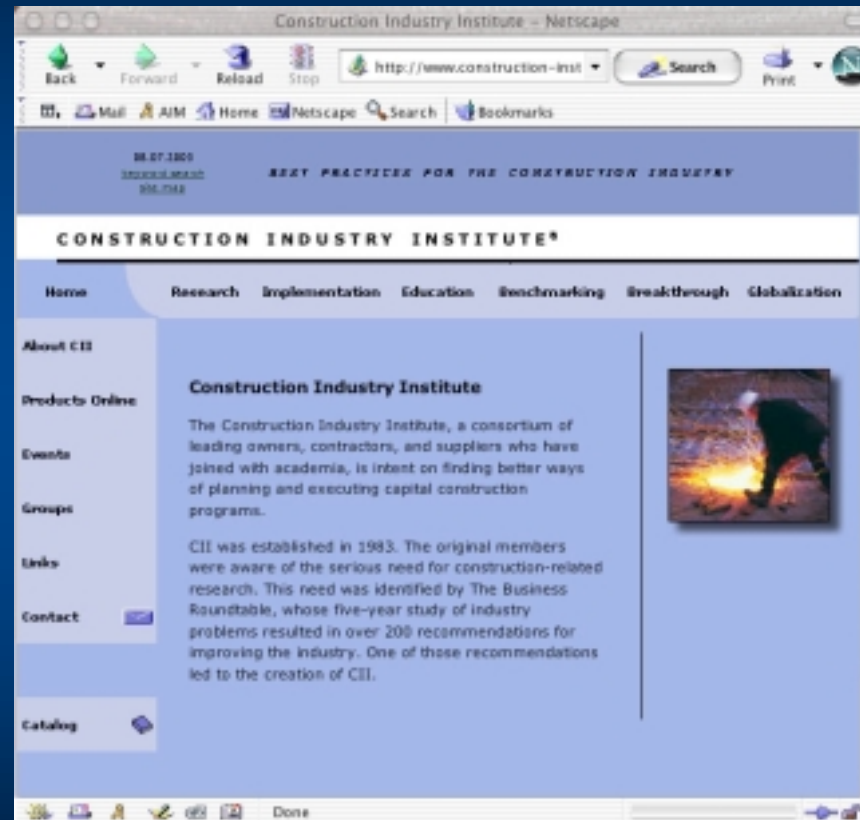
- Work force solutions: uncoordinated; implemented sporadically.
- Current initiatives producing varied results.
- Structured work force management approach should improve project success.
- CII's Work Force Assessment Process can be used to drive a structured work force.

Current CII Products

- 84 Research Summaries 
- 122 Research Reports 
- 47 Implementation Resources 
- CII Construction CD 7.0 
- Products Online 

The CII Knowledge Committee has archived 99 additional titles, most published prior to 1990.

Learn More about CII at Our Web Site



www.construction-institute.org

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