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TABLE OF CONTENTS**PAPERS**

Hindsight Bias and Auditors' Going-Concern Judgments: The Effects of Experience Kim L. Anderson	1
A Comparison of Taiwan and American Personal Values Among Small Business Operators Stephan S. Batory & Craig Cassidy	15
The Importance of Remembering: History and Global Marketing Amardeep Assar	17
The Effect of Different Instructors on the Determinants of Student Performance in the First College-Level Accounting Course Ronald Woan & Donald Robbins	19
Recruiting Business Majors: Have Company Hiring Practices Changed? Karen L. Stewart & Carole J. Anderson	25
An Empirical Analysis of Economic Value added as a Proxy for Market Value Added Jonathan K. Kramer & George Pushner	33
Current Implementation Issues of Pennsylvania's Quality Improvement Act Behnam Nakhai Ellis	41
Mass Privatization of State Owned Assets in Poland Through the National Investment Funds: Process, Current Results and Outlook (Summary of Research Findings) Jerzy S. Zderkowski & Jozef Pocięcha	45

TABLE OF CONTENTS
(continued)

Developing Qualified Managers for Small Business Minoo Ghoreishi & Andrea D. Ellis	55
Student Internet Usage: Excessive or Not? Carole Anderson & Barbara L. Jones	59
Employer Expectations of College of Business Graduates Lynn Wasson & Maryanne Brandenburg	65
Appendix	75

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HINDSIGHT BIAS AND AUDITORS' GOING-CONCERN JUDGMENTS: THE EFFECTS OF EXPERIENCE

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ABSTRACT

This paper examines the effects of "hindsight bias" on auditor judgment and the degree to which the bias is influenced by experience. Hindsight bias is the tendency for individuals who have been provided the outcome of an event to overstate their abilities to have predicted that outcome in foresight (i.e., before receiving outcome information). Experimental results indicate that both experienced and inexperienced auditors are prone to hindsight bias. However, the bias neither intensifies nor diminishes with increased experience, but instead, it remains unchanged. Given that experience neither increases nor decreases hindsight bias and given that monetary incentives (Camerer et al. 1989; Hell et al. 1988) and accountability (Kennedy 1993, 1995) have been found to be ineffective in counteracting the bias, it is important that public accounting firms employ debiasing strategies to effectively mitigate the bias at all experience levels. Both preoutcome (Anderson 1996) and postoutcome (Kennedy 1995) debiasing strategies have been found to be somewhat successful in reducing hindsight bias for both experienced and inexperienced auditors.

INTRODUCTION

This paper examines the effects of "hindsight bias" on auditor judgment and the degree to which the bias is influenced by experience. Hindsight bias is the tendency for individuals who have been provided with the outcome of an uncertain event to systematically overstate their abilities to have predicted that outcome in foresight. Further, individuals deny that knowledge of the event's actual outcome has affected their predictions. Hindsight bias has been found to influence several audit judgments, including internal control evaluations (Reimers and Butler 1992), audit opinion decisions (Reimers and Butler 1992), preliminary analytical review judgments (Biggs and Wild 1985; Heintz and White 1989; Kennedy 1995; Kinney and Uecker 1982; McDaniel and Kinney 1994), and going-concern judgments (Anderson 1994, 1996; Kennedy 1993, 1995).

The presence of hindsight bias in the context of going-concern judgments presents two important implications for the auditing profession. First, the "knew-it-all-along" attitude created by hindsight bias may impede feedback learning (Fischhoff 1975), thereby reducing what auditors could potentially learn from the feedback provided by actual bankruptcies. If auditors believe they "knew all along" that a bankrupt company was going to fail, they may not learn what they should from the outcome and may believe more often than they

should that they could have actually predicted the outcome. This overconfidence may lead auditors to believe they have little reason to re-evaluate and improve their decision making processes and evidence gathering strategies regarding going-concern judgments. Second, auditors who issue unqualified opinions to client companies that subsequently fail may be unfairly evaluated, in hindsight, by interested third parties such as the SEC, stockholders, expert witnesses, jurors, and peers (Kennedy 1995; Lowe and Reckers 1994). These third parties may be unable to ignore the outcome information they have (i.e., the company did indeed fail) that the auditors did not have at the time they made their opinion decision.

In an auditing experiment involving going-concern judgments, this paper investigates the effects of auditor experience on the degree of hindsight bias exhibited. Kennedy (1995) examined the extent to which auditor experience would decrease hindsight bias by conducting two experiments, one involving a going-concern judgment task and one involving an analytical review task. Using the creeping determinism explanation for hindsight bias as developed in the psychological literature (see Hawkins and Hastie 1990 for a review), this paper theorizes that auditor experience would increase hindsight bias. Consistent with Kennedy's findings, this study's results indicate that, in an auditing context, hindsight bias neither intensifies nor diminishes with experience, but instead remains unchanged.

Kennedy (1995) concludes that the biasing effects of hindsight are "hardwired" in auditors and are therefore unaffected by experience. Given that experience neither increases nor decreases hindsight bias and given that monetary incentives (Camerer et al. 1989; Hell et al. 1988) and accountability (Kennedy 1993, 1995) have been found to be ineffective in counteracting the bias, it is important that public accounting firms employ debiasing strategies to effectively mitigate the bias at all experience levels. Both preoutcome (Anderson 1996) and postoutcome (Kennedy 1995) debiasing strategies have been found to be somewhat successful in reducing hindsight bias for both experienced and inexperienced auditors.

THEORY AND HYPOTHESES DEVELOPMENT

Presence of Hindsight Bias

Fischhoff (1975) coined the term "creeping determinism" to describe the process he believed was responsible for hindsight bias.¹ According to Fischhoff, "Upon receipt of outcome knowledge judges immediately assimilate it with what they already know about the event in question. In other words, the retrospective judge attempts to make sense, or a coherent whole, out of all that he knows about the event" (1975, 297). Because the process was hypothesized to be quick and unconscious, Fischhoff described the outcome information as "creeping" into the subject's mental representation of the event resulting in cognitive restructuring. The characteristic effect of creeping determinism is the proclivity to view a known outcome as nearly inevitable, as revealed in retrospective probability judgments, because of the seemingly unalterable sequence of events leading up to it (Hawkins and Hastie 1990). The "creeping determinism" hypothesis is consistent with more of the hindsight literature results than any other explanation offered (Hawkins and Hastie 1990).²

Prior research reveals the presence of hindsight bias in several accounting settings. Financial statement users asked to assess a company's viability have been found to be prone to hindsight bias (Buchman 1985). Jurors (Lowe and Reckers 1994) and judges (Anderson et al. 1993) asked to evaluate the actions of auditors have also been found to be prone to the bias. Brown and Solomon (1992, 1987) found that capital-budgeting

decisions are influenced by outcome information, and Lipe (1993) found that managerial decisions involving variance investigations are affected by outcomes. In an auditing study involving internal control evaluations and audit opinion decisions, Reimers and Butler (1992) found that auditors exhibit significant (insignificant) hindsight bias when provided with surprising (unsurprising) outcome information. Kennedy (1993, 1995) found that auditors are prone to hindsight bias when making both going-concern and analytical review judgments.

These findings suggest that auditors are prone to hindsight bias. As a result, the current study predicts that, despite instructions to ignore outcome information³, auditors provided with outcome information will exhibit hindsight bias when making going-concern judgments. This leads to the following baseline hypothesis:

H1: Despite instructions to ignore outcome information, auditors with outcome information will judge the reported outcome as more likely to occur than will auditors not provided with outcome information.

Hindsight Bias and Experience Effects

Reducing Hindsight Bias. Attempts to eliminate or even reduce hindsight bias have been only moderately effective. Exhorting subjects to work hard and cautioning them about the bias have been ineffective (Fischhoff 1982; Wood 1978). Hasher et al. (1981) were successful in eliminating hindsight bias, but only by discrediting the outcome information in such a manner that subjects realized that it was totally unreliable. Wood (1978) found that preoutcome judgments can be used to decrease hindsight bias, but only if subjects were encouraged to remember their previous judgments when making their postoutcome judgments. In an experimental markets study, Camerer et al. (1989) found that feedback and monetary incentives alone had no effect on reducing hindsight bias; however, market forces reduced the bias by approximately one half.

A postoutcome debiasing strategy (i.e., instructing subjects to generate reasons for the alternative outcomes after the receipt of outcome information) has been found to significantly reduce, but not eliminate,

hindsight bias in both the psychological (Davies 1987; Slovic and Fischhoff 1977; Arkes et al. 1988; Lowe and Reckers 1994) and accounting (Kennedy 1995) literature. A preoutcome debiasing strategy (i.e., instructing subjects to generate reasons for the alternative outcomes before the receipt of outcome information) has also been found to significantly reduce, but not eliminate, hindsight bias in the psychological literature (Davies 1987). However, this preoutcome debiasing strategy produced asymmetrical effects in an auditing study (Anderson 1996), increasing the bias for some outcomes and decreasing the bias for other outcomes.

Effects of Experience. Direct comparisons between inexperienced and experienced judges have only recently been made in the hindsight literature (Kennedy 1995), and thus it has not been clear to what extent hindsight bias increases, decreases, or remains unchanged with experience and why. Davies reasoned, but did not empirically test, that experience might increase hindsight bias "because the greater knowledge base of the expert provides greater scope for the biasing of cognitive activity in hindsight, such as favoring evidence, reasons, and explanations which support the reported outcome" (1987, p. 66). Kennedy (1995) explored the extent to which experience decreases hindsight bias in both a going-concern judgment task and an analytical review task. Kennedy found that experience does not reduce hindsight bias due to the cognitive nature of the bias. This study theorizes that based on Fischhoff's creeping determinism explanation for hindsight bias, experience would be expected to increase hindsight bias.

Experience Effects and Creeping Determinism. Based on Fischhoff's (1975) creeping determinism explanation, it seems plausible that the more susceptible an individual is to creeping determinism (i.e., the greater the cognitive restructuring upon receipt of outcome information), the greater the amount of hindsight bias exhibited. This is consistent with Schkade and Kilbourne's (1991) findings that surprising outcomes result in greater cognitive restructuring and thus greater hindsight bias; however, they manipulated the surprisingness of the outcome only and not the experience of the subjects. In an auditing context, the more adept auditors are at restructuring their mental representations of an event scenario to make it consistent with the actual outcome, the greater the difference between

their foresight and hindsight perspectives, and thus, the greater the amount of hindsight bias. Based on both psychological and accounting memory research, to be discussed next, it is likely that experienced auditors would be more prone to creeping determinism and therefore would exhibit greater hindsight bias than would inexperienced auditors.

Experience Effects and Prior Research. Prior auditing research (Libby and Frederick, 1990; Moeckel, 1990) has used theories of semantic memory networks to make predictions regarding the effects of experience on auditor judgment. According to semantic memory network models (e.g., Collins and Quillian, 1969; Collins and Loftus, 1975; Smith, 1978), memory is organized in a hierarchical structure comprised of networks of nodes and the links among them. The nodes are grouped into subsets called schemata that represent prototypes of complex concepts or episodes (Thorndyke and Hayes-Roth, 1979; Moeckel, 1990). When new information is encountered, memories representing possibly related concepts or episodes are accessed through a spreading of activation along the links among the nodes (Collins and Loftus, 1975). These activated schemata control all processing of the new information, including not only its comprehension and encoding, but also its subsequent storage in memory (Moeckel, 1990; also see, e.g., Alba and Hasher, 1983; Gibbins, 1984; Waller and Felix, 1984).

In an auditing study examining the effects of experience on memory errors, Moeckel (1990) reasoned that as experience increases, more elaborate schemata are developed, allowing more information to be stored in memory. In addition, with increasing experience, new situations similar to those encountered in the past would be more easily understood by referring to the richer, broader, more refined set of experiences already stored in memory (Bransford and Johnson, 1972; Schallert, 1976; Rumelhart and Ortony, 1977; Gibbins, 1984; Moeckel, 1990). Moeckel (1990) concluded that although experienced auditors' more elaborate schemata may facilitate encoding by decreasing cognitive effort, such schemata also increase the tendency to engage in reconstruction.

Reconstruction is a memory error whereby an individual alters the mental representation of information to make it consistent with existing knowledge or schemata

(Moeckel, 1990). In an audit workpaper review task, Moeckel (1990) found that increased experience led to increased reconstruction. More specifically, experienced auditors altered their mental representations of workpapers they had reviewed to induce consistency between contradictory pieces of information within the workpapers.

If experienced auditors are more prone to committing reconstruction errors, it is likely that they are also more prone to creeping determinism. In other words, if experienced auditors are more likely to induce consistency between contradictory information in foresight, it follows that they would also be more likely to induce consistency between an event scenario and its reported outcome in hindsight. Experienced auditors would be better able to rewrite or reconstruct their mental representations of the case scenario by adding semantic links signifying causal relations between events in the case and the actual outcome. Prior research (e.g., Johnson and Kieras, 1983; Fiske and Taylor, 1984; Moeckel, 1990) indicates that experience promotes the development of more links among the items being encoded and with those already stored in memory.

Summary of Hindsight Bias and Experience Effects. In summary, when an auditor processes new information, a schema is evoked which guides the processing of this information. Prior to learning the actual outcome, the auditor will have formulated a foresight mental representation of the event. Upon receipt of outcome information, the foresight mental representation of the event will be updated (Loftus and Loftus, 1980; Davies 1987; Mazursky and Ofir, 1990) and reconstructed to make it consistent with the schema evoked by the new information (i.e., the actual outcome). The new hindsight mental representation of the event will differ from the old foresight mental representation due to the updating and reconstructing (i.e., due to creeping determinism).

This foresight-hindsight difference will be greater for experienced auditors due to their more elaborate schemata that enable greater updating and reconstruction. Because the old foresight mental representation is erased (Loftus and Loftus, 1980; Davies, 1987) when asked to ignore the outcome information and judge the outcome's probability as they would have in foresight,

the auditors will use the representativeness and availability heuristics to reach their likelihood judgments (Fischhoff, 1975; Davies, 1987; Mazursky and Ofir, 1990). Due to the updating and reconstructing of memory, the features of the known outcome are likely to be perceived as matching or being representative of the salient features of the event, and scenarios leading to the known outcome should be more available in memory, thus leading to an overestimation of the known outcome's likelihood.

In short, experienced auditors' foresight-hindsight difference in their mental representations of the event will be greater than inexperienced auditors'. In addition, experienced auditors when relying on the representativeness and availability heuristics to judge the outcome's probability will have more scenarios and their related features stored in memory. As a result, it is predicted that experienced auditors will judge the known outcome more likely in hindsight than will inexperienced auditors, which leads to the following hypothesis:

H2: Experienced auditors will exhibit greater hindsight bias than will inexperienced auditors.

Failure Outcome Versus Success Outcome

According to the psychological literature, an occurrence results in greater hindsight bias than does a nonoccurrence (Fischhoff 1977; Fischhoff and Beyth 1975; Wasserman et al. 1991; Wood 1978). A nonoccurrence results in lower hindsight bias because it is regarded as a nonevent which requires very little cognitive restructuring (Fischhoff 1977; Schkade and Kilbourne 1991). An occurrence, on the other hand, results in substantial cognitive restructuring and therefore greater hindsight bias.

As Kennedy (1995) points out, in a going-concern task, it is likely subjects would regard success as the non-occurrence because it is a continuation of the status quo. Failure, on the other hand, would be viewed as an interruption of the status quo, as an occurrence. In an experiment involving a going-concern task, Kennedy (1995) did find that auditors exhibit greater hindsight bias when informed of a failure outcome as compared to a success outcome. This leads to the following baseline hypothesis:

H3: Auditors informed of a failure outcome will exhibit greater hindsight bias than will auditors informed of a success outcome.

In summary, consistent with prior auditing research (Kennedy 1993, 1995; Reimers and Butler 1992), the current study predicts that auditors will be prone to hindsight bias when making going-concern judgments. Also consistent with prior auditing research (Kennedy 1995), the degree of hindsight bias exhibited is predicted to be greater for auditors provided with failure outcome information as compared to success outcome information. It is also predicted that, due to creeping determinism, auditor experience will increase hindsight bias.

RESEARCH METHOD

Experimental Design

In order to test the proposed hypotheses, one experiment was conducted. The basic design employed is a 2X3 factorial. The two between factors are experience and outcome. The experience factor has two levels, high (i.e., managers and partners) and low (i.e., staff auditors). The outcome factor has three levels, no outcome (i.e., foresight condition), failure outcome (i.e., hindsight condition - occurrence of bankruptcy), and success outcome (i.e., hindsight condition - nonoccurrence of bankruptcy). The dependent variable is the auditor's going-concern probability judgment (hereafter referred to as a viability judgment).

Subjects and Procedure

The subjects were asked to judge the likelihood that a troubled company would or would not continue as a going concern. The sample of subjects consisted of 114 Big 6 auditors; 57 experienced (i.e., managers and partners) and 57 inexperienced (i.e., staff auditors). To obtain a sufficient number of subjects, it was necessary to administer the experiment at 14 different sessions over the course of four months. Responses to the debriefing questionnaire revealed the mean auditing experience for the experienced (inexperienced) auditors to be 9.4 (1.4) years.

Subjects were randomly assigned to experimental conditions. Each subject received a packet of materials,

consisting of a sealed envelope, a page of general instructions, and either five or six pages of case data (including a case review task). After completing the case review task, the written instructions indicated that the subjects were to open the sealed envelope. The envelope contained: the outcome information (if provided), the viability judgment task, and the debriefing task. The subjects were not allowed to use reference materials and were required to work independently.

Tasks

The subjects were provided with a page of general instructions. They also received a narrative summary of pertinent information for a chemical manufacturer and three years of financial data. The narrative summary contained an equal number of adverse factors and mitigating factors.⁴ The financial data included the financial statements, a summary of financial highlights, and a set of financial ratios.⁵

Case Review Task. Figure 1 illustrates the experimental tasks that the subjects were asked to perform. The subjects' first task was to review the case data for Alpha Chemical, Inc. They were instructed to assume the role of supervisor on the Alpha year-end audit. They were also told that the fieldwork had been completed, but the final audit opinion had not yet been written. They were to review Alpha's financial statements in an attempt to assess viability.

Viability Judgment Task. After reviewing the case data, subjects were instructed to begin the second task, the viability judgment. Before making their viability judgments, subjects in the failure outcome condition were informed that Alpha filed for bankruptcy during the last six months of the year subsequent to the year being audited. Subjects in the success outcome condition were informed that Alpha continued as a going concern throughout the year subsequent to the year being audited. Subjects in the no outcome condition were not provided with outcome information.

All subjects were instructed to assume that it was the last day of fieldwork for Alpha's year-end audit. At that time (when they would not have known what actually happened to Alpha), they were to estimate the likelihood that Alpha would or would not continue as

a going concern throughout the year subsequent to the year being audited. The instructions in parentheses were not given to the subjects in the no outcome condition.

The subjects in the failure outcome and success outcome conditions were instructed to ignore the outcome information. All of the subjects were informed that they could refer back to the case data if necessary before making their viability judgments.

Subjects were asked to assess the probability, existing at year end, that the firm would continue as a going concern throughout the year subsequent to the year being audited by placing an "X" on a probability scale. Subjects were asked to express their judgment of Alpha's viability in terms of a probability between 0% and 100%, where 0% indicates that Alpha is certain NOT to continue as a going concern, and 100% indicates that Alpha is certain to continue as a going concern.

Debriefing Task. The final task for all subjects was completing a one-page debriefing questionnaire. Subjects were asked to indicate their number of years and months of auditing work experience, their current rank within their firm, and the number of minutes they took in completing the experiment. They were also asked to indicate both the number of audit engagements they had been associated with in which substantial doubt existed regarding the client's ability to continue as a going-concern and their degree of involvement in the going-concern evaluation of these clients. In addition, they were asked to rate their degree of proficiency at evaluating a company's going-concern status. Finally, subjects in the failure outcome and success outcome conditions were asked to indicate the degree of influence, if any, the outcome information had on their viability judgments.

RESULTS

Results of Hypothesis 1 and Hypothesis 2

H1 predicted that, despite instructions to ignore outcome information, auditors with outcome information would judge the reported outcome as more likely to occur than would auditors not provided with out-

come information. More specifically, auditors informed that the case company failed (continued) would be more likely to judge the continued viability of the company as being less (more) likely than the auditors not provided with outcome information. H2 predicted that, due to creeping determinism, the degree of hindsight bias exhibited would be greater for the experienced auditors. The means and standard deviations for the viability judgment dependent variable are presented in Table 1.

ANOVA Results - Interaction Effects. To test the effect of outcome information and experience on auditors' viability judgments, a 2X3 (experience by outcome) ANOVA was performed. The experience factor has two levels (i.e., high and low), and the outcome factor has three levels (i.e., no, failure, and success).

The ANOVA results are presented in Table 2. The two-way interaction between experience and outcome is not significant ($p=0.80$); therefore, H2 is not supported; hindsight bias does not increase with experience. However, the main effect of outcome is significant ($p=0.00$).

Simple Main Effect Tests. In order to determine the effect of outcome on auditor viability judgment, simple main effect tests consisting of a series of contrasts were conducted. The means contrasted are the combined means for the experienced and inexperienced auditors taken from Table 1. The combined mean viability judgments are summarized below:

No Outcome.....	60.66%
Failure Outcome..	54.37%
Success Outcome..	67.00%

In order to test H1, it was necessary to determine if the failure outcome mean viability judgment of 54.37% and the success outcome mean viability judgment of 67.00% are significantly different from the no outcome mean viability judgment of 60.66%. The failure outcome subjects' mean viability judgment of 54.37% is significantly less than the no outcome subjects' mean viability judgment of 60.66% ($p=0.06$, one-tailed probability). This indicates that, despite instructions to ignore the outcome information, being informed that the case company failed caused the subjects in the

failure outcome condition to judge continued viability as less likely than did the no outcome subjects. In other words, the failure outcome subjects were prone to hindsight bias.

In addition, the success outcome subjects' mean viability judgment of 67.00% is significantly greater than the no outcome subjects' mean viability judgment of 60.66% ($p=0.059$, one-tailed probability). This indicates that, despite instructions to ignore the outcome information, being informed that the case company continued caused the subjects in the success outcome condition to judge continued viability as more likely than did the no outcome subjects. In short, both the failure outcome and the success outcome subjects were prone to hindsight bias. This provides support for H1; auditors with outcome information judged the reported outcome as more likely to occur than did auditors not provided with outcome information.

Results of Hypothesis 3

H3 predicted that auditors informed of a failure outcome (i.e., an occurrence) would exhibit greater hindsight bias than would auditors informed of a success outcome (i.e., a nonoccurrence). As previously discussed, both the failure outcome and success outcome subjects were prone to hindsight bias. The degree of hindsight bias exhibited by the failure outcome subjects can be measured by computing the absolute value of the difference between the failure outcome subjects' mean viability judgment (54.37%) and the no outcome subjects' mean viability judgment (60.66%) which is equal to 6.29%. Similarly, the degree of hindsight bias exhibited by the success outcome subjects can be measured by computing the absolute value of the difference between the success outcome subjects' mean viability judgment (67.00%) and the no outcome subjects' mean viability judgment (60.66%) which is equal to 6.34%.

The degree of hindsight bias exhibited by the failure outcome subjects of 6.29% is not significantly different from the degree of hindsight bias exhibited by the success outcome subjects of 6.34% ($p=0.99$, two-tailed probability). As a result, H3 is not supported.

DISCUSSION AND CONCLUSION

The purpose of this study was to examine the effects of hindsight bias on auditor judgment and the degree to which the bias is influenced by experience. Consistent with prior auditing research (Kennedy 1993, 1995; Reimers and Butler 1992), the current study found that auditors are prone to hindsight bias when making probability judgments (H1). Contrary to H2, the current study did not find that hindsight bias increases with experience, but instead the bias remains unchanged with experience. This finding of no experience effect is consistent with prior auditing research (Kennedy 1995). H3 which predicted that hindsight bias is greater for the failure outcome as compared to the success outcome was not supported which is inconsistent with prior auditing research (Kennedy 1995).

The presence of hindsight bias in the context of going-concern judgments presents two important implications for the auditing profession. First, the "knew-it-all-along" attitude created by hindsight bias may impede feedback learning (Fischhoff 1975), thereby reducing what auditors could potentially learn from the feedback provided by actual bankruptcies. The presence of hindsight bias is particularly troubling in the case of the failure outcome. As compared to success outcomes, auditors have limited actual experience with failure outcomes. Also, because inaccurately predicting the failure outcome (i.e., issuing an unqualified opinion to a troubled company that subsequently fails) poses more dire consequences for public accounting firms than does inaccurately predicting the success outcome (i.e., issuing a modified opinion to a troubled company that continues), it is imperative that auditors learn as much as they can from troubled companies that fail. This is especially important in light of auditors' increased reporting responsibilities for firm's experiencing going-concern problems (SAS No. 64, AICPA 1990a; SAS No. 59, AICPA 1988) and the mounting number of corporate bankruptcies resulting from the recession of the late 1980's and early 1990's (AICPA 1990b). A second important implication of the presence of hindsight bias in a going-concern context is that auditors who issue unqualified opinions to client companies that subsequently fail may be unfairly evaluated, in hindsight, by interested third parties such as the SEC, stockholders, expert witnesses, jurors, and

peers (Kennedy 1995; Lowe and Reckers 1994). These third parties may be unable to ignore the outcome information they have (i.e., the company did indeed fail) that the auditors did not have at the time they made their opinion decision.

The current study predicted that experienced auditors would exhibit greater hindsight bias than would inexperienced auditors. Although the current study found that auditors are prone to hindsight bias, a significant experience effect was not found. It appears that the degree of hindsight bias exhibited by auditors remains unchanged with experience.

The primary explanation for not finding experience effects may be that the experienced subjects' foresight mental representations of the case did not substantially differ from the inexperienced subjects' foresight mental representations. In other words, the experienced subjects' going-concern schemata may not have been substantially more elaborate, and they may not have had significantly more adverse factors and mitigating factors stored in memory.

If the inexperienced and experienced subjects' foresight mental representations of the case did not significantly differ, there is little reason to expect their hindsight mental representations of the case to differ. If the experienced subjects do not have more elaborate going-concern schemata, then, upon receipt of outcome information, the experienced subjects' degree of cognitive restructuring should not be greater than the inexperienced subjects', resulting in similar hindsight mental representations between the two groups. If the foresight-hindsight difference in mental representations of the case does not significantly differ between the inexperienced and experienced subjects, then the degree of hindsight bias between the two groups should not significantly differ.

The extent to which the experienced subjects' foresight mental representations of the case differed from the inexperienced subjects' can be determined by analyzing the subjects' self-generated lists of adverse factors and mitigating factors which were collected for analysis in a separate study on hindsight debiasing strategies (Anderson 1996). In order to test the effectiveness of a preoutcome debiasing strategy (Anderson 1996), another group of 114 Big 6 auditors (57 experienced

and 57 inexperienced) were instructed to record as many adverse factors and mitigating factors as they could that they believed should be considered in determining the Alpha case company's viability and to rate the importance of each factor on a 4-point scale. They were provided with enough space to record as many as ten adverse factors and ten mitigating factors.

Because the lists of reasons were prepared prior to the receipt of outcome information, they represented a written record of the subject's foresight mental representation of the case data. It was theorized that because experienced auditors have more elaborate going-concern schemata and, as a result, have more adverse factors and mitigating factors stored in memory, they should be able to record significantly more factors than inexperienced auditors. However, this was not the case.

Based on t-tests, the mean number of adverse factors recorded by the experienced subjects of 6.82 is not significantly greater than the mean number of adverse factors recorded by the inexperienced subjects of 6.33 ($p=0.10$, one-tailed probability). The mean number of mitigating factors recorded by the experienced subjects of 5.19 is greater than the mean number of mitigating factors recorded by the inexperienced subjects of 4.65; however the difference is only marginally significant ($p=0.07$, one-tailed probability).

In addition, based on t-tests, the importance ratings assigned to the adverse factors and mitigating factors do not significantly differ between the inexperienced and experienced subjects. The inexperienced subjects' mean importance rating for the adverse factors of 3.18 is not significantly different from the experienced subjects' mean importance rating for the adverse factors of 3.23 ($p=0.38$, two-tailed probability). The inexperienced subjects' mean importance rating for the mitigating factors of 2.94 is not significantly different from the experienced subjects' mean importance rating for the mitigating factors of 2.89 ($p=0.57$, two-tailed probability).

Based on the foregoing analysis, it appears that the experienced subjects' foresight mental representations of the case were very similar to the inexperienced subjects' foresight mental representations. There are three plausible explanations that might account for

these findings. First, although the experienced subjects were more experienced in terms of number of years employed as auditors, they were not substantially more experienced in terms of number of engagements worked on in which going-concern problems existed. One of the questions in the debriefing questionnaire asked, "On how many audit engagements that you have been associated with did substantial doubt exist regarding the client's ability to continue as a going concern?" Of the 228 auditors who participated in the study, the mean number of clients experiencing going-concern problems worked on by the inexperienced subjects was .93; for the experienced subjects, it was 4.59. However, the 4.59 average included 11 (9.6%) experienced subjects who had worked on 10 or more going-concern engagements (1 experienced subject had worked on 10 going-concern engagements, 1 on 12, 3 on 15, 3 on 20, 1 on 23, and 2 on 50). The mean number of going-concern clients for the remaining 103 (90.4%) experienced subjects was only 2.65.

Second, the degree and type of formal training auditors receive regarding going-concern situations may be so standardized and similar that all auditors, regardless of experience level, share a nearly identical going-concern schema or mental model. This schema may be so well learned and entrenched that actual experience with going-concern situations changes it only slightly. If auditors do share a universal going-concern schema, it would be expected that their foresight mental representations of a specific case would be similar.

Third, experienced auditors may have more elaborate going-concern schemata as compared to less experienced auditors. However, in the current study, the inexperienced and experienced subjects inherited the same specific case data, and they may have relied on the same foresight mental representations of this case data. According to Hawkins and Hastie (1990), the hindsight literature has not yet established whether outcome information alters an individual's mental representation of the specific case evidence or the mental representation of the general domain under consideration. It is possible that the inexperienced and experienced subjects' mental representations of the specific case scenario were altered and not their overall going-concern schemata (i.e., their mental representations of the general domain).

Although the current study predicted that experienced auditors would exhibit greater hindsight bias than would inexperienced auditors, the study's results indicated that the bias does not intensify or diminish with experience, but instead remains unchanged. One of the main contributions of this study is the potential need for continued, rather than reduced, reliance on training programs and decision aids as experience increases. Given that experience neither increases nor decreases hindsight bias and given that monetary incentives (Camerer et al. 1989; Hell et al. 1988) and accountability (Kennedy 1993, 1995) have been found to be ineffective in counteracting the bias, it is important that public accounting firms employ debiasing strategies to effectively mitigate the bias at all experience levels. Both preoutcome (Anderson 1996) and postoutcome (Kennedy 1995) debiasing strategies have been found to be somewhat successful in reducing hindsight bias for both experienced and inexperienced auditors.

Another main contribution of the current study is that it further develops the creeping determinism explanation for hindsight bias and uses it to make predictions regarding the effects of experience on hindsight bias. In the past, hindsight researchers primarily used creeping determinism as a post hoc explanation for observed results rather than as a theoretical basis for making a priori predictions. Unless the creeping determinism explanation is subjected to rigorous empirical testing, the extent to which it accurately explains the mechanisms underlying hindsight bias will not be fully understood.

The results of the study must be interpreted in light of certain limitations. First, the study involves a sample of auditor subjects from international Big 6 public accounting firms which limits the generalizability of the results to smaller public accounting firms at the national, regional, and local levels. Second, it is difficult to determine whether the subjects were sufficiently motivated to concentrate on the experimental tasks and to complete the tasks as they would in practice. Third, the subjects did not have access to the array of information, resources, and consultations with others that would normally be available to them during an actual audit. Also, the subjects may not have been able to relate to many situations in practice in which they are required to ignore known outcomes and explicitly

indicate what judgments they would have made at some point in the past.

ENDNOTES

1. Fischhoff (1975) developed the standard paradigm of hindsight research in a study in which subjects were instructed to judge the outcomes of four obscure events (e.g., the outcome of the British-Gurka war). All subjects received a written description of the event followed by a list of four possible outcomes and instructions to judge the probability of occurrence for each one. At the end of the written description and prior to making the probability judgment, one of the four possible outcomes was randomly reported as the actual outcome to the subjects in the hindsight condition. The results revealed that the hindsight subjects estimated a significantly higher probability of occurrence for the reported outcome than did the foresight subjects who had no outcome information. Even when hindsight subjects were provided with explicit, unambiguous instructions to ignore the outcome information or when they were asked to respond as a peer would who did not know the outcome, the probability judgments revealed significant hindsight effects.
2. Creeping determinism is also consistent with Loftus and Loftus (1980) who suggested that memory for complex events will be erased and updated by new information when it is inefficient or inconsistent to retain two different memories. This update and erase view of memory maintains that the foresight state of mind cannot be recaptured in hindsight (Davies 1987; Mazursky and Ofir 1990). When instructed to ignore outcome information and to judge the outcome of an event as if they did not know the outcome, hindsight judges have no memory of their initial foresight knowledge or uncertainty. Unable to recapture their foresight states, judges may use the representativeness or availability heuristics (Tversky and Kahneman 1974) in making their likelihood judgments (Fischhoff 1975).
3. True hindsight bias occurs when individuals with outcome information falsely believe that they would have predicted the outcome of an uncertain event (Hawkins and Hastie 1990). It is a projection of new knowledge into the past accompanied by a denial that the outcome information has influenced judgment (Hawkins and Hastie 1990). Lack of awareness of the effects of outcome information on likelihood estimates is a key component of hindsight bias (Fischhoff 1975). Without this denial and lack of awareness, the task would simply represent learning from feedback (Fischhoff 1975; Hawkins and Hastie 1990). According to Hawkins and Hastie, if "the instructions to respond as if the outcome were still unknown were dropped, one would have a simple learning-from-outcome feedback task. In such a learning task, one would expect the subjects to alter their estimates of retrospective probabilities, and one would not call the adjustments a hindsight 'bias'" (1990, 311-312).
4. The adverse factors and mitigating factors used in the current study were selected from the list of such factors developed by Kida (1984).
5. The current study used the same case company (but not the same narrative summary) as the one used by Maddocks' (1989) in her hindsight experiment.

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TABLE 1

Means and (Standard Deviations) of Viability Judgments by Experimental Conditions

	OUTCOME		
	No	Failure	Success
EXPERIENCE			
High	57.37% (17.19) n=19	55.05% (17.66) n=19	64.42% (18.67) n=19
Low	63.95% (17.12) n=19	53.68% (16.90) n=19	69.58% (17.00) n=19

TABLE 2

ANOVA: Experience by Outcome on Viability Judgments

Source of Variation	SS	DF	MS	F	Sig. of F
Experience	0.038	1	.038	1.21	.272
Outcome	1.308	2	.654	20.91	.000
Experience by Outcome	0.014	2	.007	.22	.803

FIGURE 1

Experimental Tasks

Steps	CONDITIONS		
	NO OUTCOME	FAILURE OUTCOME	SUCCESS OUTCOME
I	Review Case Data (Task #1)		
II	No Outcome Given	Told Failure Outcome	Told Success Outcome
III	Allowed to refer back to case data Viability Judgment (Task #2)		
IV	Debriefing Questionnaire (Task #3)		

A COMPARISON OF TAIWAN AND AMERICAN PERSONAL VALUES AMONG SMALL BUSINESS OPERATORS

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ABSTRACT

This study examines the similarities and differences of important personal values between Taiwanese and American small business operators.

INTRODUCTION

It is commonly believed that small business operators have a high regard for personal values such as a sense of accomplishment, belonging, etc. which are potential predictors of success. This study examines the similarities and differences of important personal values between Taiwanese and American small business operators.

QUESTIONNAIRE DESIGN AND DISTRIBUTION

A questionnaire was developed in English and then translated into Chinese. One survey was mailed to small businesses (1 - 50 employees) throughout Pennsylvania. Respondents were selected randomly from a Dun & Bradstreet mailing list. The second survey was distributed to small business suppliers of an industrial manufacturer in southern Taiwan. Each survey contained a section asking the respondents to rate the importance of personal values in their daily life. The scale ranged from 1 = very unimportant to 9 = very

important. In addition, each survey asked questions to classify respondents such as demographics and small business characteristics (sales, number of employees, etc).

RESULTS

The first research objective was to analyze the overall ratings between the Taiwanese and American responses. Analysis indicated that 2 of the 8 personal values were different. "A Sense of Belonging" and "Security" variables are significantly different among the two groups. The Taiwan group rated a "A Sense of Belonging" less important than the US group (5.8 to 6.7) and rated "Security" as more important than the US group (8.1 to 7.4).

CONCLUSION/DISCUSSION

This is an interesting finding. The two different statements do not reflect a need for a group belonging, rather it represents an individual need for security among the Taiwanese.

Table 1
Sample Characteristics

U.S.	Taiwanese
77.2% male	62.4% male
Typical Age Group 45 - 54 years	Typical Age Group 35-44 years

Table 2
Personal Value Ratings

Personal Value*	Taiwan	US	Z Test Significance
A Sense of Belonging	5.8	6.7	Significant**
Warm Relationships With Others	7.4	7.3	No Significance
Self-fulfillment	7.0	7.8	No Significance
Being Well Respected	7.8	7.6	No Significance
Fun And Enjoyment	8.1	7.6	No Significance
Security	8.1	7.4	Significant
Self-respect	8.3	8.3	No Significance
A Sense of Accomplishment	7.8	8.1	No Significance

*Mean response where 1 = very unimportant through 9 = very important.

** Significant ≤ 0.05

THE IMPORTANCE OF REMEMBERING: HISTORY AND GLOBAL MARKETING

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ABSTRACT

This abstract discusses the importance of considering multiple historical perspectives as a tool to a better understanding of domestic and international cultures.

ABSTRACT

Marketing frameworks stress understanding domestic and international cultures. This understanding should explicitly consider history, along with the Self Reference Criterion. Further, since perceptions of events differ, multiple historical perspectives become necessary.

Analogous to managerial and researcher biases in market research, implicit, unexamined perspectives of history underlie interpretations of a foreign culture, and its interactions with one's own culture. Failing to see this can be naively or consciously ethnocentric, and can create problems. Being well informed about others' point of view can help manage perceptions, to realize mutually beneficial and equitable exchanges.

In part, history is about the push for markets/global commerce, etc. Apart from trading that led to colonial empires, the present impact of some other instances deserves more attention. These include Western nations forcing the "opening" of China, Commodore Perry's "Black Ships" in Nagasaki, and the US application of the Monroe Doctrine in its hemisphere.

The Western view of other cultures is likely to have been written by Western historians. In business exchanges, other cultures' views must be understood and respected. If one's competitors are better informed and more accepting of alternative positions, that can become a competitive advantage for them. As history is rewritten, interpretations with an assumption of dominance will be questioned. This is particularly important for the US, being a younger nation, perhaps lacking the historical perspective of others.

Some writing asserts the importance of history in the global economy, but does not represent the business mainstream, nor our pedagogy. As examples, Paul Krugman contends the economy today is less global than it once was. Barnett and Cavanagh view corporations as parochial, wielding their power in the manner of empire. Amartya Sen writes of disparate perceptions of events, arising from different backgrounds and predispositions. He discusses the problems of magisterial and exoticist perspectives, and recommends an investigative position, to minimize the impact of biases. A failure to bring these newer perspectives to business will mean being incomplete, or simply wrong! If academe doesn't allow avenues for such revision, that is a weakness of the enterprise, but not reason for denying the importance of the substantive issues.

In purely instrumental terms, an awareness of history may prevent trouble, or at least reduce the impact of bumbling naivete. Examples of this include the opposition to vast Japanese investment in Asia and in the US, the fiasco of EuroDisney's beginnings, and the recent events in India, with opposition to Cargill Seeds, KFC, and Coca Cola's return.

Finally, ethical aspects of rights/justice/fairness to all parties are also involved. The Caux Round Table Principles for International Business, first stated in 1994, have garnered considerable attention. These principles are laudable, being intended as a world standard. They are based on the Japanese concept of "kyosei" (working for the common good), and the more Western concept of "human dignity." But note that these principles have been developed by an international group of business executives from the Triad of Japan, Europe, and the United States. The Big Emerging Markets (BEMS) as listed by the US

Department of Commerce are China, India, Indonesia, South Korea, Mexico, Argentina, and Brazil, South Africa, Brazil, and Turkey. Later perhaps this grouping may come to include Vietnam, Thailand, Venezuela, Colombia, Chile. If these countries do not find the Caux principles acceptable, we will only discover that

there are unexamined assumptions about who gets to proclaim a world perspective! It has always been possible to ignore history, but to participate effectively in a global marketplace, there is no excuse for being unaware of its importance.

**THE EFFECT OF DIFFERENT INSTRUCTORS ON THE DETERMINANTS
OF STUDENT PERFORMANCE
IN THE FIRST COLLEGE-LEVEL ACCOUNTING COURSE
(A PRELIMINARY REPORT)¹**

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ABSTRACT

The objective of this study is to investigate the potential impact of instructors on the determinants of student performance in the beginning college-level financial accounting course at Indiana University of Pennsylvania. One hundred twenty subjects were in the study. Results supported the hypothesized interaction between instructors and the determinants of students' performance.

INTRODUCTION

The objective of this study is to investigate the potential impact of instructors on the determinants of student performance in the beginning college-level financial accounting course at Indiana University of Pennsylvania. The importance of understanding the factors affecting student performance in the first college level accounting course has long been recognized as evidenced by various publications in this area of research [see e.g., Doran, Bouillion & Smith 1991; Eskew & Faley, 1988; Haradon, Lordi, Bowlby, 1994]. In most previous studies, single instructor studies from different schools with widely different class sizes had been used. Conflicting results have been reported in the literature. One potential source of such conflicting results could be due to the interactions between instructors and the potential determinants of student performance. This paper represents a first attempt to find whether such interaction exists.

METHOD AND THE MODEL

Data were collected at the end of the 95 fall semester. Out of the five accounting principles I instructors who kindly provided data for this study, only four are used due to data problem with one of the instructors. Even though student sample consists of both business and nonbusiness students, only business students are used to avoid extraneous factors confounding the results.

Out of one hundred seventy seven (177) business students, one hundred twenty (120) have all the data available for the study. Selection of variables to be used for this study is mostly based on the past research findings.

The model used in this study can be specified as:

$$Y = b_0 + b_1 \text{HSATG} + b_2 \text{VBSAT} + b_3 \text{MATHSAT} + b_4 \text{HSGPA} + b_5 \text{REPEAT} + b_6 \text{DEPART} + b_7 \text{YEAR} + b_8 \text{ACTWORK} + b_9 \text{SEX}$$

where

Y=Standardized percentage scores (PCT) or letter grades (LTGRADE) on an F=1, D=2 to A=5 scale;

HSATG=A dummy variable equals one if student had a high school accounting course and zero otherwise;

VBSAT=Verbal SAT scores;

MATHSAT=Math SAT scores;

HSGPA=High school grade-point averages;

REPEAT=A dummy variable equals one if student was repeating the course and zero otherwise;

DEPART=A dummy variable equals one if student is an accounting major and zero otherwise;

YEAR=1 for freshman, 2 for sophomore, 3 for junior, 4 for senior, 5 for MBA;

ACTWORK=1 with accounting related work experience, 0 otherwise;

SEX =0 for female, 1 for male

The expected signs for the coefficients: all positive except for REPEAT (b , unspecified), DEPART (b , unspecified) and SEX (b , negative).

RESULTS AND DISCUSSIONS

Tables 1 through 5 present the multiple regression results for the standardized percentage scores. Similar results were obtained when letter grades were used as dependent variable.

Table 1 presents the regression result for the pooled sample with one hundred twenty (120) students. The $R^2=.354$ and adjusted $R^2=.301$ is slightly higher than most of the previous studies. The F-ratio = 6.693 (prob=.000) is highly significant beyond any conventionally acceptable level. Both verbal SAT (VBSAT) and math SAT (MATHSAT) have t statistics exceeding two; the accounting-related working experience also show marginal significance (prob=.061). When total SAT scores are used in place of verbal and math SAT scores, the resulting model gives an F-ratio= 2.84 ($R^2=.225$ and adjusted $R^2=.170$) and only high school grade point average (HSGPA) is significant (prob=.021) with total SAT score marginally significant (prob=.055). Multicollinearity problem is not serious because the variance inflation factors are all less than two.

Table 2 presents the regression result for instructor one. This class consists of mostly sophomores (33 out of 43); twenty five (25) students have complete data.

Even though the $R^2=.437$ is high but the adjusted $R^2=.1$ is rather low and the F-ratio=1.290 is not significant at any reasonable level. However, the SEX variable is marginally significant (prob=.069), indicating female students outperformed male students in this particular class. The results are similar when nonbusiness students were added back to the sample. This is consistent with some earlier research findings.

Table 3 presents the regression results for instructor two. It must be pointed out that the majority of the students in this class are freshman (29 out of 51); thirty four (34) students have complete data. Both the $R^2=.655$ and the adjusted $R^2=.526$ are much higher than previously reported; and the F-ratio=5.065 (prob=.001) is significant at any reasonable level. Three variables have significant coefficients: high school accounting (HSATG), math SAT (MATHSAT) and accounting-related working experience (ACTWORK), all with the expected positive signs.

Table 4 presents the regression results for instructor three. The majority of the students in this class are sophomores (27 out of 37); twenty six (26) students have complete data. Both the $R^2=.694$ and the adjusted $R^2=.521$ are very high; and the F-ratio=4.023 (prob=.008) is significant at any reasonable level. However only the high school grade point average variable (HSGPA) has significant coefficient with the expected positive sign. (Accounting-related work experience is marginally significant (prob=.098)).

Table 5 presents the regression results for instructor four. Again, the majority of the students in this class are sophomores (32 out of 46); thirty (30) students have complete data. Both the $R^2=.476$ and the adjusted $R^2=.288$ are similar to the those reported in the literature; and the F-ratio=2.527 (prob=.032) is significant at the popular .05 level. However, only the verbal SAT variable (VBSAT) has significant coefficient with the expected positive sign. (Year in school (YEAR) is marginally significant (prob=.059)).

SUMMARY AND CONCLUSIONS

Results presented above are consistent with the interaction between instructors and the determinants of student performance hypothesis mentioned in the

introduction. Thus, caution should be exercised in applying research findings to any individual instructor. Even though this is an important finding in its own right, for the results to be more useful it is far more important to investigate which type of instructor is best for which type of student so that, for teaching assignments, students may be matched with the proper instructors.

ENDNOTE

1. We appreciate the cooperation of Mr. Burner, Dr. Eiteman & Mr. Hyder for submitting usable data for this research.

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Table 1
(Combined Instructors)

Y= Standardized Percentage Scores

INDEPENDENT VARIABLES	COEFFICIENT	STD ERROR OF COEFFICIENT	t-STATISTIC	P-VALUE
CONSTANT	-4.213	0.850	-4.957	0.000
HSATG	0.270	0.167	1.613	0.110
VBSAT	0.003	0.001	2.663	0.009
MATHSAT	0.004	0.001	3.544	0.001
HSGPA	0.200	0.200	0.996	0.321
REPEAT	-0.135	0.239	-0.566	0.573
DEPART	0.157	0.207	0.758	0.450
YEAR	0.087	0.125	0.691	0.491
ACTWORK	0.336	0.178	1.891	0.061
SEX	-0.159	0.169	-0.942	0.348

F-statistic: 6.693 [p-value 0.000]

R² = 35.4%

Adjusted R² = 30.1%

Table 2
(Instructor One)

Y= Standardized Percentage Scores

INDEPENDENT VARIABLES	COEFFICIENT	STD ERROR OF COEFFICIENT	t-STATISTIC	P-VALUE
CONSTANT	-2.045	1.999	-1.023	0.322
HSATG	-0.413	0.435	-0.949	0.357
VBSAT	0.002	0.003	0.689	0.50
MATHSAT	0.003	0.003	1.030	0.320
HSGPA	0.084	0.606	0.139	0.891
REPEAT	-0.124	0.601	-0.206	0.840
DEPART	0.545	0.776	0.702	0.494
YEAR	0.123	0.394	0.313	0.759
ACTWORK	-0.659	0.506	-1.302	0.213
SEX	0.832	0.425	-1.958	0.069

F-statistics: 1.296 [p-value 0.316]

R² = 43.7%

Adjusted R² = 10.0%

Table 3
(Instructor Two)

Y= Standardized Percentage Scores

INDEPENDENT VARIABLES	COEFFICIENT	STD ERROR OF COEFFICIENT	t-STATISTIC	P-VALUE
CONSTANT	-6.711	1.427	-4.702	0.000
HSATG	1.231	0.309	3.987	0.001
VBSAT	0.003	0.002	1.461	0.157
MATHSAT	0.005	0.002	2.223	0.036
HSGPA	0.408	0.369	1.107	0.279
REPEAT	-0.080	0.355	-0.226	0.823
DEPART	-0.026	0.418	-0.062	0.951
YEAR	0.260	0.222	1.169	0.254
ACTWORK	0.619	0.298	2.079	0.048
SEX	0.283	0.307	0.920	0.366

F-statistic: 5.065 [p-value 0.001]

R² = 65.5%

Adjusted R² = 52.6%

Table 4
(Instructor Three)

Y= Standardized Percentage Scores

INDEPENDENT VARIABLES	COEFFICIENT	STD ERROR OF COEFFICIENT	t-STATISTIC	P-VALUE
CONSTANT	-6.768	1.911	-3.542	0.003
HSATG	0.541	0.316	1.712	0.106
VBSAT	0.004	0.002	1.648	0.119
MATHSAT	0.001	0.003	0.306	0.764
HSGPA	1.170	0.460	2.543	0.022
REPEAT	1.127	0.794	1.420	0.175
DEPART	0.009	0.371	0.024	0.981
YEAR	0.284	0.435	0.652	0.523
ACTWORK	0.732	0.406	1.804	0.090
SEX	0.505	0.397	1.274	0.221

F-statistic: 4.023 [p-value 0.008]

R² = 69.4%

Adjusted R² = 52.1%

Table 5
(Instructor Four)

Y= Standardized Percentage Scores

INDEPENDENT VARIABLES	COEFFICIENT	STD ERROR OF COEFFICIENT	t-STATISTIC	P-VALUE
CONSTANT	-1.755	2.617	-0.670	0.509
HSATG	-0.243	0.315	-0.773	0.447
VBSAT	0.005	0.002	2.146	0.042
MATHSAT	0.002	0.003	0.844	0.407
HSGPA	0.175	0.417	0.421	0.678
REPEAT	0.979	0.615	1.591	0.124
DEPART	0.596	0.376	1.586	0.125
YEAR	-0.748	0.378	-1.982	0.059
ACTWORK	0.059	0.337	0.176	0.862
SEX	-0.411	0.334	-1.230	0.230

F-statistic: 2.527 [p-value0.032]

$R^2 = 47.6\%$

Adjusted $R^2 = 28.8\%$

RECRUITING BUSINESS MAJORS: HAVE COMPANY HIRING PRACTICES CHANGED?

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ABSTRACT

A questionnaire was mailed to 401 human resource managers in the mid-Atlantic states. The purpose of the study was to gather information about the techniques used by these organizations to recruit business majors. Another objective was to identify factors which affect campus site selection. The results indicated that on-campus interviewing and career days/fairs were viewed as being the most valuable recruitment methods. Only a minority of respondents reported use of the Internet and video resumes to be important. The three most important factors when choosing a site for on-campus interviewing were the quality of the academic program, campus offers majors sought and past recruitment success.

INTRODUCTION

Schools of business were in their heyday during the 1980's. Students were clamoring for admission to business administration programs. Colleges and universities were scrambling to find sufficient numbers of doctorally qualified faculty and provide adequate facilities for accommodating business students and faculty. The job market for graduates was generally good. In recent years the pendulum has swung in the opposite direction. Many schools of business have faced declining enrollments and, consequently, reduced the number of faculty positions in existing business programs. These decreases in enrollment, not coincidentally, were occurring in an economic environment in which businesses were downsizing, re-engineering and reorganizing their personnel staffing. Also, Wall Street was rocked with scandals. This led to business people being portrayed in a less than favorable light by the news media.

In view of these recent developments, greater numbers of Schools of Business have devoted increased attention to what can be done to improve the enrollment outlook. One key factor is the job market. Students steer themselves to academic disciplines which show promise of good job opportunities. While the state of the economy is beyond the control of any given college

or university, a school that is able to do a better job of placing its graduates in good employment situations will increase its chances of attracting business majors to its program.

The purpose of this study was to gather information about the recruitment practices of business organizations and determine whether these practices have changed in recent years. It is hoped that the results will be of particular help to smaller colleges and universities which at times have trouble enticing adequate numbers of prospective employers to conduct on-campus recruiting.

LITERATURE REVIEW

Overall employment prospects for college graduates have started to improve somewhat. The 1994-95 recruiting trends survey conducted by Michigan State University (Scheetz, 1994) expected a modest improvement in job opportunities for new college graduates. Furthermore, an increase in jobs of 8.4% was expected for business and industrial organizations. But this survey also noted that computerization and automated technology are increasing. This results in displaced personnel and fewer jobs being authorized when corporate representatives visit college campuses. Scheetz (1994) states that new college graduates hired are expected to work harder, longer and smarter.

Another factor which contributes to a competitive job market is there are more high school graduates attending college. Consequently, there are more than enough college graduates available for job openings requiring college degrees. These graduates also face competition from unemployed professional staff who lost salaried positions with major corporations. These laid off employees have the advantage of becoming productive immediately unlike recent college graduates without any career related work experiences (Scheetz, 1994). Scheetz (1994) also reports that while more people are earning college degrees the educational job level required for adequate job performance is not rising as rapidly as the number of new college graduates produced by colleges and universities. The outcome is an oversupply and/or underutilization of new college graduates. The end result is that in today's market a college degree often represents the minimal educational level required for many positions but it is no longer a guarantee of a job requiring a degree or even a job at all.

On the recruitment side, employers have been cutting back. Employers have fewer dollars to spend on the recruitment effort. As a result, many firms have reduced the number of campuses they visit and instead concentrate on those campuses which have historically provided well-prepared recruits (Dietz & Spotts, 1993). These institutions become "key universities" and competition for their "best" candidates has become intense. Another contributing factor is that individuals who are primarily responsible for college relations/recruitment spend the largest blocks of their time on general human resources matters and overall employment management, leaving little available time for campus recruitment (College Placement Council, 1995).

Recruitment Trends 1994-95(Scheetz, 1994) found that most (59.7%) surveyed employers (n= 545) expect new hires to have a grade point average of 3.0 or higher. The mean grade point average expected was 2.84. Some employers noted that graduates with low GPAs would be hired only if there were justifiable reasons for their low grades (i.e., work or leadership activities).

Employers generally favor graduates with good interpersonal skills, public speaking, writing and reasoning abilities and social graces (Scheetz, 1994). Also

essential are computer proficiencies, teamwork skills and customer relations expertise. Employers expressed dissatisfaction with the attitudes and expectation of new college graduates. Employers felt that these new graduates believe they are the most talented, enthusiastic and energetic individuals ever graduated. Consequently, new graduates have job expectations that exceed the qualifications they bring to employers.

The most successful recruitment techniques for employers were on-campus interviewing, referrals from current organizational employees, job listings posted with college career services offices and internship programs (Scheetz, 1994). The techniques that employers reported as least successful were video resumes or interviews, employee leasing, teleconferencing interviews and contract recruitment.

The 1994 College Relations and Recruitment Survey (College Placement Council, 1995) found that the five most important factors for employers (n = 422) when selecting schools for recruitment purposes were (a) campus offers majors sought, (b) past success recruiting at that campus, (c) quality of academic programs, (d) curriculum is responsive to the organization's needs, and (e) interest of graduates in the organization. The least important factors were (a) number of graduates, (b) college offers co-op program, (c) prestigious faculty, (d) management pressures, and (e) potential for summer hires. This study also found that the most important factors for qualifying candidates for the interview process were the student's major, work or co-op experience, degree level and grade point average.

A 1991 Career Planning and Placement Survey (College Placement Council, Inc., 1991) was conducted to assess the status of career planning and placement activities. There were 823 returned questionnaires. When asked if employers were allowed to prescreen and preselect students for interviewing almost 72% said yes. The comparable figures were 81% for 1987 and only 53% in 1981. This increase in the percent of placement services which allow prescreening is significant because employers regard the inability to prescreen as an impediment to effective recruitment (College Placement Council, Inc., 1991).

A nationwide survey of 447 career centers (Gaines, 1992) showed that the most universal services for

employers were (a) job posting (96%), (b) on-campus recruiting (94%), (c) providing employer literature to students (94%) and (d) job notification (93%). The least-frequently provided services were (a) providing a computerized network to connect employers and students (33%), (b) assisting employers with Affirmative Action efforts (47%) and (c) showing employer videos (49%).

METHODOLOGY

An area sample of 401 businesses located in the mid-Atlantic region, with emphasis on Pennsylvania and New Jersey, was chosen for this study. The survey instrument was sent to human resource managers. The initial mailing resulted in 76 usable questionnaires or a 19% overall response rate. The questionnaire asked respondents to indicate the extent to which they used each of 13 recruitment methods to identify qualified entry level business graduates. A 4-point Likert type scale was used ranging from 1 = Very Important Source to 4 = Not Used as a Source. Participants were then asked to list in order of importance the three methods of college student recruitment which they believe to be of greatest value.

Firms which engage in on-campus recruiting were asked to rate the importance of each of 14 factors when selecting a campus for visitation purposes. Once again, a 4-point Likert type scale was used (i.e., 1 = Very Important; 4 = Not a Factor). These items were followed by a series of questions which focused on current and innovative recruiting practices and beliefs and the demographic characteristics of the responding organization. A final open-ended question gave participants the opportunity to provide additional comments regarding the study.

RESULTS

Only 5.3% of the companies surveyed were small (50 employees or less). Another 9.2% were medium in size (51 - 250 employees) and the remaining 85.5% were large (more than 250 employees). The respondent sample represented a variety of industries. The financial, insurance, real estate and service sector accounted for 47.2% of the total. Manufacturing organizations represented another 29.2%. The wholesale and retail trades were 19.4% and the remaining

4.2% reflected firms in construction, transportation, communications and utilities.

The results from the question which asked respondents to indicate how important various methods are when recruiting qualified entry level business students are shown in Table 1.

The findings show that the three most important recruitment methods were employee referrals, posting the position within the organization and placing ads in newspapers and trade journals. Yet, when participants were asked to list in rank order of importance the three most valuable methods for recruiting business college graduates, 43.9% of the respondents identified on-campus interviewing as the most important method. Another 22.4% cited it as the second most valuable method and 3.8% chose it as third. Career days/fairs were also high on the list with 10.6% choosing it first, 22.4% choosing it second and 22.6% selecting it third. Although posting available jobs on the Internet was very important to 14.5% of the firms, 42.1% of the respondents reported not using the Internet for this purpose. Similarly, 85.5% of the survey participants indicated that video resumes are not used as a recruitment method.

Firms that recruit new business graduates on college/university campuses rated 14 factors on their importance when selecting a campus. The results are shown in Table 2. The most important factor was the quality of the academic program. Other important influences were that the campus offers the type of majors sought, past recruitment success, prescreening/preselection is allowed and the number of potential recruits. Variables which were relatively unimportant were the costs of recruiting at that location and having faculty contacts there.

Slightly over 70% of the respondents indicated that finding well prepared business graduates is somewhat to very difficult. But 38.5% believe that the quality of business graduates has improved over the past five years. Another 49.2% indicated that the quality of these graduates has neither improved nor declined over this time span. The majority (51.4%) of firms reported recruiting for specific positions. But another 40.5% stated that they typically recruit both for specific position openings and in anticipation of openings.

Approximately 26% of the firms usually visit between one and five institutions; 16% visit between six and ten; and 33% visit more than ten campuses each year. The remaining 25% do not engage in campus visitations.

Almost 34% of the responding firms indicated plans to increase the number of schools to be visited during the next five years. Another 31% said they neither plan to increase nor decrease the number of campus visitations in that time period.

While written comments revealed that the surveyed firms believed their working relationships with career center staff to be good and that overall they are satisfied with on-campus recruiting, it was interesting to note that not many of the organizations (just over 18%) extended invitations to university career service staff to visit their organizations to familiarize staff persons with the firm's needs. When asked if the organization has developed any relationship other than recruiting at selected colleges and/or universities, almost half the respondents indicated they have developed co-op/internship relationships which have led to the hiring of college business graduates. But this relationship does not extend to faculty as only 8% of the respondents indicated an interest in having a faculty member work in the business on a temporary basis, much like a student intern. An even stronger negative response (68.3%) was indicated when asked about company willingness to pay a faculty member to work on a temporary basis.

DISCUSSION

It is interesting to note that, although study participants indicated that employee referrals, posting job openings within the organization and placing ads in newspapers and trade journals are viewed as the most important sources for recruiting college business graduates, the techniques which were consistently ranked as being the most valuable were on-campus recruiting and career days/fairs. It seems that the more traditional approaches to recruiting business graduates are still seen as fundamental underpinnings of the recruitment process. However, on-campus interviews and career days/fairs are more likely to provide a larger pool of desired applicants via a "one-stop" shopping effort. Furthermore, employers relate there is no substitute for meeting a job applicant face

to face and that interviewing remains the best method of measuring the communications and "people" skills of prospective employees (Scheetz, 1994). It appears that newer and more innovative techniques such as posting on the Internet and examining video resumes, while very important to some firms, have yet to prove their value to most organizations. This was true despite the fact that the majority of companies participating in this survey had more than 250 employees.

Although the respondents reported that the cost of recruiting at a particular campus location was the least important factor when selecting a site for visitation purposes, costs are clearly an implicit factor. The five most critical factors were quality of the academic program, campus offers majors sought, past recruitment success, prescreening/preselection allowed, and the number of potential recruits. Clearly these five variables are integral to maximizing the return on recruitment efforts and dollars spent.

Helpfulness of the placement staff was also viewed as being fairly important when selecting a campus recruitment site. These results are consistent with another study (Scheetz, 1994) which found that employers desire a greater customer service orientation by career services employees. In particular, employers desire a centralized operation with a single contact person in order to streamline the process. Likewise, the 1994 College Relations and Recruitment Survey (College Placement Council, Inc., 1995) found that employers are concerned with customer service issues such as courtesy, helpfulness and competence; having career services offices insure that only qualified candidates are on the interview schedule; and that career services employees help employers find qualified candidates. This study (College Placement Council, Inc., 1995) also reported the most common reasons for eliminating schools from the roster were problems with the career services offices (i.e., incompetence); problems with students (i.e., lack of quality/quantity, unwillingness to relocate); and problems with the institutions (i.e., lack of congruence with majors sought, lack of diversity in the student body, difficult school location).

Diversity of the student body was also considered to be important. However, Maury Hanigan, president of Hanigan Consulting Group, believes progress in hiring minority candidates is inadequate (Laabs, 1993). That

firm's study of diversity hiring patterns in the campus recruiting programs at 100 Fortune 500 companies revealed that fully 13% of the surveyed companies hired no minorities from campuses during the 1992-93 academic year. According to Hanigan the problem isn't that there aren't enough qualified minority candidates. She notes that the total number of campus minority recruits has dropped 55% since 1989, while the number of minorities receiving degrees has increased (Sorohan, 1994). Instead, Hanigan believes the difficulty lies with recruiters who haven't been adequately trained to recognize and adjust for their own socioeconomic biases (Laabs, 1994). It appears that while firms profess to have interest in hiring individuals with diverse backgrounds, more could be done.

It also seems that responding firms, faced with the downsizing of the early 90's, are not prepared to take on faculty in co-op/internship positions. The benefits of such an arrangement are: (a) the faculty member would gain first-hand knowledge concerning the needs of the organization and (b) this on-the-job experience could help the instructor incorporate more practical problems and learning experiences into the classroom. Such an arrangement would facilitate directing and recommending only well-qualified students to recruiters and would allow for the possibility of having student teams study corporate problems and share possible solutions. The best fit between organization staffing needs and available college graduates can be established only if needs are well understood. If firms don't view faculty internships as a viable means to accomplish this, at a minimum it would be helpful if career services staff were invited to the company so they could garner a fuller appreciation of the firm's needs.

CONCLUSION

It is apparent from the results of this study that not much has changed with respect to recruiting business graduates for entry level positions. Traditional methods still remain popular. It seems that more time is needed before colleges/universities and employers will be ready to take advantage of the newer approaches to recruitment that are now possible due to advances in technology.

ENDNOTE

1. The authors wish to thank their respective institutions for providing funds for the mail survey.

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TABLE 1
PERCEIVED IMPORTANCE OF VARIOUS RECRUITMENT SOURCES

Employee referrals	1.67
Post within organization	1.80
Ads in newspapers/trade shows	1.91
On-campus interviews	2.14
Career days/fairs	2.26
Job listings at placement office	2.28
Unsolicited applications	2.52
Employment agencies	2.65
Computerized data bases - placement offices	2.76
Post jobs on Internet	2.92
Employ professional search firm	2.98
Outreach to clubs, fraternities, sororities	3.09
Examine video resumes	3.84

1 = Very Important Source

2 = Somewhat Important Source

3 = Limited Source

4 = Not Used As A Source

TABLE 2
PERCEIVED IMPORTANCE OF FACTORS IN THE SELECTION OF RECRUITMENT SITES

Quality of academic program	1.36
Campus offers majors sought	1.51
Past recruitment success	1.55
Prescreening/preselection allowed	1.63
Number of potential recruits	1.76
Helpfulness of placement staff	1.86
Diversity of student body	1.98
Success of alumni in organization	2.00
Nearness of institution	2.40
Institution invites firm to recruit	2.45
Institution accredited by AACSB	2.45
Institution accredited by ACBSP	2.47
Faculty contacts	2.59
Cost of recruiting at location	2.78

1 = Very Important

2 = Important

3 = Considered, But Not Critical

4 = Not A Factor

AN EMPIRICAL ANALYSIS OF ECONOMIC VALUE ADDED AS A PROXY FOR MARKET VALUE ADDED

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ABSTRACT

This paper examines the relative effectiveness of economic value added (EVA™) in tracking and predicting both the level of and changes in shareholder wealth as measured by market value added. We compare EVA™'s effectiveness with that of the more traditional measure of corporate performance, net operating profit after taxes (NOPAT). NOPAT outperforms EVA™ as a short-term measure of performance while the evidence is mixed on the relative strength of the two measures with respect to long-term valuation.

EVA™ is a trademark of Stern Stewart & Co.

INTRODUCTION

Fortune magazine recently described economic value added (EVA™) as "today's hottest financial idea and getting hotter (Tully 1993, 38)." Companies including AT&T, Coca-Cola, CSX, DuPont, Scott Paper, and Quaker Oats are utilizing EVA™ as an essential measure of corporate performance. AT&T has made EVA™ its primary performance criterion, and ties management compensation at all levels to EVA™ measures (Walbert 1993, 76). Bennett Stewart (1990, 52) claims that, "The theory and the evidence all point to the same fundamental conclusion: Increasing EVA™ should be adopted as the paramount objective of any company that professes to be concerned about maximizing its shareholders' wealth." Daniel McConville claims that "...EVA can help shape virtually every corporate decision from acquisitions to employee compensation (1994, 55). But not everyone agrees. Chrysler's Daniel Saint writes, "...as a single period measure of financial performance, I believe its contribution is minimal and not much different from return on equity (minus the company's cost of equity) or other traditional accounting measures (1995, 10)." Despite EVA™'s popularity, there is a dearth of empirical studies in the corporate finance literature which support or refute such confidence in this measure.

The purpose of this study is to test empirically the strength of the relationship between EVA™ and Market Value Added (MVA). First we define and discuss the measurement of EVA™ and MVA and its theoretical relationship to firm objectives. Next we review the existing literature and present our methodology. We then present our results regarding the strength of the relationship between EVA™ and MVA, and compare EVA™'s ability to proxy for MVA with that of a more traditional accounting measure of performance. Finally, we review our results and their implications.

EVA™, MVA and Firm Objectives

EVA™ is Stern, Stewart & Co.'s servicemarked name for economic profit. The concept of economic profit is by no means new and simply represents accounting profits minus the firm's cost of capital. It is calculated for any year by multiplying a firm's economic book value of capital¹ (C) at the beginning of the year by the spread between its return on capital² (r) and its cost of capital³ (k):

$$EVA_t = (r_t - c_t^*) \times C_{t-1} \quad (1)$$

A more intuitive way to think of EVA™ is as the difference between a firm's net operating profit after taxes (NOPAT)⁴ and its total cost of capital:

$$EVA_t = NOPAT_t - (c_t * C_{t-1}) \quad (2)$$

Stern Stewart also make numerous adjustments in their EVA™ calculations, such as removing R&D and advertising expenses from NOPAT and capitalizing these charges.

While EVA™ is just a single period measure of corporate performance, MVA is more forward looking. MVA is a market generated number calculated by subtracting the capital invested in a firm (C) from the sum (V) of the total market value of the firm's equity and the book value of its debt:

$$MVA_t = V_t - C_t \quad (3)$$

Although this measure of value depends on a book value of capital which is subject to inflation influences, we agree that it provides a useful market indication of present and future value creation by representing the difference between the capital invested and the present value of the cash flows expected from that capital.

While there are numerous other measures of "economic profit" and corporate performance being advocated by various consulting firms,⁵ we focus here on the measure calculated by Stern Stewart as this has received the most attention and is published annually for a sample of 1000 firms.

LITERATURE REVIEW

While EVA™ has certainly attracted popular attention and a significant following, we find minimal existing evidence in the academic literature to support this reputation. Reviewing some of the praises of EVA™, John Shiely, President and COO of Briggs & Stratton, believes that EVA is "a measuring stick, an unbiased measure of performance...EVA instills capital discipline (Achstatter 1995, 1)." Stern, Stewart, and Chew (1995) claim that "For companies that aim to increase their competitiveness by decentralizing, EVA is likely to be the most sensible basis for evaluating and rewarding the periodic performance of empowered line people, especially those entrusted with major capital spending decisions (p.32)." They even claim that EVA™ compensation is "effectively 'self-financing' due to the strength of the correlation between changes in EVA and in sha-

reholder value (Stern 1995,46)." Says AT&T CFO Jim Meenan, "the correlation between MVA and EVA is very high. So when you drive your business units toward EVA, you're really driving the correlation with market value (Walbert 1994, 110)."

Weighing in against EVA™, Birchard (1994,32) notes that it can be biased against low return start-up investments and can favor businesses with heavily depreciated assets. AT&T's Justin Wolcott notes similar limitations: "You can create different results for DCF (Discounted Cash Flow) versus EVA analysis because of EVA's use of accounting, not cash figures (Birchard 1994, 37)." Consultant Alfred Rappaport explains that "EVA is a short-term measure based on sunken cost-historical investment...EVA can report value increases while the business is investing below the cost of capital, or value destruction while the business is actually investing above the cost of capital (McConville 1994, 58)." Consultant Bruce Keener simply concludes that "EVA fails to look forward (McConville 1994, 58)."

The only empirical evidence that we are aware of comes from the developers of EVA™ and from another consulting firm which advocates an alternative measure. Stern Stewart find an R-squared value of 60% between EVA™ and MVA, but this relationship is calculated for the average levels of these variables among 20 groupings of firms. They also report that changes in EVA™ over a five-year period explain 50% of the change in MVA over the same period (Stern 1995, p. 43). Thomas (1993) of BCG-Holt calculates an R-squared between MVA and EVA™ of just 4% for the 1000 firms in the Stern-Stewart 1000 database in 1988. After removing thirty-one "extreme" outliers, he finds the R-squared increasing to 27%. Certainly this evidence does not convincingly support the many claims made about EVA™.

THE SAMPLE

Our data source is the Stern Stewart 1000 (SS1000) database. The SS1000 is published annually by the *Continental Bank Journal of Applied Corporate Finance*, published by Stern Stewart & Co. The SS1000 contains annual data on EVA™, MVA and various accounting measures, for the 1000 largest non-financial firms in the U.S., in terms of market capitalization, for the period 1982-1994. In Table 1 we present the means and

standard deviations for the primary variables that we examined in this study (1982 - 1992). Note that while MVA and NOPAT are positive on average, the mean level of EVATM is negative, which demonstrates the significance of the cost of capital and implies significant growth expectations for future EVATM. We also find a very low correlation (.097) between the levels of EVATM and NOPAT, but changes in these measures are highly correlated (.936), as changes in both measures should only differ by changes in the cost of capital.

METHODOLOGY AND RESULTS

Our objective here is to test the hypothesis that EVATM is highly correlated with MVA. We do not seek to fully explain the determinants of MVA, but only to show how well EVATM acts as a proxy for MVA, in order to justify its appropriateness for compensation and other objectives. As such, we do not employ a sophisticated econometric model, but simply use univariate regressions to compare EVATM with other measures in explaining MVA. As workers whose compensation has been determined by EVATM (at AT&T), we simply want to show how well this measure explains the MVA measure that represents shareholder interests, without any complicated econometric adjustments. In doing so, we look at both the levels of MVA and changes in MVA, past and present measures of EVATM and NOPAT and their changes, and the cumulative present values of EVATM and NOPAT over our sample period. We also attempt to control for firm size influences by standardizing our MVA, EVATM, and NOPAT measures.

Levels of Market Value Added

Since MVA is a cumulative measure of wealth creation, it is an accomplishment for a firm with a high level of MVA just to maintain that level, as this requires the satisfaction of both present and future earnings expectations. Therefore, we begin by presenting results for the relationship between the level of market value added (MVA) and the level of EVATM (EVA). Using the entire SS1000 over ten years (1982 - 1992) as our sample, we performed an ordinary least squares regression on each firm (j) over each year (t):

$$MVA_{jt} = a + bEVA_{jt} + e \quad (4)$$

This yielded a positive and statistically significant (at the 5% level) coefficient of 2.38 and an adjusted R² of 0.0993 for the entire sample (Table 2)⁶.

While these results are significant, much of the determination of MVA remains unexplained. In order to provide more insight into the strength of EVATM as a proxy for MVA, we decided to provide a benchmark by performing an ordinary least squares regression with net operating profits after taxes (NOPAT) as our independent variable:

$$MVA_{jt} = a + bNOPAT_{jt} + e \quad (5)$$

We chose net operating profits after taxes because all corporations calculate NOPAT and most do so for their divisions as well. In addition, employees and analysts are accustomed to interpreting NOPAT, the more traditional measure of corporate performance. As such, the introduction of EVATM as a key measure of corporate performance requires the company to shoulder the additional costs incurred calculating EVATM and educating managers, employees, and analysts about this new performance measure. If these marginal costs are to be incurred, we should expect to see some marginal benefits to using EVATM instead of NOPAT as a proxy for MVA.

Again using the entire sample from 1982 through 1992, we proceeded to regress MVA on the same period and lagged levels of EVATM and NOPAT. The results are summarized in table 2.

We see in all cases that the level of market value added is positively related to both NOPAT and EVATM in the same and prior periods. However, in all cases, NOPAT explains more of the total variation in market value added than does EVATM. This suggests that the level of NOPAT is not only a better proxy but also a better predictor of corporate performance than the level of EVATM.⁷

In order to measure and adjust for the influence of outliers on these results, we tried two additional steps. First, we simply excluded firms in the oil industry from our sample, as these natural resource firms are judged by Stern Stewart to be less than ideal candidates for using EVATM. These results (Table 2, columns 5-8) are quite similar to the earlier results, showing a clear preference

for NOPAT over EVATM, but with higher coefficients and more explanatory power. Second, we ran a weighted least squares regression on the full sample, using the inverse of the variance of MVA over the sample period as our weights, as a measure of the precision of market valuation. These results (Table 3) show much smaller coefficients for NOPAT and a much greater explanatory power for the EVATM variables. While this suggests that EVATM may be a better proxy for MVA when firms have more stable market values, one should not interpret these results as a universal endorsement of EVATM.

To test the possibility that differences in size among companies in the SSI000 was affecting these results, we standardized each firm's (j) MVAs, EVATMs, and NOPATs (as suggested in *The Quest for Value* by Bennett Stewart) by dividing MVA by the same period capital measure and by dividing EVATM and NOPAT by lagged capital measures:

$$sMVA_{jt} = \frac{MVA_{jt}}{C_{jt}} \times 100 \quad (6)$$

$$sEVA_{jt} = \frac{EVA_{jt}}{C_{j,t-1}} \times 100 \quad (7)$$

$$sNOPAT_{jt} = \frac{NOPAT_{jt}}{C_{j,t-1}} \times 100 \quad (8)$$

We then performed a similar analysis as before, the results of which are summarized in table 4.

We see among these standardized variables that NOPAT again explains more of the total variation in market value added than does EVATM, although most of the models have less explanatory power than in the non-standardized analysis. It does not appear that size was responsible for our earlier findings, however, and we note here that NOPAT appears to be a superior measure in the weighted least squares analysis as well (table 5).

Changes in Market Value Added

While it is an important accomplishment to maintain a high level of MVA, as this requires the fulfillment of expectations of high performance, it is clearly in the shareholder's interest for management to increase MVA. Stewart (1991, 191) states that "Changes in MVA over a period of time are likely to be as useful as the levels of MVA (if not more so) in assessing a company's performance." Stewart goes on to argue that EVATM is the ultimate accounting proxy for MVA.

EVA is the internal measure of operating performance that best reflects the success of companies in adding value to their shareholders investments. As such, it is strongly related to both the level and changes in the level of MVA over time (p.192).

Therefore, we proceeded to examine the relationship between changes in market value added (ΔMVA), and the same period and lagged levels of EVATM and NOPAT.

Examining the entire sample from 1982 through 1992, our results indicate that changes in MVA were negatively related to the levels of EVATM in both the same and prior period. In comparison, changes in MVA were positively related to the levels of NOPAT in both the same and prior period. This clearly suggests that the market is more likely to react to profits than EVATM, at least in the short-run. The same holds true for the lagged values, as the level of NOPAT seems to do a better job, at least directionally, of proxying for future changes in MVA than the level of EVATM. In looking at the relationship of changes in MVA to changes in EVATM and NOPAT (columns 5-6), we observe no real difference, which is not surprising in light of the high correlation between changes in the two variables noted earlier. Removing the oil companies from the sample (columns 7-12) again does not substantially change the results, and our weighted least squares models (Table 7) suggest that none of these measures are a good positive indicator of MVA changes.

Valuation

While EVA™ is certainly not the key to short run MVA, it may still provide a good measure of value added. From a valuation standpoint, a company's MVA at any time is in principle equal to the present value of all EVA™ it is expected to generate in the future. Therefore, we look at the cumulative present values of EVA™ and NOPAT and compare these sums with the MVA values that precede them. This should provide some evidence of which measure the market is more forward looking towards.

A basic problem with both measures is that they are simply single period measures, but by summing the present values of these measures we reduce or eliminate any benefits from sacrificing future performance for current performance. Thus we hope to find more longer term evidence here for EVA™ relative to NOPAT in explaining past MVA and value creation. Nevertheless, our sample contains just 10 years of data and we thus have no measure of the continuing value of either EVA™ or NOPAT beyond our sample period, which may represent the majority of current MVA. Thus our final model examines:

$$\text{Avg. MVA}_{82-84} = a + b(\text{PVEVA}_{85-92}) + e \quad (9)$$

$$\text{Avg. MVA}_{82-84} = a + b(\text{PVNOPAT}_{85-92}) + e \quad (10)$$

We also repeat this analysis using 1983-85 as the base period for calculating average MVA. Looking at the results of these regressions, we find that for our full sample (Table 8) neither measure is well correlated in present value terms with MVA, although EVA has an advantage. Eliminating the oil firms (Table 9) greatly improves the explanatory power of future values of NOPAT, but suggests a much weaker relationship between early MVA and later EVA™. Finally, we reintroduce the weighted least squares procedure (Table 10) and find that this adjustment reverses the story in favor of EVA™. Thus while we do find evidence that the market is more forward looking toward EVA™ for some firms, the overall results are mixed, and we hesitate in putting too much stock in this latter analysis due to the importance of the omitted continuing values.

CONCLUSIONS AND IMPLICATIONS

In all, we have found no evidence to support the contention that EVA™ is the best internal measure of corporate success in adding value to shareholder investments. On the contrary, the market seems more focused on "profit" than EVA™. Tradition may provide an explanation.

How many analysts covering a company provided earnings estimates for the year? All.

How many of those same analysts provide EVA or even free cash flow estimates? Very few.

Obviously, there is a huge perception and comprehension problem that accompanies the introduction of EVA as a management tool (Brossy 1994, 21).

With the market being fed almost constant news on earnings, it is not surprising that it is not as responsive to EVA™ in the short-run.

We do not see this market "ignorance" of EVA™ as a problem, however. Both EVA™ and NOPAT are single period measures, and negative values of either may represent wise investment for the future, not the destruction of value. Further, we do not see a clear advantage to shareholders in looking at EVA™, as the accounting return on their investment is NOPAT. While these investors certainly need to be aware of capital structure, they should already be familiar with the opportunity cost of their investments, and may not need to incorporate this into the measure of performance.

From the point of view of management decisions, we are not arguing against the concept of "economic profit" or the use of the NPV of future cash flows for investment decisions. We certainly think it is important for management to understand its cost of capital, but we do caution against an overemphasis on either NOPAT or EVA™ as currently defined, as both are simply single period accounting measures. Neither gives an infallible measure of performance, and despite claims of market myopia, the market is not perfectly tied to either.

As noted in the introduction, there is a need for further research in this area, especially by individuals without a vested interest in EVA™. Future work should look at other measures of short-term performance and also examine the implications of these findings on the development of various compensation schemes. It appears from our results that shareholders can align management's wealth enrichment more closely to their own, at least in the short-term, by tying compensation to profits rather than EVA™. However, our results are most applicable to the SS1,000 and not the EVA™ management system per se. Since EVA™ calculations are modified for each firm that adopts the system, it would also be valuable to examine the performance of companies that have implemented an EVA™ system to those that have not. It also seems essential to investigate the ability of other measures of short-term performance to reflect long-run value added.

ENDNOTES

1. This measure of invested capital includes both debt and equity and also numerous adjustments, such as the capitalization of R&D and advertising.
2. Calculated as $NOPAT/C_{t,1}$. (see below for definition of NOPAT).
3. Calculated using market based weights and a CAPM approach for the cost of equity.
4. Income before interest and one-time charges, restructuring reserves, and accounting changes.
5. See for example Birchard, 1994.
6. By removing extreme outliers (those with standard errors outside of two standard deviations from the mean) we observed a positive and statistically significant (at the 5% level) coefficient of 2.14 and an adjusted R^2 of .2965, consistent with the findings of an unpublished report prepared by Thomas (1993) of BCG Holt.
7. The specification of our model with an intercept term implies that an average firm with zero EVA™ or zero NOPAT will still have a posi-

tive MVA. We believe this is a reasonable specification of the model, but we also did the same analysis and omitted the intercept variables, and found similar coefficients on our independent variables, and again a much greater ability of the present and lagged NOPAT variables to explain MVA.

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Table 1: Sample Statistics (All #'s in millions except n)

Variable	n	Mean	Std Dev	Minimum	Maximum
MVA	8,855	698	3,127	-23,019	64,061
EVA	8,917	-70	413	-14,381	4,824
NOPAT	8,917	192	554	-3,338	9,774

Table 2: Results for the Levels of Market Value Added

Dep. Variable	Entire Sample				Excluding Oil Companies			
	NOPAT	EVA	NOPAT _{t-1}	EVA _{t-1}	NOPAT	EVA	NOPAT _{t-1}	EVA _{t-1}
Intercept	247.47	878.07	376.82	918.31	186.86	891.91	337.75	931.4
t-statistic	7.65	27.07	10.26	25.03	5.88	27.17	9.12	24.93
Coefficient	2.39	2.38	2.11	1.99	3.14	2.66	2.70	2.26
t-statistic	43.69	31.01	34.14	21.48	52.03	31.88	38.38	22
R ²	0.180	0.099	0.131	0.056	0.245	0.109	0.166	0.061
n	8712	8712	7753	7753	8344	8344	7423	7423

Table 3: Results of Weighted Least Squares for the Levels of MVA

Dep. Variable	Entire Sample			
	NOPAT	EVA	NOPAT _{t-1}	EVA _{t-1}
Intercept	144.09	204.88	119.11	181.78
t-statistic	40.15	89.55	33.73	68.49
Coefficient	1.20	2.80	1.30	2.19
t-statistic	17.76	54.31	19.46	43.11
R ²	0.035	0.254	0.046	0.193
n	8674	8674	7747	7747

Table 4: Results for the Standardized Levels of MVA

Standardized	Entire Sample				Excluding Oil Companies			
	NOPAT	EVA	NOPAT _{t-1}	EVA _{t-1}	NOPAT	EVA	NOPAT _{t-1}	EVA _{t-1}
Intercept	6.03	99.50	10.19	94.69	7.64	101.73	11.83	96.82
t-statistic	0.90	19.05	1.39	16.53	1.09	18.65	1.54	16.18
Coefficient	7.12	6.65	6.34	5.83	7.12	6.63	6.33	5.81
t-statistic	22.42	21.08	18.57	17.22	21.76	20.46	18.01	16.69
R ²	0.055	0.048	0.043	0.037	0.054	0.048	0.042	0.036
n	8677	8677	7719	7719	8309	8309	7389	7389

Table 5: Results of Weighted Least Squares for Standardized Levels of MVA

Standardized	NOPAT	EVA	NOPAT _{t-1}	EVA _{t-1}
Intercept	-8.27	84.85	17.84	69.24
t-statistic	-2.28	35.35	8.97	50.51
Coefficient	7.60	6.89	4.16	4.18
t-statistic	38.52	34.02	40.23	39.77
R ²	0.147	0.118	0.173	0.170
n	8639	8639	7713	7713

Table 6: Results for the Changes in Market Value Added

Dep. Variable	Entire Sample						Excluding Oil Companies					
	NOPAT	EVA	NOPAT _{t-1}	EVA _{t-1}	ΔNOPAT	ΔEVA	NOPAT	EVA	NOPAT _{t-1}	EVA _{t-1}	ΔNOPAT	ΔEVA
Int.	111.71	153.23	150.63	119.35	175.44	187.20	111.81	155.15	166.02	120.49	160.86	181.82
t-stat	6.34	9.10	8.39	7.17	10.45	11.18	6.18	9.04	9.01	7.14	9.50	10.75
Coeff	0.35	-0.44	0.17	-0.98	0.93	0.93	0.34	-0.39	0.059	-1.10	1.51	1.39
t-stat	12.17	-11.32	5.67	-23.39	14.16	15.12	10.36	-9.22	1.70	-23.78	19.80	19.70
R ²	0.018	0.016	0.004	0.066	0.025	0.029	0.014	0.011	0.000	0.071	0.050	0.050
n	7795	7795	7683	7683	7681	7681	7465	7456	7356	7356	7354	7354

Table 7: Results of Weighted Least Squares for Changes in Market Value Added

Dep. Variable	NOPAT	EVA	NOPAT _{t-1}	EVA _{t-1}
Intercept	12.29	8.63	16.09	8.97
t-statistic	8.44	7.83	10.69	7.51
Coefficient	-0.07	-0.11	-0.15	-0.26
t-statistic	-2.57	-4.62	-5.28	-11.02
R ²	0.001	0.003	0.004	0.015
n	7795	7795	7683	7683

Table 8: Valuation Results - Whole Sample

Dep. Variable	Base Period 1982 - 1984		Base Period 1983 - 1985	
	MVA 82-84	MVA 82-84	MVA83-85	MVA 83-85
Ind. Variable	PV EVA 85-92	PV NOPAT 85-92	PV EVA 86-92	PV NOPAT 86-92
Intercept	366.63	-65.57	408.98	-46.72
t-statistic	4.76	-0.76	4.58	-0.05
Coefficient	0.57	0.17	0.42	0.26
t-statistic	11.44	6.29	7.31	8.21
R ²	0.171	0.058	0.077	0.095
n	631	631	631	631

Table 9: Valuation Results - Excluding Oil Companies

Dep. Variable	Base Period 1982 - 1984		Base Period 1983 - 1985	
	MVA 82-84	MVA 82-84	MVA83-85	MVA 83-85
Ind. Variable	PV EVA 85-92	PV NOPAT 85-92	PV EVA 86-92	PV NOPAT 86-92
Intercept	369.57	-204.3	422.79	-172.55
t-statistic	4.77	-2.77	4.67	-2.02
Coefficient	0.042	0.396	0.279	0.47
t-statistic	7.46	14.94	4.31	14.54
R ²	0.083	0.270	0.028	0.259
n	602	602	602	602

Table 10: Valuation Results using Weighted Least Squares

Dep. Variable	MVA 82-84		MVA 83-85	
	MVA 82-84	MVA 82-84	MVA 83-85	MVA 83-85
Ind. Variable	PV EVA 85-92	PV NOPAT 85-92	PV EVA 86-92	PV NOPAT 86-92
Intercept	75.02	20.84	88.83	32.56
t-statistic	11.93	2.36	12.80	3.59
Coefficient	0.40	0.05	0.39	0.08
t-statistic	16.63	1.64	13.58	2.48
R ²	0.304	0.003	0.225	0.008
n	631	631	631	631

CURRENT IMPLEMENTATION ISSUES OF PENNSYLVANIA'S QUALITY IMPROVEMENT ACT

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ABSTRACT

Given that the adoption of quality practices has caused a revolution in organizations throughout the U.S., this paper reflects the early stages of a study that examines the current implementation issues associated with Pennsylvania's Quality Improvement Act. Following the introduction an outline of future text is provided.

INTRODUCTION

In recent years, the adoption of quality practices has caused a revolution in organizations throughout the U.S. Practices associated with Total Quality Management (TQM) have spread not only throughout industrial and service organizations, but increasingly through organizations in the health, education, non-profit, and public sectors. In 1987, under a climate of intense international competition, the U.S. Department of Commerce established the Malcolm Baldrige National Quality Award. With the cooperation of American Society for Quality Control (ASQC) and the National Institute of Standards and Technology (NIST), the Baldrige model soon became a major instrument of industrial policy acquiring a well-deserved public and formal status. Shortly after its inception, the Baldrige model became a catalyst for many organizations--public and private; educational and professional; state, and local government--that have been searching for a model of TQM to guide them in their pursuit of greater competitiveness. By 1991, nearly all the fifty states in the union began utilizing the Malcolm Baldrige National Quality Award criteria framework and introduced a "Baldrige-like" quality award campaign as part of their own statewide TQM initiatives. Recently, however, it has become increasingly evident that many states are experiencing major setbacks in successfully carrying out their quality award programs, failing to meet the mandated goals as outlined in their respective legislative quality improvement laws. The problems being faced by many state quality awards seem to be more of a norm than an exception, and are just beginning to attract experts attention in both state and national levels in recent months.

Commonwealth of Pennsylvania's quality award program is no exception. After only four years since its inception through Pennsylvania Quality Improvement Act 1992-11-1, and only after two cycles of awards given in 1994 and 1995, the Pennsylvania Quality Leadership Award program is in the verge of being indefinitely disbanded beginning with the 1996 award year. The primary purpose of this paper is to assess the Pennsylvania's Quality Leadership Award program, identify main reasons for its setbacks, and develop recommendation as solution to revitalize the program. The paper examines Pennsylvania's Quality Leadership Award program and through a survey attempts to assess the program's success in fulfilling its mandated goal as outlined in the Pennsylvania Quality Improvement Act 111. The key implications of the findings are outlined and several recommendations for enhancing the effectiveness of the state-level quality award programs are presented.

Pennsylvania Quality Leadership Award in perspective:

The Pennsylvania Quality Improvement Act 111 mandates the following goals for the quality award program:

- (i) helping to stimulate the public and private sectors in this Commonwealth to improve quality and productivity;
- (ii) recognizing the achievements of those in the public and private sectors who improve the quality of their goods and services and provide an example to others;
- (iii) establishing guidelines and criteria that can be used by business, industrial, government and other organizations in evaluating their own quality improvement efforts; and

(iv) providing specific guidance for other organizations in this Commonwealth that wish to learn how to manage for high quality by making available detailed information on how successful organizations were able to achieve eminence.

There are three levels of Quality Leadership Awards:

The Governor's Quality Leadership Award
 The Keystone Quality Leadership Award
 The Cornerstone Quality Leadership Award

Applicants may be manufacturing and service (small, medium, and large), government agencies, educational institutions, as well as nonprofits and health care organizations. No organization may receive more than one Governor's Award in a five-year period.

The Pennsylvania Quality Leadership Award Council:

I. Organization

- . The Lieutenant Governor
- . The Secretary of Commerce
- . The Secretary of Labor and Industry
- . A member appointed by the President pro tempore of the Senate
- . A member appointed by the Speaker of the House of Representative
- . A representative from Pennsylvania AFL-CIO
- . A representative from the Pennsylvania Chamber of Business and Industry
- . A representative from the Pennsylvania Association of Colleges and Universities
- . The Chairman of the Board of the Pennsylvania Quality Leadership Foundation
- . The CEO or the highest ranking official of the Governor's Quality Award winning organizations.

II. Primary Responsibilities

- . Approving guidelines and criteria for the award application
- . Approving and announcing award recipients
- . Appointing members to the Board of Examiners

The Pennsylvania Quality Leadership Foundation (PQLF)

I. Organization

- A. Board of Directors (Appointed)
 - The President of PQLF
 - Fifteen representatives from businesses
 - Threerepresentativesfrom educational institutions
 - Two representatives from economic development organizations.

B. Executive Director (Staff)

II. Primary Responsibilities

- To ensure that all award applicants receive a detailed Feedback Report,
- To develop and Recommend award guidelines for approval by the Council,
- To provide information about awards and successful TQM strategies, and
- Support and promote training and educational programs.

The Pennsylvania Quality Leadership Award Criteria and Examination Items:

1.0 LEADERSHIP

- 1.1 Senior Executive Leadership
- 1.2 Leadership System: Quality Values, Expectations, and Strategic Direction
- 1.3 Public Responsibility and Corporate Citizenship

2.0 INFORMATION AND ANALYSIS

- 2.1 Management of Information and Data
- 2.2 Competitive Comparison and Benchmarking
- 2.3 Analysis and Use of Organization-wide Data

3.0 STRATEGIC PLANNING

- 3.1 Strategic and Performance Planning Process
- 3.2 Strategic Deployment and Performance Projections

4.0 HUMAN RESOURCE EXCELLENCE

- 4.1 Human Resource Planning and Evolution
- 4.2 Employee Involvement, Performance and Recognition
- 4.3 Employee Education, Training, and Development
- 4.4 Employee Well-Being and Satisfaction

5.0 PROCESS MANAGEMENT

- 5.1 Design and Introduction of Products and Services
- 5.2 Operations Process Management
- 5.3 Support Process Management
- 5.4 Supplier Performance Management

6.0 PERFORMANCE RESULTS

- 6.1 Product and Service Quality Results
- 6.2 Operational and Financial Results
- 6.3 Supplier Performance Results

7.0 CUSTOMER FOCUS AND SATISFACTION

- 7.1 Customer Expectations and Requirements
- 7.2 Customer Relationship Management
- 7.3 Customer Satisfaction Determination
- 7.4 Customer Satisfaction Results and Comparison

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**MASS PRIVATIZATION OF STATE OWNED ASSETS IN POLAND
THROUGH THE NATIONAL INVESTMENT FUNDS:
PROCESS, CURRENT RESULTS AND OUTLOOK
(SUMMARY OF RESEARCH FINDINGS)**

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ABSTRACT

This summary provides a concise account of the result of research conducted in Poland in the Summer 1996. Its goal was to describe and to evaluate the boldest legislative privatization scheme ever introduced into the post-communist economy in Eastern and Central Europe. Poland's successes and failures are closely observed by the other post-communist states. It seems that despite several potential problems and difficulties, the Polish NFI privatization Program is in place to stay.

INTRODUCTION

The process of privatization of 500+ state owned companies is being governed by the provisions of the Law Dated April 30, 1993 on National Investment Funds (NFIs) and Their Privatization. (Journal of Laws of the Republic of Poland 1993, No.202, dated May 31, 1993). Discussion of the Law is in the body of the study. Those companies represent more than 10 percent of the state productive sector in Poland, and, at the moment of the funds' creation, legally existed as joint-stock companies where the State treasury was the only shareholder (JSSPs). Despite the obvious delays and controversy, the calendar of the implementation seems to be progressing as intended and the Polish populace appears to be generally in favor of the NFI's principles.

The above privatization scheme is the only legislative formula developed and introduced in a former communist, centrally planned system, and has a unique Polish flavor, reflecting Poland's specific economic and socio-political makeup.

Some 12 million eligible Polish citizens, at least 18 years old and residing in the country, obtained their Universal Share Certificates (almost 50% of the total population eligible). The current redemption fee of a share certificate is PLN 20 or about \$7.4, while its market value

exceeds approximately 4 times that amount.¹ An active trading in those certificates is taking place at this writing, involving individuals, speculators, securities dealers and brokers and others. Eventually, the Universal Share Certificates will become exchanged for the Funds shares, making Polish citizens and institutions the true beneficiaries of the privatization scheme. Eventually, those shares will be actively traded on the Warsaw Stock Exchange (WSE). During the research period the initial tranche of the funds' stock has been introduced to the WSE. The Universal Share Certificate's sample is shown in the Appendix II.

Fifteen principal National Investment Funds have been formed, staffed and organized under the supervision and auspices of the Selection Committees chosen from a broad spectrum of the Polish society and finally approved by the Minister for the Ownership Transformation and the Prime Minister of the country. They are designed to function as close-end, joint-stock entities aimed at maximization of the financial gains for the shareholders. Their design and operations are generally in line with the Law (1993) and the amendments to it. All Funds had their general meetings, selected the supervisory boards and the management boards. The Funds distributed among themselves 60 percent of the total shares of all state enterprises contributed for that purpose by the State Treasury of Poland, some 30+ firms

per one fund. The algorithm used for this process is presented in the Appendix III. In all funds' portfolio there is always one fund that plays a "leading" role and receives up to 33 percent of the shares contributed by the Treasury. All others can obtain up to 27 percent of the allocated stock.

In two cases supervisory boards removed several foreign members of their managerial staff accused of mismanagement (Fund 11 and 13). It signifies a potential agency problem (see comments in the Section H of this summary). Appendix I contains the listing and description of all fifteen Funds.

A heated discussion surrounding the concept and timing of the NFIs' creation the fact that the true promoter of the Program is the State itself, and that many Fund national managers and firm's managerial personnel have "old guard" (" new nomenclature") roots results in excessive politicization and delays in an implementation process. Various political factions call for the creation of an association for supervision of the whole Program consisting of shareholders at the grass root level. Similarly, the hiring and power vested in the foreign strategic investors (93 of those investors were listed as of mid-August 1996) stirs some nationalistic opposition clearly evident in the media.

Controversy also surrounds the issue of seemingly "excessive" compensation of the management boards (on average \$US 3 million per year + 1% of the Fund's shares per year + 5% of the shares of that Fund at the end of the 10-year contract. The critics claim that an over 15% share packet (if retained by the managerial boards) would give them a significant influence and control over the Fund's assets, and, hence, operations.

Since the compensation of the supervisory board's members is significantly lower than the one of the managerial board members, there is, claim the critics, a potential for making the "controllers" dependent on/influenced by "controlled ones".

Another issue related to the strategies of the Funds is their propensity to sell well functioning firms to increase the Fund's share value and to eliminate "weak" performers that lower Fund's economic performance. This issue is being perceived as an important social dilemma threatening the interests of the employees and general

social guarantees. This, according to the critics of the Program, may steer the NFIs towards the holding design for privatization, favored by the current (post-communist) political coalition.

The Antimonopoly Office of the government raised the possibility of an excessive concentration of firms from the same industry in a single fund's portfolio.

Banks as financing bodies in the NFI privatization scheme may also become targets for possible conflict of interest allegations.

It is clear, then, that the designers of the NFI privatization program as well as investors can not ignore the central issue of an agency problem - the effect of separation of ownership and control in the modern corporation, which gives rise to a conflict of interest between shareholders and managers plus general public at large. Several studies cited in the research document clearly support this argument. In the opinion of the authors of this study, partly as a legacy of the communist past, agency problems are particularly difficult in the process of transition economies of Eastern and Central Europe. It is partly so since many Polish firms are excessively large, highly diversified, and in financial distress, and thus likely candidates for restructuring. Agency considerations are going to be likely determinants of share demand (share price) of those enterprises.

ENDNOTES

1. By law, the fee should not exceed a 10 percent of the average monthly salary in the national sector, and is being accepted only upon presenting of the State ID card where it is recorded to avoid multiple access attempts. Unfortunately, those attempts as well as counterfeiting (mostly aboard) have been quite rampant during the research period.

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NATIONAL INVESTMENT FUND "VICTORIA"
 (Former name: Fifth National Investment Fund)
 Management Company: Polskie Towarzystwo Prywatyzacyjne - Kleiwort Benson Sp. z o.o.
 Chairman of the Board: Jan Rymczy
 Address: ul. Długa 5, 00-263 Warszawa
 tel. 635 63 44, Fax: 635 62 14

Principal Shareholders:
 Kleinwort Benson Overseas B.V. (51%), Polska Grupa Zarządzania Funduszami Sp. z o.o. (49%).

SIXTH NATIONAL INVESTMENT FUND.
 Management company: Chase Gemina Polska Sp. z o.o.
 Chairman of the Board: Krzysztof Białowolski
 Address: ul. Jasna 12, 00-013 Warszawa.
 Tel: 27 06 07 fax: 27 30 63.

Principal Shareholders: Chase Gemina Italia srl (51%), Wielkopolski Bank Kredytowy S.A. (29%), NICOM Consulting Ltd. (20%).

NARODOWY FUNDUSZ INWESTYCYJNY im. KAZIMIERZA WIELKIEGO -(Former name: Siodmy Narodowy Fundusz Inwestycyjny).
 Management Company: LG Fund management Co. AG
 Chairman of the Board: Vacat
 Address: ul. Mokotowska 40 A2/25, 00-543 Warszawa.
 Tel: 26 52 19, Fax: 26 52 00.

Principal Shareholders: GICC Capital Corporation (33 & 1/3%), Lazard Freres et Cie (33 & 1/3%), Bank Gospodarstwa Krajowego (33 & 1/3%).

EIGHTH NATIONAL INVESTMENT FUND.

Management Company: KP Konsorcjum Sp. z o.o.
 Chairman of the Board: Jerzy Malyska
 Address: ul. Krakowski Przedmieście 4/6, 00-333 Warszawa
 tel: 26 28 78, fax: 26 03 12.

Principal Shareholders: KP International Ltd. (60%), Bank Handlowy SA (20%), PaineWebber Inc. (20%).

NATIONAL INVESTMENT FUND im. EUGENIUSZA KWIATKOWSKIEGO, (Former name: Ninth National Investment Fund).
 Management Company: none at this time
 Chairman of the Board: Jerzy Loch
 Address: Al. Jerozolimskie 87, Warszawa.
 Tel: 621 22 44, Fax: 621 72 82.

Principal Shareholders: none at this time.

TENTH NATIONAL INVESTMENT FUND.
 Management company: Fidea Management Sp. z o.o.
 Chairman of the Board: Henry Antoni Skarwinski
 Address: ul. Foksal 1., 00-366 Warszawa.
 Tel:/Fax: 26 80 53

Principal Shareholders: Banque ARJil (60%), Agencja Rozwoju Przemysłu SA (18 %), Warszawska Grupa Konsultingowa Sp. z o.o. (18%), Bank Inicjatyw Społeczno-Ekonomicznych SA (4%).

ELEVENTH NATIONAL INVESTMENT FUND
 Management Company: KN Wasserstein Sp. z o.o.
 Chairman of the Board: Jerzy Kedzierski
 Address: ul. Chłodna 64, 00-872 Warszawa.
 Tel: 661 63 25, Fax: 661 63 30

Principal Shareholders: KNK?New England Investment Companies Sp. z o.o. - New England Investment Companies, L.P. (50%), KNK Finance & Investment (50%).

TWELTH NATIONAL INVESTMENT FUND.
 Management Company: Pallas Stern - PBX Eurofund Management Polska Sp. z o.o.
 Chairman of the Board: Piotr Swiderski
 Address: Al. Jerozolimskie 11/19 00-508 Warszawa.
 Tel: 628 74 52, Fax: 625 21 25.

Principal Shareholders: Bank Pallas Stern (80%) and Polski Bank Inwestycyjny SA (20%).

Chairman of the Board: Marek Bryx
Address: ul. Grunwaldzka 102, 80-244 Gdansk
Tel./Fax: 41 43 65

Principal Shareholders: Yamaichi International (Europe) Limited (54%), Regent Pacific Group Limited (36%), ABC Consulting Sp. z o.o. (10%).

FOURTEENTH NATIONAL INVESTMENT FUND.
Management company: International Westfund Holdings Limited.

Chairman of the Board: Leszek M. Kociecki
Address: ul. Parkingowa 1, 00-517 Warszawa.
Tel: 623 63 48

Principal Shareholders: Bank Zachodni SA (33 & 2/3%), Central Europe Trust Co. Ltd. (33%), Charterhouse Development Capital Ltd. (22 & 2/9%), Credit Commercial de France (11 & 1/9%).

FIFTEENTH NATIONAL INVESTMENT FUND.
Management Company: Creditanstalt - SCG Investment Fund Management S.A.

Chairman of the Board: Zbigniew Piotrowski
Address: Al. Jerozolimskie 56C, 00-803 Warszawa.
Tel: 630 60 90, Fax: 630 61 18.

Principal Shareholders: Creditanstalt Investment Bank AG (40%), Creditanstalt Financial Advisers (10%), SCG St. Gallen Investment Holding AG (50%).

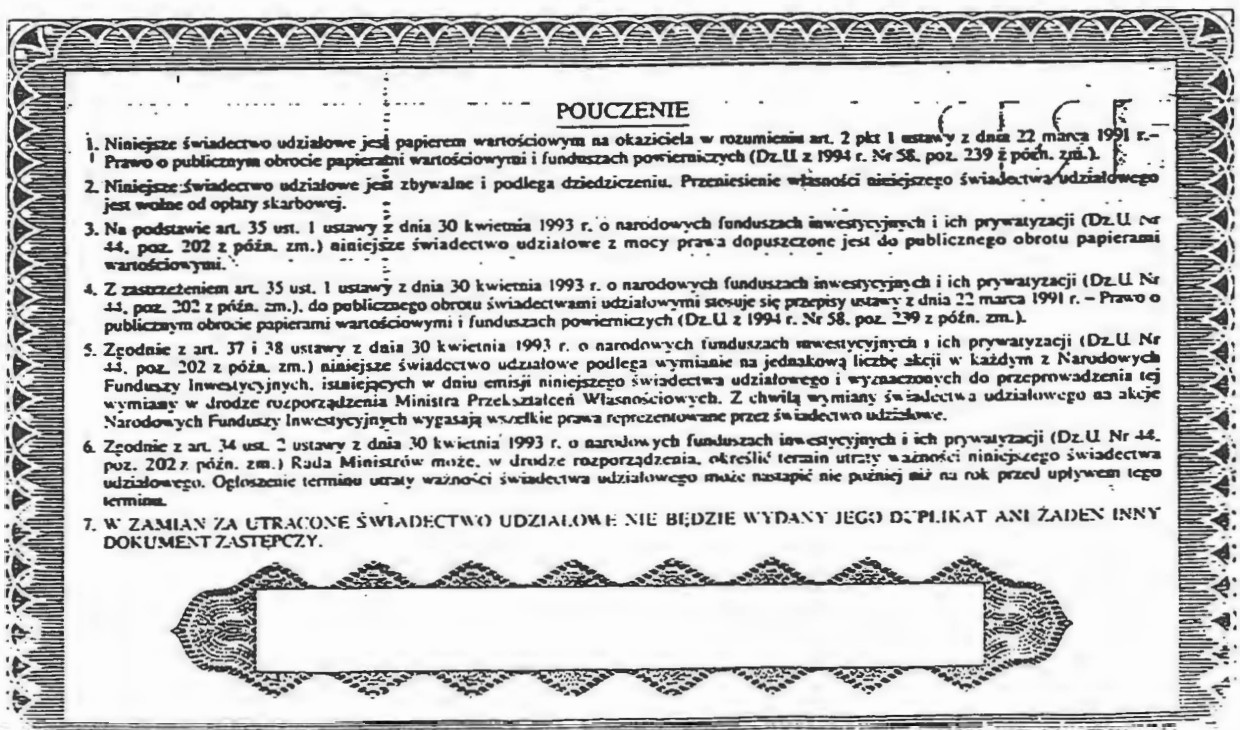
Source: A. Kostrz-Kostecka (1995)

APPENDIX II



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APPENDIX III

Firm Selection Algorithm

Selection Round Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
National Investment Fund Number	↑	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	0	7	6	13	12	3	2	9	8	15	14	5	4	11	10	1	0	7	6	13	12	3	2	9	8	15	14	5	4		
2	15	8	5	14	11	4	1	10	7	0	13	6	3	12	9	2	15	8	5	14	11	4	1	10	7	0	13	6	3		
3	14	9	4	15	10	3	0	9	6	15	12	5	2	11	8	1	14	7	4	13	10	3	0	9	6	15	12	5	2		
4	13	10	3	0	9	6	15	12	5	2	11	8	1	14	7	4	13	10	3	0	9	6	15	12	5	2	11	8	1		
5	12	11	2	1	8	7	14	13	4	3	10	7	0	13	6	3	12	9	2	15	8	5	14	11	4	1	10	7	0		
6	11	12	1	2	7	8	13	14	3	4	9	10	15	0	13	6	3	12	9	2	15	8	5	14	11	4	1	10	7		
7	10	11	2	1	8	7	14	13	4	3	10	7	0	13	6	3	12	9	2	15	8	5	14	11	4	1	10	7	0		
8	9	14	15	4	5	10	11	0	1	6	7	12	13	2	3	8	9	14	15	4	5	10	11	0	1	6	7	12	13		
9	8	9	14	15	4	5	10	11	0	1	6	7	12	13	2	3	8	9	14	15	4	5	10	11	0	1	6	7	12	13	
10	7	0	13	6	3	12	9	2	15	8	5	14	11	4	1	10	7	0	13	6	3	12	9	2	15	8	5	14	11		
11	6	1	12	7	2	13	8	3	14	9	4	15	10	5	0	11	6	1	12	7	2	13	8	3	14	9	4	15	10		
12	5	2	11	8	1	14	7	4	13	10	3	0	9	6	15	12	5	2	11	8	1	14	7	4	13	10	3	0	9		
13	4	3	10	9	0	15	6	5	12	11	2	1	8	7	14	13	4	3	10	9	0	15	6	5	12	11	2	1	8		
14	3	4	9	10	15	0	5	6	11	12	13	14	3	4	9	10	15	0	5	6	11	12	13	14	3	4	9	10	15		
15	2	5	8	11	14	1	4	7	10	13	0	3	6	9	12	15	2	5	8	11	14	1	4	7	10	13	0	3	6		
16	1	6	7	12	13	2	3	8	9	14	15	4	5	10	11	0	1	6	7	12	13	2	3	8	9	14	15	4	5		

DEVELOPING QUALIFIED MANAGERS FOR SMALL BUSINESS

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ABSTRACT

Small business is credited with the creation of four-fifths of the new jobs this year. Yet, the types of new jobs created are not likely to be those in management. It is more likely that managerial positions in small firms are created as a last resort, by an owner-manager who is struggling to keep track of many functional areas of the business at one time. The result is the development of a managerial team in the small firm that is poorly conceived, improperly recruited, not formally trained, and, in some cases, over-compensated. This paper will examine some of the reasons for the difficulties encountered by small business owner-managers when they develop managers.

INTRODUCTION

Small firms suffer from economic disadvantage compared to large firms when it comes to buying resources, negotiating leases, requesting favorable interest rates, and arranging for lenient terms with suppliers. In addition to these known constraints on the ability of the small firm to compete for its physical resources, the small firm faces a further disadvantage when competing for human resources.

Small business owners struggle to keep adequate levels of staffing at the labor level now that low unemployment, relatively lower wages, and the high cost of benefits are causing worker shortages. (Buss, 1996) The adequate staffing challenge can prevent the owner-manager from concentrating recruiting effort on management positions in the firm. The hiring function, in the absence of a dedicated human resource manager, is usually done on a departmental basis. When it comes to recruiting qualified managers, the easy solution is to look within the company for managerial talent. (Barrier, 1996) The promotion and development of a small firm's current employees, while admirable, does not necessarily provide the firm with the best candidate for the position. Managerial development requires training and education, both of which are in short supply in the typical small firm.

The intentional formation of a management team is an issue that small business owners rarely address. Small business owners who possess the organizational skills to

build a business past the introductory stage, often face the increased demands of the growth stage with the expectation that additional hiring of workers will enable the firm to meet the challenges. What usually is lacking is a well conceived management team to head the operational areas of the firm. In most cases, the human resource function is one of the last areas to be given a dedicated manager. The lack of a management team results in a firm with no framework for decision making, for guiding the planning process, or for controlling the firm's growth. As the abilities of the owner-manager are stretched thin the firm's operations become reactive and chaotic.

When a small firm experiences rapid growth, the owner-manager reacts to new demands on the physical resources by purchasing new equipment, obtaining additional space, and hiring additional workers for manufacturing, distribution and sales. The rapid expansion may force the owner-manager to become overly involved in the daily operations of the firm. The small business owner-manager may lack specialized functional management skills, especially in accounting, finance, plant operations, or sales. The first type of managers hired or promoted from within the small firms usually supervise one of these functional areas.

A flurry of hiring activity may convince the owner-manager or the plant manager of the need for the services of a human resource professional to manage that activity. However, the decision to search for that person and to develop that functional area of the firm is often

pursued as a last resort when time and money permit.

By the time the owner has completed reacting to the first wave of the growth phase, new problems may emerge resulting from the recent changes in the demands on the firm's physical resources. For example, new demands on working capital might send the owner in search of new financing sources. As demand for the firm's product increases, pressure is exerted on existing supplier relationships, forcing the owner-manager to seek out new suppliers.

Human resource planning appears to the owner-manager to be a less immediate concern, one which can be postponed until more time is available. In fact, many small businesses heed the advice of populist literature that advocates the hiring of a human resources professional when the firm employs 200 workers. (Barrier, 1996) The human resource function, prior to this benchmark, is often performed by an administrative assistant who takes on the human resource function in addition to other duties. As a result, the human resource planning, recruiting, interviewing, selecting, testing, hiring, attention to compliance issues, and training is spread throughout the company to different individuals whose background and training may not prepare them for the requirements of these functions.

Many small businesses are small simply because they are in the start-up phase of their life cycle. During this phase, the human resources focus should be on hiring people who will share the entrepreneur's vision for the firm, be flexible and innovative, and contribute in a wide variety of functional areas as the firm begins to enter its growth phase. Attracting quality managers with these characteristics may be difficult for a firm in its start-up phase. Typically, risk for the firm is high, sales are low or uneven, and the compensation package offered to a manager is below the market. Managers who consider working for a firm in the start-up phase must themselves possess high tolerance for uncertainty, and other expectations that would allow him or her to forego another managerial opportunity with a larger or more established firm.

What are some of those expectations of incumbent managers who would work for a small firm? What values and attitudes does this individual possess that would explain the desire to work for a firm which might

not be around in five years? How can a small firm, lacking a dedicated human resources department, conduct a recruiting effort which will result in attracting highly qualified candidates? (See related study of perceptions positive perceptions of the firm when the interviewee has a positive feeling about the recruiter). What types of compensation, direct and indirect, must the manager be offered in order to make a position in a small firm attractive? What promises of training and development can a small firm realistically offer to a prospective manager, when the firm lacks a formalized program of training and development. How are the incumbent manager's expectations for career advancement affected in the face of a family owned and operated small business? How does pay equity influence the retention of good managers in a small family-owned business?

The literature on the subjects of small business human resource planning, management, and training and development have not answered any of these questions. The human resource practices of small and large manufacturing firms have been compared (Deshpande and Golhar, 1994). Their findings point to the trend among small firms to promote managers from within the organization, rather than from outside recruiting activities. Finding competent workers continues to be one of the most difficult problems for small firms. (Gatewood and Field, 1987) The popular literature suggests that employees might prefer to work for small businesses where they can negotiate a favorable schedule in a more flexible environment, and gain a wider range of experience, and even receive ownership shares as compensation in lieu of cash.

The literature describes the human resource practices of small firms as, at best, chaotic. Small firms lack the expertise of a human resources manager until they reach a certain size, say 200 employees. Even at that size, many owner-managers continue to manage the personnel function themselves. In short, human resource management in small firms is a neglected function, one which small business owner-managers see as non-essential in contributing to the bottom line. However, the lack of human resource management, according to one study, is the leading cause of small business failures. (McEvoy, 1984).

The literature suggests that small business owners must offer distinctive benefits to potential hires, especially

those at the managerial level. Among the most often recommended strategies is the offer of ownership in the firm. This reward program is one of the fastest growing at both large and small firms.

Attracting qualified managers for a small business is also accomplished by emphasizing creative opportunities within the small firm to produce, promote, and create without the restrictions of complicated bureaucracy typical of large firms.

Managers who desire a flexible work schedule and a "family" atmosphere within an environmentally favorable work environment may find these things offered in a small business. Employee productivity is enhanced when the right combination of manager and business culture find each other.

Even when the small business owner can find the qualified manager, the resulting compensation package that is offered to retain this person may be higher than the industry average. The small business appears to be at a disadvantage when presenting an attractive career option to the incumbent manager. While large firms may be able to define a predictable managerial career path accompanied by sophisticated training and development, the small firm is usually offering a wider scope of responsibility with less support. This difference may mean that the incumbent manager will demand a higher compensation package from the small business owner. This assumption needs to be tested. We do know that the employment practices of firms without human resource managers are arbitrary, which suggests that each manager is compensated according to his or her ability to negotiate for the best compensation. In some industries, where growth is rapid and recruitment of qualified managers is difficult, managers may be paid more than the owner. (Conway, Sr. 1994)

One of the problems of achieving employee satisfaction with compensation is that of establishing pay equity throughout the firm. In a small firm without human resource policies, this challenge is even more critical. Pay equity would imply a number of conditions, both within and outside the firm. First, the employee must perceive that the pay is within a competitive range with comparable firms in the industry. Second, the employee's contribution package must equate with what an employee is giving to the firm. These goals of compen-

sation programs are difficult to achieve in large organizations where compensation specialists have all the expertise and information on the subject, and can devote their time to establishing pay equity for their employees. But, in a small firm, not only are the resources of managers, human resource or other, already stretched thin. There is often the added complication of a family business structure where certain family members are employed and over-compensated for their contribution to the firm, and their compensation is common knowledge among the employees who are not in the "family." Sometimes this practice is simply an avoidance of taxing the business twice, in dividends and income, but to the non-family employees, it can be a source of demoralization and create problems with retention. (Baudoin, 1994)

Employee benefits are one of the chief components of any compensation package, and in large firms typically add value of 35%-37% of the salary to an employee's income. Therefore, they are an increasingly important aspect of compensation and need to be understood in the area of small business. Employee benefits can include defined contribution benefit plans, employee stock ownership plans, worker's compensation, paid vacation and health insurance for employees and their dependents. However, small businesses are using non-traditional benefits to enhance their benefit packages by offering such things as flexible schedules, in-house personal services, and even free rides to an employee's home. (Bourrie, 1995) Some businesses offer employee discounts, use of office equipment for private purposes, payment of professional dues or subscriptions, tax-free transit passes or parking, and financial counseling. These low-cost fringe benefits are non-taxable to the employee, which increases their value. (Beam Jr. and Tacchino, 1995) The argument has been made that flexible work policies offer a competitive advantage for small businesses in attracting those individuals who have competing demands on their time from family or other issues. These programs cost very little to the employer and are easier to implement in small companies with more flexibility and less bureaucracy. (Leveen-Sher 1996).

Other employee benefit strategies available to small businesses are those which use age-weighted profit sharing plans. (Bellistri, 1996) Care must be taken when designing the plans that they are not benchmarked during early years of rapid growth so that when growth slows, the

employees are no longer rewarded. Additionally, many profit sharing and gain-sharing plans are guilty of creating income expectations that are no longer motivational, and instead make employees feel they are entitled to the compensation, regardless of individual or firm performance.

The use of a Salary Reduction-Simplified Employee Pension (SARSEP) has been recommended as an optimal benefit for small businesses, since the employee can contribute up to 15% of his or her pre-tax earnings without requiring a contribution from the employer. (Zall, 1995)

Another possible compensation technique for small businesses is to grant phantom stock plans for key employees. This technique has been used to retain key employees. Stock plans enhance employee loyalty and motivation. Stock ownership plans, phantom or real, have been used by small businesses to their benefit. (Ehrenfeld, 1993)

This discussion still leaves unanswered the question of whether the incumbent manager will demand a higher compensation package from a small business than he or she would from a larger company. The need for further research in this area is critical. Presently, small business owners are lacking any real evidence that they need to pay a higher salary to attract key employees. In fact, some research points to the assumption that small businesses pay less than larger companies because in a large company, an employee is less visible, and therefore the employee's contribution to the organization is less obvious or not as well understood. (Morissette, 1993) If this assumption prevails, then the small business owner who needs to attract qualified managers from the pool of available talent needs to be even more aware of the factors working against his or her recruitment efforts. Regardless of the reasons, increasing frequency of compensation hikes among small business owners is increasing this year, and needs to be explained.

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STUDENT INTERNET USAGE: EXCESSIVE OR NOT?

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ABSTRACT

Electronic communication technology is becoming an important part of university-level education processes. As a result, students routinely utilize a variety of Internet services. This pilot study presents survey results describing the student usage of Internet services available at a small western Pennsylvania state university. The findings, based upon 77 student subjects, provide insight into usage levels and applications of various network services.

INTRODUCTION

Within the last 10 years, a growing number of elementary and high schools have upgraded their technological facilities to include the computer in the classroom (Meyers, 1995; Soloway, 1995). The result is, as Vice President Gore stated at a recent Project Globe presentation, "... at thousands of public schools across the country, a growing number of teachers are augmenting traditional lessons and textbooks with desktop publishing, word processing, computer spreadsheets, CD-ROMS, and the Internet. In some schools, students take notes on laptops, their clicking keyboards a constant accompaniment to the teacher's lecture" (Soloway, 1995, p. 70). As more and more students are exposed to computer technology, computer literacy will be the expectation, rather than the exception, as the students reach college.

Recently, attention has focused on the ability to link to the Internet, a vast network of computerized information, through either a text or graphic browser service. The appeal of the Internet is that it allows students to probe deeply and intensively into a topic for an extended period of time. The graphical portion of the Net is called the World Wide Web. Flynn (April 29, 1996) attributes Dataquest, a research house, with the statement that there are "more than 22 million 'pages' of content, with over 1 million more pages added each month" (p. 60). These "pages" provide access to a vast range of information on universities, companies, government agencies, museums, etc. New search engines, such as Lycos,

Infoseek Guide and Alta Vista, make it easier than ever to locate information within the Internet. Students can also search for other individuals interested in similar topics and engage in dialogue with them.

In attempting to keep up with changing technologies and provide students with opportunities to enrich their education, many universities are now providing a wide range of computer services including Internet access and other electronic services, such as library search capability. These services are available through an educational link at no charge beyond the usual student tuition/activity fees.

A new concern has developed regarding the usage of Internet services at the campus level: computer addiction. Students who spend an inappropriate amount of time using the services may experience negative consequences, such as a decline in student grade point averages. DeLoughry (1996) identified numerous situations and examples of individuals who were indeed spending an excessive amount of time browsing the Internet. She cited instances of students who became so involved that they forgot to eat, as well as honor students who flunked out of school because they spent so much time with e-mail and MUDS (Multiple-User Dungeon games). DeLoughry also provided examples of students who became so preoccupied with the computer that they were late for work on numerous occasions and suffered from eye-strain headaches from staring at the screen so much. The potential for computer addiction is real; the possible

impact on student grades creates a cause for concern.

The impetus for this study was a request by the director of computing services at a small western Pennsylvania university. The director wanted to determine student satisfaction levels with available electronic communication services. The primary focus of the computing services office had been to provide the campus with adequate access to the VAX mainframe computer, which enables users to utilize mainframe software, e-mail, and a variety of communication services. Software, Internet access, and graphic browser availability have been inconsistent across campus.

Purposes underlying the current study include 1) an evaluation of the students' usage levels of Internet application services provided at the university, 2) a determination of whether or not the students are spending excessive time on the Internet, and (3) a assessment of satisfaction with existing services. The results are of value in determining whether training/awareness workshops are needed. The usage levels would also indicate the need for intervention if computer addiction is found to be a problem.

PROCEDURES

In order to measure student sophistication and usage levels, a 26-question survey (Appendix) was developed with the assistance of staff in the office of computer support. The questionnaire was designed to gather demographic information, measure usage levels, and elicit opinions regarding the present services. The questionnaire document was included in an e-mail message which contained explicit directions on how to respond.

Participants in this study were predominantly business students who would normally use the lab in the college of business building. This lab provided a text-based web browsing service (Lynx) at the time of the study. The students, however, did have access to other computers on campus, many of which provided a graphical browser service, such as Netscape.

Students at three class ranks (freshman, junior, and senior) were asked verbally, in the classroom, if they had an Internet account, if they would be willing to participate in the study, and if so, to provide their e-mail ad-

dress. Students were enrolled in five different management courses taught by four instructors. Following spring break, the instructor in each participating section distributed a handout to each of the students who agreed to participate in the survey. The handout thanked the student for volunteering to participate in the survey and indicated that the survey, with directions on how to respond, had been electronically distributed. The students were given one week to respond to the questionnaire.

A separate letter was distributed to students who earlier chose not to participate. This letter specifically asked for a reason(s) as to why the student was not willing to participate. Possible choices ranged from "I don't have an e-mail address" to "I have an e-mail address but don't want to be bothered." Students could also respond with a reason not listed as a choice.

RESULTS

Questionnaires were electronically distributed to 131 students. The response rate was 59% (77 students). Respondents included 32 males and 45 females. Table 1 provides a demographic breakdown by major and class rank. Table 2 presents the list of available Internet services. When asked to indicate the one service used most often, the students clearly indicated e-mail (89.6%) with Gopher (2.5%) and CU Lynx (7.5%) trailing behind.¹ In evaluating the ways in which e-mail was used, 76.6% of the students used it for personal correspondence, while an even higher percentage (81.8%) used it to communicate with their professors. Students could indicate multiple applications of e-mail services.

Because of the large percentage (62.5%) of graduating seniors who participated in the study, it was anticipated that the usage of the web to locate employment opportunities would be relatively high. The opposite was true. Only 30% of the students overall used the Internet for career planning purposes, and no student had his or her resume posted on the Internet.

In the question designed to evaluate self-assessment of Internet skills, 15% of the respondents said they were "weak" while 80% indicated "fair" or "good" skill levels. Satisfaction levels with the services were positive, with 96% of the responses falling in the "good" to "excellent" range. Only 4% indicated an unsatisfactory overall experience. Apparently, students were indicating their satisfaction with e-mail services, since so few of them

(7.5%) used the text-based browser service. Narrative student comments indicated the desire for a graphical web browser. Comments ranged from the positive ("The services have been great and I have enjoyed them a lot!") to statements of need ("It would be nice to have more computers on campus with Netscape.")

The survey results did not indicate that students were spending too much time on the Internet. Although 42% of the students said they accessed their accounts once a day and 40% said access was made every other day, the amount of time actually spent per visit was relatively low. An overwhelming majority of students (92%) spent one hour or less, on average. Only one student indicated that he or she spent greater than two hours per visit.

As indicated above, students were provided with the opportunity to express, through an open-ended question, their general comments about the available Internet services. The majority of the comments focused on two issues: 1) the need for a graphical web browser, and 2) the need for better service usage instruction.

An additional assessment was made to determine why so few freshmen participated in the study. The survey was distributed to 131 student subjects, but total enrollment in participating classes was 211. Students who did not initially volunteer to participate were asked to provide a reason. Table 3 contains the possible alternative reasons and the responses received. Multiple responses were possible, as well as a narrative response. A relatively high number (particularly among the freshmen) did not have an Internet address. One cannot readily determine why, but the narrative comments lead one to think that the students were unaware of the services and fearful of a possible cost. A relatively small number of students indicated that they had an account but didn't know how to use it. There was a relatively large number of students who said they just don't want to be bothered; this was coupled with several narrative comments about the lack of time to use the services or participate in the study.

CONCLUSIONS

Overall, the results of this limited study present a moderately positive attitude toward the Internet services, but there is sufficient room for more efficient use of existing services as well as much room for improvement (via

graphic browsers). Perhaps, at minimum, improved explanatory usage direction sheets could be made readily available in computer labs. Mini-workshops on topics such as using the Internet (1) to look for jobs, (2) to gather research data or other information, (3) to participate in a list service, or (4) to send/receive messages would be appropriate.

In response to the original question about possible excessive use, at the present time there is no evidence of extreme usage. It is anticipated that a graphical browser will be installed in the business computer lab within the next several months. A potential future study could assess the impact of Netscape installation on student usage levels.

ENDNOTE

1. The CU Lynx is a text web browser which permits students to access web addresses starting from the university home page. The Gopher service is an alternative method for searching web sites.

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TABLE 1
DEMOGRAPHIC BREAKDOWN BY COLLEGE AND CLASS RANK

	Frequency	Percentage
<hr/>		
College		
College of Arts and Sciences	6	7.8
College of Business Administration	60	77.9
College of Communicatin, Computer Information Science, and Library Science	11	14.3
TOTAL	77	100.0
<hr/>		
Class Rank		
Freshman	5	6.5
Sophomore	5	6.5
Junior	18	23.4
Senior	48	62.3
Graduate Student	1	1.3
TOTAL	77	100.0

TABLE 2
LIST OF INTERNET SERVICES AVAILABLE

Electronic Mail (e-mail)

Gopher

Library Search

File Transfer (FTP)

Remote Login (TELNET)

CULynx (Home page)

DC Access

Vax file management

Data processing request

TABLE 3
ALTERNATIVE REASONS NOT TO PARTICIPATE IN STUDY

Number	Reason(s)
28	I don't have an e-mail address
7	I didn't know I could get an Internet account
7	I don't know where to go to get an Internet account
8	I have an Internet address, but don't know how to use the system
20	I have an Internet address, but don't want to be bothered
16	I have an Internet address, but was absent on the day the study was mentioned*
15	Other, please explain

* If student wanted to participate, they were given the opportunity to provide their address at this point. Nine students chose to do so--but no follow-up check was made to determine if they actually did respond to the survey.

EMPLOYER EXPECTATIONS OF COLLEGE OF BUSINESS GRADUATES

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ABSTRACT

A survey among employers of recent College of Business graduates indicated computer skills expectations and proficiency levels as well as non-technical qualities required for hiring decisions. Employers generally expect low to medium level computing competencies in major software packages; however, expectations may vary by professional field. Results also suggested that employers are generally satisfied with computer competencies but not with interpersonal, personal, academic, or background qualities. In particular, oral communication presentation, and leadership skills were called for in the interpersonal qualities area; good work ethics, enthusiasm, and professionalism were requested in the personal qualities category; high GPA and quality extra-curricular activities were among the academic qualities requested; and work experience in the professional field in which the graduate wishes to work was cited as essential. To obtain these goals, employers asked instructors to emphasize communication training, develop students' social skills, increase awareness of business ethics, and help students practice business etiquette and professionalism. Students were highly encouraged by employers to complete an internship or cooperative work experience prior to applying for a position.

INTRODUCTION

The job market for entry-level, management-track employees is tight. Employers continue to be increasingly critical and selective in their hiring choices. More than ever, recruiters are under pressure to hire only the best and the brightest (Cook & Finch, 1994). Consequently, hiring the right person requires employers to be particularly concerned with the skills of potential employees, as well as the selection process by which the best candidates are identified.

Research on employer demand for skills is, however, split over the issue of whether technological change has increased or decreased the demand for specific computing skills as a hiring criteria. One argument is that technology is changing so rapidly that specific skills are quickly outdated. Keeping pace is an increasingly illusive pursuit. Accordingly, companies are searching beyond specific task and computing skills and are looking for applicants with behavioral skills and personality traits which fit a particular job (Profit Building Strategies for Business Owners, June 1992). On the other hand, because of the increasing importance of computer applications in the work place, specific computing and software application skills possessed by applicants are expected to match those used by the firm.

The literature presents an unclear picture about employer expectations in various professional areas. Because only selected areas of the job market have been surveyed, the question remains: What do today's employers expect of entry-level, management-track applicants holding a Bachelor of Science degree?

The purpose of the present study was to assess employer skill expectations for entry-level, management-track employees who have completed a Bachelor of Science degree in business areas other than computer specialties. Because of the rapid pace of technological change and a meaner, learner work environment, an understanding of current employer expectations is important to college professors who teach and counsel students, to students who plan careers and later enter the job markets, and to employers who seek the best and brightest applicants.

Hard skills referred to in this study are task-oriented and technology-focused skills which include an understanding of computing as well as computer applications. Soft skills are those which are behaviorally and interpersonally focused and include motivation, commitment, leadership, communication, analytical, critical-thinking, and decision-making skills which relate to effective planning, organizing, and implementing resources.

LITERATURE REVIEW

The literature reviewed for this study focused on companies doing business in the United States and hiring recent college graduates with a Bachelor of Science degree in Business Administration.

Both government and non-government agencies have been instrumental in gathering information which identifies skills that employers should minimally expect of professionally trained job applicants. In turn, this information was expected to guide educators in providing the education and training to adequately prepare America's future workforce for success in a competitive, quality-driven work environment. Among the government agencies gathering information are a) The United States Secretary of Labor Commission on Achieving Necessary Skills (SCANS) (1991); b) the Florida Employer Opinion Survey Annual Report Series (1988), an on-going, annual survey among Florida employers; and c) the North Central Indiana Workforce Literacy Task Force (1992). SCANS resulted in a complex mix of hard and soft skills as well as traditional basics, with an overall emphasis on hard skills. The Florida Employer Opinion Survey showed a preference among employers for soft skills as primary hiring criteria. Likewise, the North Central Indiana Workforce study found a preference among employers for soft skills, particularly decision-making abilities and efficient use of resources.

Non-government agencies have also been instrumental in gathering information about employer expectations and entry-level, professional-track hiring criteria. Cook and Finch (1994), an accounting firm, surveyed 509 businesses and identified four general skills pertinent as hiring criteria for the accounting field: Effective interviewing skills, work experience, academic performance (grade point average), and training potential. Three of the four general skills are soft, rather than hard, skills.

Kleinman (1987), a vice president and manager of personnel in the banking industry, provided qualitative data collected from observations, experiences, and conversations among various employers. Specifically, ten attributes and skills were named that successful employees will possess: the ability to use information, interpersonal skills, marketing skills, change experience, time management, ability to be a team player, knowing when to act and when to respond, personal account-

ability, and computer literacy. These attributes and skills share common themes of maturity, independence, and perspective; and all except computer literacy represent soft skills.

The Ramsey (1994) report, based on 35 years of the author's experience, stated that all skills critical to success on the job are soft, non-technical skills and include ability to work effectively with all types of people, willingness to give 101 percent, enthusiasm, commitment, initiative, communication, eagerness and potential to learn, and problem solving.

The Ray, Stallard, and Hunt (1994) survey, included 390 businesses which, collectively, indicated a preference for non-technical skills, particularly communication skills.

Although the five previously discussed, non-government studies indicate a preference for soft skills, at least two studies present contrary evidence. Sheetz (1992), and Vasu and Frazier (1989) identified specific technical and task skills as primary hiring criteria. Sheetz surveyed 504 Michigan State businesses, and Vasu and Frazier collected data from 1,150 North Carolina employers. Both surveys revealed a strong preference among employers for technical and computing skills such as basic software application skills which match employer technology. Additionally, based on their data Vasu and Frazier clearly predict an increase in emphasis on technical and computing skills as primary hiring criteria for future professional-track, entry-level employees with a Bachelor of Science degree.

In summary, whether a particular corporation places emphasis on soft or on hard skills as hiring criteria is not clear in the literature. Possibly, hiring criteria may vary by professional field, industry type, management orientation, geographic area, or by some other criteria. The literature does not address this issue.

PROCEDURES

The present study was launched as a pilot study due to the sample selection and geographic limitations. The population for the study was potentially all employers of College of Business graduates who have completed a Bachelor of Science degree in Business Administration with a specialization other than computer technology. Employers of computer specialty graduates (such as

computer information systems or office systems) were excluded because such employers would require more intensive and in-depth technical knowledge. The data would, therefore, be skewed accordingly.

Recent employers of graduates from Southwest Missouri State University College of Business Administration (76 firms) and of graduates from Indiana University of Pennsylvania Eberly College of Business (70 firms) were surveyed. Names and addresses of firms were obtained from the university Career Services Offices, which routinely collect data on college graduates' employment.

Employers were categorized by information they supplied on the completed survey form which asked "Which of the following classification best describes your company?" Categorical choices included accounting, finance, management, marketing, and other. Participating employers represented a cross-section of business types and sizes, including non-profit, health care, education, partnerships, manufacturing, and utility companies. Firm sizes ranged from 2 employees to over 3,000 employees.

Surveys included a postage-paid, return envelope which was coded so as to identify the participant in case of needed follow up. Follow-up mailings were completed three weeks after the initial mailings. Overall response rate was 36 percent (52 surveys returned) and all but two surveys were usable.

The survey included a mix of items covering technical and computing (hard) skills as well human-relation and personal qualities (soft) skills. The survey included a combination of check boxes, scales (1 to 5) for indicating expected skills and proficiency levels, weighted lists for most to least desired hiring criteria, and open-ended questions regarding criteria used for hiring decisions, as well as for making suggestions for better preparing business graduates for the work force. Multiple category responses were possible and expected for some items.

RESULTS

Responses were tallied and descriptive statistics were calculated in order to provide an answer to the research question:

What do employers expect for entry-level, professional-track employees who have completed a Bachelor of

Science degree in a Business Administration major other than a computer specialty?

Item 1 asked, "Which type of College of Business major are you most likely to hire for your entry-level professional positions? As Table 1 indicates, the most frequently hired major is accounting (26.7% of overall choices for hiring), and the least frequently hired major is international business (1.9% of overall choices for hiring). Employers tended to hire a greater percentage of graduates of their own professional area, but each employer type hired majors of other areas as well. The "other" category in Table 1 captured respondent-supplied majors including economics, industrial technology, sales, agribusiness/agri-economics, communications, and general business.

Items 2 through 7 focused on computing and technical skills (hard skills). Item 2 asked, "Which of the following computer applications skills do you expect College of Business graduates to possess in order to qualify for your company's entry-level professional position?" A scale for level of proficiency expected was provided for each software type (1, "aware of", to 5, "expert in"). Table 2 presents the software choices (S'ware) and expected mean levels of proficiency (Prof..

As Table 2 illustrates, overall, employers most frequently expected graduates to possess skills in Word (16.4% of all employers), Excel (16.4%), WordPerfect (13.4%), and Lotus (12.4%). PowerPoint (11.9% of all employers) and Access (10.0%) were also frequent expectations. Employers expected the highest proficiency in Excel (3.1) and Other (3.5), which included field specific programs such as Peach Tree or ATB for the accounting field. Accounting and Management employers expected the relatively highest levels of proficiency for Lotus or Excel spread sheet applications, while Marketing expected the highest proficiency of any other category for Harvard Graphics applications (4.5). Statements supplied by respondents in the "Comments" section of Item 2 indicated only the need for basic computer literacy (rather than specific computer applications skills) and an ability to learn or adapt quickly.

Item 3 asked, "Which of the following hardware skills or knowledge do you expect entry-level, professional employees to possess?" Among the respondents who answered this item (44%), 68.2% expect LAN knowledge;

13.6% expect systems configuration knowledge, 9.1% expect hardware repair skills, and 9.1% expect special applications skills specific to the business. However, 56% (28) respondents indicated "none" or left this item blank.

Item 4 asked, "Which of the following network application skills or knowledge do you expect your entry-level, professional employees to possess?" Electronic mail was indicated by 52.6% of the respondents, groupware/network by 17.5%, and "none" by 29.8%.

Item 5 asked, "Which of the following commercial network services does your company use?" Table 3 shows that, overall, NetScape is the most frequently used (27.8% of all uses) while Prodigy is the least frequently used (3.7% of all uses). However, 29.7% of employers do not use any commercial network service.

Item 6 asked respondents to list two most important computer skills, knowledge, or attitudes necessary for College of Business graduates to become productive as quickly as possible in the company. Survey respondents were expected to focus on computer skills and knowledge, but they listed both computer-oriented and non-computer criteria. Finance and marketing employers provided the greatest number of entries for computer-oriented skills and knowledge, including language (COBOL), statistical packages, DOS, UNIX, mainframe knowledge, and keyboarding skills, as well as the popular word processing and spreadsheet applications. Also included in their response were abilities to merge job functions with technology applications and a desire among graduates to learn new programs and functions. Employers in the accounting field provided the fewest number of computer-oriented items, listing general computing knowledge or field-specific computing knowledge such as ATB or Peach Tree. Soft skill entries for Item 6 were provided by respondents of each employer category and included communication skills (written and presentational), ability to learn quickly, ability to think logically, humility, and flexibility.

Item 7 asked, "Do you anticipate that your computer skills and knowledge requirements for entry level positions will change over the next year?" Responses indicated that 58% expect the requirements to change, and 56% expect requirements to increase. Thirty-two percent of the respondents indicated no increase ex-

pected, while 10% checked "don't know."

Item 8 asked, "Approximately how many new College of Business graduates does your firm hire each year?" Data were divided into four categories, as illustrated in Table 4. Results showed that 57.8% of the responding employers will hire between 1 and 10 new College of Business graduates each year; 17.8%, between 11 and 20; 11.1%, between 21 and 50; and 13.3%,

Item 13 asked respondents to provide four most important criteria used to make the hiring decision. Respondents provided a wealth of criteria, which was subsequently categorized along two dimensions and four subcategories: a) hard skills--computer skills and computer-related knowledge, and b) soft skills which includes four sub-categories of relational qualities, personal qualities, academic qualities, and background strengths.

Results for Item 13 showed that relatively little attention by respondents was given to hard skills. Management and accounting employers listed nothing in this category. On the other hand, communications in the soft skills category (written, oral, group, and leadership) was among the criteria listed by every employer group and almost every employer.

Personal qualities considered to be important for hiring decisions highlighted good work ethics, enthusiasm, motivation, intelligence, and professionalism. Academic qualities included QPA by 20% of the firms, as well as type of degree and student organization involvement or extracurricular activities. Background strengths showed an emphasis on work experience, especially in the professional field, and proven success. Respondents' recommended internships as an important means for acquiring the professional-area experience they desire.

Item 14 asked, "What would you suggest colleges and universities do to better prepare students for the entry-level positions of your firm for which College of Business graduates are hired?" Survey results suggested three categories of action: a) changes in course content and teaching, b) changes in student experiences outside the classroom, and c) actions the teacher should take outside the classroom. Changes in the course content and teaching included increased training and emphasis on

- * communication skills (speaking, writing, leadership, group work and Teaming skills)
- * personal grooming
- * social skill development
- * business ethics
- * professionalism and etiquette

Only six respondents suggested more computer training, three of which were requests to teach students efficient keyboarding skills. The primary suggestion for students outside of the classroom, made by all employer categories, was to complete an internship or a cooperative work experience. Some employers felt an internship should be mandatory. Suggestions for teachers, other than classroom teaching, was to gain business experience outside the academic world, stay aware of business needs, and make long-term links with the business community.

In summary, survey results indicated that employers' expectations cover a wide range of hard and soft skills for entry-level, professional-track employees entering the job market with a Bachelor of Science degree, other than a specialty in computers. According to the data, candidates must possess a low to average level of computing skills in popular word processing, spread sheet, data base, and presentation applications. Acceptable candidates, however, must possess an even wider range of relational, personal, and background qualities.

DISCUSSION

Results were expected to clarify the preferences among employers for either hard skills or soft skills (or some combination) as hiring criteria. Although most professional fields acknowledged computer applications skills or computer literacy as a hiring criteria, all employers indicated an emphasis on soft skills, particularly those which are communication and interpersonal skills related. The fields of accounting and management were the only two fields where computer skills were not listed among the four most important hiring criteria.

These results are consistent with previous findings (Florida, 1993; Cook & Finch, 1994; Kleinman, 1987) and in particular agree with the Ramsey (1994) and with the Ray, Stallard, and Hunt (1994) studies. These studies indicated a strong preference among employers for soft skills in the areas of communication. Taken as a whole,

this line of research indicates that a trend among employers exists toward soft-skill strengths as primary hiring criteria. The implications are that educators may need to place greater emphasis on business presentation and writing skills, collaborative work and teaming skills, and business ethics and professionalism. These topics could be interwoven throughout the curriculum and courses which lead to the Bachelor of Science degree in Business Administration.

Educators may be doing a satisfactory job when preparing students with hard skill proficiencies, if a lack of statements or complaints is indicative of employer satisfaction. Results were expected to show a greater emphasis and a higher level of proficiency for software applications skills among job candidates. Instead, employers expect only low to moderate levels of proficiency and did not indicate that job candidates were unprepared in their technical skills areas. Perhaps a need satisfaction hierarchy, similar to Maslow's Hierarchy, is in effect here. When a level of needs is satisfied, the needs do not occupy immediate attention and pursuit. Rather, another area of unfulfilled needs becomes dominant; and in the present case, those needs are soft skills among job candidates. The apparent satisfaction with applications (hard) skills was one of several outcomes relevant to college professors, students, and employers.

A second finding was that although employers of each category tend to match professional academic preparation with their professional field, accounting majors overall are the most likely to be hired. A supply and demand principle may be at work here, since the largest proportion of graduates from the Colleges of Businesses included in this survey were accounting majors. In fact, the most to least likely to be hired roughly follows the proportions of graduates by major area.

A third finding was that contrary to the belief of educators, nearly one third of employers are not using the most current versions of technology. Employers were asked to supply the software versions currently in use at their workplaces. WordPerfect 4.2 and Word Star continue to be used some work places. Consequently, students need flexibility and good skill transfer qualities in order to meet the requirement of some jobs.

A fourth finding was the employer expectation and need for LAN knowledge (68.2% of employers) and systems

configuration knowledge (13.6%). These are areas not covered in depth at either College of Businesses of the study. Students will need these topics included in their academic training.

An important outcome of the study was learning of the emphasis that employers place on internships or cooperative learning experiences as well as the suggestions offered to educators to better prepare students for the work place. Developing or strengthening links between college professors and the business community may serve to develop additional internship opportunities for students as well as keep the colleges more informed of employer expectations and concerns.

Caution must be taken in generalizing these findings because of the nature of the pilot study and its selective sampling process. Future research should use random sampling among employers of College of Business graduates in broad geographic areas. Additionally, future studies should use random sampling among employers of College of Business graduates in broad geographic areas. Additionally, future studies should be conducted periodically to identify and track trends in employer expectations and needs.

Additional information which would be useful to educators and students would include questions about a) employer satisfaction with employee performance after specified time intervals on the job, b) how much on-the-job-training or education was required before the new employee became productive, and c) whether or not this training or education should be incorporated within the academic experience.

CONCLUSION

In conclusion, employers appear satisfied with software and Internet skills of their entry-level, professional-track employees who enter the work force with a Bachelor of Science degree in areas other than a computer specialty. Employers are not, however, satisfied with interpersonal, personal, academic, or background qualities. In particular, communication and relational skills are targeted as weaknesses among College of Business graduates. Educators and students must give more attention to fulfilling employer needs in these areas. Students must also give serious consideration to completing an internship or cooperative work experi-

ence prior to entering the work force, and educators must work to maintain closer ties with the business communities.

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Table 1

Most Frequently Hired Majors by Employer Category

(Expressed as Percentage of Total Selections Made by Employer Category)

Major of graduate	Employer Category					Overall
	Accounting	Finance	Management	Marketing	Other	
Accounting	42	20	22	22	25	26.7
Finance	11	27	11	19	0	17.1
International Business	4	3	0	0	0	1.9
Management	8	13	28	15	0	14.3
Marketing	8	17	17	30	0	17.1
Office Administration	15	3	11	4	0	7.6
Other	12	17	11	11	75	15.2

Table 2

Employer Expectations for Software Applications Skills

(Expressed as a Percentage of Total Employer Responses within Employer Category)

Application type	Employer Category											
	Accounting		Finance		Management		Marketing		Other		Overall	
	S'ware	Prof.	S'ware	Prof.	S'ware	Prof.	S'ware	Prof.	S'ware	Prof.	S'ware	Prof.
Word Processing Applications												
WordPerfect	11.7	3.0	16.2	2.5	18.0	2.3	10.6	2.2	16.7	3.0	13.4	2.7
Word	18.3	3.0	16.2	2.2	12.8	3.0	19.2	2.8	11.1	3.5	16.4	2.5
Word Star	1.7	1.0	-	-	2.6	3.0	-	-	-	-	1.0	2.0
Spreadsheet Applications												
Lotus	10.0	3.8	16.2	2.2	15.4	3.5	8.5	2.5	16.7	3.0	12.4	2.7
Excel	16.7	3.4	10.8	3.0	17.8	4.0	21.3	2.8	11.1	2.5	16.4	3.1
Other	3.3	3.5	2.7	3.0	2.6	1.0	-	-	5.6	4.0	2.5	3.5
Employer Expectations												
Presentation/Graphics Applications												
Harvard Graphics	5.0	3.0	5.4	1.0	7.7	2.0	4.3	4.5	11.1	2.5	6.0	2.5
Power Point	15.0	2.3	8.1	2.3	5.1	2.5	19.2	2.5	5.6	4	11.9	2.7
Other	-	-	-	-	2.6	1.0	2.1	-	-	-	1.0	-
Database Applications												
Access	10.0	2.33	16.2	2.0	5.1	2.5	8.5	2.8	11.1	2.5	10.0	2.3
DBase	6.7	2.5	2.7	3.0	10.3	2.3	6.4	3.0	5.6	4.0	6.5	3.0
Other	1.7	1.0	-	-	-	-	-	-	-	-	.5	0
Other Applications	1.7	1.0	-	-	-	-	-	-	-	-	.5	-

Notes:

Software (S'ware) is expressed as a percentage of overall choices made by respondents within the employer category.

Mean expected proficiency level (Prof) represents respondent feedback for the employer category.

Dashes indicate the absence of respondent information. At least two ratings were required to calculate a mean.

Table 3

Commercial Network Service Used by Employers

(Expressed as Percentage of Overall Selections Made by Employer Category)

Network service type	Employer Category					Overall
	Accounting	Finance	Management	Marketing	Other	
America on Line	7.1	-	18.2	33.3	14.3	14.8
CompuServe	14.3	10.0	18.2	-	14.3	11.1
Microsoft Internet Explorer	7.1	10.0	-	-	28.6	7.4
Mosaic	14.3	-	-	18.3	-	5.6
NetScape	28.6	20.0	9.1	41.7	42.9	27.8
Prodigy	-	-	18.2	-	-	3.7
None	28.6	60.0	36.4	16.7	-	29.7

APPENDIX

**19th ANNUAL MEETING
OCTOBER 3-4, 1996**

THURSDAY, October 3, 1996

11:45 **REGISTRATION** and lunch on your own

1:00 **WELCOME**

Dr. Arshad Chawdry, President, APUBEF
California University of Pennsylvania

1:00 **Chair:** Dr. Ronald Tarullo, President Ex-Officio
California University of Pennsylvania

Dr. Kim L. Anderson, Indiana University of Pennsylvania

"Hindsight Bias and Auditor's Going-Concern Judgments: The Effects of Experience"

Dr. Stephen S. Batory and Craig Cassidy, Bloomsburg University

"A Comparison of Taiwan and American Personal Values Among Small Business Operators"

2:00 **Chair:** Dr. Louise B. Burky, President-Elect
Indiana University of Pennsylvania

Dr. Amardeep Assar, Bloomsburg University

"The Importance of Remembering: History and Global Marketing"

Dr. Ronald Woan and Donald Robbins, Indiana University of Pennsylvania

"The Effect of Different Instructors on the Determinants of Student Performance in the First
College-Level Financial Accounting Course"

Dr. Karen Stewart, The Richard Stockton College of New Jersey and

Dr. Carole Anderson, Clarion University of Pennsylvania

"Recruiting Business Majors: Have Company Hiring Practices Changed?"

3:00 **BREAK**

3:30 **Chair:** Mr. Willard Robinson
Indiana University of Pennsylvania

Dr. Jonathan K. Kramer, Kutztown University and

Dr. George Pushner, University of New Haven

"An Empirical Analysis of Economic Value Added as a Proxy for Market Value Added"

Dr. Behnam Nakhai, Millersville University of Pennsylvania

"Current Implementation Issues of Pennsylvania's Quality Improvement Act"

4:30 Chair: Dr. Maryanne Brandenburg
Indiana University of Pennsylvania

Dr. Paul A. Palugod and Dr. Nora C. Palugod
The Richard Stockton College of New Jersey
"Mexico's Financial Crisis and Its Impact on the U.S.-Mexico Trade"

Dr. Jerzy S. Zderkowski, California University of Pennsylvania and
Dr. Jozef Pocięcha, Krakow Poland
"Mass Privatization of State Owned Assets in Poland Through the National Investment
Funds: Process, Currents Results and Outlook"

Dr. Atul Gupta, Bentley College and Dr. Keshav Gupta, Kutztown University
"Shareholder Wealth Impact of Divestment from South Africa"

5:00 Chair:

Dr. Nora Palugod, Richard Stockton College of New Jersey
Workshop: "Teaching International Business in the 21st Century"

THURSDAY EVENING

6:30 DINNER

Outstanding Faculty Awards

Charles B. Stevenson
presented by: Dr. Robert C. Camp, Eberly College of Business
Indiana University of Pennsylvania

Andrew Green, Esquire
presented by: Dr. Christopher Fiorentino, Dean, Business and Public Affairs
West Chester University

Robert R. MacMurray, Ph.D.
presented by: Dr. Christopher Fiorentino, Dean, Business and Public Affairs
West Chester University

Ronald Tarullo, Ph.D.
presented by: Dr. Richard Hart, Dean, Business and Economics Department
California University of Pennsylvania (in absentia)

8:00 DEAN'S PANEL - HOT TOPICS

9:00 EXECUTIVE BOARD MEETING

FRIDAY, October 4, 1996

8:00 to 9:00 A.M. CONTINENTAL BREAKFAST/REGISTRATION

WELCOME

Dr. Arshad Chawdry, President, APUBEF
California University of Pennsylvania

8:15 Chair: Dr. Paul A. Palugod
The Richard Stockton College of New Jersey

Dr. Elizabeth M. Pierce, Indiana University of Pennsylvania
"An Analysis of Data Error Rates Using a Stochastic Queuing Model"

Dr. Carole Anderson, Clarion University of Pennsylvania and
Barbara L. Jones, Youngstown State University
"Student Internet Usage: Excessive or Not?"

Dr. Maryanne Brandenburg, Indiana University of Pennsylvania and
Dr. Lynn Wasson, Southwest Missouri State University
"Employer Expectations of College of Business Graduates"

10:00 BREAK

10:30 ACCREDITATION PANEL

Chair: Dr. Joseph Horton, Dean
University of Scranton

Dr. Frank Mastrianna, Dean, College of Business and Information Sciences, Slippery Rock University of Pennsylvania

Dr. Rose Sebastianelli, Dean, University of Scranton

Mr. Robert Leonard, Lebanon Valley College

12:00 LUNCH

Dr. James White, President, APSCUF
"CBA Progress"

2:00 Conference Ends

