

CONSTRUCTION INDUSTRY INSTITUTE®

ATTRACTING, RECRUITING, AND RETAINING
TOP QUALITY CONSTRUCTION LEADERS/
MANAGERS

ARIZONA STATE UNIVERSITY

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Research Report 200-11

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ATTRACTING, RECRUITING, AND RETAINING TOP QUALITY CONSTRUCTION
LEADERS/MANAGERS

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

Under the Guidance of
CII Project Team 200
Attract, Recruit, and Retain Construction Leaders

CII Research Report 200-11
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Executive Summary

Attracting, recruiting, and retaining top quality construction leaders/managers to the engineering and construction industry is an onerous task facing many construction companies throughout the United States. Unwanted employee turnover is costing companies over \$140 billion annually in recruiting, training, and administrative costs. The engineering and construction industry faces stiff recruiting and retention challenges in the years ahead because of demographics, changing expectations among potential employees, and image issues. Today's industry leaders, although unable to influence demographics, can plan and implement a proactive response to the aging U.S. work force, changing expectations among younger workers, and industry's image.

In an attempt to improve this challenge, the Construction Industry Institute (CII) chartered the Attract, Recruit, and Retain Engineering and Construction Leaders/Managers Project Team (PT 200) to explore the problem and to provide solutions that can be implemented by companies throughout the industry. Such a program, CII believes, could mean big gains for the industry by enhancing the real and perceived advantages of careers in engineering or construction management. The timely development of this program, to promote a career in construction and to market the advantages of becoming a construction leader/manager, carries enormous gains for the construction industry. The deliverables from this program provide the tools necessary to assist the construction industry attract top individuals and to facilitate companies in structuring an internal program to retain them.

To accomplish the objectives of this program, research was divided into different phases. First, a comprehensive literature review was performed that examined the current best practices being employed by relevant industries that can be transferred over to the engineering and construction industry. Second, an in-person employee questionnaire was conducted to gain better insight into this segment of the construction industry. To gather pertinent information about attracting, recruiting and retaining top

quality construction leaders/managers, 272 in-person employee interviews were conducted at 24 owner, engineering, and construction companies across 11 states that represented different segments of the industry. Data from these questionnaires were examined and will lay the foundation for determining the proper strategies for developing the human resource best practices program.

An employee's decision to join, stay, or leave their employer can appear highly individualized but when a large enough sampling is considered, valuable trends appear. Not surprisingly, PT 200 found the most important attraction and retention factors are competitive compensation and benefits. But close behind comes better career path definition, continuing education and training opportunities, greater coaching/mentoring, and more recognition for a job well done. PT 200 prepared a brochure over viewing current recruiting and retaining issues (CII Implementation Resource 200-2) and a brochure (CII Implementation Resource 200-3) that can serve as a checklist for organizations interested in a self-assessment of their recruiting and retaining efforts.

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1 Introduction

The future success of the construction industry lies in its ability to recruit and retain today's young talented professionals. To do this the industry must recognize the need to provide a positive career orientated environment for these individuals.

As in all industries, turnover of the labor force without an equal or greater influx of employees will cause a significant decline of that business. Construction, as a production oriented service model, has a direct correlation to the economy; when the economy is good, the market naturally wants to build, with the expectation of building at the lowest possible cost and delivered in the least amount of time. Therefore, the quality and talent of the construction industry workforce directly impacts productivity. As a result, it is even more important that the industry take the necessary steps to attract, recruit and retain top young talent to the industry.

1.1 Statement of the Problem

The cost of finding and training a new employee is astounding. Unwanted employee turnover is costing companies in the United States over \$140 billion annually in recruiting, training, and administrative costs. According to the U.S. Department of Labor, it costs 33% of a new hire's salary to replace a departing employee. Financial consideration plus lost productivity of the new employee are joined by often forgotten hidden costs when an employee leaves. In addition, the Bureau of Labor Statistics projected employment in the construction industry to grow by 13.3 percent, from 6,698,000 jobs to 7,522,000 jobs by 2010 (Bureau of Labor Statistics, 2002). Nationwide, the construction industry should be adding about 225,000 workers a year to offset attrition and meet labor demands, according to the National Association of Home Builders. However, in recent years, the industry has fallen between 65,000 to 80,000 workers short of that goal (Barrett, 2001). Bill Vanderslice, the CAN

National Branch President stated that the availability of quality construction workers at all levels is at a 30 year low. He attributes this to the “graying” workforce, substituted by the fact that baby boomers outnumber the Generation X-ers by 30 million. This equates to the fastest growing age group being 55 to 65, which will be at retirement age in less than 10 years (Hunter, 2002).

Before considering entrance into the construction work force, individuals are influenced by a number of factors, identified as “filters” in a study conducted by Mark O. Federle, James E. Rowings and Thomas S. Devany to examine the difference between the supply and demand for construction employees. As part of this study, a model was created from a variety of different sources within the industry. The model, illustrated in (Figure 1.1), portrays input through various filters into the construction workforce from the United States labor pool. According to the model, an individual’s values, interests, aspirations, perceived abilities and perceptions about the industry influence whether the individual would consider a career in construction (Federle et al., 1993).

The study concluded that to increase the recruiting potential, the construction industry must be open to diversity, incorporate organizational investment and decrease adversarial relationships within the industry.

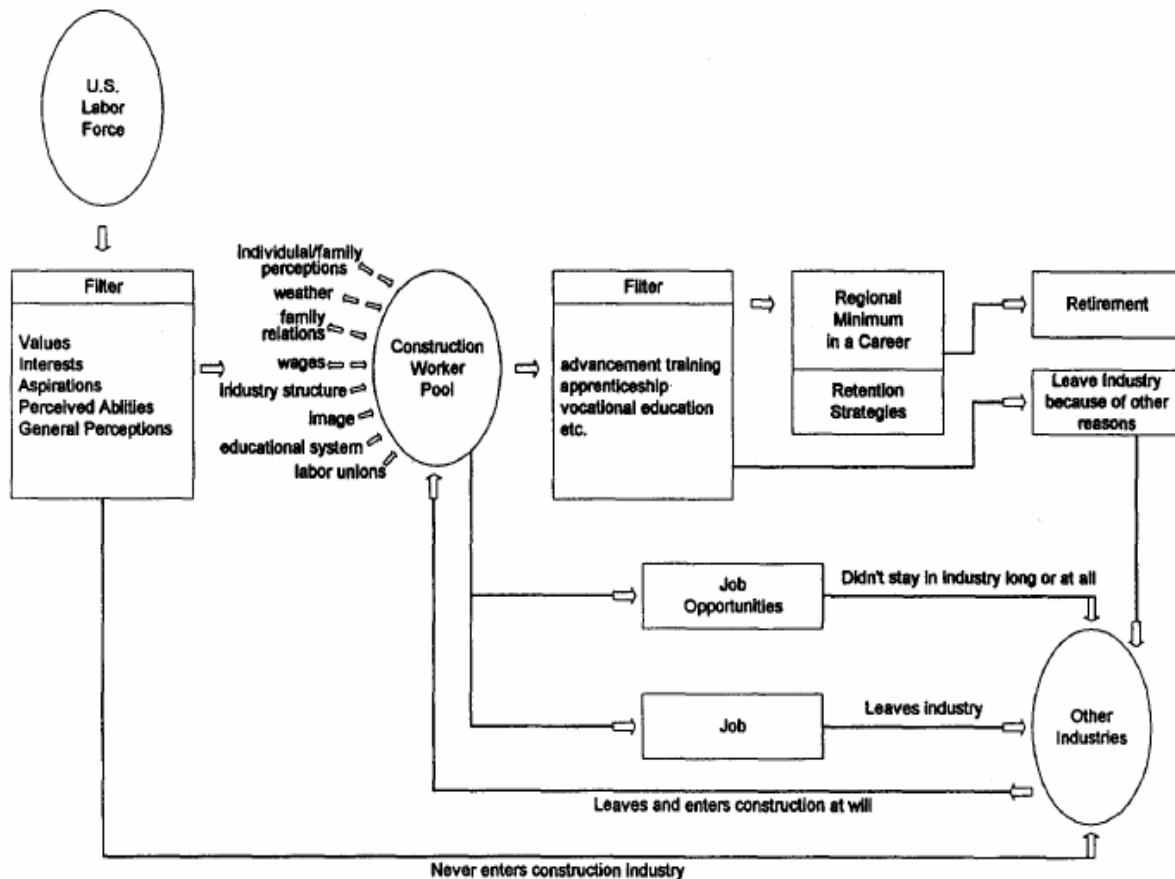


Figure 0-1.1: Filters Influencing Ones Career in the Construction Industry

1.2 Purpose of Research

Attracting, recruiting, and retaining top quality construction leaders/managers is an onerous task facing construction companies throughout the United States. The primary objective of this research is to research and design a human resources program that will assist construction companies 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 stated that during the decade ending in 1999, U.S. enrollment in Bachelor of Science programs grew 9% overall; however, engineering declined almost 6%, physical sciences dropped 10%, and mathematics fell 20%. Compare those declines with a 49% increase for health sciences, 24% gains in computer science, 15% growth for biology, and 8% 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 challenge lies in creating a persuasive “message” that not only targets the best and brightest young talent during the recruiting phase, but fosters an environment where employees are motivated to remain committed to the company once he or she is hired.

The recommendations from the Construction Industry Institute (CII) Project Team 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. The following chapters describe the research effort, the resulting conclusions, and recommendations that will help the industry recruit and retain the leaders of tomorrow.

2 Research Methodology

To effectively manage the project and to accomplish the objectives of the study, the research was divided into four phases, each of which involved a series of defined tasks. Each phase of this research is described in detail in this chapter.

2.1 Phase One - Develop the Strategic Human Resource Program Objectives

The CII PT 200 began the study with a comprehensive discussion about how to effectively obtain its research objectives. The main objective of the research was to develop a strategic human resource program that can be implemented in any engineering and construction company. Minimally, this program must communicate a succinct message on the rewards and benefits of a career in the engineering and construction industry. The following objectives were developed for the research:

1. Examine current best practices for attracting, recruiting, and retaining future industry leaders across the information technology, healthcare (nursing), engineering, and construction industries.
2. Develop an in-person employee questionnaire that examines current, employee personal information and demographics, current career situation, current employer information, company benefits, and individual perception of the construction industry to be administered to a cross-section of engineering and construction companies across the United States.
3. Analyze employee questionnaire results from these engineering and construction companies along with current best practices from other industries (i.e. information technology and healthcare) to determine those best practices potentially transferable to the engineering and construction industry.
4. Examine and summarize career path options for the engineering and construction industry.

5. Develop a set of metrics that can be used to measure the effectiveness of recommended programs for attracting, recruiting, and retaining future industry leaders in the engineering and construction industry.

2.2 Phase Two - Data Collection

Data pertaining to team objectives was collected using a wide range of resources including current industry best practices, literature reviews, web searches, conference proceedings, professional journals and books, and academic research. Included was the information on human resource systems and practices currently employed by engineering and construction companies, as well as in other industries. To better understand the current best practices used by many different organizations, and the respective attitudes of the employees at these organizations (CII members and others), a questionnaire was designed and used to conduct in-person employee interviews.

2.3 Phase Three - Employee Questionnaire

Project Team 200 decided that an employee questionnaire would be the most effective means of gathering relevant information about ideas that organizational members had about how to improve current recruitment and retention methods. The employee questionnaire was developed with direct input from PT200 members. To ensure that the questionnaire addressed the necessary information and data needed to successfully complete the research, the completed questionnaire was subjected review prior to distribution. The final questionnaire was divided into five parts containing the following information:

- 1) **Part I - Personal Information and Background** - Contained demographic and background information about individuals including current job title, years of employment in the Engineering and Construction industry, and work environment preferences.

- 2) **Part II - Current Career** – Solicited questions about an individual’s current career situation (company involvement, career goals, job satisfaction, etc.). This included factors that initially attracted them to the industry, work travel history, employment history, perceived job sacrifices, and overall satisfaction with their current career.
- 3) **Part III - Current Employer and/or Company** - Examined the individual’s current employer and/or company and asked the participants to express their views on a number of company issues including job responsibilities, company leadership, and company image.
- 4) **Part IV - Benefits** - Examined what individuals found to be the most desirable, by highlighting a list of typical benefits offered to employees such as healthcare, vacation leave, retirement plan(s), etc.
- 5) **Part V - Construction Industry** - The final part of the survey asked individuals about their perception of the engineering and construction industry and asked about what attributes they felt could be improved to improve the image of industry and recommendations for developing a marketing program.

2.4 Phase Four - Analysis of Employee Questionnaire Results

During the final phase of the research project, PT 200 conducted a review of the results from the employee questionnaire and the information derived from the literature search. The team then developed recommendations for designing a human resource best practices program. PT 200 prepared a brochure over viewing current recruiting and retaining issues (CII Implementation Resource 200-2) and a brochure (CII Implementation Resource 200-3) that can serve as a checklist for organizations interested in a self-assessment of their recruiting and retaining efforts.

3 Review of Related Literature

3.1 Changing Demographics

The term “graying” of the workforce is often used to express the aging of the baby boomer generation and the potential labor shortages facing the future of the engineering and construction industry. The baby boomer generation is comprised of individuals from 39 to 59 years of age and makes up approximately 55 million Americans. This age group is the fastest growing segment of the U.S. population and will begin entering retirement over the next 10 years. According to the www.monster.com website CEO Jeff Taylor, the main labor shortage problem facing corporate America is a “generational labor shortage”. Baby boomers are beginning to retire and there are not enough younger employees entering the job market to replace this lost experience. Much of today’s management within the engineering and construction industry is comprised of baby boomers because of their skills and experience. Understanding and preparing for the future generational void that will be left behind by retiring baby boomers; attracting, recruiting, and, retaining today’s young talented professionals is key to not only sustaining a competitive advantage for the engineering and construction industry, but to remain viable.

3.2 Construction Industry Image

In a world where “image” plays a dominant role in how people choose to accept or reject a product, company, a person, it is crucial to maintain a positive image in the marketplace. By taking steps to appeal to the general public and conveying a positive image about the construction industry, familiarity and awareness of the industry naturally occurs. This in turn should help influence an individual’s decision to choose a career in that particular industry.

3.2.1 Negative Image of the Industry

Historically, the image of the construction industry has not been very positive. The general public perceives the industry as being tedious, dirty, non-technical, non-professional, hazardous, cyclical, and associated with difficult working conditions (Reid, 1995). One study found that young people saw the construction industry as making important contributions to society by creating shelter, highways, and jobs; but the construction worker was associated with dirt, sweat, obscenities, loafing, and low prestige (Rosenthal, 1990). Additionally, an Engineering News Record article stated, “The reputation of the industry is bad even among school children that picture it as a haven for Neanderthals and ne’er-do-wells and not a provider of sophisticated services” (Korman, 1992). Peers of those students who do not go to college, but choose a career in the construction industry often find themselves viewed as being “failures”. Physical, outdoor work with one’s hands is not viewed as favorably as it once was. Unfortunately, the media compounds this misperception even more by exploiting and highlighting news stories that foster a negative image of the construction industry. Construction accidents, professional negligence, poor quality control, cost and schedule over runs and an absence of proper crisis management techniques supply the media with ammunition reinforcing the public’s perception that the construction industry lacks professionalism (Bodapati, 2001).

3.2.2 Improving the Industry's Image

Although it is difficult to control how the media portrays the construction industry, steps can and should be taken to improve the industry's image by showing appealing and interesting aspects of construction. Widespread forms of media such as television, magazines, the Internet, and other publications offer programs conveying such an image. More and more project documentaries such as the "Superbridge" on the Public Broadcasting System (PBS) network have proven to be an effective venue for portraying the challenging and diverse opportunities the construction industry offers. As an educational tool, the documentary emphasizes the various aspects of construction, including the use of advanced technology and its wide range of career opportunities. Television shows such as "This Old House" and "Bob Vila's Home Again," have been at the forefront of America's recent obsession with home improvement. Since the majority of the public will likely never be exposed to any construction beyond the residential level, This avenue alone has helped to improve the industry's image in the minds of many (Leisy, 2000).

As in any industry, the construction industry's image can only be as good as its members allow it to be. Over the past decade, the construction industry, along with many universities and professional organizations, has taken the necessary steps toward conveying a positive image to the general public. The following is a description of organizations that contributed to the promotion of the construction industry:

1. **American Council for Construction Education (www.acce-hq.org)** - ACCE is a private non-profit corporation with the goal of promoting continued improvements of post-secondary construction education for four-year baccalaureate degree programs in construction, construction science, construction management, and construction technology. ACCE accredits construction education programs in colleges and universities that request its evaluation and meet its standards and criteria. Formed in 1974, ACCE enjoys the support of the principal building and contracting

national associations, the American Institute of Constructors, the constructor's professional organization, the Associated Schools of Construction, academic institutions seeking to satisfy the needs for well educated and trained entrants into the construction profession.

2. **National Association of Women in Construction** (<http://www.nawic.org>) - NAWIC is a national organization that helps enhance the success of women in the construction industry. NAWIC'S Education Foundation has several programs to help introduce young people to the construction industry. Some of these include:

- *Build It* - In an effort to inspire children to pursue dreams, break stereotypes and explore a broad range of career options, this video educates and informs young children about the future career possibilities in the construction industry.
- *Block Kids Building Program* - The Block Kids Building Program is a national building program competition that is sponsored on the local level by NAWIC chapters and other organizations. This award-winning program introduces children to the construction industry in an effort to create awareness and to promote an interest in future careers in one of the many facets of the industry. This program is open to all elementary school children in grades 1- 6.
- *Building Design Program* - This program introduces the construction industry to young children in a positive and fun manner, while presenting challenges in math, science, and design. The Scale-Model Building Program is for students at the junior high/middle school level that promotes teamwork in constructing structures from architectural drawings in competitions.
- *CAD/Design and Drafting Program* - The CAD/Design and Drafting Scholarship Competition is a contest designed for senior high students. The contest provides recognition to students for creative design, successful problem solving, and craftsmanship

in preparing architectural drawings. Objectives of the contest are to introduce the student to the construction industry in a positive and challenging manner.

3. **Home Builders Institute** (<http://www.hbi.org>) - HBI is the education and training arm of the 200,000 members strong National Association of Home Builders (NAHB). For more than 30 years, HBI has helped young people start careers in the building industry.
4. **Careers in Specialty Construction** (<http://www.constructionalliance.org/>) - This organization is an alliance among the Mechanical Contractors Association of America, National Electrical Contractors Association and Sheet Metal and Air Conditioning Contractors' National Association promoting specialty construction to young people.
5. **Associated General Contractors** (<http://www.agc.org>) - AGC is an organization of qualified construction contractors and industry related companies dedicated to improving the quality and image of the construction industry.
 - AGC's Build Up Program- Is a program that targets fifth graders across the United States and presents a positive image of the construction industry. This learning tool is a tool kit that contains lessons plans, hands-on exercises, and a video outlining different careers in the construction industry.
6. **AED Foundation** (<http://www.aednet.org>) - Is an affiliate of Associated Equipment Distributors, an international association of distributors, manufacturers and suppliers serving the construction equipment industry. The foundation's programs and services are intended to strengthen the industry through workforce development and professional education.
7. **National Center for Construction Education and Research** (<http://www.nccer.org>) - NCCER is a not-for-profit education foundation founded in 1995 by 11 of the world's largest and most progressive construction companies, as well as several national construction associations. NCCER was created to address the severe workforce shortage facing the construction industry

and to develop standardized construction, maintenance, and pipeline curricula. The goal of NCCER is to develop and publish current industry information safety programs, management education, industry image, and industry research.

8. **American Institute of Constructors** (<http://www.aicnet.org>) - AIC is an organization established to help individuals in the construction industry achieve their desired level of professionalism within the industry. This organization promotes the study and advancement of construction related fields, facilitates the exchange of information and ideas within the profession, recognizes the professionalism of individual careers in construction, and establishes high standards and ethics professional individuals must achieve within the industry.
9. **Construction Writers Association** (<http://www.constructionwriters.org>) - CWA is a network for journalists, writers, editors, and publicists who work in the construction industry. Their mission is to provide a forum for the exchange of ideas in the construction field, to improve their professional capabilities and to enhance the public image of construction.
10. **Construction Industry Institute** (<http://www.construction-institute.org>) - CII is a consortium of more than 90 organizations comprised of leading owners, contractors, and suppliers from the public and private sector. Its primary goal is to provide research funding to universities that are leading the way toward finding better ways of planning and executing capital construction programs.
11. **Construction Industry Round Table** (<http://www.cirt.org>) - CIRT is an organization comprised of approximately one hundred CEOs from leading architectural, engineering, and construction firms doing business in the United States. CIRT's primary purpose is to be a single voice for the design/construction community and its mission is to be a force for positive change in the construction industry.

12. **Construct My Future** (www.constructmyfuture.com) - This Internet website was created by three national organizations that offer students, parents, and teachers a wealth of information about construction careers. It covers everything from engineering and design to the manufacturing and distribution side of the industry. The site has links to scholarship and schooling information, apprenticeship programs and topical information such as the top ten construction projects of the past century the machines used in construction.

3.3 Advertising and Recruiting Media

To successfully attract, recruit, and retain top quality employees to the construction industry, companies must not overlook the power of strategic advertising and recruiting media.

The term media refers to communication vehicles such as newspapers, magazines, radio, television, billboards, direct mail, and the Internet. Advertisers use media to convey commercial messages to their target audiences, and the media depend on advertising revenues to cover the cost of their operations. In 2001, the United States advertising expenditure in various media was estimated at \$233.7 billion, of which television accounted for (22.5 %), direct mail (19.8 %), newspapers (19.3 %), radio (7.7%), yellow pages (5.8 %), magazines (4.7 %) and the Internet (1.8 %), with other media accounting for the remainder (Li, 2003).

Advertising media comes in two forms, 1) primary medium and 2) secondary medium. Primary medium delivers the message with the greatest effectiveness. Television is considered to be the most primary medium because it is the medium most consumed by the public. It is intrusive and combines sight, sound, and motion to demonstrate their product or business most effectively. Print is also a primary medium, targeting specific niches through special publications. A secondary medium such as radio offers broad range, allowing great frequency, but as it only employs sound, it is a reminder medium rather than a visual imprint. Radio is intrusive and does reach prospects at times and places

where either television or print ads may not be available. Although also considered a secondary medium, the Internet has grown in popularity and is becoming more of a primary medium for advertisement and recruitment largely due to its emerging global accessibility.

3.4 Increased Use of the Internet for Recruitment

Many industries, in addition to the engineering and construction industry use a wide array of advertising recruiting media for attracting prospective employees. Recruiting efforts are primarily achieved through print media; however, in recent years, the Internet has seen an exponential increase. Electronic forms of advertising (i.e. recruitment) have become considerably more effective than traditional recruiting efforts. The Internet has emerged as a medium for marketing, advertising, and recruitment over the past ten years.

Currently, Internet recruitment is one of the fastest growing forms of media used to attract and recruit individuals to many industries and organizations. Internet recruitment is far less expensive than traditional press advertising; in some cases by as much as 90 percent significantly reducing a company's cost per hire. More than half of the United States population now has access to the Internet, which makes it a very powerful tool for recruiting. By posting jobs on the Internet, an organization typically has more available space compared to using traditional forms for media. Providing information on a company-owned website about vacancies, company values, culture and benefits, gives an organization a competitive advantage over traditional forms of media.

Providing information on a company-owned website about vacancies, company values, culture and benefits gives an organization a competitive advantage over traditional forms of media. Additionally, websites can be modified or updated instantaneously, thereby providing the most current information. Today, companies who use a combination of traditional and internet recruitment advertising, are typically finding more success than those who use either method in isolation.

3.5 Marketing a “Brand Image” The United States Military

The United States military, particularly the U.S. Army, is similar in structure to that of the engineering and construction industry. Like the construction industry, the U.S. Army is a fragmented organization comprised of many factions geared toward one common purpose. The U.S. Army effectively communicates through various types of media by marketing a “brand image” to potential consumers. This approach can shed some light on future marketing possibilities that could be emulated in construction recruiting.

In a 1996 article in the Journal of Advertising Research, Agres and Dubitsky defined “brand” as “a set of differentiating promises that links a product to its consumers.” A brand is said to “reside in the mind of the consumer”, as opposed to a product that resides on a store shelf. The U.S. Army logo, along with their “army of one campaign” is their brand. The advertising media is what carries the message into the minds of their potential consumers within the general public (USAREC, 2003).

As with the construction industry, news and entertainment media often convey negative impressions about the U.S. Army and its brand image. To increase the popularity and promote a positive message of the military, the U.S. Army uses low-cost messages within the media by using public relations programs, media interviews, and public service announcements. Advertising media purchases guarantee that the U.S. Army’s message and message placement is more effective and efficient in providing a return on investment than alternative measures. Paid media does it better than any other facet of communication. To understand this properly, the U.S. Army separates paid media into four processes: 1) research; 2) planning; 3) executing; and 4) evaluating.

The research process gathers extensive information from several areas and begins with collecting and analysing demographic information about the public’s consumption habits, lifestyles and interests. The media marketplace along with any trends that develop because of clutter from competitors are also

analysed. Individual media vehicles, audience size, audience composition, editorial content/environment, type of attention paid, and cost efficiency along with recruiting factors, recruiting strength, incentives, and market differences are all factors affecting media recruiting for the U.S. Army. The research tool the U.S. Army uses to conduct this research is both vast and diverse. Limitations are caused by “lagging indicators,” which are measurements or evaluations of what took place six months to three years ago.

The U.S. Army implements a planning process that has evolved from two different methods. The first method is designed from the ground up and is considered without regard to a budget. The second method is a budget-based process that targets audiences in the most efficient and effective manner with in financial limitations. The primary target audience is men aged 18-24. Various attributes are measured with this target audience such as reach (cumulative audience exposure), frequency (average number of exposures in a set amount of time), as well as geography, and seasonality. To accomplish this, all attributes of all media (primary and secondary) available are evaluated to determine those best suited to communicate this brand image. Determining the right media mix within the budget is crucial in accomplishing the communication goals in terms of reach and frequency for the target audience.

During the execution process, a media plan implements specific media vehicles, publications and programs in order to properly hit this target audience. To effectively accomplish this execution process with the most success, it is important to understand what is available and when it’s available; therefore, media placement and the media environment are constantly monitored. The various forms of media advertisements are coordinated to run at specific times, on pre-selected networks. This permits the U.S. Army to properly manage and adjust the budget-based process throughout the year and allows opportunities for adopting more inexpensive avenues for media recruitment.

The evaluation process circles back to the first stage that was discussed earlier, which is research. To determine whether the U.S. Army has achieved their goals, they use short-term and long-term measurements confirming whether or not the audience perceived the correct message. In an age when negative advertising in political campaigns and increasingly cynical press coverage have diminished the importance of many groups within the government, the military have been able to present a message and portray an image in a positive light (USAREC, 2003). Joe Marconi, in his 1997 book Image Advertising—Using Public Perceptions to Attain Business Objectives comments, “Be All That You Can Be” was a strong ad campaign as any ‘product’ might have had, and it wrapped the U.S. Army in a strong image that said ‘go for it’ to a generation that wanted to hear such a message.” In addition, Joseph S. Nye, Dean of the Kennedy School of Government at Harvard University, commented, “Without conscription, the military had to compete in a tight labor market, and that required mass advertising, such as the Army’s successful ‘Be all that you can be’ campaign. The “Army of One” message promotes an exciting lifestyle and encourages young men and women to join so they can partake in this ‘great experience’. It was not long before the other military branches such as the U.S. Navy, Air Force, and Marine Corps emulated this concept by developing similar marketing campaigns.

3.6 Current Recruiting and Retaining Trends in Construction

Attracting, recruiting, and retaining future leaders of the engineering and construction industry are challenges that need to be addressed throughout the industry. Indeed the shortage of skilled workers within the industry is a major issue (Liska and Piper, 1999). Previous research conducted by CII (RT-135) addressed this issue in detail. Building on the research findings, the current best practices being used by organizations within the construction industry to attract and retain quality professionals were analyzed.

3.6.1 Construction Industry Advertising and Recruiting Strategies

Advertising and recruiting for job openings in the construction industry follow many of the same methods used by other major industries. Newspaper ads, Internet job posting, word of mouth, personal referrals, college and university career fairs, trade journals, professional employment agencies, and executive search firms are common methods of recruiting individuals to the engineering and construction industry. The Internet has changed the traditional format in which companies advertise job openings and recruit individuals. This new format is referred to as “Net Recruiting”. Job seekers now have easier access to job listings and more pertinent information about employers than ever before. Employers can now reach more people faster and at a fraction of the cost of traditional recruitment methods. In its national campaign to promote online recruitment services, www.headhunter.net estimates that online recruitment takes one-third of the time and one-tenth of the cost of traditional media in locating talent for positions. In addition to construction employment databases such as www.aecjobbank.com, organizations are finding that their corporate web page is a primary source of filling job openings.

3.6.2 Construction Industry Retention Strategies

Equally as challenging as recruiting, retention of employees in the engineering and construction industry has become a major challenge. Michael Howe, a journalist for *Heavy Equipment News* noted that intense competition in the industry, specifically in the area of pay and benefits, is not the only reason that causes employees to move on. According to Dennis Jay, former supervisor of Wyoming Concrete, there are two types of employees that need to be satisfied. The first type of employee likes stability and a routine; they prefer to do the same job every day in about the same time. The second type of employee likes variety, gets bored very easily, and needs to be challenged with different assignments

(Howe, 2002). Additionally, many workers look for bonuses, upward mobility, health benefits, day care for both children and aging parents, and a friendlier work environment (Berryhill, 2002).

Common practices that are used by companies to retain individuals within their organizations include but are not limited to: 1) Competitive wages and benefits; 2) training and education development; 3) stock options and/or profit sharing; 4) semi-annual employee feedback meetings; 5) long-term career path definition; and 6) job and/or project bonuses.

Due to the fragmented structure of the industry, engineering and construction companies must understand that individuals differ significantly in their abilities and in what they desire. Because of differences among people, no single way of dealing with individuals will foster the best results. Designing a human resources program that recognizes the different needs of individuals can have a positive impact on employees' satisfaction and motivation. Since individuals differ in what satisfies them, an approach that tailors work to individuals should produce the highest levels of satisfaction. The satisfaction levels of employees are important for two major reasons. Firstly, it is a critical part of attracting and retaining quality employees. Secondly, because these employees are more satisfied, there is an overall positive impact on the industry itself.

3.7 Current Recruiting and Retaining Trends in other Industries

Recruitment and retention strategies vary from industry to industry. Having both a solid recruiting strategy and retention strategy within an organization significantly reduces the amount of turnover. Becoming an employer of choice, in the eyes of potential employees, depends significantly on consistent application of comprehensive strategies and tactics to recruit individuals, as well as a top-to-bottom organizational responsibility for retention.

Selecting one form of recruitment advertising medium over another depends entirely on the demographic groups and individuals who work in various industries. For example, those who work in

a technology-related field tend to be heavy Internet users, rather than going to a print media source such as newspaper. Peter Newton of BostonWorks, a recruitment services division of the Boston Globe, said “Not quite the flip of that, but fairly close, are people in healthcare who predominately use newspapers in the job search, and don’t use the Internet nearly as much”. Most often than not individuals are going to use any means necessary to find work but understanding the right medium mix for a particular industry is key to successful recruitment efforts.

Retention efforts also depend on an organization and the industry in which they operate. Retaining employees is key to economic success for an organization and unwanted employee turnover costs companies in the United States over \$140 billion annually in recruiting, training, and administrative costs.

A recruitment and retention strategy is a multifaceted human resources management vehicle. If properly designed, implemented, and monitored, it can result not only in developing a competitive advantage, but it also creates the ultimate success plan for everyone involved in the organization.

The engineering, healthcare (nursing) and information technology industries are examined in the following sections. These sectors were selected because of their penchant for considerable employee turnover and shortage of skilled workers.

3.8 Engineering Industry

In engineering the term new economy is used often. This term is used not only for the broad spectrum that encompasses engineering but also due to many of the inherent emerging new age technologies not related to the construction industry.

According to a 2001 report tabulated by the Bureau of Labor Statistics and printed in the Occupational Outlook Handbook, engineers held two million jobs (Bureau of Labor Statistics 2002). Many of these jobs are located in the services industry; primarily in engineering and architectural

services, research and testing services, and business services, where firms design construction projects or perform other engineering work on a contractual basis. Engineers also work in the communications, utilities, and high tech industries. It is estimated that over 12,000 engineers are self-employed; many as private consultants.

Overall, employment opportunities in engineering are expected to remain steady through 2008. Engineering employment is expected to increase by 10-20 percent over the next decade, while the number of engineering degrees granted has remained fairly constant over the past several years. This indicates a possible shortage of individuals to fill the employment outlook.

One trend occurring throughout the engineering industry is the global outsourcing of engineering jobs to foreign countries. Although this topic will not be discussed within this report, people should be aware of the negative impact that global outsourcing will have on future economic, technological and job security within the engineering and construction industry. Currently, the effects of global outsourcing are being realized in some engineering sectors through massive layoff of U.S. workers.

3.8.1 Engineering Industry Advertising and Recruiting Strategies

Advertising for job openings in the engineering industry and are similar to the advertising methods used by other major industries. Newspaper ads, Internet job postings, word of mouth, campus job fairs, professional employment agencies, and professional headhunters are common means of recruiting individuals to the engineering industry.

Many engineering firms outside the construction industry find that to attract and recruit qualified engineers, they must incorporate a positive mind-set and a corporate culture that demonstrates how much they value their employees. Happy employees tend to generate an atmosphere of well-being and increased productivity. This is then usually converted to a solid positive message in the form of advertising that the firm conveys to potential new recruits.

Recruiting in engineering tends to follow all the standard traditional and non-traditional recruiting methods. Some of which include but are not limited to the following:

- 1) *Internet-based services* - professional based firms that specialize in engineering recruitment;
- 2) *College campus job fairs* - seen throughout the country, this is a standard recruiting option for many prominent engineering firms;
- 3) *Best practice firms* - firms that allow candidates to interview with employees at all levels in the firm and provide opportunities to tour facilities;
- 4) *Orientation programs* - provide early company orientation for possible new hires; and
- 5) *Mentoring programs* - effective mentor and mentee programs are designed to encourage professional growth, loyalty, and a strong sense of job ownership by the mentee.

3.8.2 Engineering Industry Retention Strategies

Several factors that relate to employee retention in engineering firms include: geographic location; compensation; and professional growth and development. The desire for a geographic location may translate to a specific region, state, city, or area within a city. The location issue leaves few options; however, firms that are regionally distributed have the advantage of relocating an employee possessing skills and experience matching regional preferences. In a local setting, firms that offer options such as flex-time and home-office opportunities may serve to alleviate the dissatisfaction of employees resulting from commuting, a need to be in close proximity to their children, or other personal conditions. Compensation and benefits in the general market for graduate engineers are within the ranges that meet the levels of other occupations, with the exception of high-tech jobs. As engineers advance in their career to years 6 through 10, a real or perceived compensation plateau is realized. Most engineers recognize this career phase as a time of serious compression in compensation when compared to newly hired graduate engineers and to upper management who are not only earning higher annual