



CICE IMPACT ON THE CONSTRUCTION INDUSTRY

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CII was founded in 1983 to improve the cost effectiveness of the nation's largest industry. The members, who represent a broad cross-section of owners and contractors, believe that many of the problems that limit cost effectiveness are common ones, and that real improvements can be best accomplished in a cooperative environment with the benefits being shared by the construction industry at large.

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SUMMARY

This report is a summary of a three-phase effort by the Construction Industry Institute (CII) to evaluate, as of mid-1985, the impact of The Business Roundtable's Construction Industry Cost Effectiveness (CICE) Project on the United States construction industry.

Noting an apparent decline in construction efficiency and productivity since the late 1960s, The Business Roundtable published in 1982 and early 1983 a series of 23 reports with 223 recommendations to enable the construction user to optimize capital investments. This series of reports, known as the CICE Project, resulted from a study that took over five years of intensive effort and involved over 250 construction experts. The CICE findings center on how to manage construction projects better. The project study teams concluded that total savings from using CICE principles should reach at least \$10 billion annually for the industry.

To determine the extent of CICE's impact, three areas were evaluated: Exposure, Awareness, and Implementation. To get the CICE message out to industry participants, they must receive sufficient exposure to the project. Becoming aware of the detailed findings and recommendations of CICE is the next step. Finally, implementation must take place with the support of top company management for any measurable impact on the construction industry.

Leaders in the construction industry have been exposed to the CICE Project. Over one million copies of the 23 reports have been distributed (as of mid-1985) to the entire industry. Large owners and contractors have received the most exposure thus far, but designers and government agencies are beginning to hear the CICE message.

Approximately one-third of the industry is aware of the detailed recommendations contained in the CICE publications. Although it appears that a majority of the industry has a somewhat low level of awareness, it is significant that they place a high level of value on the worth of CICE recommendations as a means to lead the industry back to cost effectiveness. Twenty percent of the industry already has implemented some portion of the recommendations.

Formal implementation programs are still in the beginning stages of development and use. A sample of 15 projects with successful CICE programs reflected benefit-to-cost ratios of 10 to 1 and savings of at least 10% of total project cost. These programs tended to concentrate within limited areas of CICE such as safety, labor productivity, or constructability.

The conclusion from this CII evaluation is that there has been a significant impact on the construction industry. Construction industry leaders have developed implementation programs and are achieving significant cost savings. If the entire industry will systematically apply the CICE recommendations, annual savings could easily surpass the \$10 billion figure estimated by the CICE Project.

Primary recommendations are:

- The Business Roundtable should continue its efforts to provide copies of CICE reports, explanatory audio-visual programs, and personal presentations to interested organizations and individuals. (Note: As of the date of this summary report, over one and a half million copies of CICE reports have been distributed.)
- Further research studies are needed to determine how to measure more effectively the impact of CICE recommendations on construction projects.

INTRODUCTION

In 1969, the Construction Users Anti-Inflation Roundtable was formed and immediately focused on the detrimental effect of inflation on the cost of construction. In 1972, that organization merged with others to form The Business Roundtable, an association in which the chief executive officers of about 200 major corporations act on a wide range of public issues.

CICE Project

Over the years, the Roundtable has been concerned with the quality, efficiency, productivity, and cost effectiveness of the construction industry. In particular, the Roundtable's CICE Project, conceived in 1977, looked at specific problem areas in the construction industry. The project took over five years to complete with more than 250 people with expertise in construction, representing more than 125 companies as well as universities and industry organizations, participating. The CICE Project produced 23 specific problem area reports.

These 23 reports contain 223 recommendations for action by owners, contractors, trade associations, labor, government, academia, and others associated with the construction industry. If the CICE recommendations are carried out only to a moderate degree, the CICE study teams conclude, total savings should amount to at least \$10 billion annually.

CICE Project Reports

The 23 reports are divided into five major study areas:

- Project Management
- Construction Technology
- Labor Effectiveness
- Labor Supply and Training
- Regulations and Codes

The reports detail the possible causes for the lack of cost effectiveness on major construction operations. In addition, the reports recommend strategies and methods to resolve poor cost performance.

Appendix A contains the titles of the 23 reports published for the CICE Project.