International Data Corporation recently reported that United States information systems spending for salaries/benefits was 35.7 percent of the total MIS budget for the first quarter of 1986. My experience with MIS organizations is that this figure is nearer 40 percent in many firms. Because of the tremendous cost associated with selecting and training MIS professionals, this key function is too important to be left to the "professionals" in personnel. It must be controlled and driven by MIS managers with the support of personnel.

My research and the research of others indicates that MIS managers either leave this critical function to personnel, or they give it lip service and their ability to PICK EAGLES and eliminate losers is very poor. Further, once the MIS professional is in the firm, those who are marginal performers are rarely, if ever, eliminated from the firm.

Since 1978 over 300 articles have been written on the selection process. After reviewing the literature, conducting research myself, and consulting with numerous MIS organizations, some of the major reasons for poor selection are:

1. Biases are established early in the interview.
2. Interviewers tend to develop a stereotype of a good candidate and then match applicants with stereotypes.
3. Interviewers are influenced more by unfavorable than favorable information because they are looking for reasons to not select the candidate.
4. If the interviewer has an early favorable impression of the candidate, the interviewer talks more and in a more favorable tone. If the early impression is negative, then the interviewer talks in a negative tone with the hope that the candidate self-selects out of the firm.
5. Seeing negative candidates before positive candidates results in a greater number of acceptances than reversing the order of interviewing.
6. Interviewers benefit very little from day to day interviewing. Training can help the selection process, however.
7. The ability of a candidate to answer questions, stay to the subject being discussed, and present a favorable appearance seems to be critical to obtaining an offer.
8. Interviewers opinions of a candidate are crystallized after a mean interview time of four minutes.
9. To increase predictive validity, interviews must be planned and structured. Yet, because of the crisis environment within MIS, many managers "wing it."

Given the pessimistic nature of the research findings, what can an MIS organization do to PICK EAGLES? What are the objectives of the MIS organization? What predicts effective job performance? How can an MIS department structure the interview to increase their "hits" and decrease their "errors"?

First, the CIO and the top management team must decide how many EAGLES they want. Intuition suggests that they should want all of the EAGLES that they can recruit. However, EAGLES are high achievers and require cutting-edge and challenging work or they become dissatisfied. As MIS departments move from development to more maintenance work, the top management team should consider a mix of people to match the jobs or attempt to enrich the jobs if they are to hire a high percent of EAGLES.

Ability, motivation, and the job all influence performance by a programmer. Figure 1 diagrams this relationship. Ability includes skill, education, aptitude, and experience.

Programmers can have all of the ability in the world. Without motivation, however, they will fail. Further, they can have all the ability and motivation; if the job does not challenge them, or if it is not a good match-up between the person and the job, they will not produce to their ability.

My research and consulting with MIS organizations indicates that managers do a very good job of determining ability

![Figure 1—Determinants of employee performance](From the collection of the Computer History Museum (www.computerhistory.org))
from the candidate's resume. They can review his/her education, additional courses, and previous job experience and make a good prediction. The weakness of MIS managers is in blocks 2 and 3 (see Figure 1). When we observe interviewers they tend to stay in block 1 because they are more comfortable in the technical areas. Predictive validity increased when the interviewer asks questions about the candidates motivation.

One of the major findings of my research with Dr. J. Daniel Couger (Motivating and Managing Computer Personnel, Wiley Interscience, 1980) is that MIS professionals have very high growth need strength (GNS). This is a measure of their motivation. Prior to the interview, the interviewer should plan four or five questions that examines candidates' need to be challenged, to continue to grow, to develop and move beyond where they are. Also, their need for education is a good indicator of high GNS.

Couger and I determined that MIS professionals believe a job is challenging if it contains: (1) skill variety, (2) task identity, (3) task significance, (4) autonomy, and (5) feedback. If a job is low or moderate in these five job dimensions, the MIS department may decide to select a person with moderate GNS. If you have a job moderate in MPS and still decide to select an EAGLE, then how the interviewers set expectations is critical. Only promise what you can deliver. Also, high GNS people in a low or moderate MPS job will soon become bored and dissatisfied. These people need a lot of feedback and encouragement, joint goal setting, and career planning. Further, you can meet some of their high GNS need by formal education while in a narrow job.

Guidelines for a Successful Match-up

1. Determine how many EAGLES you want in your MIS department.
2. Select a team of interviewers and provide training on good interviewing behavior. Include some peers on the interview panel.
3. Pre-structure the interview and plan questions that examine the candidate's GNS.
4. Conduct the interviews in a professional and timely manner. Remember the candidate is forming an impression of your firm and will talk to other people.
5. The line must own and control the interview process. Personnel specialists or psychologists are support staff to the line.
6. After the interviews, have a meeting of the selection panel and pool the evaluation of all interviewers.
7. After determining who is the best match-up with the job (MPS), make a verbal offer to the candidate as soon as possible. Also, how you notify the unsuccessful candidates can affect goodwill; they may be a source of future talent. Remember, you may only hire one person, but five or more may be talking about how your firm treated them.

Following the above guidelines can result in improved organizational effectiveness through a better match of the need of the organization with the ability and motivation of the person. PICKING EAGLES is not easy, it requires a heavy time involvement by MIS managers and peers. However, the results are well worth the effort. Either we do it right up front or we live with our mistakes. The choice is ours!

REFERENCES