



**FINDINGS AND RECOMMENDATIONS
OF A
SURVEY OF CII MEMBER COMPANY
DATA NEEDS**

**A Report to
The Construction Industry Institute
The University of Texas at Austin**

**Under the Guidance of
Task Force 83-4
Data**

**from
Construction Labor Research Council
Washington, D. C.**

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Findings and Recommendations of a
Survey of CII Member
Company Data Needs

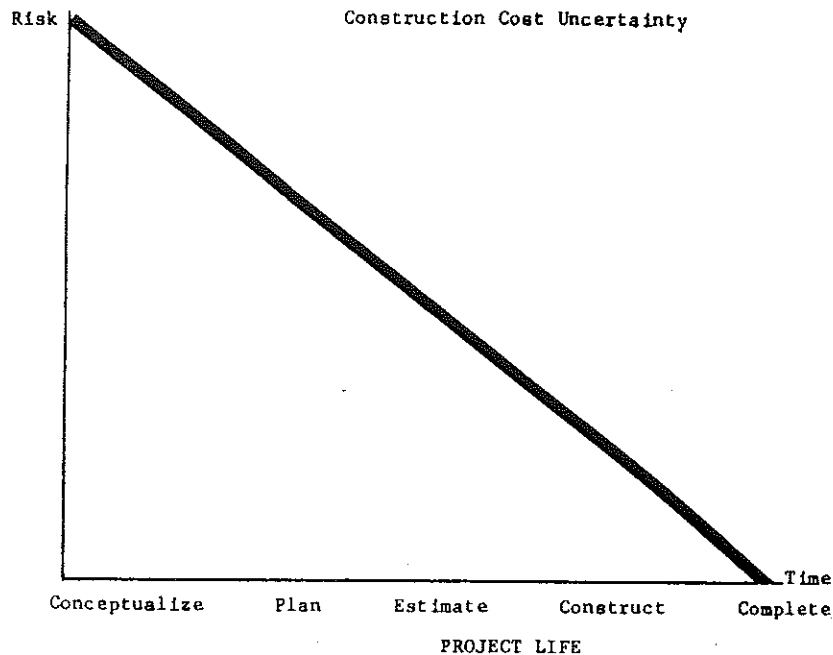
I Executive Summary

The lack of reliable statistical information to measure and evaluate the state of the construction industry has long been recognized. The situation can impede a company's efforts to properly plan, budget and control its construction projects and, therefore, reduce the probability of decisions being made in the most cost effective manner. The problem was highlighted by the CICE project of the Business Roundtable which found "a bizarre lack of accurate information" relating to the industry.

To identify the subjects with the greatest information deficiencies, the Data Task Force of the Construction Industry Institute undertook a review of construction information sources. A group of CII member companies were requested to evaluate the data used within their organizations and their priorities as to data which are needed, but not now available. This report contains the findings of a survey of member company data needs. The report will be used as the basis of establishing a CII Construction Industry Statistics Program which will assist in meeting company and industry information needs.

The survey sought to identify data needs, but served as a reminder of the high degree of risk that is inherent in the construction industry. To the extent that information can be used to reduce the level of risk and uncertainty, it is valuable to companies. Clearly, the greatest data needs

Chart 1-1



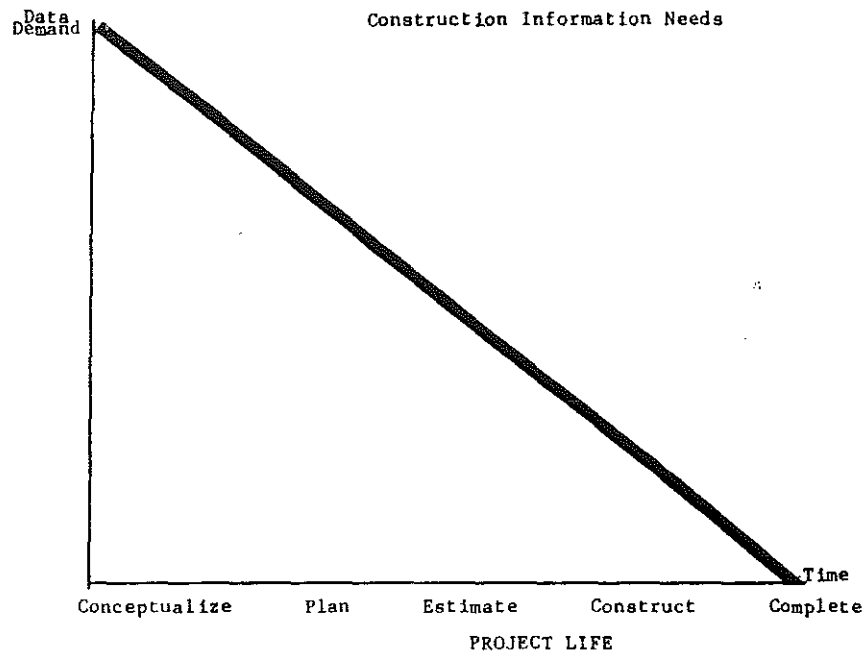
Risk is greatest prior to the beginning of construction.

tend to arise when a company is preparing for an upcoming project for which it has few past experiences, either by type of project or geographic area.

The Construction Industry Institute can best assist its member companies in meeting their data needs in two broad areas:

- Design and Implementation of a Local Area Data System - central access to a variety of data bases providing information on local factors which impact cost. The highest priorities are data identifying local craft wage rates and local craft labor availability.

Chart 1-2



Data needs are greatest prior to the beginning of construction.

- Develop Construction Cost Indexes/Projections - a family of indexes to more accurately reflect cost movements for large projects and provide the inputs for each company to construct company indexes and project future cost changes.

A prerequisite for successfully implementing a data program will be a strong foundation of preparation to establish broadly supported definitions, standards and scope for all data terms and data bases.

Information needs that CII can fill are greatest at project inception when the least is known about the location and characteristics of the project. Companies expend the greatest effort to gather information at this time. They

want to know labor cost and availability and a wide range of other types of information concerning the local construction environment within which they will be working. As they move closer to construction, their information needs diminish until at project completion all information is known.

The products to be developed as outputs of a CII Data Agenda are not data as much as they are assistance in reducing the uncertainty that exists in construction activity. The information that CII member companies have identified as being useful in their businesses are those which add to a better understanding of the factors, external to project design, which effect the cost of a project. The highest priorities are labor cost and availability; however, the whole range of factors in the local construction environment which impact the project are useful information to the owner and contractor.

Cost indexes are needed for themselves, but of equal importance is their role as the basis of other analyses. They not only measure the rates of change in construction costs, but also deflate industry volume to base year figures and monitor changes in technology and methods in the industry. Potentially most important, when implemented they can provide the base for identifying future price movements.

Improved aggregate measures of industry activity are supported to the extent that they facilitate better local data to be used within individual companies. Since persons visited spoke of the data needs they had in meeting their responsibilities, they often had little interface with industry data. While this may be interpreted to mean less interest in the

subject, it also suggests that support of industry data is the proper role of CII rather than any one company. CII can also have a greater impact on industry data.

The level of cooperation by CII member companies in making available knowledgeable persons to discuss data resources and needs was exceptional. It was apparent that there is widespread strong support for CII, in general, and for CII efforts to improve available data resources. In addition to providing the documentation for planning a CII data program, the results of the survey offer members the opportunity to compare their own data needs with others.

II Survey Findings - Data

Visits with CII member companies concentrated on the discussion of specific data bases; however, data systems and concepts were stressed by respondents. The information that was most difficult to obtain and important to have was for specific geographic areas in which the company either had no past experience or no recent experience. The other recurring theme urged CII to place a high priority on establishing definitions and standards for information before collecting it.

Company information needs are the greatest at the front-end of a project when local area information is collected and analyzed for the purpose of assisting in the preparation of a project estimate or bid. Extensive efforts are made to obtain information on the local construction industry environment when estimating the cost of a project, especially in an area in which the company is not familiar. Many types of data are desired, with the highest priority placed upon knowledge of labor costs, labor supply and productivity.

Local area information requirements are such that companies require quantification of some factors, but also background information to obtain a better "feel" for an area. The degree of uncertainty is so great at this point in preparing for a project that any new or improved local area data sources will be beneficial to companies.

The feeling that existing industry data sources are of limited use because of poor definition of terms and incompatibility with company needs was

pervasive. The implementation and distribution of new data sources will require that companies feel confident that definition and scope of data has been thoroughly considered. This will assist in achieving acceptability of new data and also serve other industry needs.

Data interchange within the industry is hampered by the lack of standards. Requirements, formats and standards differ among owners and contractors. Internal inertia and priorities have prevented some companies from developing their own standards and definitions. This has prevented better utilization of information, even when the raw data exists. In discussing this topic, support was expressed for CII's efforts to develop a standard chart of accounts.

Recurring themes that were expressed and which are behind the findings and recommendations include some remaining apprehension, especially among contractors, in providing data to CII because of concerns about confidentiality. A clear statement of responsibility for data already collected by CII and procedures for keeping it current either have not yet been made or have not been communicated. The role of the Data Task Force is not yet clear. Current low levels of construction activity appear to have influenced some comments. It was also apparent that the successful growth of CII has brought with it a more varied constituency with different data priorities and other needs. A successful data program will have to recognize this situation.

Specific comments were received for a wide range of data topics. Discussion of each follows. The order in which they are discussed is subjective, based upon the frequency in which the item was noted and the importance placed upon it by the respondent. The data bases with the broadest support for CII involvement are discussed first.

Unquestionably, the most universally requested category of information was craft labor rates. In the case of rates for non-union workers, this also ranked high as a type of data which was difficult to obtain. Labor rates, as a major component of overall project cost, are crucial in estimating project cost.

While it was recognized that non-union rates were most difficult to obtain, the growing trend of utilizing variations from the negotiated union rate was also a problem. Non-union rates are gathered by telephone or visit to the area to discuss the local situation with knowledgeable individuals, yet satisfactory information still may not have been obtained. There is little to add on this subject because the responses were widespread, uniform and definitive as to the need for better and more easily accessible craft labor rates.

Labor availability information complemented wage rate data as a priority item. Primary concern was for short-term availability for an upcoming project, but the importance of better information related to the longer-term needs of the industry was recognized. The availability of an adequate supply of workers with the proper skills was viewed as a key factor in assuring a successful cost effective project.

It was acknowledged that development of a system to accurately identify the current availability of labor at the local level throughout the country would be a major undertaking, but one with a sizable return. On an interim