

Challenges And Strategies

Manpower

...we proposed some new research directions to more...
...researcher's not...
...through the work...
...making changes in data and control...
...structures or including authentication and encryption...
...in DNP3, the effort would not be as complex and costly as...
...adding object security and still would provide the end-to-end...
...and encryption. This approach would...

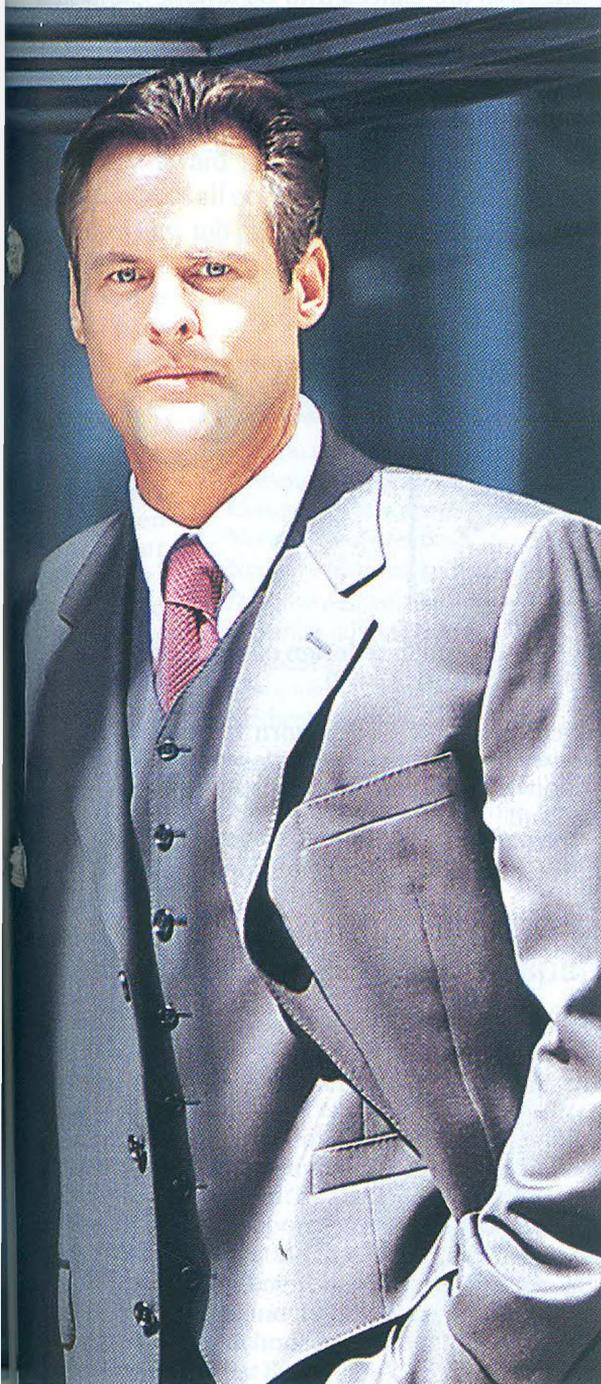
...message does not provide significant processor savings...
...encrypting the entire stream. However, using the MAC...
...selected messages, say only on controls, would still be...
...than encrypting the complete stream. Even if the DNP3...
...should be accepted, there is still need for authentication...



In Acquisition

In The Information Technology Age

Dr. Donatus I. Amaram



ABSTRACT

The world economy has enjoyed sustained expansion and growth since the 1990s. This coupled with the rising dominance of information technology and global competition has put human capital at a premium as a factor of business competition and organizational success. The exit of the baby boomer generation from the workforce into retirement at a rate faster than the entry of their replacement cohorts, and the job-hopping tendencies of the talented few, among other forces, have made the task of recruiting and retaining skilled workers a daunting exercise for most companies, particularly in the IT industry. This paper, through a review of best practices and innovative strategies, synthesizes and suggests approaches that business organizations can pursue to enhance their efforts at recruitment and retention of the highly educated and skilled workers needed for success in the current workplace.

INTRODUCTION

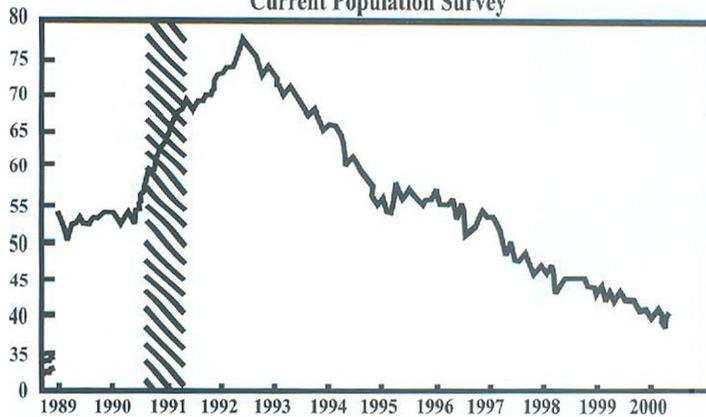
Most of the Western economies, particularly the United States economy, have, until the last three years, experienced prolonged growth and business boom in the majority of private-sector industries especially in the high-tech areas. Simultaneously, the pool of knowledge-based workforce has been shrinking as many baby boomers get to retirement age. Consequently, human resources managers and other recruiters in the technology-intensive industries feel compelled to engage in ruthless competition in the marketplace to find and keep available talents. With the tight job market clearly in favor of the worker, employers are increasingly forced to deal with an unreliable, poorly motivated and inexperienced workforce, among other hurdles. Job-hopping by the talented few has become commonplace as the typical employee averages five years or less at a job before moving on in search of greener pastures (Wiener 1999, 1). This paper uses secondary data (BLS, AMA, and other information sources) to examine some trends in our socio-economic system that impinge on the current tight labor market, and the strategies and initiatives which human resource managers should consider in recruiting and retaining needed and talented workers to compete effectively.

THE ECONOMIC PROFILE

A 2000 Bureau of Labor Statistics report shows a significantly steady decline in unemployment from 1991 to 2000 (see Table A). Until the beginning of the current three-year recession, the national unemployment rate held steady at four percent for almost a decade during the Clinton years. In some regions like Nebraska, the rate was much lower at two percent (Frederick 1999, 24). Retired and discouraged workers returning to the workforce in response to the labor shortage have not made a significant difference in the demand/supply balance. The Clinton economic growth, punctuated temporarily by the current recession, is the longest peacetime expansion in the post World War II period in terms of sustained growth as well as gross domestic product. It is also the lowest in unemployment and the mildest in inflation/consumer price index comparison

(Guynn 2000, 296). Global competition and emerging technologies resulting in improved productivity have dramatically extended the United States capacity for sustained growth. As unit costs drop and output per hour increases, firms are experiencing increased profits that can enable them to hire more workers with better pay without raising output prices (ibid. 297). This translates to more jobs available than there are qualified workers to fill them, a real challenge to human resource managers. In particular, computer systems analysts, database administrators, and computer scientists are expected to be among the fastest growing occupations through 2012. Employment in these areas is expected to grow much faster than the average for all occupations as organizations' needs for sophisticated high technologies continue to increase (BLS, Occupational Employment Projections, April 12, 2004 p. 8).

Table A
Current Population Survey



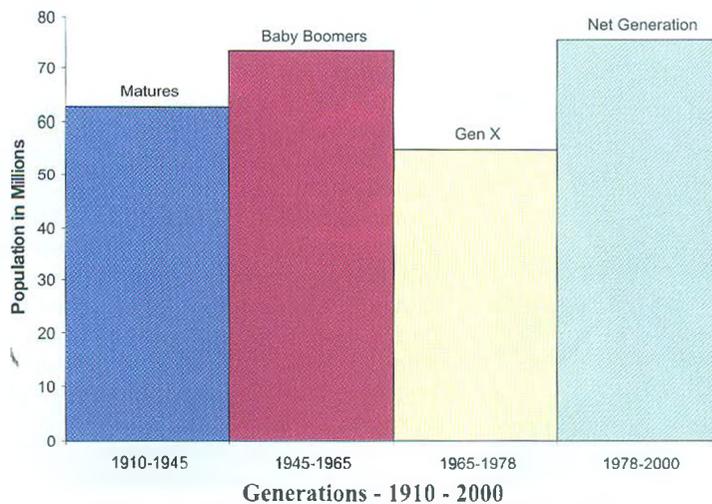
Note : Shaded area represents recession. Break in series in January 1994 is due to redesign of the survey. Unemployment Rate, 1989-2000 (Seasonally Adjusted). (Bureau of Labor Statistics 2000)

THE GENERATION GAP AND WORKFORCE IMPLICATIONS

BLS reports show that new entrants into the labor force grew at only 1.1 percent annually since 1996. This growth rate is expected to continue until 2006 when the so-called "next

generation", consisting of youths born between 1980 and 1999, starts entering the workforce. This group together with the "generation X" population, consisting of those born between 1965 and

Table B



Source: Bureau of Labor Statistics Report 2000

1979 will make up the bulk of the college-educated and/or skilled labor force. However, there are a few countervailing factors with negative impact on the workforce participation rate. First, the rate of exit from the workforce into retirement by the "baby boomer" population is projected to outpace their replacement cohorts (see Table B98, 83). Furthermore, the declining rate of workforce participation will be exacerbated by a brisk job gro). This gap has been growing in size and impact since 1986 (Adams 19wth rate. BLS projections show that eight of the ten fastest growing occupations will be computer related, commonly referred to as information technology occupations (see table C). Jobs in seven education or training occupational categories that generally require a college degree or other post secondary award are projected to grow faster than the average across all occupations, accounting for 42 percent of projected new job growth between 2000 and 2010, up from

29 percent in the previous decade (BLS News, Dec. 3, 2001, p. 2). In addition, employment in other computer-related industries such as software publishers, Internet service

providers, and web search portals are projected to increase by between 64 percent and 68 percent between 2002 and 2012 (Monthly Labor Review, The Editor's Desk, March 29, 2004, p. 1.).

PLENTIFUL HARVEST BUT FEWER LABORERS

The current and projected economic profiles have created a tight labor market. For many industries, the shortage of qualified personnel is perceptibly eroding profits and limiting their ability to expand. Job vacancy rates and employers' perceptions of hiring difficulty indicate severe occupational shortages in several industries, especially high-tech ones. One third of businesses surveyed by Hewitt Associates in their report: *Building and Retaining Global Talent Toward 2002*, state that "retaining and finding talent, and lack of management capabilities are the obstacles to growth" (HR Magazine 1998, 22). Another survey by the Kellogg Graduate School of Management at Northwestern University found that 80 percent of companies reported that

finding and retaining qualified employees was a challenge; and 40 percent considered recruitment the number one human resources challenge (Leonard 1999, 37). Many trade and professional journals complain that their industries are desperate for high-quality workers. Most public and private sectors appear to be affected. The high-tech industry is looking for programmers; the armed forces seek recruits, and even the fast-food industry is not immune. The result is that companies are, in many instances, compelled to hire unqualified personnel with negative impact on both the bottom line and the public.

The American Management Association's (AMA) 2001 survey on workplace testing shows that 34 percent of job applicants tested for basic skills in the year 2000 by their prospective employers lacked basic skills to do the jobs they were seeking. The survey defined basic skills as "functional workplace literacy, i.e. the ability to read instructions, write reports, and/or do arithmetic at a level adequate to perform

common workplace tasks." (AMA Survey on Workplace Testing, 2001). The rates for the three previous years were 38 percent in 1999, 35.5 percent in 1998, and 22.8 percent in 1997 a worsening rather than an improving

Table C
Fastest Growing Occupations, 2000-2010
(Numbers in thousands of jobs)

Occupation	Employment	
	2000	2010
Computer software engineers, applications	380	760
Computer support specialists	506	996
Computer software engineers, systems software	317	601
Network and computer systems administrators	229	416
Network systems and data communications analysts	119	211
Desktop publishers	38	63
Database administrators	106	176
Personal and home care aides	414	672
Computer systems analysts	431	689
Medical assistants	329	516

Source: Bureau of Labor Statistics, 2001

trend. Although 84.6 percent of the responding firms said that they did not hire skill-deficient applicants, the remaining 15.4 percent did. Of these, 3.5 percent assigned skill-deficient hires to obligatory remedial training; three percent offered voluntary remedial training, while 8.2 percent "took other action." (2001 AMA Report, p. 1).

Ellen Bayer, global human resources practices leader for the AMA states "for all the concern about the shortage of high-tech workers, we are facing a lack of applicants who can read and write." "Companies are going to have to find new ways to staff themselves with qualified workers. They are not going to be able to rely merely on selective hiring to achieve their goals. ..." (AMA Press Release 25 May 2000).

TALENT SEARCH STRATEGIES

Competition to find high-quality employees in this labor market environment is getting rough and ugly. Some firms openly boast of their ability to "poach" or "brain snatch" quality workers from their competitors with better job offers.

Jane Harper, IBM's Director of Internet Technology and Operations, states "the war is for talent and we want to have it" (Strauss, 2000). Traditional companies like IBM are now struggling to get the best and brightest talents to enhance their competitive position in the growing dot.com industry. Poaching is becoming more common in this sector because it is often easier and less expensive than other means of recruitment. Even in the restaurant and retail industries, managers visit other firms looking for quality, courteous workers, and, in some instances, do not hesitate to offer attractive candidates jobs on the spot. Many managers also encourage their own workers with generous incentives to participate in identifying high-quality prospects from competing firms who may be interested in jumping ship.

Although poaching is becoming common, a more traditional way of high talent recruitment is through executive search firms also known as "head hunters." The demand for their services has tripled over the past decade. There are now over 31,000 headhunter agencies in the United States (Melton, 1999). Headhunters have traditionally sought high-level executives for their clients. Now, they are frequently retained to search for all kinds of skilled workers. They visit restaurants, truck stops and chain drug stores in search of skilled talents willing to change companies. In a recent survey of 150 executives from the nation's 1,000 largest companies, 70 percent indicated that executive recruiters were the most effective way to find qualified candidates (HR Focus, 8). See Table D below.

Table D
Recruiting Methods by Largest 1,000 Firms

Using a staffing or recruiting firm	70%
Posting job on company website	57%
Classified advertising	35%
Participating in job fairs	32%
Using electronic matching services	29%
Using resumes from web sites	28%
Referrals	21%
Internships	02%
Other	06%

(HR Focus, 2000)

OTHER SOURCES AND BEST PRACTICES

Recruitment methods discussed so far are not replacement for but adjunct to the traditional techniques of hiring. Lucent Technologies looks directly to personnel exiting the military to find candidates. Jim Baughman, Director of Recruiting for Lucent says "they have a lot of good technical people coming out and we do a lot of job fairs, both in person and on the internet, with military recruits" (Strauss, 2000). Litton PRC claims to be saving more than \$100,000 per year by recruiting former armed forces members (Epstein and Epstein 1998, 106). General Electric also boasts of saving hundreds of thousands of dollars per year by recruiting 200 junior military officers annually. Ted Meyer, spokesman for

GE says "We wouldn't want to help other companies set up a program like ours. We feel we are recruiting great people from the military and don't want to share them with other companies" (ibid.) Both Federal Express and Goodyear are also into the military veterans labor market. Goodyear feels that "many non-commissioned officers are often easier to hire and satisfy with compensation than graduating engineers" (ibid. 107).

Other businesses have developed their own unique creative ways of dealing with the tight market. Sanders Brothers Inc. of Gaffney, South Carolina, has started what it calls the "Hispanic Initiative." This firm actively seeks and trains Hispanic workers who want to become welders. It decided to embark on this initiative because the local unemployment rate was only three percent in an area that has a large pool of Hispanics who are willing to work hard. The company recruits primarily through word of mouth and through advertisements in Spanish language newspapers. The only downside it has encountered is from workers whose families are still in Mexico and who some times leave and go home (Mader 2000, 3). Federal Express and some other 500 Fortune companies have begun to experiment with innovative strategies to make technology look attractive to the nation's youths. These companies are sponsoring annual National Techies Day in response to and preparation for the Commerce Department's projection that the market will need as many as 1.4 million new skilled technology workers by 2006 (Dash 1999, 16). In the quest for maximum efficiency, many companies are experimenting with: (a) flexible and specialty staffing programs, which allow them to add expertise as needed and facilitate the realignment of their workforce to achieve corporate goals; (b) apprenticeship training, which targets training in skilled occupations and promotes effective use of resources to create a clear training-to-employment corridor in specific skill fields, and (c) partnership programs, which are designed for companies that make extensive, continued use of a supplemental, just-in-time workforce (Olsten Forum Report, 1999).

THE JOB-HOPPING CULTURE

Approximately one quarter of all U.S. companies are considered "100 percent turnover industries" (*The Economist*, July 15, 2000). This accounts for more than 30 million workers annually. Such industries include retailing, food service, car sales and nursing homes (*The Economist*, July 15, 2000, p.65). Another survey of resignation rates done by the Saratoga Institute showed that approximately 17 million workers quit to take other jobs in 1999, up six million from only five years prior (Clark 1999).

Job-hopping is becoming the norm for both white- and blue-collar workers in all industrial sectors. Reasons for this emerging trend include: lack of fit between job and life-style; incompatible co-workers; perceived low pay and pooh

benefits, and dead-end jobs. Lack of organizational loyalty is also a major factor induced partially by the rampant downsizing of the 1990's. Many workers are distrustful of their companies and few expect lifetime employment with their present firms regardless of length of tenure (Gresing - Pophal 2000, 22). Subtle and invidious discrimination against older workers reinforces a sense of disloyalty even among younger workers who know that, in time they, too, will become the older workers. Peter Cappelli, Director of the Center for Human Resources at the University of Pennsylvania's Wharton School, sums this age discrimination this way: "When a company announces that it's cutting 40,000 managers, that doesn't mean it can operate with 40,000 fewer managers; all they're doing is churning the skill base. They're going out and rehiring 40,000 managers who have different skills" (Adams 2000, 86).

Wage compression, which creates a situation where new hires are offered as much or more than long-serving workers is another factor in the job-hopping phenomenon. Below the top management cadre, large raises usually go to few indispensable workers, usually when they threaten to leave. So, the lesson is, in order to get a significant raise, you have to change jobs. This has meant a lot of turnover. Nonetheless, some companies consider these turnovers cheaper than giving general raises (Theresa Hoover in an interview with *U.S. News and World Report*, 2000).

REBUILDING LOYALTY FOR MUTUAL BENEFIT

It's in the best interest of companies and their employees to rebuild mutual loyalty. To attain sustainable success in the growing high-tech economy, companies must have stable and efficient work force. For the worker, there are a few negative consequences of moving from job to job. Workers who hop from one job to another often lose the time needed for matching funds in their 401(k) plans. Many of these plans require employees to build up vesting rights in increments over five to seven years or to spend several years at zero before acquiring full vesting rights. Furthermore, there are often waiting periods of up to one year before joining a new 401(k) plan at some firms (Weiner 2000). Although the Health Insurance Portability Act of 1996 requires companies to provide a departing worker group health insurance

privilege for some time, similar waiting periods as above exist (ibid). Therefore, it's in the best interest of the worker to stay with the same firm. But the conditions must be conducive and enticing.

Many businesses are revisiting the concept of loyalty as a way to attract and retain employees by providing tailor-made benefits packages. Others are adopting flexible work hours, child-care and elder-care facilities, and modifying the corporate culture to be more responsive to their employees' personal needs. According to the Hay Group, a Philadelphia consulting firm, the best ways to retain employees are through skills development, competence of management, and commensurate rewards. It argues that companies must continue to reach out to train and develop workers in spite of the risk of losing them (HR Update, 1998). Persuading retiring baby boomers to remain a little longer on the job is an additional option to maintain work force stability. This may require offering more attractive work hours, new ways to grow on the job, specialized health and retirement benefits, and consulting or part-time support positions (Adams 1998, 88).

CONCLUSION

This is a great time to be a high quality worker. The imbalance between demand and supply of skilled labor is definitely skewed in favour of the worker and is expected to remain so for the foreseeable future. Companies and their managers must develop non-traditional and creative ways to attract, motivate and retain the requisite work force if they hope to survive and succeed in economies that have become global and highly competitive. Although the tight labor market poses a daunting challenge to human resources managers, particularly in the high-tech industries, there are benchmark practices that can facilitate the effort to attract and retain good workers to the mutual benefit of company and worker. It is important for companies to double their efforts to repair and rebuild workers' loyalty and trust lost in the massive downsizing of the 1990's. They must also endeavour to overcome their disinclination toward sharing of corporate gains and profits by providing fringe benefit packages that satisfy employee needs. High quality employees will always be in demand and will go to those companies with the right combination of cash benefits and humane treatment.

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