

DOCUMENT RESUME

ED 422 926

IR 057 084

AUTHOR Schambach, Thomas P.; Chrisman, Carol
TITLE What Motivates Today's Information Systems Graduates?
PUB DATE 1997-00-00
NOTE 10p.; In: Proceedings of the International Academy for Information Management Annual Conference (12th, Atlanta, GA, December 12-14, 1997); see IR 057 067.
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Career Choice; Career Development; Employee Attitudes; Evaluation Criteria; Higher Education; Information Science Education; *Information Systems; Information Technology; Job Placement; Job Satisfaction; *Motivation; Recruitment; Student Attitudes; Student Surveys; Tables (Data); *Work Environment
IDENTIFIERS *Job Characteristics; *Job Evaluation

ABSTRACT

Hiring is an enormous challenge in today's Information Systems (IS) organizations due to the heavy demand for graduating students. This paper reports on a study to determine what factors IS students consider important in evaluating potential employers. Initially using an open ended survey approach, 28 upper level IS students were asked to identify what job preference factors were important to them in selecting companies and jobs. Factors identified in the initial open-ended survey were then analyzed and consolidated into common ideas; common ideas were translated into survey statements and combined with statements extracted from the job motivation literature to formulate survey items for a second closed-format survey. The survey results show graduating IS students most prefer a work environment that involves fun, self-gratifying work in a friendly environment. They primarily target jobs that provide growth, learning, and professional development opportunities, and jobs that provide opportunities to work with leading edge, emerging technologies. (Contains 21 references.) (Author/AEF)

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WHAT MOTIVATES TODAY'S INFORMATION SYSTEMS GRADUATES?

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Thomas P. Schambach
Illinois State University

Carol Chrisman
Illinois State University

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Hiring is an enormous challenge in today's I/S organizations due to the heavy demand for graduating I/S students. This paper reports on a study to determine what factors I/S students consider important in evaluating potential employers. The survey results show graduating I/S students most prefer a work environment that involves fun, self-gratifying work in a friendly environment. They primarily target jobs that provide growth, learning, and professional development opportunities, and jobs that provide opportunities to work with leading edge, emerging technologies.

INTRODUCTION

Good news for today's I/S students. There is a heavy demand for their talents. While demand for information systems and related competencies continues to grow the supply of fresh talent has been relatively flat or declining for many years. This suggests that strong demand for I/S graduates will continue unabated for the foreseeable future (Alexander 1996). Although strong demand is prompting the escalation and publicity of high salary and benefits, it is important for students to realize there is more to a satisfying job than just the monetary aspects.

Strong demand for I/S talent is "bad news" for companies needing to hire today's hot I/S recruits. Recruitment is becoming more difficult as you encounter strong competition from other firms who are after the same top recruits whom you are trying to lure (King, 1997a). Companies are increasingly experiencing I/S staffing problems as the worldwide pool of I/S talent is being stretched beyond capacity (King, 1997c). Yet your organization needs to succeed! Perhaps by understanding the motivating factors that entice today's recruits your firm can be more successful in landing and retaining prized talent.

THEORETICAL FOUNDATION

Theories of motivation suggest the motivators and satisfaction of people progress from attempts to satisfy basic needs to attempts to satisfy higher-order intrinsic needs (Herzberg 1987; Maslow 1954). Basic needs, or hygiene factors such as salary and job security, are extrinsic to the job and lose their motivating capacity once a base level need is satisfied. High-order intrinsic needs are based on successful achievement of meaningful tasks, recognition, and self-fulfillment; these factors continue to motivate and satisfy beyond any base level.

In addition to enabling job satisfaction, motivators also stimulate organizational commitment (Steers and Porter, 1991). Furthermore, retention of I/S workers is influenced by job satisfaction and commitment (Igbaria and Greenhaus, 1992; Scheier, 1997). Thus, job attractiveness may initially be influenced by salary and benefits, but ultimately satisfaction, commitment, and retention will be influenced by challenging, meaningful work and other job characteristics that target intrinsic motivators and higher order needs (Couger and Zawacki, 1980). Both the employer and the recruit are better serviced if they can identify a

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working environment that will be fulfilling and satisfying to the new I/S worker, and thus lead to longer term employment and productivity.

CAREER STAGES

According to Career Development Theory (Super 1953, 1980; Schein, 1978), a typical person is perceived as progressing through four career stages (footnote: according to Super there are five life-span stages; however, the Growth Stage is pre-career encompassing childhood, elementary, and junior high school ages). The four general career stages are 1) the Exploration Stage or career preparation; 2) the Establishment Stage involves job seeking and early career job assignments, 3) the Maintenance Stage or mid-career where productivity peaks, and 4) the late career Disengagement or Decline Stage and planning for retirement. In passing through each stage the person evolves their career competencies, expectations, aspirations, and motivations. The same job holds different meanings for two people who live in differing situations. What is important to a person in late career may seem irrelevant to someone who is just beginning their career. For example, a retirement pension plan may not significantly inspire a 22 year old college graduate, and constant re-tooling may not inspire someone who is impatiently approaching retirement. The research described in this article focuses on graduating college students who are completing career preparation and transitioning toward the career establishment stage.

EMPLOYER PERSPECTIVE

Due to rapid organizational and technology changes, the computing professions provide significant opportunities for early career employees. Organizations are recognizing the strategic importance of information, rapid data access, and electronic forms of commerce and communications. This increasing importance establishes escalating demand for professional I/S services which are reportedly growing by 25% annually (King, 1997c). Today's employment market demonstrates high demand for many I/S competencies, especially current technology skills such as data warehousing, networking, object orientation, internet and client/server

development skills. Many employers are vying for the same constrained resources and hiring the right person is becoming more difficult but also more important. To attract hot young talent with emergent technology skills the employer must understand what motivates I/S employees who are transitioning from the career Exploration Stage to the career Establishment stage. While several studies have examined what factors motivate I/S professionals in general, it is also important to understand which factors are most meaningful to recruits who are preparing for induction into their early career stage. Just as the success of a sports team is highly dependent on their recruiting efforts, the success of I/S organizations is also dependent upon successful recruitment (and retention) of talented staff. Understanding job preference factors should assist both in recruiting and in retention of these valued, scarce resources.

Research examining job attribute preferences has shown mixed results. For example, a survey including over 7000 respondents indicated the most preferred attribute to be meaningful work (50% selected as #1 attribute), promotion opportunities (20%), income and benefits (19%), job security (7%), and work hours (4%) (Lacy, Bokemeier, and Shepard 1983). Another large, multi-year study reported job security, type of work, and opportunities for advancement ranked as the highest job preference factors among working men (Jurgensen, 1978). In general, professional and technical people were found to be most strongly impacted by opportunities to perform "important and meaningful work" but with an alarming trend indicating that "high income" has been increasing in importance while meaningful work has been decreasing in importance (Weaver and Matthews, 1987).

Hiring is an enormous challenge in today's I/S organizations. Given that turnover can cost an organization up to two times the annual salary of a position, hiring right creates enormous benefits in terms of time, money, productivity, and reduced anxiety (Herman 1994). Successful recruitment is extremely important given the 15-20% attrition rate reported in many I/S staffs. Nonetheless, some companies are very successful in attracting new recruits while maintaining I/S attrition rates of under 2% (Gow, 1997).

STUDENT PERSPECTIVE

In thinking about recruitment and job selection, many students seem overly focused on salary comparisons as the crucial decision criteria. Whereas salaries are easy to measure, compare, and brag about, they are not necessarily prudent decision criteria. In fact, many of the "Best Companies" in I/S claim successful recruitment and retention using salaries that are competitive but not high (Gow, 1997). Similarly, a recent survey of current I/S professionals states that "pay isn't the top factor when weighing job offers" and that professionals are unlikely to jump ship provided their wage is reasonable and the work environment is favorable. A favorable work environment was characterized by a quality boss, the opportunity to work with new technologies and to learn new skills (Scheier, 1997).

Having worked many years in and near the computer industry we are aware that salary is only one of many criteria in deciding job and career satisfaction. Subsequently, we devote sessions in each senior course to the topic of career options and factors to consider during their job search. The current research was spawned by ongoing student discussions questioning what criteria should be important during their job search and company selection. Ultimately, each student must answer the question "what is important to me." To help students reflect on this question we conducted a survey of graduating seniors and masters degree students. This survey was intended to broaden their focus by seeing what factors other students had considered important in evaluating potential employers.

RESEARCH QUESTION

The primary research question addressed in this study is as follows. 1) What job preference factors do I/S students identify as being most important to them in pursuing, selecting, and accepting a job. 2) How do the important job preference factors as perceived by student recruits align with motivating factors as reported by I/S professionals overall.

METHODOLOGY

Initially using an open ended survey approach, 28 upper level I/S students were asked to identify

what job preference factors were important to them in selecting companies and jobs. Factors identified in the initial open-ended survey were then analyzed and consolidated into common ideas. Common ideas were translated into survey statements and combined with statements extracted from the job motivation literature (Couger and Zawacki, 1980) to formulate survey items for a second closed-format survey. These items were subsequently rated by students using 9 point Likert-type survey scales to indicate to what degree the stated job characteristic would impact their job choice. The preference scales were bounded by "-4: Strong Negative Impact" and "4: Strong Positive Impact" with the scale mid-point represented by "0: No Impact." This study reports and briefly interprets the findings of the survey results.

Subjects

The primary, closed-format survey was administered to a large population of seniors and graduate level I/S students at two universities. Surveys were administered during class time, participation was voluntary, and the completed survey forms were anonymous. Surveys were completed during November/December 1996 in an economic time-frame when the I/S labor market was entering a period of high demand. In total, 133 usable responses were collected. Fifty-five percent of the respondents were Bachelor degree seeking students. Ninety-two percent reported they would be graduating within the next year. The subjects were primarily male (61%) and full-time students (70%). Thirty-one percent of the students worked a full-time job and another 41% reported part-time employment.

Respondent samples are representative of two major U.S. universities. Fifty-five percent of the respondents attended SEU (a South-Eastern University) while the remaining 45% attended MWU (a Mid-Western University). Both universities are large state supported schools with large I/S related programs (over 500 majors in each program). SEU is located near a major metropolitan area and is attended primarily by commuter students. MWU is in a much smaller city (100,000 population) and is attended primarily by traditional residential students. Both areas have strong economies with tremendous demand for I/S graduates.

RESULTS

A total of fifty-two item statements were presented to obtain I/S student respondents job attribute preference judgments. The results are reported based on author categorization of survey items. The categories are influenced by the literatures on job preferences and job motivation (job characteristics).

Table 1 illustrates descriptive statistics related to extrinsic job characteristics such as Job Security, Opportunities for Advancement, and Pay & Benefit items. Over half of the student responded with the highest possible rating (4 on a scale ranging from -4 to neutral to +4) that an overall benefits package, and promotion opportunities are important factors in their job selection. The average scores (mean) were strong for these items, and the Standard Deviation (below 1) indicates very little variation between subjects in responses to these items. Above average salary is strongly preferred by almost half of the respondents although the standard deviation reflects stronger variance on this item (several students rated high salary with a 0=no impact). Lateral mobility is a positively perceived job attribute but is not nearly as attractive as benefits, upward mobility, and salary.

As a group there were no strong preferences regarding metropolitan versus rural work locations. In general, there was a slight preference for a metropolitan environment with the more plentiful social and cultural events. This metropolitan preference may reflect the importance of social-life factors to most new graduates. Thus, a firm that is targeting the hiring of many new graduates may have better prospects if offering work near a metropolitan area.

Table 2 illustrates descriptive statistics related to intrinsic characteristics of the work itself. Regarding the 'Type of Work' category students seem particularly interested in the opportunity to work with leading edge technologies and to perform a variety of different tasks. These work characteristics probably correspond to work that is 'fun' and 'self gratifying' which is the most significant factor influencing graduates job decisions. Nearly 60 percent of respondents marked the highest possible rating concerning work being self gratifying and fun. Today's graduates are likely to avoid jobs that are viewed as "all work, and no play".

Being involved in the total project (beginning to end) is also highly attractive to many students; however, the large standard deviation shows

TABLE 1

DESCRIPTIVE STATISTICS FOR JOB SECURITY, ADVANCEMENT, PAY & BENEFITS, AND LOCATION (N=132)

Category / Item	% Rating Factor as a Strong Positive Impact (4) in Job Decision	Mean	Standard Deviation
Job Security			
JC33 Job security is assured if you do your job	41.7	3.0379	1.0586
Advancement Opportunities			
JC48 Opportunities for lateral mobility (job rotation)	18.9	1.9621	1.6364
JC49 Opportunities for upward mobility (promotion)	53.0	3.2576	.9460
Salary and Benefits			
JC27 Job offers above average salary	47.0	3.1212	1.0340
JC28 Overall benefits package (insurance, pension, etc.)	54.5	3.3333	.8708
Location			
JC24 Geographical location is metropolitan (many cultural events)	14.4	1.4091	1.8073
JC25 Geographical location is rural (no 'big city' traffic & hassles)	4.6	.2901	2.0248

there is significant variation in how desirable 'cradle to grave' involvement is. This variation likely reflects the attitude of some students who prefer specialized skills and focused project sub-tasks. Respondents report only moderate concern about the business or social impact of projects they work on.

Respondents report some preference for job autonomy and decision discretion regarding work procedures. Nonetheless, there was also moderate attraction for an environment that adheres to well defined development processes. Thus, it appears these respondents are not adverse to working in environments where methodologies place some discipline and bounds

on the approach to systems development.

The concept of "continuous learning" has strong advocacy among pending graduates. Respondents highly prefer work environments that will encourage and support their ongoing professional growth and learning. Items related to professional growth, learning, and updating were strongly preferred by most respondents. The high mean scores and low deviation on these items demonstrate that nearly all respondents reported a strong preference for these work environment attributes.

The items evaluating Work Load characteristics support the Gen-X preferences and desire for play and personal time. A large portion of graduates

TABLE 2
DESCRIPTIVE STATISTICS FOR TYPE OF WORK,
DECISION LATITUDE, AND GROWTH OPPORTUNITIES (N=132).

Note: %Rating" column reports the percent Rating Factor as a Strong Positive Impact (4) in Job Decision;
* %Rating column reports the percent marking Strong Negative Impact (-4) if the mean rating was negative.

Category / Item	% Rating	Mean	Standard Deviation
Type of Work			
JC37 Frequent opportunities to be creative and innovative	36.6	2.8550	1.1240
JC26 Opportunities to work with leading edge technologies	43.9	3.0000	1.1459
JC38 Opportunities to work with emerging technologies	36.6	2.8855	1.0716
JC39 Opportunities to be involved with a project from beginning to end	28.8	2.9394	2.9024
JC40 Opportunities to perform a variety of different tasks	35.6	2.8788	1.1327
JC41 Opportunities to specialize skills for focused sub-tasks	9.8	1.8561	1.4310
JC44 Opportunities to work on challenging tasks where success is uncertain	8.4	1.4122	1.7136
JC45 Opportunities to work on known tasks for which you have skill mastery	15.9	1.8182	1.6337
JC46 Opportunities to work on projects with significant business impact	21.2	2.3485	1.3647
JC47 Opportunities to work on projects with significant social impact	18.2	1.8864	1.5014
JC52 Work will be self gratifying, a fun experience	59.8	3.3485	1.0188
Decision Latitude			
JC6 Firm adheres to well defined I/S development processes	15.9	2.0152	1.4302
JC8 Individuals have decision discretion regarding work procedures	26.5	2.3864	1.5115
JC21 Job autonomy permitted rather than close supervision	25.8	2.5606	1.2185
Growth/Learning Opportunities			
JC13 Firm encourages professional development & learning	51.1	3.3435	.8206
JC14 Firm facilitates professional updating (including tuition assistance)	50.8	3.2615	.9446
Work Load (encroachment on personal time)			
JC15 Firm requires you to work substantial overtime	14.4*	-1.0455	1.9880
JC16 Boss expects you'll do 'whatever it takes' to meet project goals	4.5*	-.5455	1.9822
JC20 Firm requires you to wear a beeper (be on-call during non-work hours)	12.9*	-1.0076	1.8138
JC23 After working standard week (40 hours) I can control free time	33.3	2.5530	1.3942
JC50 Travel requirements are limited and well defined	19.7	1.7424	1.7193

TABLE 3

DESCRIPTIVE STATISTICS FOR SOCIAL ENVIRONMENT (N=132).

Note: %Rating" column reports the percent Rating Factor as a Strong Positive Impact (4) in Job Decision;

Category / Item	% Rating	Mean	Standard Deviation
Social Environment			
JC1 Firm encourages a friendly working environment	56.4	3.3459	.8532
JC4 Collegial atmosphere where team accomplishments are rewarded	26.7	2.5878	1.2580
JC5 Competitive atmosphere: individual accomplishments are rewarded	21.2	1.5833	2.1580
JC9 Firm encourages efficient electronic communication	26.7	2.2901	1.5367
JC10 Firm encourages personal face-to-face communication	23.5	2.2424	1.4469
JC22 Dress code is informal (business casual)	29.5	2.3864	1.5216
JC32 Job involves working with a broad variety of people	15.2	2.0530	1.4688
JC34 People know how/when to relax, have fun	37.9	2.7273	1.3313

reported strong negative reactions (25% marked either -4 or -3 on the survey scale) to substantial overtime. Similarly, a substantial portion of respondents were adverse to wearing a beeper and being on-call. One third of all respondents indicated a very strong preference for maintaining total control over their free time. This adds to the recruiting challenges for firms that are mean, lean, and working on year 2000 compliance or other time critical projects.

Table 3 reports descriptive statistics reflecting social characteristics of the work environment. Responses to the items about "friendly working environment" and "people know how/when to relax, have fun" reinforces the perspective that I/S graduates want to have fun and enjoy their work environment. The high mean score, low standard deviation, and large proportion of respondents rating this item with a maximum score suggest that a friendly work environment will have a substantial impact on recruitment (and retention) of these I/S graduates. As such, firms should consider the type of social atmosphere these recruits will experience during site visits. While there is only mild desire to work with a broad variety of people, a high mean score for 'collegial atmosphere' does support the preference for a friendly and collaborative workplace. Nonetheless, a large portion (21%) of respondents strongly prefer a competitive atmosphere where individual accomplishments are rewarded.

A recent corporate trend has been to relax the formality of the workplace by implementing casual dress policies. In regards to attracting I/S

recruits this policy liberalization seems to be well focused. Nearly 60% of survey respondents had very strong (marked 3 or 4) preferences for casual dress in the work environment. It is unlikely that any I/S organization can afford to alienate this portion of potential job recruits given the scarcity of potential candidates.

Response to items referencing communications mechanisms suggest these graduates are very comfortable with electronic forms of communications but that personal face-to-face communication is also desired.

Table 4 illustrates descriptive statistics depicting items characterizing Organizational Reputation, Structure, and Management Style. Responses concerning company reputation and growth show that graduates are interested in organizations that have a clear direction and a reputation for innovation. The responding students have a tendency to be risk averse in that few prefer jobs in organizations that have promising but uncertain business prospects. Nonetheless, there was only moderate preference for large, established firms.

As a group these future I/S professionals had no preference relative to organizational structure. Approximately forty percent of student respondents indicated working in an I/S business unit versus a non-I/S business unit would have 'no impact' (response = 0 on rating scale) on their job decision. Although respondents slightly favor an I/S business unit, very few students reported a strong preference concerning the type of

organizational unit they would work in. This is good news for firms that are moving toward cross-functional work teams. Furthermore, respondents generally demonstrate a preference to work with other professionals in a team environment.

Again demonstrating a dislike for uncertainty, subjects reported relatively strong preferences for clear goals, well defined expectations and work structures. Furthermore, respondents prefer work environments where they have some input regarding project assignments and they desire management to provide timely feedback regarding work performance. While the sample reported a preference for a relaxed, fun environment they also indicate a moderate preference to work in a professional atmosphere where people are serious about getting work done and quality standards are enforced.

DISCUSSION/CONCLUSIONS

In summary, survey results show graduating I/S students most prefer a work environment that

involves fun, self-gratifying work in a friendly working environment where people know how and when to have fun. Today's graduates are unlikely to work for an organization that promotes all work and no play (King, 1997b). While having some affinity for a professional atmosphere, enforcing quality and getting work done, these job recruits are adverse to environments that will infringe on their personal time. They do not want to work substantial overtime and they do not want to be on-call.

Related to the concept of self-gratifying work, these job candidates are very interested in jobs that provide growth, learning, and professional development opportunities. They are strongly attracted by work that includes opportunities to work with leading edge, emergent technologies, opportunities to be innovative, and to perform a variety of differing tasks.

Next in order of preference is the extrinsic factors of a job. Respondents are strongly interested in their total benefits package, salary, opportunities for promotion, and job security. While the

TABLE 4

DESCRIPTIVE STATISTICS FOR ORGANIZATIONAL REPUTATION, STRUCTURE, AND MANAGEMENT STYLE (N=132).

Note: %Rating" column reports the percent Rating Factor as a Strong Positive Impact (4) in Job Decision;

Category / Item	% Rating	Mean	Standard Deviation
Company Reputation & Growth			
JC2 Business directions/plans of the firm are well defined	39.1	2.8571	1.2379
JC3 Business prospects of the firm are promising but uncertain	3.8	.5115	2.0052
JC11 Firm is large and has a significant history of growth & stability	22.1	1.8931	1.6745
JC12 Firm has a reputation for innovation	27.7	2.5923	1.2801
Organizational Structure			
JC30 I/S professionals work in a distinct I/S business unit	3.8	.9237	1.5621
JC31 I/S persons work in functional area (non-I/S) business unit	1.5	.5802	1.4568
JC43 Opportunities to work closely with other I/S professionals (work in team)	17.4	2.2197	1.3942
Management Style			
JC51 Work structure and expectations are well defined	26.0	2.5115	1.4053
JC7 Firm (management) provides clear goals	34.1	2.9015	1.1042
JC29 Being able to influence which projects you work on	27.5	2.6947	1.1293
JC35 Professional atmosphere: serious about getting work done	24.2	2.1970	1.6084
JC36 Quality guidelines enforced . . . Firm ensures all work meets standards	23.7	2.2901	1.4438
JC42 Opportunities to receive timely feedback regarding work performance and quality	31.1	2.6742	1.2691

importance of compensation and other extrinsic rewards cannot be questioned, these respondents attached more importance to intrinsic factors (interesting, fun, innovative, learning work environments) than they did to extrinsic rewards.

Another factor that was generally rated highly important relates to organization and management aspects. In general, respondents demonstrated low ratings on items that depicted environments involving uncertainty or ambiguity. Respondents showed a distinct preference to work for firms where the business direction and future plans of the firm were well defined. They also prefer working in environments where management provides clear goals but then allows the worker latitude in deciding how to implement solutions.

A recent Computerworld article regarding job factors of importance to current I/S Professionals provided the importance rankings illustrated in Table 5. While the items asked in the two surveys differ it is still possible to make some comparisons. The quality of boss issue raised by I/S employees may well correspond to creating the fun, friendly working environment sought by students. Similar to I/S employees the students expressed interest in the technology direction of the organization, and the opportunity to use new technologies. Unlike the veteran I/S workers, students attached a much higher importance to having training and educational opportunities so they can keep up with technology changes. Perhaps graduating students are more interested in exerting the effort needed to prepare for tomorrow's technologies. Industry press suggest that existing I/S staffs are unprepared to work with new technologies; research is needed to determine how much personal effort veteran I/S workers are willing to exert in order to keep up-to-date.

Organizations apparently face a major challenge in regards to supporting legacy systems that are implemented using traditional technologies. Both veteran staff and I/S students report a strong preference to work with new technologies. The U.S. pipeline of programming talent is focusing on work using technologies that they consider to be fun and sexy (Goff, 1997). Thus, firms may have difficulty locating persons who are willing to work with older technologies.

Ultimately, firms may need to look off-shore to find new programmers who are trained and motivated to use more humble technologies (Yourdon, 1997).

TABLE 5

RANKED IMPORTANCE OF JOB ATTRIBUTES (FROM SCHEIER 1997)

Responses based on rankings by 200 I/S employees who had recently considered changing jobs.

- | |
|--|
| Quality of the boss |
| Technology Direction of the I/S Department |
| Ability to use new technology |
| Job Security |
| Financial Stability of the Organization |
| More Challenging Assignments |
| Location |
| Base Salary |
| Faith in future business direction of the Firm |
| Training Opportunities |
| Retirement Plan |
| Bonus Plan |

Whereas students were more interested in a well defined direction for the firm and promotional opportunities, veteran I/S employees seem to be more interested in the financial stability of the organization and job security. These veterans (who were considering job change) were more interested in job security than in salary and bonus plans. In contrast, students were more interested in overall benefits and salary than they were in job security (although security was still important). Another interesting difference is that veterans are more interested in work location than in salary and bonuses. In contrast, students were relatively moderate in their preferences for job location and rated compensation factors significantly higher than work location factors. Based on these results it appears graduating I/S students are likely to be more flexible than veteran I/S workers relative to work location and potential relocation. Conversely, new I/S graduates may be more strongly influenced by attractive compensation packages.

Overall, the job preferences reported by students aligns well with the job preference and motivating factors reported in previous research. Weaver (1976) and others found that meaningful work was the most preferred job attribute, especially among professional and technical workers. Couger and Zawacki (1980) found that work itself was a strong motivator for I/S workers. In addition, I/S workers were found to have a high "growth need strength". Similarly, students expressed a strong desire for professional growth opportunities. Nonetheless, students also expressed an extremely strong preference for fun, friendly, collegial work environments; this somewhat conflicts with the low "social need strength" reported by Couger and colleagues.

ENDNOTE

1. King (1997d) reports a 43% decline in U. S. computer science graduates between 1986 and 1994. This decline is partially offset by increasing graduation rates in some foreign countries.

REFERENCES

- Alexander, S. (1996, January 8). "A buyer's market: Jobs abound for IS professionals with right skills", *Computerworld*.
- Couger, J. D. and Zawacki, R. A. (1980). *Motivating and Managing Computer Personnel*, Wiley-Interscience, New York.
- Crowley, A. (1997, May 20). "Ripe for the picking", *PC Week*.
- Goff, L. (1997, June 9). "Curriculums: COBOL be damned, give them 'sexy'", *Computerworld*, pp. 94.
- Gow, K. (1997, June). "Stable force", *Computerworld: Best Places to Work in I/S*, pp. 49-56.
- Herman, S. J. (1994). *Hiring Right*, Sage Publications, Thousand Oaks, CA.
- Herzberg, F. (1987, September-October). "One more time: How do you motivate employees?" *Harvard Business Review*, pp. 109-120.
- Igbaria, M., and Greenhaus, J. H. (1992). "Determinants of MIS employees' turnover intentions: A structural equation model", *Communications of the ACM*, 35(2), pp.35-49.
- Jurgensen, C. (1978). "Job preferences: What makes a job good or bad." *Journal of Applied Psychology*, 63, pp. 267-276.
- King, J. (1997a, January 20). "They'll do anything to lure tech talent", *Computerworld*, pp. 67-68.
- King, J. (1997b, May 5). "All work, no play? Gen X-ers: No way", *Computerworld*, pp. 1, 28.
- King, J. (1997c, May 19). "Staffing woes deepen", *Computerworld*, pp. 1, 109.
- King, J. (1997d, June 30). "IS labor drought will last past 2003", *Computerworld*, pp. 1, 28.
- Lacy, W., Bokemeier, J., and Shepard, J. 1983. "Job attribute preferences and work commitment of men and women in the United States", *Personnel Psychology*, 36, pp. 315-329.
- Maslow, A. H. 1954. *Motivation and Personality*, Harper & Row, New York.
- Scheier, R.L. (1997, February 24). "IS money can't buy happiness", *Computerworld*, pp. 1, 77-78.
- Schein, E. H. 1978. *Career Dynamics: Matching Individual and Organizational Needs*, Addison-Wesley, Reading MA.
- Steers, R. M., and Porter, L. W. 1991. *Motivation and Work Behavior*, McGraw-Hill, New York.
- Super, D. E. 1953. "A theory of vocational development", *American Psychologist*, pp.185-190.
- Super, D. E. 1980. "A life-span, life-space approach to career development", *Journal of Vocational Behavior*, pp. 282-298.
- Weaver, C. and Matthews, M. (1987, September). "What white males want from their jobs: Ten years later", *Personnel*.
- Yourdon, E. (1997, September). "Who has the right stuff?", *Software Development*, pp. 32, 34.



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