Construction Industry Institute

An Update

Hans Van Winkle
CII Director

Northwest Construction Consumer Council
Seattle, Washington
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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.
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<td>NASA</td>
<td>ABB Lummus Global</td>
<td>Honeywell</td>
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<td>Abbott Labs</td>
<td>NOVA Chemicals</td>
<td>ALSTOM Power</td>
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<td>Turner Construction</td>
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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.
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
CII Core Processes

• Research

• Implementation

• **Education**

• Benchmarking & Metrics

• Globalization

• Breakthrough

• Knowledge Management
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
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Benchmarking: NIST Study Update

- CII’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

- Research
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- Breakthrough
- Knowledge Management
The Globalization Challenge for EPC
Annual Conference 2003 Presentations: Examples of CII Research Results
Safety — Owner Involvement
Makes a Difference
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
Owner Involvement Makes A Difference

Projects where owners exhibited aggressive project involvement had almost six times fewer injuries per 1000 employees.
Risk Assessment for International Projects
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.
Skilled Craft Worker Shortage Strategies

CII Annual Conference Orlando, Florida July 29-31, 2003
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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