



CONSTRUCTION INDUSTRY INSTITUTE®

RECRUITING AND RETAINING
FUTURE ENGINEERING AND
CONSTRUCTION LEADERS

Construction Industry Institute

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	Yates Construction
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Recruiting and Retaining Future Engineering and Construction Leaders

**Prepared by
The Construction Industry Institute
Attract, Recruit, and Retain Engineering and Construction Leaders
Project Team**

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Executive Summary

The engineering and construction industry is failing to recruit enough young professionals. Unfortunately, attracting talent is not the only problem. Retaining them is proving difficult as well. Considering that the typical engineering professional is in their late 30s to early 40s, this long-brewing problem will worsen unless action is taken.

Over the last 20 years, the Construction Industry Institute (CII) has concentrated on craft labor, worker productivity, and the looming shortage of skilled crafts in the U.S., but until now has not addressed the question of how to recruit and retain leaders. CII chartered the Attract, Recruit, and Retain Engineering and Construction Leaders Project Team (PT 200) to explore the problem and to provide solutions that can be implemented by organizations throughout the industry. Such a program, CII believes, could mean large gains for the industry by enhancing the advantages of engineering or construction management careers.

PT 200 has concluded that solutions are indeed available. The project team has identified specific benefits, programs, and other incentives that young people are looking for when choosing a career path and a prospective employer, and has prepared a brochure and a checklist for organizations interested in a self-assessment of their recruiting and retaining efforts. The brochure and checklist are free as downloads from the CII website.

This report summarizes the efforts of the CII research on attracting, recruiting, and retaining engineering and construction leaders. The industry would do well to take note of the examples being set by others, such as the healthcare and information technology industries, and to remove some of the key barriers that are causing young, talented professionals to look away from construction as a lifelong career. The industry needs talented young leaders, and recruiting and retaining them is critical to the future of construction.

Introduction

The construction industry's future will greatly depend upon its ability to recruit and retain young, talented professionals. To achieve success, it is clear that the industry must provide not only competitive compensation, but also excellent career opportunities for a wide variety of prospects – talented young people, many of whom are strikingly different from the industry's traditional talent pool and who may well turn away from the field if major changes are not made soon.

Employee turnover is costing companies over \$140 billion annually. According to the U.S. Department of Labor, one-third of a new hire's salary is spent replacing a departed employee. Additional hidden costs lie in the search for replacements and the productivity lost while new employees learn the organization's culture and work processes.

Attracting, recruiting, and retaining top quality leaders and managers will continue to be an overwhelming problem for engineering and construction companies throughout the United States. The companies will need to develop human resource programs that will help attract and keep top young leaders rather than losing them to other industries with more attractive career packages.

One huge challenge for employers will be creating an "image" for their companies that targets the best talent and creates an environment where employees maintain motivation and are committed to the company's future. Beyond the challenge for individual companies, the industry too faces the need to revamp, upgrade, and somehow polish its single most important asset: industry image. The current image is not positive. It often is seen as dirty, strenuous, and hazardous, even for managers. Add to that the familiar images of crews working outside in extremely hot, cold, or wet weather, and it is reasonable that potential talent looks elsewhere for employment.

The CII Attracting, Recruiting, and Retaining Engineering and Construction Leaders Project Team (PT 200) was asked to consider solutions for this problem. After careful deliberation, however, the project team concluded industry image was a much broader scope than the team's true charter, which was to find ways that individual companies and organizations could improve their recruiting and retention. Fortunately, work has begun on the industry's image. Several companies have recently televised image ads and some industry associations have competitions or other programs intended to reach students.

The primary objective for PT 200 was to provide recommendations that will help ward off the threat of losing potential resources to other industries in an era when the talent pool is shrinking. The National Center for Education Statistics states that during the 1990s, U.S. enrollment in bachelor of science programs grew nine percent overall, but engineering declined almost six percent, physical sciences dropped 10 percent, and mathematics fell 20 percent. Compare those declines with a 49 percent increase for health sciences, 24 percent gains in computer science, 15 percent growth for biology, and eight percent increases in psychology and social sciences. Many expect enrollment will continue falling in engineering, physics, chemistry, and mathematics — traditional recruiting pools for the engineering and construction industry.

The recommendations from PT 200 include a wide range of potential ideas — from strategic corporate programs to simple management techniques — that can be implemented in any owner, engineering, or construction company.

Data Collection and Analysis

The research took a two-pronged approach. First, PT 200 examined engineering and construction's current best practices for attracting, recruiting, and retaining future industry leaders and studied other industries that face similar challenges. Second, to obtain a deeper understanding of the issues inside owner, engineering, and construction firms, PT 200 developed a questionnaire and conducted interviews to examine different aspects of the problem.

Review of Related Literature

PT 200 reviewed a wide range of resources, including published best practices, literature reviews, Web searches, conference proceedings, professional journals, books, and other research. The project team also examined the advertising, recruiting, and retention strategies of other industries such as health care, information technology, and the military.

This literature search (see Chapter 3) noted the changing demographics of the U.S. work force: the skill pool is graying as the Baby Boomer generation (those born between 1946 and 1964) nears retirement age. This raises the very real threat of future labor shortages. Additionally, PT 200 became acutely aware that the engineering and construction industry has a negative image in the eyes of the general public. While improving the industry image was beyond the scope of this research, the project team was particularly impressed with the innovative and successful "brand ads" produced by the U.S. Army, which has overcome the challenge to recruit soldiers into today's difficult and dangerous geo-political and military environment.

In-Person Questionnaires

After completing the literature review, the second phase of the research involved conducting 270 in-depth interviews with college students and employees from 24 owner, engineering, and construction firms distributed across the U.S.