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RESEARCH ARTICLE

"SEEDING THE LINE": UNDERSTANDING THE TRANSITION FROM IT TO NON-IT CAREERS¹

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Abstract

As organizations face increased competitive pressures and technological changes, their attention is focusing on how to attain strategic benefits from information technology investments, including investments in people. From a human resources perspective, one debate centers on how to attract and retain information technology (IT) professionals. Somewhat paradoxically, it is suggested that to retain IT professionals, organizations must provide both technical and business oriented career opportunities.

This paper presents a case study of one organization, The Mutual Group, in which more than 70 IT professionals permanently moved into non-IT, business unit jobs during the 1980s and early 1990s. Using interviews and surveys of 51

former IT professionals, this research investigated the characteristics of the individual, the organization, the first non-IT job, and the transition period.

The conclusion from the findings is that IT professionals who moved to non-IT jobs in the line made the transition without the benefit of deliberate preparation, formal transition programs, or safety nets to reduce the risk. Some conditions existed at The Mutual Group that may have assisted them, including good relations between IT and the line, friends and mentors in line units, and a willingness to take risks in pursuit of new challenges.

One contribution of this paper is that it begins to fill a gap in the career mobility literature, based on individuals and their stories of change. It also attempts to understand the role of context in one organization that is a recognized leader in the use of IT for competitive advantage.

Keywords: Job transfers, IT careers, career mobility

ISRL Categories: AF0403, DA01, EBUF

For us, strength through innovation will result from our continued use of new technologies and most important, from the talented people at the heart of our business. Our recruitment focus has shifted; the skill profile we look for focuses on a person's ability to adapt to change, think creatively, explore new technologies and new types of work. (President, The Mutual Group, in the 1994 Annual Address to Policyholders)

¹Robert Zmud was the accepting senior editor for this paper.

Introduction

The competitive significance of information technology is no longer questioned. What is debated, however, is how to attain strategic benefits from information technology investments. From a human resources perspective, one debate centers on how to attract and retain information technology (IT) professionals (Igbaria et al. 1991, 1997). Somewhat paradoxically, it is suggested that to retain IT professionals, organizations must provide both technical and *business oriented* career opportunities (Cash et al. 1988).

Other researchers argue that organizations need to increase knowledge about IT among executives, general managers, and line personnel (Henderson 1990; Kappleman and McLean 1991; Keen 1991; Lederer and Mendelow 1988; Nath 1989; Reich 1993; Sharratt and McMurdo 1992). For example, a 1989 survey of general and IT managers identified "educating senior management about IT" as one of the most important factors leading to aligning IT with business goals (Nath 1989). Several years later, Reich (1993) found that "shared domain knowledge" between IT and business managers was the strongest predictor of alignment between business and IT objectives.

These apparently divergent debates are finding resolution in at least one organization. Within The Mutual Group, numerous IT professionals have permanently moved into business unit jobs, thereby achieving both objectives: career extensions for IT people and increased knowledge of IT in the line. This phenomenon seemed to us to be sufficiently understudied to merit investigation.

Zabusky and Barley (1996) note that organizations need to prepare themselves for the shift from "careers of advancement" to "careers of achievement." Hendry (1989), in talking about ways to overcome the barriers to successful technological innovation, specifically recommends that "job rotation programs or similar schemes, if sufficiently widespread, can further strengthen interdepartmental understanding, both through shared experiences and personal linkages." Despite this, as of the late 1980s, he notes that while many firms had job rotation programs for training business unit managers, they rarely

involved specialist areas such as IT. To date, we have been unable to locate similar examples of a non-technology firm that has successfully integrated so many senior management who began their careers as IT professionals.

In their survey article, Fish and Wood (1993) suggest that "career theory and research needs to get closer to the phenomenology of job change to do justice to the interaction of individual opportunity and external influence in career decision making." This, in a nutshell, was our goal. We aimed to understand the factors that were important to these IT professionals as they moved permanently into non-IT jobs and, thereby, to fill a gap in the IT career and job transfer literatures.

This paper reports on a group of 51 former IT professionals at The Mutual Group (TMG) who, over a period of two decades, moved out of IT into non-IT business unit positions. Not only did these non-IT jobs extend career opportunities for individuals, this internal mobility also seeded the business units with IT knowledge during a time of tremendous technological change.

The next section provides a brief history of TMG and the IT-to-business unit job transfers. The third section contains the research questions and research methods employed in the study. The findings are then presented and related to prior literature. The paper concludes with lessons learned and discusses implications for future research into this approach of "seeding the line" through IT to non-IT career transitions.

The Setting: The Mutual Group and the Job Transfers

Background on The Mutual Group (TMG)

The Mutual Group is a large, multinational insurance organization with over \$100 billion of life insurance policies in effect and over \$30 billion in assets under management. Located in a mid-sized city, they are one of the larger firms in the area. They primarily sell individual and group life insurance and retirement products throughout North America and have extensive international operations. Established over 100 years ago, they

have an enviable reputation, receiving the highest rating for their industry.

We are proud to report that for the sixth year in a row, Standard & Poor's awarded TMG its triple-A rating for claims-paying ability, a "gold medal" in financial services. (President TMG, 1994 Annual Address to Policyholders)

Expanding into the securities industry in the 1980s, their portfolio includes mutual funds, pension funds, and investment products. By 1995, the head office of TMG had over 2,000 employees. The company, as a whole, has a reputation for commitment to employee development and ongoing training.

At the time this research was conducted, TMG's IT department included over 400 IT professionals who worked together on one floor of the headquarters building. Application developers within the IT department were organized into teams dedicated to a particular area of business operations (e.g., individual insurance operations, group insurance operations, finance, or investments) and often spent many years supporting a single product line or business function. According to the former vice president of information technology, the IT department was a classic example of a "centrally decentralized structure" (von Simson 1990), with IT development staff working closely with business unit clients, but with centralized control retained by IT.

In 1993, when this study began, the vice president of IT had been with TMG for over 30 years and had been head of IT for 12 years. More than 80% of the IT-to-business unit transfers had occurred during his tenure as vice president. His predecessors had set a pattern for movement of senior IT individuals to the business units. At least two of the former heads of IT had themselves accepted permanent business unit positions. One was currently senior vice president, individual administration, and the other was vice president of quality services. By 1994, several other former IT executives were senior officers in various business units at TMG, a trend which has continued today (1998 Annual Report). This is somewhat unusual as insurance management is traditionally drawn from actuarial and marketing departments.

TMG is recognized in the North American insurance industry as a leading competitor in their strategic use of information technology and is often cited as a product and process innovator as well as a creative, first adopter of IT (Kalvaitis 1993, Underwood 1992). As an early adopter of e-mail technology, TMG won the Microsoft Award of Excellence for an innovative PC-based front end for their mainframe e-mail system. TMG was among the first to require notebook computers for their sales forces, achieving very high levels of mobile computing. By 1993, 75% of insurance applications were completed electronically on PCs in the clients' homes or offices, eliminating the delays of sending paper forms to the head office. This result was far ahead of industry averages.

Beginning in the mid-1980s, TMG implemented expert systems to support a variety of functions. They claim to have achieved best-in-class results for productivity and quality in the underwriting process (Underwood 1992). Expert systems also help customer service representatives answer tax related questions, thereby improving both service and efficiency. Imaging technology virtually eliminated paper processing and reduced error rates in life claims, disability, and other areas of TMG's operations.

A recent IT-enabled reengineering project (Kalvaitis 1993) helped TMG achieve their goals of one day turnaround for defined benefit plan quotes and withdrawals at a time when the industry still averaged two to three weeks for these processes.

After learning about the number of employee moves from IT to the business units and about TMG's innovative IT history, we concluded that TMG was an interesting firm to research in terms of the understudied phenomenon of internal mobility of IT professionals and their transition to non-IT jobs.

History of the Job Transfers

This research began with an interview of the vice president of IT to determine how many IT professionals had moved to business units to take non-IT jobs. Although no records had been kept to specifically track these moves, 70 people were identified, 59 of whom were still employed with

TMG. These employees became the population under study. Data were collected from 51 of these employees through a survey (n = 40) and interviews (n = 11). For the survey respondents, the year of their first non-IT job is shown in Figure 1.

After the first two transfers in 1971 and 1975 (these were previous heads of IT moving into line positions), the moves were gradual and consistent rather than concentrated in any one-year or period. There were three noticeable peaks in the number of transfers into the business units: in 1983, 1989, and 1992, when five individuals transferred during each of these three years. This small number, less than 2% of the total IT staff count, was not reported to have had a significant impact on the performance of the IT department, nor was it reported to have caused problems with vacancies. The attrition of more senior people in

IT created opportunities for promotion for those remaining in IT.

In a 1995 interview, the senior vice president of finance and administration, a relative newcomer to TMG, spoke very positively about the transfers of IT professionals to the business units. Her view was that these people offered critical skills, both in the past and for the future of TMG.

If you look at the skill profile that you get within IT and you ask what is the skill profile that today's manager needs . . . it really fits . . . There are very few jobs where you get the kind of project management philosophy and skills that you do within IT. . . It is essential, especially in managing change! (Interview with senior vice president, Administration and Finance)

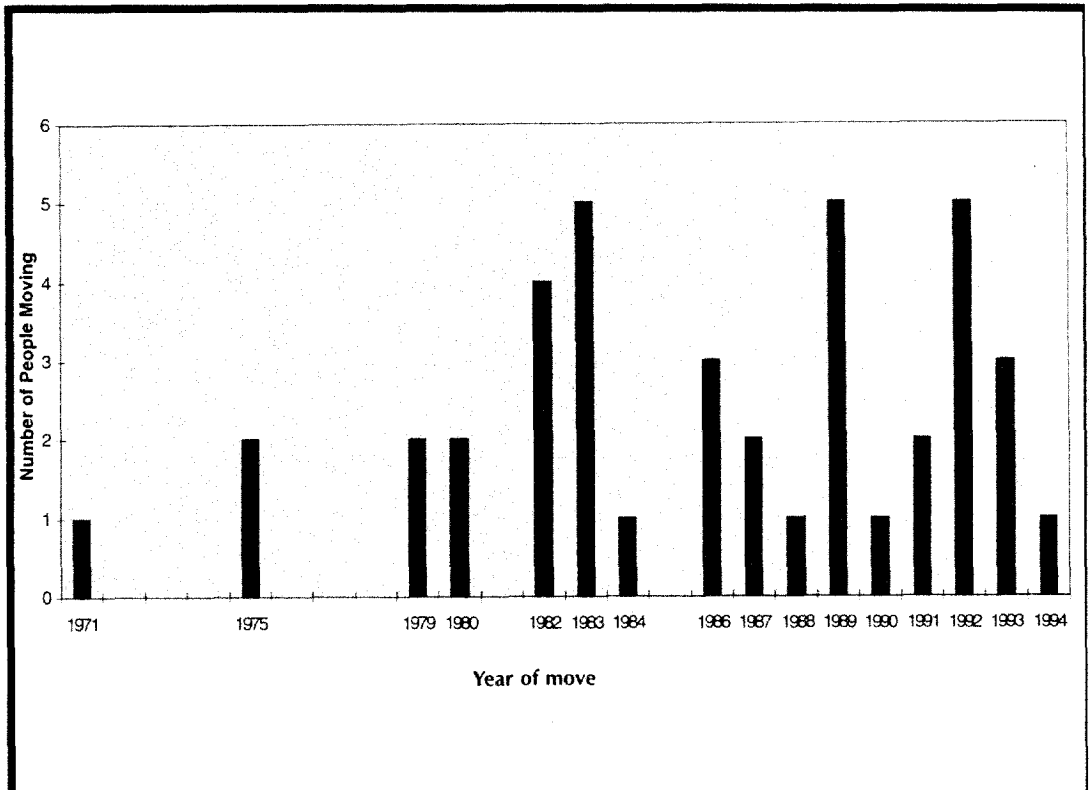


Figure 1. Timing of Moves From IT to the Business Areas (n = 40)

The Research: Questions and Methods

Research Questions

As Gunz (1990) notes,

Managerial careers can be viewed as an intersection of two distinct phenomena: 1) at the organizational level of analysis, careers as the process by which organizations renew themselves; and 2) at the individual level of analysis: careers as series of choices made by people between different opportunities presented to them.

This paper uses a case approach with a combination of qualitative and quantitative data (Kaplin and Duchon 1988; Yin 1984) to explore internal career mobility and job transitions from the perspective of the *individuals* themselves.

The investigation was guided by four broad research questions:

1. Were there *characteristics of the TMG organization* that facilitated the transition of IT professionals into the business units?
2. Were there *characteristics specific to the individuals* that may have influenced their decisions to move from IT into business unit positions?
3. Were there *characteristics specific to the first non-IT jobs* that were viewed as important by those who decided to move from IT into business units?
4. Were there *transition characteristics* that individuals felt had facilitated their success with the new job?

To investigate these four areas of interest, we drew upon prior literature and our experiences as former IT professionals, insurance company employees, and consultants to IT management. Our 40 years of cumulative experience in general business and the insurance industry made us very familiar with the language, roles, and tasks associated with firms like TMG. Despite a growing interest in career strategies and internal mobility, we found no prior research investigating IT to non-IT moves in firms of this type. This research seeks to contribute to our understanding of these issues as they apply to IT professionals.

Research Methods

Entry to the TMG organization was arranged through the vice president of IT and his boss, the senior vice president of finance and administration. Our presence and the intent of our research was approved in advance and supported by the CEO.

There were two overlapping stages to the research: (1) semi-structured interviews with two senior executives and 11 former IT professionals; and (2) a detailed survey sent to the entire population of former IT professionals still employed by The Mutual Group. These two stages spanned more than two years from mid-1993 to mid-1995, with ongoing follow-up into 1997. The details of each research stage are discussed below, followed by the demographic results of the survey.

Stage 1: Interviews

The first set of interviews included the senior vice president of finance and administration, the vice president of IT, and a theoretical sample (Glaser and Strauss 1967) of six former IT professionals (referred to as ex-IT people). The six IT professionals were selected based on three criteria: (1) they represented the dominant time periods during which individuals were transferring from IT to the business units; (2) they represented different work units across different divisions; and (3) each was willing and available to voluntarily meet with the researchers during visits. These six individuals moved at intervals between 1982 and 1992 and represented four of the six TMG divisions.

Extensive information was collected on each former IT professional's work and educational background, the way in which the first non-IT job was offered, and the characteristics of the first and subsequent non-IT jobs (see Appendix A for the Interview Guide).

A second set of interviews was generated using a snowball technique (Bernard 1988; Miles and Huberman 1994). Five former IT professionals, who had been mentioned as exemplars in the first set of interviews, were contacted. These individuals were in senior business positions (three vice presidents and two directors), and data from their interviews were used to provide a higher-level perspective on organizational context at TMG.

Table 1. Demographics of the Survey Sample

	Surveyed	Responses
Response Rate	59	40 (68% of population surveyed)
Level of Respondents	32 officers 25 managers/supervisors 2 non-management	20 officers 19 managers/supervisors 1 non-management
Gender	32 males (54% of 59) 27 females (45%)	21 males (52% of 40) 19 females (48%)
Age		2 were < 30 yrs. old 13 between 30-39 yrs. 16 between 40-49 yrs. 8 between 50-59 yrs. 1 over 60 yrs.
Time with TMG		Mean: 18.2 years Range: 6-37 years
Tenure with IT		Mean: 9.8 years Range: 2-26 years
Time in Non-IT Jobs		Mean: 8.3 years Range: 1-19 years
Education (highest degree)		20 UG degrees 8 post-graduate degrees

Stage 2: The Survey

Drawing upon themes that emerged from interviews and the literature, the survey instrument that was used in stage 2 was developed. The vice president of IT reviewed drafts of the survey instrument to ensure its consistency with organizational terminology. No questions were added or deleted. (Survey questions relevant to this study are shown in Appendix B.)

A copy of the survey was sent to each of the 59 former IT professionals who were still employed at TMG's head office. The status of the 11 individuals who had moved out of IT but were not employed at the head office was questioned. The response was that some "retired," some "moved to business unit positions with other firms," some "returned to IT with another company," and some "went out into the branches at TMG."²

²Information taken from interviews.

Although their stories would have been interesting, we did not have the means to contact them.

The 13-page survey instrument was comprised of closed questions (yes/no, Likert scales, lists) and seven open-ended questions that permitted anecdotal responses (Jackson 1988). The surveys were distributed by internal mail with a cover letter from the researchers and were returned directly to the researchers. A total of 40 completed surveys were received—a 68% response rate. There was tremendous willingness to share information, with an average of 75% of respondents replying to each of the open-ended questions.

Demographics of Survey Respondents

Demographic data is shown in Table 1. Respondents were evenly split between officers and non-officers, and between males and females. On average, respondents were a very experienced group of people with an average

tenure at TMG of 18 years, half of which had been spent in IT. They were also well educated, as 70% held an undergraduate degree or higher.

In the next section, findings from the interviews and surveys are presented and related back to our expectations and prior literature.

Findings and Comparison to the Literature

Findings are presented in four sections: organizational characteristics, characteristics specific to individuals, characteristics specific to first non-IT jobs, and transition characteristics. A final section presents feedback from participants on their feelings about the transition to a non-IT career path. For each of these sections, the literature, findings from interviews, survey results, and a comment on the consistency between these three

are presented. Quotes have been selected from interviews and surveys to show how respondents interpreted the context at TMG and how they made personal career decisions within this context. In most cases, these quotes were chosen to reflect the dominant interpretation. Where some variation in responses existed, an attempt was made to illustrate this by selecting quotes that reflect the multiple interpretations of participants. The discussion addresses either the strength or variation of feedback on the different issues.

Figure 2 summarizes findings that were consistent across interviews and surveys.

Organizational Characteristics

Five contextual issues emerged during the initial interviews. The literature also supported these issues as having potential impact on internal mobility. These issues were explored further in

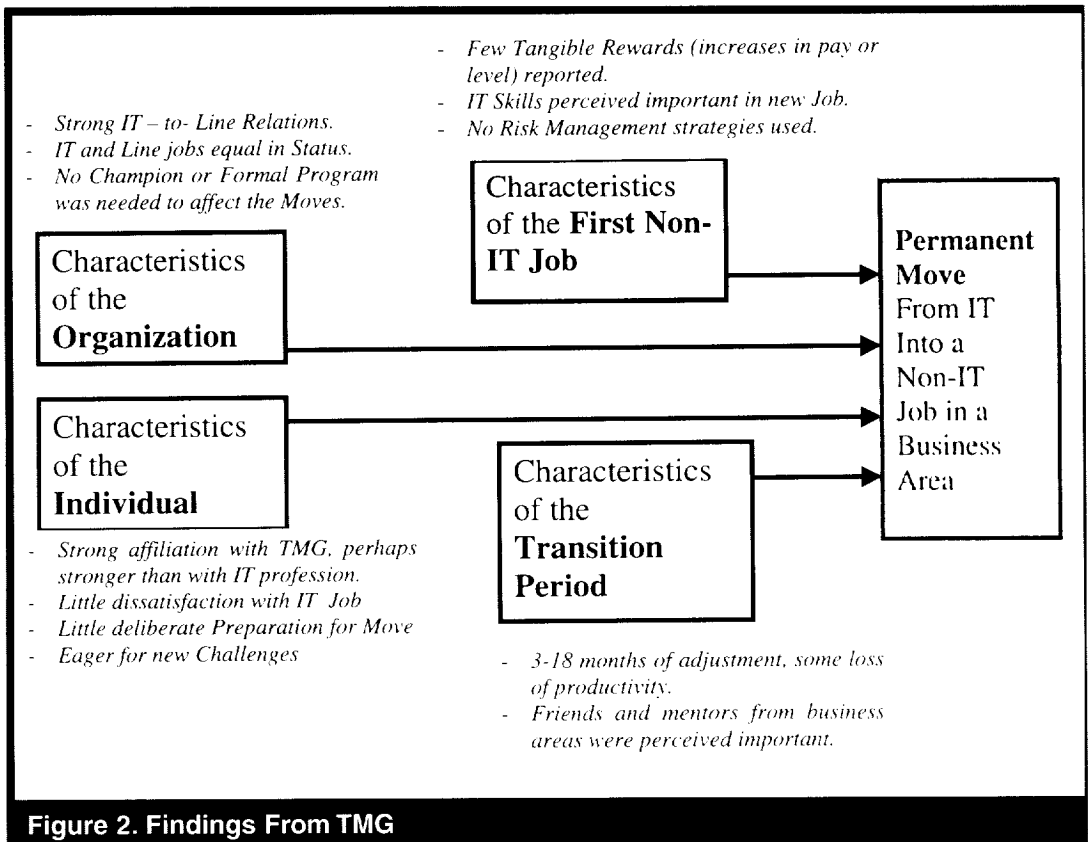


Figure 2. Findings From TMG

the surveys to help in understanding the organizational characteristics of TMG:

1. Corporate practices in support of internal mobility
2. Relationships between the IT department and the business units
3. Status differences between IT and business units
4. Desirability of IT skills in business units
5. Formal transfer program or champion for IT-to-business unit transfers

Corporate Practices in Support of Internal Mobility

Employment practices and compensation can be influential contextual factors, attracting employees to different areas of the firm or creating barriers for internal mobility (Katz and Allen, 1997; Katz et al. 1991; Quinn and Rivoli 1991; Zeira 1974). Given the higher salaries and job levels generally attributed to technical positions (Katz et al. 1991), the feeling was that compensation and other human resources practices were an important issue to explore. Did TMG have corporate practices that were supportive of internal mobility and would minimize salary or other factors that might present structural barriers to internal transfers from IT to non-IT departments?

Interviewees praised the supportive nature of organizational practices at TMG.

We want to do absolutely everything that we possibly can to protect our good people. So if someone is consistently doing a good job and working hard to keep their skills current, our efforts will go to finding them employment within the company before they will go anywhere else. (Interview E-3)

If we have somebody who would rather be working somewhere else, we'll do everything we can to give them the opportunities they deserve. (Interview E-8)

This supportive environment did not mean that salary differences were not present. Interviewees reported that there were different salary scales that applied to IT versus business unit positions.

I had expected to move to a job where the midpoint was lower in the business line than it was in IT because, in general, I knew enough to know that the salaries are a little higher in IT. (Interview E-6)

This salary differential could have been an inhibitor; however, TMG was reported to be flexible in their handling of internal transfers where salary or job differences applied. In some instances where there was a salary difference, the business unit job was modified to reflect new responsibilities that justified the higher salary paid.

One of the things that they do . . . is bring in an overqualified person to do the job. You are not going to be so caught up in just learning the job . . . and they're going to be able to improve the job. So when I moved into that area, it was probably a job that would have taken \$15,000 less than I was currently being paid. But that wasn't an issue at all. And it never is. (Interview E-8)

Another approach reported in the interviews included salary freezes until the value of the job caught up. This flexibility in human resources practices suggests that TMG was a firm that valued its people and was willing to make adjustments to accommodate internal moves.

I've always liked the fact that TMG will help people move from division to division. (Interview E-6)

Relationships Between IT Department and the Business Units

One can conceptualize the movement of IT people to business units as a transfer of IT knowledge from the IT department to the broader organization. Levitt and March (1988) use the metaphor of epidemiology to describe the process of knowledge transfer as a "spread of disease through contact between a member of the population who is infected and one who is not." This metaphor suggests that job rotations may not occur without a supportive "host environment." In other words, mobility out of IT would be influenced by the business units' receptivity to such transfers. To investigate this "supportive host environment" concept, the relationship between IT and the business areas was explored.

Interviewees reported a history of strong relationships between business areas and between business areas and the IT department.

We work at TMG as a company. We don't work as a "What's good for me?" because what's good for the company is good for me. (Interview E-8)

I believe my role [in the business unit] is to set the vision for where we're going for the business in the two-three year time frame. I meet with [an IT person] every other week. We have kept the discussions going because it is good to have the IT contact. (Interview E-6)

I constantly hear about IT and business areas in other companies fighting each other instead of working together. That's not the answer. The answer is in understanding that you have to work together. (Interview E-3)

A total of 77% of the survey respondents agreed that "IT and business area managers had a very healthy working relationship" at the time of their move (Appendix B, Q.1).³

I think the fact that we have a lot of former IT people in the area has helped build that relationship even closer and stronger than it was before. . . . There's a strong element of synergy. (Interview E-3)

The conclusion was that there had been a strong positive relationship between many of the business units and the IT department over a long time span and that IT people at TMG enjoyed the supportive environment that Levitt and March suggest would be beneficial to internal moves.

Status Differences Between IT and Business Units

Researchers have suggested that status differences between two types of jobs or two departments may influence the desirability of internal mobility (Katz and Allen 1997; Katz et al. 1991; Quinn and Rivoli 1991; Zeira 1974). Perceived status differences between two groups may attract members to the higher status group (Katz and Allen 1997; Zeira 1974). This literature further suggests that technical career ladders can have lower perceived status than managerial or business oriented ladders. This status difference was not reported at TMG, as illustrated in the following quotes:

³On questions asking the respondents to agree/disagree, a six-point scale was used, with 1 "disagree strongly" and 6 representing "agree strongly." In this paper, when we say "agreed" we mean that the respondents selected a 4, 5, or 6 on the survey question. Actual data from each question are in Appendix B.

I didn't feel that I was either special or looked down on. (Interview E-4)

I didn't have any feeling that I was losing professional status . . . maybe it's because I had made up my mind that I wanted to make the move. (Interview E-3)

The pay was roughly the same. The status level was roughly the same. (Interview E-7)

This concept of organizational status differences was explored in the survey. When asked if the difference in status between IT and line jobs was an important factor in their decision to move, 90% of the ex-IT respondents reported that it was unimportant (Appendix B, Q.2).⁴ This was explored in a different way, probing for the importance of the factor that "IT people were not highly regarded." On this question, 97% of the former IT professionals said this factor was unimportant to their decision (Appendix B, Q.3).

Contrary to what the literature might suggest, former IT professionals at TMG did not perceive a status difference between IT and the business units nor consider the issue important to their decisions to move. This finding was highly consistent between the interviews and survey and supported the earlier finding of a strong, positive relationship between IT and the business areas.

Desirability of IT Skills in Business Units

The need for IT skills in the business units has increased during past decades (Henderson 1990; Kappleman and McLean 1991; Reich 1993). However, Brown's (1995) investigation of IT cultures suggests that organizations differ markedly in the value they place on IT knowledge. Indeed, only one of five IT cultural patterns identified in her study placed a high value on IT knowledge within the business units.

⁴On questions asking respondents to rate the importance of a factor, a six-point scale was used, with 1 representing "very unimportant" and 6 representing "very important." In this paper, when we say that a factor was "unimportant" we mean that the respondents selected a 1, 2, or 3 on the survey question. Actual data from each question are in Appendix B. Questions 32 to 38 are the open-ended questions.

At TMG, we expected to hear of an organizational culture that placed a high value on IT knowledge, not only in the IT area but as part of the general skills required for business managers and employees.

During the initial interviews, interviewees recalled that their IT and people skills were highly valued by the areas to which they moved.

The business unit was going to have to rely heavily on systems development efforts in the long run. . . . They knew they needed someone to help pull those thoughts together and coordinate it. (Interview E-7)

However, the requirement of IT skills was not universal. The survey asked other former IT professionals to agree/disagree with the statement "line managers recognized IT as a core skill for a management job." Only 53% of them agreed (Appendix B, Q.4). When asked to agree/disagree to a slightly different statement, "there were many IT champions in line management," 72% agreed (Appendix B, Q.5)

Non-IT managers appreciated the work I was doing more than my superiors. . . . Non-IT management had a better appreciation for the real world scope. (Survey E-37)

They specifically targeted me for my skills and abilities. (Survey E-31)

The conclusion from this somewhat contradictory set of findings was that business areas within TMG were evolving technologically at different rates, and therefore perceived different levels of need for IT-related skills.

Formal Transfer Program or Champion for IT-to-Business Unit Transfers

The literature suggests that formal career planning programs and senior management support may be necessary components of successful job transfers (Granrose and Portwood 1987; Quinn and Rivoli 1991; Stevens 1992).

The study probed for the existence of a formal program either within the IT area or the human resources department. Most interviewees stated that they were not aware of any formal program within TMG.

When you are working on career progressions with people in IT you talk about "Would you like to move to the line area?

Do you see this as a stepping stone?" It is something that is quite accepted and talked about and some people see it as a natural progression. . . . But it is not a program per se. (Interview E-8)

In order to corroborate that there was no formal "program" behind the moves, the survey respondents were asked to agree/disagree with the following statement "senior management in IT had a plan to move IT managers into non-IT roles." The answer was predominantly negative as 72% disagreed with this statement (Appendix B, Q.6).

The existence of champions was also explored. In discussions with the vice president of IT, he expressed strong personal support for organized career development of his people, and added that he viewed "business unit exposure as a critical element of the development plan for talented IT people" (Interview, 1994). However, those interviewed did not specifically identify the vice president of IT as a champion or facilitator of their moves.

Survey respondents were asked if any of the following senior managers asked them about a move to the line: a senior HR manager (five respondents said yes), a senior IT manager (five respondents), a senior manager in individual insurance (six respondents), or a senior manager in group insurance (four respondents). Therefore, although 50% of the respondents reported that a senior TMG executive talked with them about a future move to the line, there was no evidence that one individual was any more influential than another. This was consistent with the stories of the interviewees.

The lack of a formal program or champion was contrary to the literature, but an explanation was provided by an individual during the second set of interviews. This interviewee drew a social network diagram that linked former IT professionals together in the following way: the vice president of individual insurance administration, who had left the IT division 17 years before, directly hired several IT people into his area over the following years. These people, in turn, hired others. The same process may have occurred with two other executives who left IT 12 and seven years ago, respectively. According to the interviewee, no single person was directly responsible, but several separate "streams" of

moves were set in motion by senior executives in the organization.

Now my boss, he was the executive in IT when I first started there and he brought me into the line. There's an example of when you get the right people in the line area, you're going to see more IT people. He brought in two others. (Interview E-7)

Therefore, rather than a formal transition program or specific champion, what emerges is an *informal process* by which people *pulled* their previous colleagues into their areas when positions became available. When the initial interview data were revisited, further support was found for this idea of an informal "pull effect."

I don't know how many of us there are, but . . . on our floor alone, my boss is ex-IT, my peer is an ex-IT . . . and the VP, he's also ex-IT. The senior VP is ex-IT. . . . So on our floor

there are six officers and four of them are formerly from IT. (Interview E-8)

Summary and Relationships to Literature

A comparison of these findings to the literature suggests that the organizational climate at TMG was very supportive, somehow minimizing those elements (status and practices) that might impede internal mobility of IT professionals out into the line. Table 2 summarizes this.

The overall conclusion from these findings was that the TMG organization, in general, respected IT professionals. A positive relationship between IT and the line organization had been created over the years, resulting in no perceived status difference between IT and the business units. Therefore, when job vacancies appeared, IT people were approached by senior line managers and asked to consider a transition out of IT. This was not done as part of a formal program, but

Table 2. Organizational Characteristics: Findings Summarized and Compared to Literature

Key Themes From Literature	Findings
Corporate Practices Support Internal Mobility (Katz and Allen 1997; Katz et al. 1991; Quinn and Rivoli 1991, Zeira 1974)	Supported: TMG exhibited flexible strategies to enable internal mobility out of IT and into business units.
Good Relationships Between IT and Business Units (Levitt and March, 1988)	Supported: Good relations between IT and business units reported in both interviews and the survey.
Status Differences Between IT and Business Units (Katz and Allen 1997; Katz et al. 1991; Zeira 1974)	Not Supported: Status differences between IT and business units were not reported.
Desirability of IT Skills/Knowledge (Brown 1995; Henderson 1990; Kappleman and McLean 1991; Reich 1993)	Mixed Support: Management and interviewees reported IT being important to business strategy; survey findings noted that IT skills were not "required" in managers at times of most moves but were desirable in some areas.
Formal Transfer Program or Champions Granrose and Portwood 1987; Quinn and Rivoli 1991; Stevens 1992)	Not Supported: No formal transition program. No specific champion identified but some "pull" by former IT professionals may have occurred.

happened more organically and incrementally, possibly driven by previous IT professionals who were now in line positions.

Characteristics Specific to the Individuals Who Transitioned From IT to Non-IT Jobs

In today's organizations, careers are being reconceptualized away from position-oriented job histories and toward a set of experiences and skills accumulated through changing roles and non-traditional paths (Applegate and Elam 1992; Forrest 1994; Miner and Robinson 1994; Zabusky and Barley 1996). This shift is paving the way for broadly based organizational learning and "boundaryless careers," where individuals move within and between organizations (Bird 1994; Miner and Robinson 1994). This trend and the flattening of organizations is requiring that more individuals, including IT professionals, view their careers as opportunities for experiences in many different areas rather than a progression up the traditional hierarchy.

A number of issues related to an individual's propensity to move out of IT emerged from the initial interviews and literature:

1. Career expectations and motivations
2. Affiliation with the IT profession
3. Dissatisfaction with the IT job
4. Preparation for a move out of IT

Career Expectations and Motivations

You always look at your career and where you're going to go next. And the line was an option, but it's not one that I would have said was foremost in my mind. (Interview E-7)

Research on career anchors of IT professionals indicated that "managerial, technical, lifestyle integration and autonomy" were the four most prevalent anchors found among 464 male and female IT professionals (Igbaria et al. 1991, 1997). The "management" career anchor was the most prevalent for both genders. However, because most respondents in this study at TMG were already at least junior managers within the IT organization before their move to the business units, this research did not help to predict locational preferences.

Another recent work on technicians' views of career success found that "love of work and search for challenge" were the basis of what constituted an "honorable career" (Zabusky and Barley 1996, p. 201). Their work also suggests that IT people will seek to stay within the IT community because their "sense of identity and self" is attached to a technical career.

Based on this literature, the expectation was that IT people's career plans would be to stay within the IT function, but that they would always be motivated by a need for new challenges. This expectation was supported by the data. Responses suggested that only a few people had anticipated a move outside of IT.

I always saw myself as a true blue techie and would be a lifetime IS'er without any doubt. But as I was taking the MBA program I was talking to my boss about when this was over I'd be looking for a change . . . I didn't even think that I was necessarily looking for a change to the line area, but I was looking for a change. I had been working in the same division, having the same boss, and working on the same systems. . . . So I graduated in October and moved to the line in November. (Interview E-8)

Of the survey respondents, 80% indicated that when they originally joined the IT department of TMG, the possibility of a non-IT position was not important (Appendix B, Q.7); 70% indicated that their expectation when they joined TMG was to remain in IT for their entire career (Appendix B, Q.8). When asked if the factor "I had wanted to be in a non-IT job for some time" was an important personal goal, over 60% of the respondents indicated no strong prior urge to move from IT (Appendix B, Q.9). Clearly, many ex-IT people had not harbored longstanding plans to move out of the department.

I hadn't considered moving to a non-IS job. A close friend suggested a job opportunity he felt would be good for me. (Survey E-38)

However, 40% had been thinking about it. Their comments on the survey revealed a need for change and new challenges. Unprompted comments from 16 of the 40 respondents expressed this sentiment. The following quotes are typical:

I needed a change. (Survey E-10; Survey E-27)

I need to be challenged and believe my actions make a difference. (Survey E-21)

I felt I needed a change and wanted a chance to be in the front line. I wanted to drive the business rather than support. (Survey E-13)

I had reached my potential in my current IT position. (Survey E-8)

I had been in IT for many years and was quite comfortable and competent in my job. When the [non-IT] job was offered to me, I viewed it as an opportunity to learn new skills and broaden my knowledge base. (Survey E-29)

The conclusion reached was that, although the career literature suggested IT people might opt to develop within the IT department and that this was the expectation when the respondents joined TMG, their need for new challenges and change lured them into the business areas.

Affiliation With the IT Profession

Over four decades ago, Gouldner (1957) noted that technical specialists are frequently found to be oriented toward their professional roles. This has been supported in more recent studies (Katz and Allen 1997; Zabusky and Barley 1996). However, there are two career options that technical personnel are known to pursue: "building" their careers along a specific career specialization (Gunz 1990) or seeking to develop within a specific firm (Hall 1987).

Given the supportive organizational context at TMG, it was not surprising to find a strong affiliation for the company. Individuals reflected this in their praise for the variety of career options at TMG and their own willingness to abandon the IT career ladder.

Part of being big means that there are different careers that one can follow within the organization. (Interview E-6)

I have a commitment to staying in something long enough to pay your dues. . . . The

only reason I've done so many things at TMG is because I've been here a long time. (Interview E-8)

The sense of affiliation with TMG and a desire to remain with the company emerged as important to those initially interviewed. The survey results also indicated a very strong desire to stay with TMG and a low level of concern about being primarily affiliated with the insurance industry rather than the IT profession (Appendix B: Q.10-13).

I was enjoying my role in IS, but wanted to get closer to the clients we were doing all this work for. I also decided that I enjoyed the environment at TMG and was planning on staying. (Survey E-11)

Research on job transfers suggests that fear about loss of skills might be an inhibitor, but at TMG individuals indicated a low level of concern about losing technical skills or moving out of a professional role. Although these comments may represent post hoc rationalization, no contradictions to this position were noticed in the qualitative comments. The conclusion was that their allegiance to TMG outweighed concerns about leaving the IT profession.

Dissatisfaction With the IT Job

Many career moves are the result of a haphazard process rather than careful planning and are often precipitated by negative events (Stevens 1992). Zeira (1974) suggested that in order for a job rotation or transfer to be successful, an individual should: "Feel a certain dissatisfaction with the present situation," "perceive its [the job rotation] immediate or expected personal rewards as being worth the effort," and feel "ready to move."

Based on the literature, it was expected that those who transferred out of IT were somewhat dissatisfied with their former jobs. This expectation was not supported by the data.

I still had opportunities in IT, and I enjoyed what I was doing. It was one of those "Whoa"—the whole world opened in another area. . . . I thought "Is the door going to open again sometime in the future or do I take the change now?" (Interview E-7)

Over 60% of those surveyed reported the factor "I didn't like my current job" to be unimportant and 65% reported that the factor "IT wasn't a good place for me to work" was unimportant (Appendix B, Q.14, 15).

I was not even thinking about leaving IT. I was asked to provide some technical input on a project . . . that really excited me. As part of this project, a job was posted. I applied and got the job. This wasn't an escape from IT. (Survey E-22)

This finding was contrary to that expected in the older literature, but perhaps consistent with the more recent view of careers as collections of experiences and knowledge.

Preparation for a Move Out of IT

Bird (1994), Zabusky and Barley (1996), and others suggest that individuals are coming to view their careers in terms of lateral moves and opportunities for new knowledge—*careers of achievement* rather than *careers of advancement* (Zabusky and Barley 1996). In addition to passive acquisition of knowledge, this implies conscious planning on the part of individuals in preparation for future moves. One interview comment explicitly supported this view:

One of my strategies from a career development perspective, is to make myself qualified to operate effectively in a number of different environments. You know you hear these days that generalists tend to be rather effective. (Interview E-7)

Based on this literature, survey respondents were asked if they had deliberately prepared for a non-IT job, perhaps by taking insurance courses, or taking non-IT assignments. With the exception of two who acquired an MBA degree, few reported doing so. When asked if they had "gained a lot of insurance knowledge from courses," 70% reported that this was not an influencing factor (Appendix B, Q.16). As a group, they had not obtained much prior experience in non-IT jobs (78% reported this factor was unimportant, Appendix B, Q.17). They did report a moderate degree of people management skills, but the conclusion from survey comments and interviews was that this experience came about naturally through their IT project management posi-

tions rather than from any intention to move out of IT.

The move was a natural progression, in my comfort zone. (Survey E-35)

Summary and Relationships to Literature

As noted below in Table 3, most of the literature was contradicted. One explanation is found in Zabusky and Barley's (1996) research. They suggest that technicians' tend to have a stronger affiliation to their professions than to their companies because of the "respect" they receive as experts able to deal with difficult, technical situations. At TMG, IT professionals seemed to be respected for a wider variety of skills (as noted by the lack of status differences), and this may have resulted in a very strong company affiliation and a willingness to forfeit their technical affiliation.

These findings suggest that there was little deliberate attempt on the part of those who transferred out of IT to ready themselves for non-IT positions, even if they expressed an openness to a future move out of the technical realm. Many credited their experiences working with the business units as their only prior preparation. This may be what is unique about these individuals: business knowledge, business relationships, and a strong sense of affiliation for the company.

Characteristics Specific to the First Non-IT Job

In addition to broad organizational characteristics, the actual job itself may present specific issues that affect the decision to move out of IT and into the business units. The first non-IT jobs were in a wide variety of departments, including human resources, marketing, finance, pensions, individual administration, and group administration. For the most part, these jobs were not technical IT jobs located in the line, although they often involved liaison responsibilities with the IT division. Only 20% reported having significant technology management or systems analysis responsibilities in their first non-IT job. Of respondents, 40% had titles at the officer level, which is director or higher.

Three issues specific to the first non-IT job emerged from the literature and initial interviews:

Table 3. Characteristics Specific to the Individuals Who Transitioned From IT to Non-IT Jobs: Findings Summarized and Compared to Literature

Key Themes From Literature	Findings
Career Expectations and Motivations (Igbaria et al. 1991, 1997; Zabusky and Barley 1996)	Mixed Support: Although former IT professionals had not expected to leave IT when joining TMG, they were strongly influenced by a need for change and new challenges.
Affiliation With the IT Profession (Gouldner 1957; Gunz 1990; Hall 1987; Katz and Allen 1997; Quinn and Rivoli 1991; Zabusky and Barley 1996)	Not Supported: Former IT professionals reported a stronger affiliation to TMG than to the IT profession.
Dissatisfaction With the IT Job (Stevens 1992; Zeira 1974)	Not Supported: Former IT professionals did not report dissatisfaction.
Preparation for a Move Out of IT (Bird 1994; Zabusky and Barley 1996)	Not Supported: Most IT professionals reported minimal or no overt preparation for a move out of IT. Some suggested preparation was implicit in their exposure to business unit systems and employees.

1. Tangible benefits provided by first non-IT job
2. Existing IT skills used in first non-IT job
3. Perceived risks of the first non-IT job

Tangible Benefits Provided by First Non-IT Job

Beyond individual motivation and career strategies, Zeira (1974) suggested that in order for a job rotation or transfer to be successful, an individual should perceive the job rotation as providing "immediate or expected personal rewards worth the effort." The expectation was that the first non-IT jobs would have offered tangible rewards that provided some incentive for the move. However, those initially interviewed did not report promotions or salary incentives.

I look back occasionally and say to myself that "I could probably be making more money if I had stayed in IT," . . . but that wasn't the motivating factor. . . . It was to get into the business unit, to have the change and to have the ability to move into other areas of the company too. (Interview E-6)

Survey results were consistent (Appendix B, Q.18-19). As one person noted, "IT is paid better

for equal jobs than line areas" (Survey E-40). In many instances, those who moved had their salary frozen during their first years in the business unit. It was the intangible benefits provided by the first non-IT job that drew people into the business unit (Appendix B, Q.20-21).

I really wanted to get out and deal with the products that we were selling, the services that we were offering our clients. . . . I wanted to feel more like I was on the front line. . . . And none of that came out of a dislike for what I was doing . . . but I really wanted that different view of the business. (Interview E-3)

Mostly I wanted the opportunity to work for the senior person who offered me one of my jobs. (Survey E-11)

As noted by the above interview quotes and supported by the survey results, former IT professionals did expect intangible benefits from the move—a more interesting job and greater opportunities for career growth.

Existing IT Skills Used in First Non-IT Job

More recent literature has proposed that firms are looking for generalists with skills that can be

applied in multiple areas (Bird 1994; Minor and Robinson 1994; Osterman 1996). When former IT professionals discussed the skills and attributes for which their new line areas were looking, they mentioned the confidence that came from knowing they could continue to apply skills they already possessed. Based on these ideas, we explored the extent to which former IT professionals felt the broader skills they had acquired while in IT would help them succeed in their unit jobs.

With my systems background, I wouldn't be saying, "Can you do this? Can you do that?" I've found tons of situations where people had given up asking. If you didn't have a system person there, they didn't know what was hard and what was easy. I guess my knowledge of what was easy and what was hard helped them. (Interview E-8)

Survey findings also support expectations that the first non-IT job would draw upon existing competencies. When asked to rate the factors that might have given them the confidence to take the first non-IT job, survey respondents reported that knowing the area and knowing people in the area was somewhat important to them. The strongest factor, however, was the expectation that their IT skills would be useful to them in the new position (Appendix B, Q.22-24). Qualitative comments made by the respondents supported the experiences of those interviewed.

I wanted a change and my new position took advantage of my IT skills. (Survey E-24)

The move to the business area was really an extension of the role I had played in IT. I felt I could help the company more by making the decisions rather than recommending them. (Survey E-30)

Perceived Risks of the First Non-IT Job

Change is not without risk. Drawing upon research on the entry of senior level managers from outside the organization, Burke and McKen (1994) point out that while outside expertise can be acquired and brought into an organization or unit, the failure of managers appointed from outside is not uncommon. Despite a supportive organizational culture at TMG and prior working relationships with peo-

ple in the business units, the vast majority of former IT professionals were at the management level in IT and the move out of IT may have presented career risks.

During interviews, a recent transferee from IT shared her story of negotiating special resources and a guarantee to return to IT after a specified time period in the line.

I had always seen myself as a true blue, lifetime IT person. I was going to retire there and I did, in fact, have my boss write me a promise that I could come back. I wanted it in writing because I didn't want anyone to think that they (IT) were pushing me out the door or anything like that. . . . I was also able to get some support from IT that I would not normally have gotten. (Interview E-8)

The above story led us to believe that others may have negotiated special deals with IT as they left the department. However, the balance of the interviews and the surveys suggested that this manager was among a small minority able to reduce the risk of leaving the IT profession. It may have been a deliberate strategy on the part of the vice president of IT, or only implied, but the respondents generally felt that they could not return to IT when they took their first non-IT job. Only 23% of survey respondents indicated that they had an agreement allowing them to return to IT (Appendix B, Q.25).

There was an unwritten rule that you never come back to IT. (Survey E-21)

I didn't perceive the possibility of returning to IT. I had not seen this happen before. (Survey E-20)

Only the manager mentioned above negotiated special IT assistance to help generate needed changes in her new business unit (Appendix B, Q.26). Most of the interviewees disagreed very strongly with any suggestion that they were able to reduce the risk of moving out of IT and into the business units.

I was inexperienced in managing a large group of people and in handling "product" questions from staff and agents. (Survey E-27)

Since I believed I could not move back to IT, this was a move away from my proven tech-

nology skills. It was also a move into a business area in which I had no background or demonstrated aptitude. (Survey E-18)

However, when asked to rate, in hindsight, the overall risk that they had taken in moving to a non-IT job, two-thirds reported either no perceived risk or moderately low risk. Only one third recalled that the risk had seemed moderately high (Appendix B, Q.27).

I was too excited by the challenge to consider the risk. (Survey E-30)

I wasn't really concerned because I knew many former IT people who had done well and enjoyed working outside IT. I knew technical skills were in demand in most business areas. (Survey E-16)

Summary and Comparison to Literature

As noted above, there were mixed findings compared to the literature (Table 4). What emerges is a perception on the part of individuals that the first job offered a good "fit" with their personal goals. The conclusion from these findings was that IT professionals balanced the intangible benefits against the normal risks of a career change but did not necessarily perceive greater risks associated with a move out of the IT area and into a business unit. Those with greater concerns

about their chance of success did attempt to negotiate a return to IT even though they realized that such a return was unlikely. As will be noted in the next section, former IT professionals drew upon others to assist them with their transition to the new unit.

Transition Factors

It was expected that movement into the business unit would require some adjustment or transition period. Two specific issues emerged in the literature and from the interviews.

1. Adjustment periods and initial loss of productivity
2. Supportive role of mentors and friends during transition

Adjustment Periods and Initial Loss of Productivity

Adjustment is an expected part of any new job and is becoming an accepted challenge of new career paths. This can include the time required to acquire new skills, establish new relationships, or adapt to the politics of the new environment (Burke and McKeen 1994; Ferratt and Short 1990; Osterman 1996; Zeira 1974).

Some individuals at TMG reported a difficult time making the transition.

Table 4. Characteristics Specific to the First Non-IT Job: Findings Summarized and Compared to Literature

Key Themes From Literature	Findings
Tangible Benefits Provided by the First Non-IT Job (Zeira 1974)	Not Supported: Few tangible rewards reported, and many had salaries frozen for a year or more. Intangible rewards of new challenges and opportunities were reported.
Existing IT Skills Used in First Non-IT Job (Bird 1994; Miner and Robinson 1994; Osterman 1996)	Supported: Former IT professionals believed that their IT skills would help them be successful in the new job.
Perceived Risks of the First Non-IT Job (Burke and McKeen 1994)	Mixed Support: Former IT professionals did not anticipate being able to return to the IT area yet were not overly concerned about taking the risk; few had explicit risk management strategies.

It is a different world. There's no question that it is a different world. It can be very hard on you, being on the phone with an irate client or an irate agent. You never get any of that in IT. (Interview E-8)

When asked to estimate "the time it took you to function well in this first non-IT job," the survey respondents' answers averaged 6.6 months and varied from three to 18 months. When asked to explain this time frame, they described their learning process as follows:

Decision making was something I hadn't done before. In IT, I presented choices. In the line, I had to decide. (Survey E-32)

I functioned well as a facilitator and people manager almost immediately, but it took me 12 to 18 months before I understood the business of my new area sufficiently to contribute to decisions. (Survey E-18)

Managing the systems side was easy. Learning how to budget and run a business took a little while. I think I was functioning okay after three months, but I'm still learning the other side today. (Survey E-30)

From this data the conclusion was made that transitions were not totally painless and that acquiring the knowledge for full participation in the business units had to be gained over time.

Supportive Role of Mentors and Friends During Transition

Mentors have long been known to play a role in career success. Zeira (1974) suggested that individuals benefit from support in order to make a successful transition to the new department and that the transferred employee's superior be available for help and advice.

Burke and McKeen (1994) concluded that beyond mentors, organizations may need to deliberately cultivate a more formalized "transition program" for new managers in order to avoid resentment, communications difficulties, and lack of business understanding.

At TMG, no formal transition support was in place, so informal support was primarily what individuals relied upon. Several of those interviewed indicated that they had people they

could talk to about the job opportunity and about problems encountered after they moved. One interviewee reflected on a particular subordinate who was influential to his learning about the history of his new area.

I tried as much as possible to act like a sponge when I was around him, to try to learn what the history was like, what had gone on. (Interview E-6)

The survey results indicate that 75% of respondents agreed that they "had a mentor or sponsor who was helpful in their adjustment to the new job" (Appendix B, Q.28).

The study investigated three other types of relationships that could have helped the IT people make the transition to their new departments (Appendix B, Q.29-31). Based on the mean scores, the relationships with people in other line departments may have been more important during the actual transition time than relationships with IT people.

I already knew some of the people in the area I was going to. . . . They had been my business partners when I was in IT. I was also very familiar with the system that was used in the business unit since I had been the IT systems project leader for that system. (Survey E-29)

While not a decisive factor in *accepting* a particular job, the conclusion was that existing relationships were important *during the transition time*. One of those interviewed spoke very highly of the "edge" that knowing people provided for him.

The big edge I had . . . is that I knew the people that I would be working with. I knew the type of environment that I was getting myself into and I felt comfortable getting into it because I worked well with those people. I think that was a definite factor. (Interview E-7)

Summary and Comparison to Literature

Overall, there was consistent support with the literature that both mentors and friends or associates in the business units contributed to making

Table 5. Characteristics Specific to the Transition to the First Non-IT Job: Findings Summarized and Compared to Literature

Key Themes From Literature	Findings
Initial Loss of Productivity and Adjustment Period (Zeira 1974)	Supported: Despite a good match for their skills, an adjustment period was reported.
Supportive Role of Mentors and Friends During Transition (Burke & McKeen 1994; Zeira 1974)	Supported: No formal transition program in place; however, mentors and friends in the new area and in other business areas helped during the transition stage.

Table 6. Career Intentions

Career Strategy (n, out of 40 respondents)	At the Time of the Move From IT	At Time of Survey
Return to IT within TMG	2	0
Stay in a non-IT job within TMG	20	37
No preference about jobs within TMG	9	0
Other (leave company, leave industry)	9	3

the transition easier. Those at TMG seemed to have confidence that this type of informal social network would assist them during the transition period (see Table 5).

Internal Mobility for IT Professionals: The Participants' Report

I moved into that area and the intent was that I would be there for 18 months to two years and then I would go back to IT. While I was there, however, I started looking for other jobs within the line area. My boss's boss came to me one day and said, "Would you like to go to this other area?" And that is where I am today. (Interview E-3)

Survey respondents were asked to recall their career strategy before they moved out of IT and also what their strategy was at the time they filled out the survey. As shown in Table 6, 93% expect to stay in a non-IT position within TMG. Only 50% reported being committed to this strategy before moving out of IT.

The conclusion was that former IT professionals were generally content with their career transition into business unit positions. When interviewees were asked if they would make the same career decision again, *all* replied in the affirmative. Both interviewees and survey respondents were asked if they would recommend "seeding the line" as a strategy for other companies. The most frequently voiced recommendation was simply worded: "Do it!"

Implications for Practice and Research

This case study of former IT professionals at TMG increases our understanding of the organizational, individual, job, and transition characteristics that were viewed as important to their situation. Although this data was taken from a single organization and over-generalizing from a limited sample is dangerous, several important lessons have been drawn from the findings. These

lessons are grouped based on their relevance to different groups in organizations: IT professionals who might wish to move into line positions, IT management wishing to develop their people, line management wishing to attract IT professionals, and corporate human resources policy makers. The final section offers ideas for further research.

Implications for IT Professionals

People who left the IT area at TMG report that jobs in the business units can provide a satisfying career alternative. There are two main lessons for IT professionals with career plans that include movement into non-IT positions. First, be proactive in investing in your personal development. If there is little chance to learn business skills such as budgeting and planning, then seek them through additional education. Although there was little deliberate preparation, many of the TMG employees who made the move out of IT felt that they had developed a good understanding of the insurance business before they moved. Others felt that the friendships and knowledge acquired in earlier assignments were helpful in easing their adjustment period when they moved into the business units. The recommendation from this study is that you make the most of opportunities to establish good relationships and friendships with the line.

Second, it may be beneficial for you to investigate how welcome your skills are outside of IT. Many of the former IT professionals at TMG commented that they had people to talk to or to serve as mentors; some planted the seed of their interest in a business unit job long before the first non-IT job was offered. Having a business advisor may provide you with insights into potential job opportunities, as well as providing a picture of the "business" that you may not get from your colleagues in the IT department. Making these contacts would also make the line aware of your intentions and help you develop a better understanding of where your skills and interests fit best.

Implications for IT Management

We believe that enabling the movement of IT people into line positions is a worthwhile endeavour, not only for the individual and the

company, but also for the IT department. In the long run, having experienced IT "champions" in the line can strengthen alignment between IT and business goals and can improve the implementation success of IT projects.

This case study suggests three questions that IT management should ask if they are interested in supporting alternative career goals of their employees. First, are you building good relationships with the line? Second, are your people getting enough exposure to the business units? Third, are your people developing the skills and knowledge that would enable them to be successful in business departments?

Relationships between IT and the line can create strong impressions about the status, qualifications, and interests of IT professionals. The structure of TMG's IT department with its client-centered development teams meant many of the IT professionals worked closely and for long periods of time with those managers who might later offer jobs. This helped them gain extensive knowledge of the people, processes, and systems of the business units. TMG created a very professional IT department, ensuring their managers had good people, project, and management skills, skills that were easily transferable to line areas. If your goals include seeding the line with IT professionals, the answers to the above three questions will help assess your ability to help IT employees succeed in the line.

Another suggestion from the TMG case study is to plant the idea of a move outside of IT during the initial hiring and later career development interviews, thus signaling your willingness to support alternative career strategies.

Also, by not providing a fallback strategy to an IT professional who expresses interest in a move out of IT, you may increase the chances that the move will be permanent and successful.

In summary, the strategies for "seeding the line" are various—some centered on the institution and some on the individuals in IT.

Implications for Line Management

Although the literature suggests that technical employees are likely to remain within technical departments throughout their careers, many line

executives may be surprised by the willingness of IT professionals to move into business jobs. The people at TMG who moved out of IT often used their IT skills, but they did not simply move to IT jobs in the line. They also did not move for an increase in salary. They accepted challenging jobs that had the potential to extend their career opportunities. As technology diffuses throughout organizations, there are new business challenges that many IT professionals may find very interesting.

A second lesson for line management is the necessity of supporting an internal hire through the transition period. TMG did not have formal support programs to assist IT professionals during the adjustment period; however, they had informal networks built from many years of good relationships, senior people willing to mentor new employees, and an apparent willingness to tolerate lower performance during the adjustment period. By treating the new hire from IT as you would someone from outside the firm, an organization can increase their chance of making a contribution.

Implications for Corporate Policy Makers

Contrary to much of the literature, a formal job transfer program was not necessary at TMG to facilitate career transitions out of IT. TMG was fortunate in having a history of good relationships, flexible human resources policies that enabled internal mobility, and a business environment that respected the IT professional.

The final implication that we take from TMG is that flexible compensation and job design practices may be crucial if companies are to be successful in managing shifts from technical to business oriented career ladders. While the literature suggests salary and status differences can be inhibitors to successful transitions out of technical areas, business managers at TMG had the support of the corporate policy makers to negotiate salary freezes or job redesign so that IT professionals could make the move without penalty.

Implications for Research: Questions That Remain

Several interesting questions remain. An important issue outside the scope of this paper is relat-

ed to broader organizational outcomes associated with seeding the line. What tangible or intangible benefits does a firm gain beyond the IT career and redeployment opportunities? What are the positive and negative outcomes of having IT professionals taking non-IT jobs? How do the IT and business unit employees perceive "seeding the line"?

In this research, we looked for evidence of a strong line champion or formal program to support the moves. Instead, we found evidence that a "pull strategy" might have occurred—a more natural and gradual phenomenon. Additional cases would allow researchers to explore this possibility. Additional cases would also provide a better understanding of the importance of contextual factors that encouraged loyalty to the company.

For those areas in which our findings failed to confirm prior research (e.g., dissatisfaction with current position, tangible benefits, affiliation with the IT profession), we encourage further research. While TMG's organizational environment may provide a partial explanation why these factors were not present, other explanations may also be possible.

It was not possible to identify a subset of conditions under which the moves would have occurred. Therefore, larger factor studies are required to reveal the necessary and sufficient factors for successful transitions out of IT and into the business units.

This study focused on permanent transfers out of IT and individuals who reported considerable satisfaction with their new career paths. It would be beneficial to study temporary rotations and individuals unable to make the transition out of IT. This might include former IT professionals who moved to the business units and then left the firm. Exit interviews or individual case studies could provide additional information for those firms seeking to develop a formal transfer program for IT professionals seeking business careers.

It is interesting to note that, during this research, we asked many people at TMG about the possibility of moving from the business units into IT. Most responses indicated that this was very difficult to facilitate. So, even in a company that highly values internal mobility, moving into IT

was considered problematic. It would be very interesting to find a company that had completed such moves and explore the factors enabling this phenomenon.

This study provides a starting point for large-sample, factor-based research into the organizational and individual characteristics required to successfully transition IT professionals into non-IT jobs in the business units. The summary of findings presented in Figure 2 suggests some testable propositions. If large scale research is done, we recommend asking more direct questions (e.g., "Did you receive a raise in pay your first non-IT job?") in addition to asking for importance or agreement with factors of interest.

TMG is one example of career transitions out of IT and provides data to begin the process of theory building in this important area of research. Further research will be of practical use to both organizations and individuals as they seek to better manage IT career strategies.

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References

Applegate, L. M., and Elam, J. J. "New Information Systems Leaders: A Changing Role in a Changing World," *MIS Quarterly*, December 1992, pp. 469-491.

Bernard, H. R. *Cultural Anthropology*, Sage, Newbury Park, CA, 1988.

Bird, A. "Careers as Repositories of Knowledge: A New Perspective on Boundaryless Careers," *Journal of Organizational Behaviour* (15:4), July 1994, pp. 325-344.

Brown, M. L. (1995) *A Theory of Information Technology Cultures: Magic Dragons, Wizards and Archetypal Patterns*, Ph.D. dissertation, York University, Toronto, Canada, 1995.

Burke, R., and McKeen, C. A. "Facilitating the New Manager Transition: Part II," *Executive Development* (7:4) 1994, pp. 10-12.

Cash, J. L., McFarlan, F., and McKenney, J. L. *Corporate Information Systems Management*, Richard D. Irwin, Homewood, IL, 1988.

Ferratt, T. W., and Short, L. E. "Patterns of Motivation: Beyond Differences Between IS and Non-IS People," *MIS Quarterly*, March 1990, pp. 3-6.

Fish, A., and Wood, J. "A Challenge to Career Management Practice," *The International Journal of Career Management* (5:2), 1993, pp. 3-10.

Forrest, D. "Winds of Change? More Like a Hurricane in IT," *Computing Canada* (20:9), April 27, 1994, pp. 22.

Glaser, B. G., and Strauss, A. L. *The Discovery of Grounded Theory: Strategies for Qualitative Research*, De Gruyter, New York, 1967.

Gouldner, A. W. "Cosmopolitans and Locals—Towards an Analysis of Latent Social Roles," *Administrative Science Quarterly* (2), 1957, pp. 281-306.

Granrose, C. S., and Portwood, J. D. "Matching Individual Career Plans and Organizational Career Management," *Academy of Management Journal* (30:4), 1987, pp. 699-720.

Gunz, H. "The Dual Meaning of Managerial Careers: Organizational and Individual Levels of Analysis," *Organizational Studies* (26:3), 1990, pp. 225-250.

Hall, D. T. "Careers and Socialization," *Journal of Management* (123:2), 1987, pp. 301-321.

Henderson, J. "Plugging Into Strategic Partnerships: The Critical IS Connection," *Sloan Management Review* (31:3), 1990, pp. 7-18.

Hendry, J., "Barriers to Excellence and the Politics of Innovation," *Journal of General Management* (15:2), Winter, 1989, pp. 20-31.

Igbaria, M., Greenhaus, J.H., and Parasuraman, S. "Career Orientations of MIS Employees: An Empirical Analysis," *MIS Quarterly* (15), 1991, pp. 151-169.

Igbaria, M., Parasuraman, S., and Greenhaus, J. H. "Status Report on Women and Men in the IT Workplace," *Information Systems Management*, Summer 1997, pp. 44-53.

Jackson, W. *Research Methods: Rules for Survey Design and Analysis*, Prentice Hall, Englewood Cliffs, NJ, 1988.

- Kalvaitis, R. "Pushing the Limits of Change," *The Business Quarterly* (58:1), 1993, pp. 103-106.
- Kaplin, B., and Duchon, D. "Combining Qualitative and Quantitative Methods in Information Systems Research: A Case Study," *MIS Quarterly* (12:4), 1988, pp. 571-586.
- Kapplerman, L. A., and McLean, E. R. "The Respective Roles of User Participation and User Involvement in Information System Implementation Success," *Proceedings of the 1991 International Conference on Information Systems*, J. I. DeGross, I. Benbasat, and C. M. Beath (eds), New York, December 16-18, 1991, pp. 339-349.
- Katz, R., and Allen, T. J. "Managing Dual Career Ladder Systems in RD&E Settings," in *The Human Side of Managing Technological Innovation*, R. Katz (ed.), Oxford University Press, New York, 1997, pp. 472-486.
- Katz, R., Tushman, M. L., and Allen, T. J. *Managing the Dual Career Ladder: A Longitudinal Study*, JAI Press, Greenwich, CT, 1991.
- Keen, P. W. *Shaping the Future: Business Design through Information Technology*, Harvard Business School Press, Boston, 1991.
- Lederer, A. L., and Mendelow, A. L. "Information Systems Planning: Top Management Takes Control," *Business Horizons* (31:3), 1988, pp. 73-78.
- Levitt, B., and March, J. G. "Organizational Learning," *Annual Review of Sociology* (14), 1988, pp. 319-340.
- Miles, M. B., and Huberman, A. M. *Qualitative Data Analysis: An Expanded Source Book*, Sage, Newbury Park, CA, 1994.
- Miner, A. S. and Robinson, D. R. "Organizational and Populations Level Learning as Engines for Career Transitions," *Journal of Organizational Behaviour*, (15:4), 1994, pp. 345-364.
- Nath, R. "Aligning MIS with the Business Goals," *Information & Management* (16), 1989, pp. 71-79.
- Osterman, P. *Broken Ladders: Managerial Careers in the New Economy*, Oxford University Press, New York, 1996.
- Quinn, D. P., and Rivoli, R. "The Effects of American- and Japanese-Style Employment and Compensation Practices on Innovation," *Organization Science* (2:4), November, 1991, pp. 323-341.
- Reich, B. H. "Investigating the Linkage between Business Objectives and Information Technology Objectives: A Multiple Case Study in the Insurance Industry," Ph.D. dissertation, University of British Columbia, Vancouver, Canada, 1993.
- Sharratt, J., and McMurdo, A. "Managing the Information Explosion," *Journal of Information Resource Management* (3:3), 1992, pp. 5-64.
- Stevens, P. "Career Planning for the Individual," *The International Journal of Career Management* (4:1), 1992, pp. 30-32.
- Underwood, D. "Expert Systems at Mutual Life: A Three-Pronged Approach," *Journal of Systems Management* (43:1), 1992, pp. 13-16.
- von Simson, E. M. "The Centrally Decentralized IS Organization," *Harvard Business Review*, July-August 1990, pp. 158-162.
- Zabusky, S. E., and Barley, S. R. "Redefining Success: Ethnographic Observations on the Careers of Technicians," in *Broken Ladders*, P. Osterman (ed.), Oxford, New York, 1996, pp. 185-214.
- Zeira, Y. "Job Rotation for Management Development," *Personnel*, July-August, 1974, pp. 25-35.
- Yin, R. K. *Case Study Research: Design and Methods*, Sage, Beverly Hills, CA, 1984.

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APPENDIX A

Interview Guide

(**Note:** The following questions were used to guide interviews at TMG. Depending on the interviewees' responses, questions may have been worded differently or additional questions asked to elicit deeper information. Interviews took between one and two hours.)

Job History and Education

1. Please tell us about your educational background and history prior to joining TMG?
2. What was your first job and career goal when you first came to TMG?
3. What was your history in IT at TMG, including the job prior to your move?
4. Tell us about your history in non-IT jobs? Have you had any promotions or moves since your first non-IT job at TMG?

Moving Out of IT

5. What were your reasons for moving out of IT and into a non-IT position? What alternatives do you recall considering?
6. What were the incentives for a move to a non-IT position? What were the risks or disincentives?
7. What concerns do you recall having about the move to a non-IT position?

Transition Into the Non-IT Job

8. What skills or attributes eased the transition for you? What made it more difficult?
9. What training or preparation did you have for a non-IT job? What training or preparation do you feel you needed?
10. How long did it take you to learn the new job well? What helped you adjust?

Organizational Characteristics

11. How would you describe the relationship between IT and the line at the time of your move out of IT? Has the situation changed since you moved?
12. How do you feel about the program to move IT people into non-IT roles? Was it successful?

Wrap-Up

13. How do you feel about your move now? Would you do it again? Is this something you would recommend to other IT professionals or other firms?

Additional questions were asked related to specific IT practices and benefits of having IT professionals in the business units. These questions are part of an expanded study of knowledge transfer and results are not reported here.

APPENDIX B

Selected Survey Questions and Responses

Note: Questions have been renumbered. A copy of the full survey is available from the authors. Basic demographic information was also collected, including past jobs and date of move out of IT. This information is reported under methods.

Item	Question:	1	2	3	4	5	6	Mean	Std. Dev
Q.1	Using a 6 pt scale where 1 = strongly disagree, 6 = strongly agree "How much do you agree or disagree with the following statement?" "IT and Business Areas had a very healthy working relationship."	2	2	5	4	15	11	4.6	1.4
Item	Question:	1	2	3	4	5	6	Mean	Std. Dev.
Q.2	Using a 6 pt scale where 1 = very unimportant, 6 = very important "How important was each of the following factors in your decision to take the first non-IT job?" "Non-IT jobs have higher status than IT jobs, in general"	16	7	12	4	0	0	2.1	1.1
Q.3	"IT people were not highly regarded"	28	6	3	1	1	0	1.5	0.9
Item	Question:	1	2	3	4	5	6	Mean	Std. Dev
Q.4	Using a 6 pt scale where 1 = strongly disagree, 6 = strongly agree "How much do you agree or disagree with the following statement?" "Line managers recognized IT as a core skill for a management job"	1	4	7	16	7	4	3.6	1.3
Q.5	"There were many IT champions in line management"	0	8	3	10	12	7	4.2	1.4
Item	Question:	1	2	3	4	5	6	Mean	Std. Dev.
Q.6	Using a 6 pt scale where 1 = strongly disagree, 6 = strongly agree "How much do you agree or disagree with the following statement?" "Senior management in IT had a plan to move IT managers into non-IT roles"	9	12	7	5	5	1	2.7	1.4
Q.7	"Were you attracted by the possibility of an eventual move into a non-IT position?"	Yes 5	No 32	?	3				
Q.8	"Was your career strategy at the time you accepted your first job with TMG"	IT 28	Line 8	?	4				

APPENDIX B. CONTINUED

Item	Question: Using a 6 pt scale where 1 = very unimportant, 6 = very important <i>"How important was each of the following factors in your decision to take the first non-IT job?"</i>	1	2	3	4	5	6	Mean	Std. Dev.
Q. 9	"I had wanted to be in a non-IT job for some time"	12	6	5	5	8	3	3.0	1.8
Item	Question: Using a 6 pt scale where 1 = very unimportant, 6 = very important <i>"How important was each of the following factors in your decision to take the first non-IT job?"</i>	1	2	3	4	5	6	Mean	Std. Dev.
Q. 10	"I wanted to stay with The Mutual Group and moving out of IT offered new opportunities"	2	0	2	5	12	17	5.0	1.3
Item	Question: Using a 6 pt scale where 1 = strongly disagree, 6 = strongly agree <i>"How much do you agree or disagree with the following statement?"</i>	1	2	3	4	5	6	Mean	Std. Dev.
Q. 11	"I wasn't sure if I wanted to be thought of as part of the insurance industry rather than the IT profession"	19	8	5	4	3	0	2.1	1.3
Q. 12	"I was concerned that I would lose my specialist knowledge"	14	7	5	5	5	3	2.7	1.7
Q. 13	"I was worried about moving from a 'professional' role to an 'administrative' or 'sales' role"	15	10	5	7	2	0	2.3	1.3
Item	Question: Using a 6 pt scale where 1 = very unimportant, 6 = very important <i>"How important was each of the following factors in your decision to take the first non-IT job?"</i>	1	2	3	4	5	6	Mean	Std. Dev.
Q. 14	"I didn't like my current job"	15	7	3	12	0	2	2.5	1.5
Q. 15	"IT wasn't a good place for me to work"	14	5	7	3	7	3	2.8	1.8

APPENDIX B. CONTINUED

Item	Question: Using a 6 pt scale where 1 = very unimportant, 6 = very important "How important was each of the following factors in giving you the confidence to take the first non-IT job?"	1	2	3	4	5	6	Mean	Std. Dev
Q. 16	"I gained a lot of insurance knowledge from courses"	14	9	5	8	3	0	2.4	1.4
Q. 17	"I had previously held non-IT jobs"	24	4	4	2	3	2	2	1.6
Item	Question: Using a 6 pt scale where 1 = very unimportant, 6 = very important "How important was each of the following factors in your decision to take the first non-IT job?"	1	2	3	4	5	6	Mean	Std. Dev.
Q. 18	"The non-IT job had higher pay than my current IT job"	23	1	7	4	2	2	2.2	1.6
Q. 19	"The non-IT job was a higher level than my current IT job"	23	1	7	2	4	2	2.2	1.7
Q. 20	"The non-IT job looked more interesting than my current IT job"	4	0	4	4	17	10	4.5	1.5
Q. 21	"I thought my career opportunities would be greater in non-IT roles"	2	2	4	4	16	11	4.6	1.4
Item	Question: Using a 6 pt scale where 1 = very unimportant, 6 = very important "How important was each of the following factors in your decision to take the first non-IT job?"	1	2	3	4	5	6	Mean	Std. Dev
Q. 22	"I knew about the area I was going to be working in"	7	5	3	7	7	9	3.8	1.9
Q. 23	"I knew several people from the new area"	6	10	4	6	7	5	3.3	1.7
Q. 24	"My IT skills were going to be very useful in the new job"	1	2	3	9	10	14	4.7	1.3
Item	Question: At the time you accepted the first non-IT job at TMG: (True/False)	T	F						
Q. 25	"I had a guarantee that I could return to IT if the new job didn't work out"	9	31						
Q. 26	"IT had promised me some special IT support in my new job"	1	39						

APPENDIX B. CONTINUED

Item	Question: (High, Moderately High, Moderately Low, Low, No Risk)	H	M-H	M-L	L	No	Mean	Std. Dev.
Q. 27	"How risky did you perceive a move out of IT was for your career?"	11	13	10	7	9		
Item	Question: Using a 6 pt scale where 1 = strongly disagree, 6 = strongly agree "How much do you agree or disagree with the following statement?"	1	2	3	4	5	6	
Q. 28	"I had a mentor/sponsor who was helpful in my adjustment in the new job"	4	3	5	3	16	9	4.3 1.6
Q. 29	"Existing friendships with IT helped me to adapt to my new role"	4	5	10	10	8	3	3.6 1.4
Q. 30	"Existing friendships in the department I moved into helped me to adapt"	5	7	4	2	13	9	4.0 1.8
Q. 31	"Existing friendships in other business areas helped me to adapt"	3	4	5	7	14	7	4.2 1.5
Open Ended Survey Questions:								
32. Which two events were most influential in your move to a non-IT job? Why were these two events important?								
33. Which two factors were most important to your decision to take the first non-IT job? Why were these two factors important?								
34. Which two factors were most important in giving you the confidence to take the first non-IT job? Why were these two factors important?								
35. Please elaborate on some of the risks you were concerned about?								
36. Were any of your concerns well founded? Please explain.								
37. How long do you feel it took you to function well in this first non-IT job? Please explain.								
38. If a company similar to TMG were considering moving IT people into non-IT jobs, what would your advice be and why?								