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Our Direction and Plan

Daniel E. Vetter
Editor-in-Chief

The future of the Journal is bright. I look forward to keeping you informed of the Journal's direction and plans.

There have been a number of important decisions made by the editorial board at recent meetings. These decisions are significant to our readers because they affect the direction and plans for the *Journal*.

The editorial board approved the addition of a Deans' Forum in each issue of the *Journal*. Each business school dean is invited to contribute a one page editorial on a topic of their choosing. This forum should provide a vehicle for our deans to tell us what is new and innovative at their respective MAC schools as well as communicate their own opinions.

The editorial board also approved a special issue (or section) focusing on "Innovations in Business Education—Bridging the Gap Between Business Educators and Practitioners." Related topics included, but are not limited to: classroom innovations, distance education, classroom simulations, and innovation in case methodology. We look forward to receiving some excellent manuscripts in these areas. Please note the Call for Papers on page 30.

Future issues will also contain an invited paper section. Each associate editor is responsible for inviting a distinguished scholar to prepare a paper exclusively for the *Journal*. The articles will concentrate on issues that are important to practitioners as well as our academic colleagues.

The editorial board has changed significantly. Ohio University is now represented by John Schermerhorn, who takes over for Valerie Perotti. John has previously been a member of the editorial board. Valerie served as Secretary/Treasurer for the *Journal*. At our Spring 1994 meeting, Ramon Avila, Ball State

University, and Rocky Newman, Miami University, replaced two key members, Don Kuratko and Ray Gorman, respectively. Don served the *Journal* for many years. Jerry Kreuze and Ron Zallocco continue as the associate editors representing Western Michigan University and the University of Toledo, respectively.

A special thank you is extended to Ray Gorman at Miami University. Ray served as Editor-in-Chief for the last three years. His guidance and work makes my transition very easy. Ray was responsible for introducing the associate editor review process. It should only further increase the quality of articles in the *Journal*.

The purpose of the *Journal* remains the same. We serve both academicians and practitioners, finding a common ground between the two groups. The papers published in this journal present the concepts, ideas, or empirical results of academicians as well as the business insight and thought of practitioners.

The future of the *Journal* is bright. I look forward to keeping you informed of the *Journal's* direction and plans.

The Business of Business Schools



Neil A. Palomba
Dean, College of Business
Ball State University

Just as in the case of private sector companies, business schools face the same tough question—what is their proper niche in the higher education industry?

As they prepare for the 21st century companies world-wide are facing a tough question—“Exactly what is our business?” Global competition is now so fierce that a company not in its proper niche faces the possibility of extinction. Companies can no longer afford to do many things in just an average manner. They must focus on their areas of strength and redirect their resources to continuously improve these successful products/services.

Just as in the case of private sector companies, business schools face the same tough question—what is their proper niche in the higher education industry? Colleges can no longer afford to offer every undergraduate and/or graduate program just because that program exists elsewhere. Educators can no longer talk about achieving centers of excellence in every research area that comes to their attention, nor pursue outside funding for every interesting proposal. Somehow, a decision must be reached concerning the proper mix of degree programs, research centers, and potential funding projects that is ideal for a particular business school.

In making these tough decisions the best thinking of faculty and staff will be needed. The survival of major programs and academic departments will depend upon objective scrutiny followed by appropriate action. Additionally, college administrators will need to reach beyond the campus and consult with alumni, employers of the school’s graduates, and other interested parties.

The advice of private sector companies is particularly useful since most have gone through the restructuring experience and have specific skills in mind for their

future employees (business school graduates). Academic assessment techniques such as surveys and focus groups can also provide valuable information when a school is defining its mission. And once that mission is determined, it will need continual adjustment, evaluation, and refinement.

Business schools moving into the 21st century will have to be just as tough as private sector companies when answering the question—“Exactly what is our business?”



Ball State University

Profile of Early Adopters: SFAS 106

Bruce A. Leauby, *La Salle University*
Y. Joseph Ugras, *La Salle University*
Mary Jeanne Welsh, *La Salle University*

Abstract

The Statement of Financial Accounting Standards No. 106, *Employers' Accounting for Postretirement Benefits other than Pensions* is a dramatic change in how companies measure the cost of providing other postretirement benefits (OPEBs). Companies must change from pay-as-you go (cash-basis) to an accrual method of accounting that is similar to that used for defined benefit pension plans.

Our review of early adopters shows that most firms (59 out of 64) elected to recognize the transition obligation immediately, thereby reducing current earnings and showing all the bad news in the first year of adoption.

From an Income Statement viewpoint, the accrued based OPEB cost under SFAS 106 is 1.63 times larger than the previous year cash basis method, increasing from an average of \$13 million to \$21 million. From a Balance Sheet perspective, the average recorded liability as a percent of equity exceeds 15 percent.

Since companies will adopt this standard over a long transition period, it may be several years before valid comparisons and conclusions can be made about the total impact of SFAS 106.

Introduction

In December 1990, The FASB released Statement of Financial Accounting Standards No. 106, *Employers' Accounting for Postretirement Benefits other than Pensions* (SFAS 106). The statement, which is generally effective for fiscal years beginning after December 15, 1992, is a dramatic change in how companies measure and report the cost of providing other postretirement benefits (OPEBs). Companies must change from pay-as-you go (cash-basis) to an accrual method of accounting that is similar to that used for defined benefit pension plans. The new standard has received a great deal of attention from the financial community because of the expected negative effect of the accounting change on corporate earnings. Concerns have been raised about the

ability of companies to reliably estimate OPEB costs, which under SFAS 106 require a number of calculations and projections that companies previously did not make, and there have also been predictions that companies would curtail OPEBs in an effort to reduce the effect of SFAS 106 adoption.

***Concerns have been raised about
the ability of companies to
reliably estimate OPEB costs...***

The change to an accrual basis is so different in its measurement of OPEB costs, that an accurate prediction of its impact on corporate reports prior to actual implementation was not possible. However, a number of companies adopted the standard for their 1990 and 1991 fiscal years and their experience provides a basis for determining the magnitude of the change. This article describes some characteristics of companies that adopted SFAS 106 early, examines their disclosures, and reports on three major areas:

1. The effect of the change on OPEB cost;
2. The size of the transition obligation and the choice between immediate recognition and deferral;
3. Underlying assumptions regarding the discount rate and health care cost trend.

SFAS 106 Provisions

SFAS 106 covers all types of OPEBs, but focuses on health care costs because they are the major cost component of most plans. Under SFAS 106, companies must accrue the costs of OPEBs over the period in which employees earn the benefits, rather than account for the expense when benefits are actually paid to or for retirees.

We would like to thank the firm of Ernst and Young for providing the data used in this study.

The change from a cash-basis to an accrual basis of accounting shifts OPEB cost recognition from the future to current periods, significantly increasing annual OPEB expense.

The change from a cash basis to an accrual basis of accounting significantly increases annual OPEB expense.

The components of OPEB cost are analogous to those set up for defined benefit pension plans in Statement of Financial Accounting Standards No. 87, “*Employers’ Accounting for Pensions*” (SFAS 87): service cost, interest cost, return on plan assets, amortization of unrecognized prior service cost, and amortization of the transition obligation and gain or loss component (McLendon, Arcady, and Johnson 1992). Many companies found that when they adopted SFAS 87, reported pension costs *decreased*, and some companies even reported pension income, because earnings on pension plan assets more than offset cost components such as service and interest cost (Norton 1988). However, a similar effect is not expected when companies adopt SFAS 106. SFAS 106 also offsets OPEB cost components with earnings on plan assets, but few companies prefund the benefits. Unlike pension plans, there are very limited tax-preferred arrangements available for funding, and there is no government regulation comparable to ERISA that mandates prefunding (Danker, Bertko, Wodarczyk, and Launer 1991, Custis 1991).

Although accounting for OPEBs is similar to accounting for pensions, there are some unique elements. The first element is the expected postretirement benefit obligation (EPBO), which is the actuarial present value of the OPEB at the measurement date that is expected to be paid to or for the employee and any beneficiaries or covered dependents. The EPBO includes benefits that are expected to be paid in the future, regardless of whether the employee has attained full eligibility for the benefits at the measurement date. The EPBO does not have to be disclosed in the financial statements, but it is the basis for service cost measurement.

The second element is the accumulated postretirement benefit obligation (APBO). The APBO is the actuarial present value of all future benefits attributed to an employee’s service rendered as of the measurement date. Unlike the EPBO, the APBO includes only those benefits for which employees are fully eligible at the measurement date.¹ The APBO is the basis for determining the employer’s balance sheet obligation. The APBO is also used in calculating OPEB cost because the interest cost

component is measured as the increase in the APBO due to the passage of time.

Under SFAS 106, companies recognize an asset or a liability for the cumulative difference between OPEB expense and amounts actually funded. This recognition is discussed in the section on the transition to SFAS 106.

Assumptions

Measurement of OPEB costs requires a number of assumptions, but only a few assumptions must be specifically disclosed (see Steinberg, Akresh, and Jensen 1992). Several of the assumptions are similar to those presented in pension disclosures—the weighted average discount rate used to determine the APBO, the assumed rate of compensation increase (for pay-related plans) and the expected long-term rate of return on plan assets (if any). Since earnings on plan assets may not be tax-shielded, the employer also must disclose the estimated income tax rate on the return on plan assets if that income is segregated from the employer’s income for tax purposes.

Unique to postretirement *health care* benefits is the need to develop an assumption about future health care cost trends. Health care cost trend rates, which must be disclosed, include the rate used to measure the expected cost of benefits for the year following the measurement date, as well as a general description of expectations of cost trends in subsequent years. The assumptions reflect expectations about such factors as health care inflation, technological changes, and changes in health care utilization (future changes in coverage by government programs cannot be anticipated and therefore are only incorporated into the calculations when the applicable laws are changed).

Another feature of SFAS 106 disclosures is the requirement that employers include a sensitivity analysis for the effect of a one-percentage-point increase in the assumed health care cost trend on: (1) the aggregate of service cost and interest cost and (2) the APBO. Since these valuations are significantly affected by the rate choice, the FASB concluded that the analysis would improve comparability as well as highlight the sensitivity of costs to assumption changes.

Transition

Most employers providing OPEBs must adopt SFAS 106 for fiscal years ending after December 15, 1992 (nonpublic companies with no more than 500 plan participants can delay implementation an additional two years). In the year of adoption, a company must determine its transition obligation (or asset), which represents the difference between the APBO and plan assets at the measurement date. The transition amount usually will be an obligation because most companies that have been on

a cash-basis method have not prefunded. Conceptually, the obligation reflects the failure of companies to accrue OPEB costs in earlier periods.

In light of the size of the obligation and the lack of historical data necessary for its measurement, the FASB decided to take what it termed a “pragmatic” approach to the transition. Companies have the option to recognize the transition amount immediately in net income as the effect of an accounting change (with corresponding recognition of a Postretirement Benefit Obligation) or to delay recognition. If a company chooses delayed recognition, the transition amount is amortized as part of OPEB expense on a straight-line basis over the average remaining service period of plan participants.²

Delayed recognition reduces future earnings by the amortization of the transition amount, however, the full amount of the APBO must still be disclosed. Evidence from SFAS 106 early adopters suggest that many companies are choosing to take a onetime charge rather than spread the transition cost over future periods.

Accrued Cost

Early adopters were identified by examining footnote disclosures as provided by Disclosure, Inc. Sixty-four companies were identified as early adopters. Six companies adopted SFAS 106 in 1990 and fifty-eight companies adopted the standard in 1991. The financial information used in this study come from the corporate financial reports and PC-COMPUSTAT. In some cases, companies did not provide complete disclosures or they indicated some amounts were immaterial. Those omissions are noted in the discussion.

Table 1 presents an industry profile of the early adopters. Over 60 percent of the early adopters (forty companies) were manufacturing companies. Goldman-Sachs reported that “‘Companies within industries such as aerospace and defense, airlines, automobiles, chemicals, machinery, metal, paper and steel may be hardest hit’ by the accounting change” (Berton and Brennan 1992). These industries are well-represented among early adopters. Early adopters include such companies as Data General, Freeport-McMoran, Pennzoil, General Electric, and IBM. The industry distribution suggests that the impact of SFAS 106 reported here should include the effects on some of the companies expected to report dramatic changes.

Revenues of early adopters ranged from \$22.5 million (CFS Communications) to \$64.8 billion (IBM). Because the relative impact of the statement varied by firm size, early adopters were divided into three groups by revenue size: small firms with revenues less than \$500 million (20 companies); medium firms with revenues between \$500 million and \$2 billion (21 firms); and large firms with revenues over \$2 billion (23 firms). Results are presented for the entire sample and grouped by size.

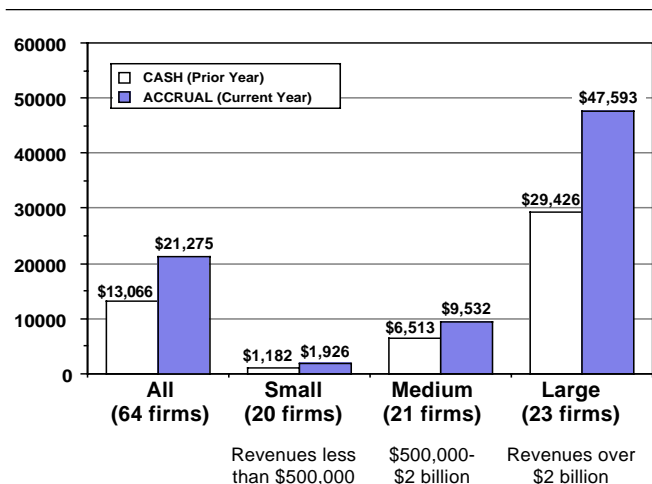
The largest reported OPEB costs under SFAS 106 was IBM’s \$394 million and the smallest was Dixie Yarn’s \$203,000. Overall, OPEB costs averaged .66 percent of firm revenues. Costs represented a larger proportion of revenue for small and medium-sized firms (.8 percent and .75 percent respectively) than for large firms (.45 percent). Considering most firms average less than five percent in operating margin, these charges represent a material amount when compared to net income.

Table 2 is a comparison of the average cash-basis OPEB cost reported in the prior year to the adoption year accrual-basis OPEB cost. Twenty-four companies

**Table 1
Early Adopters of SFAS 106 Industry Profile**

Mining	1	
Oil and Gas	1	
Manufacturing	40	Food and Kindred 1
Transportation	3	Textile 1
Communication	3	Paper 4
Utilities	3	Printing and Publishing 2
Wholesale Trade	1	Chem. and Allied Prod. 4
Retail Trade	5	Petrol. Refining 3
Finance/Insurance	7	Rubber 2
		Stone, Clay, Glass 2
		Primary Metal 3
		Fabricated Metal 6
		Machinery 4
		Electrical Equipment 2
		Transportation Equip. 1
		Prof. Sci. Instruments 5
		Total Manufacturing 40
Total	64	

**Table 2
Comparison of Accrued Cost to Cash Basis
(000 omitted)**



did not report prior year cost and four of those companies also did not report SFAS 106 costs or indicated that the effect was immaterial. Among those companies for which data was available, costs reported under SFAS 106 generally were substantially higher than those reported under the cash-basis method. Only two companies, Communication Satellite and Stanley Works, reported smaller OPEB costs under SFAS 106 than in the prior year. On average, OPEB costs under SFAS 106 were 163 percent of the prior year cash-basis costs, increasing from an average \$13 million to \$21 million. Average costs for the medium-sized firms increased by a somewhat smaller percentage, 43 percent, but the increase was still substantial.

On average, the percentage increase was not as large as some analysts predicted, although it was certainly material (Berton 1991). However, the amount of the change varied considerably among companies, from a five percent increase (Clark Equipment) to a 1600 percent increase (Hall Inc.). Nineteen companies reported OPEB costs that had more than doubled over the preceding year.

The smaller than predicted increases for some companies may reflect particular characteristics of the plans of early adopters, or it may reflect actions taken by firms to reduce plan costs. Companies have more flexibility over

OPEB than over pension benefits, and a number of companies have reduced costs by redesigning their plans. For example, companies are increasing retiree contributions and deductibles and changing to alternative medical care providers such as HMOs (Jones and Klein 1992).

SFAS 106 adoption is probably not the only reason companies reported higher OPEB costs in the adoption year than in the previous year because medical costs were also increasing over the period. However, the general increase in current period medical costs was much less than the average reported increase in OPEB costs. A survey by Foster and Higgins reported that average plan costs increased 9.3 percent during 1991 (*Wall Street Journal* 1992). In the same year, the cost of medical care as measured by the CPI-U increased by almost eight percent.

Although companies may be taking steps to decrease plan costs and thereby reduce the adverse impact of SFAS 106 on reported profits, the adoption of SFAS 106 significantly increased recognized OPEB costs. Further, the change in OPEB costs does not represent the full income effect of SFAS 106 adoption. Most companies recorded an additional large negative effect on income from the cumulative effect of the accounting change, which will be discussed in the section on SFAS 106 transition.

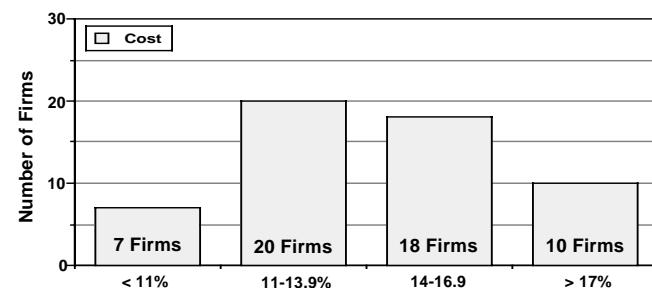
Sensitivity Analysis

OPEB costs depend on a number of assumptions, such as the discount rate, rate of return on plan assets, and health care cost trend rate. Our analysis focuses on the health care cost trend and sensitivity analysis. There was little variability in the discount assumption. The discount rate averaged 8.5 percent and ranged from 7.5 percent to 9.5 percent. Most companies did not have plan asset earnings to offset OPEB costs so they did not need a rate of return assumption. Only 12 companies reported prefunding the OPEB obligation, and the rate of return assumption was comparable to the discount rate, averaging 8.46 percent, with a range of 7 to 10 percent.

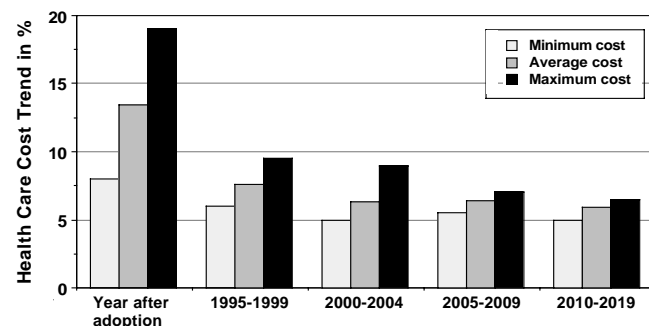
Table 3 summarizes assumptions on health care cost trends. Nine companies did not disclose the health care cost trend used to measure the cost of benefits in the following year. Over one-third of the companies reporting a rate used a rate in the 11 to 13 percent range. However, the range of rates was fairly wide. Ten companies assumed health care costs would increase by more than 17 percent in the following year, while seven companies used a rate of less than 11 percent.

There is clearly a diversity of expectations on immediate health care cost trends. The health care cost trend excludes changes in per capita costs due to such plan specific variables as changes in age or dependency status of participants, but other company-specific factors could affect assumptions. For example, companies may have different policies for cost-sharing, or trends could reflect regional differences in health care costs.

Table 3
Health Care Cost Assumption Year Following Adoption



Range in Health Care Cost Trend Assumption



Year	Year after adoption	1995-1999	2000-2004	2005-2009	2010-2019
Minimum	8.00	6.00	5.00	5.50	5.00
Average	13.46	7.58	6.32	6.41	5.96
Maximum	19.00	9.50	9.00	7.00	6.50

The lower panel of Table 3 reports the minimum and maximum trend rates, as well as the average, for the year following adoption and for subsequent years to 2019. Only five companies used a flat rate. Generally as health care costs are projected further into the future, the assumption decreases substantially and the range narrows. Again, this could reflect company expectations about their ability to control future plan expenditures, as well as expectations about a general slowdown in health care inflation.

A slight change in the cost trend assumption could have a significant effect on OPEB costs. Eighteen companies did not disclose the effect of a one percent change in the assumption on OPEB costs, as required by SFAS 106. Among those companies making the disclosure, a one percent change in the assumption changed OPEB costs by an average \$2.3 million. The sensitivity of the cost can be seen more clearly if the dollar amount of the change is expressed as a percent of OPEB costs. On average, the one percent change in the assumption changed OPEB costs by 15 percent for small firms, 12.5 percent for medium firms, and 10.6 percent for large firms. The sensitivity of the OPEB costs to a one percent change ranged from two percent (Dixie Yarns) to 56 percent (Fibreboard).

Balance Sheet and Transition

The full effect of SFAS 106 adoption on income and the balance sheet depends on whether a company elects immediate or deferred recognition of the cumulative effect of the change. Despite the size of the transition obligation and the cumulative effect on income, most early adopters chose to “get the bad news behind them” and elected immediate recognition. Only five of the sixty-four early adopters chose the deferred method.

Table 4A graphs the cumulative effect of the change as a percent of pre-tax income and equity for those

companies electing immediate recognition. The chart excludes the two companies which reported that the cumulative effect was immaterial. In addition, a percentage was not calculated for the effect of the accounting change for four companies which reported negative stockholders equity. Finally, IBM is excluded from the averages because the cumulative effect of the change as a percent of pre-tax income was extremely large, 1870 percent, as compared to the other companies.³

In dollars, the average decreases in income from the cumulative effect of the change were: \$13.9 million for small firms, \$44.5 million for medium firms, and \$321.2 million for large firms. On average, that represents a 29 percent reduction in income and a ten percent reduction in equity. Although the reduction in income is substantial, some companies may have offset the negative effect of SFAS 106 with extraordinary gains. For example, Abbott Laboratories was able to offset its \$128 million cumulative effect of the accounting change with a comparable investment gain from the sale of a division (*Financial Executive* 1992).

Companies must disclose the APBO, regardless of whether they elect immediate or delayed recognition. The average APBO was \$315.7 million. The average APBOs for small, medium, and large firms were \$18.9 million, \$91.6 million, and \$745.9 million respectively. The balance sheet liability was somewhat smaller for those companies which prefunded. Additionally, companies that deferred recognition did not have to recognize the entire APBO in the transition year.

Two of the five firms which use the deferred method are also prefunding the obligation, further reducing the accrued liability. Each of the companies using the deferred method accrued liabilities of \$2 million or less, except Wheeling-Pittsburgh which reported a \$355 million liability.

Table 4B shows the cumulative effect of the change as a percent of net loss. This information is shown separately since the magnitude of the impact is so significant

Table 4A
SFAS 106 Adoption Cumulative Effect on Equity and Pretax Income

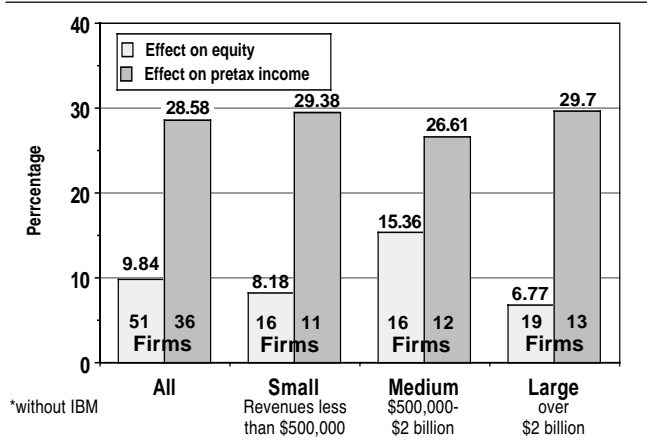
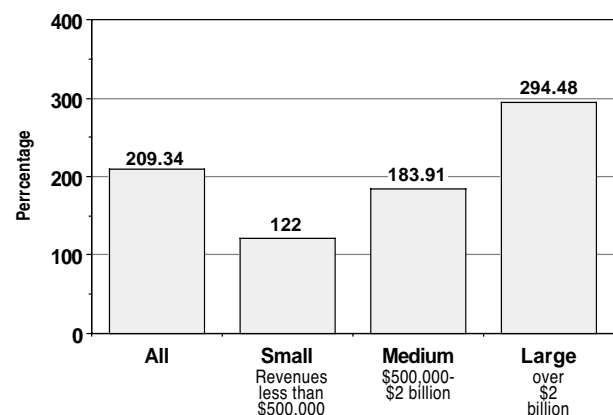


Table 4B
SFAS 106 Adoption Cumulative Effect on Loss



when shown in percentages. Nineteen firms had losses before the cumulative effect was recorded. The average cumulative effect was \$69.3 million for these firms; on average, the impact of the cumulative effect was a 209 percent increase in net loss. These nineteen firms were going to report losses regardless of OPEB accounting and perhaps this was a factor in deciding on the early adoption of SFAS 106. Early adoption and immediate recognition of the cumulative effect allowed these firms to report as much bad news as possible in one net loss year and avoid future charges from amortization of the transition obligation.

Table 5 presents the average liability in dollars and as a percent of equity for those companies electing immedi-

ate recognition. The average net liability was \$253 million. Although large firms reported an average liability that was almost twenty-nine times that reported by small firms, the liability represented approximately 12 percent of equity for both groups of firms. In contrast, the average liability reported by medium firms was 22 percent of equity.

Summary

Complying early with SFAS 106 significantly increased OPEB expenses, however, not to the extent predicted by some analysts. Nevertheless, a review of early adopters leads to the following conclusions:

Most firms (fifty-nine out of sixty-four) elected to recognize the transition obligation immediately thereby reducing current earnings and showing all the bad news in the first year of adoption. The cumulative effect of the early adoption had the most significant impact, resulting in a 10 percent reduction in earnings, a 209 percent increase in losses and almost a 29 percent reduction in equity. On the balance sheet, the average recorded liability exceeds 15 percent of equity.

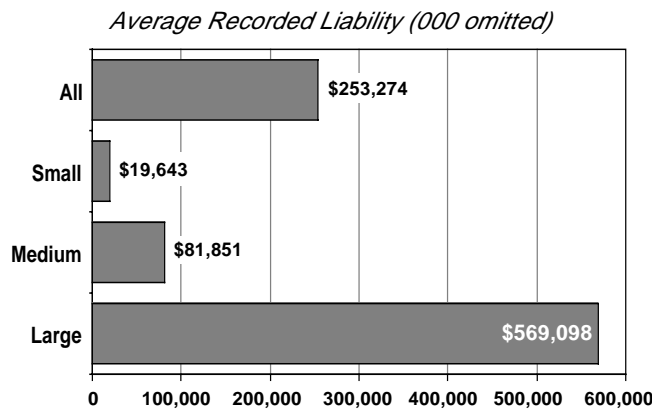
The accrual basis OPEB cost under SFAS 106 is an average 1.63 times larger than the previous year cash basis method. Many analysts estimated that OPEB costs, after adopting SFAS 106, would be two to seven times higher than the cash basis method. Early adopters reported costs towards the low side of these estimates, however, late adopters may report much higher expenses.

Assumptions about the discount rate and rate of return did not vary significantly across firms. However, the assumptions about health care cost trends cover a wide range. This is especially apparent for *current* health care costs where the projected increase for the year following adoption ranged from a low of 8 percent to a high of 19 percent. As the projections for health care costs are extended into the future, companies are quite optimistic in light of today's experience. During the time period 2010 to 2019, increases of 5 to 6.5 percent are expected. Perhaps executives believe they will be able to take an active role in controlling health costs in the future.

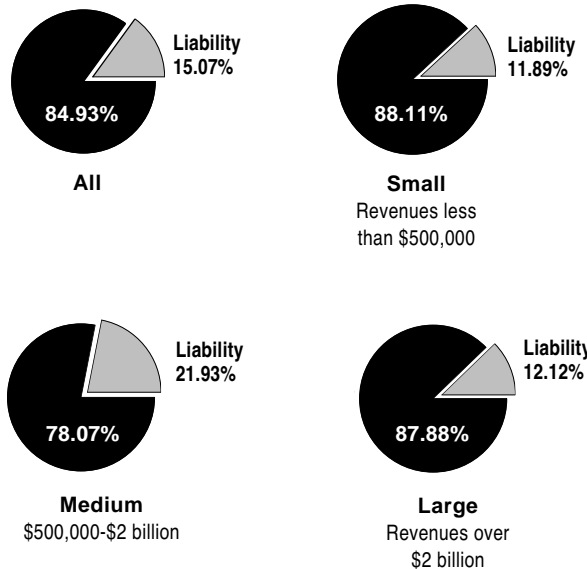
Finally, since all firms have not adopted this standard in the same accounting period, comparability between firms is impeded. Even when all firms do adopt the requirements of SFAS 106 comparison of financial statements will require some careful interpretations because of the different assumptions which are allowed to be used in the measurement process.

When the FASB started this project, business leaders argued that complying with this standard would require complex computations and that some of the data were not readily available. In reviewing the disclosures of early adopters, some companies fully adhered to the reporting standards while information presented by others was incomplete. The latter firms may expand disclosure as the

Table 5
Early Adoption of SFAS 106



Average Recorded Liability as % of Equity



information collection process is refined. Perhaps some late adopters have not reported early because they are having difficulty in gathering these data. It may be several years before all firms have fully implemented SFAS 106 and the total impact of the reporting requirements can be assessed. ■

Notes

1. Both the EPBO and the APBO incorporate the effect of future salary levels to the extent that future benefits are a function of future salary levels. In that regard, the obligations are comparable to the pension projected benefit obligation rather than the pension accumulated benefit obligation.
2. The employer can elect a twenty year amortization period if the average service period is less than twenty years.
3. IBM reported pre-tax income of \$121 million while the cumulative effect of the accounting change was \$2,827 million. The transition to SFAS 106 reduced E.P.S. by \$3.96.

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About the Authors

Bruce A. Leauby, Ph.D., CPA, CMA, CFE, is Assistant Professor of Accounting at La Salle University in Philadelphia, PA. His research interests include financial reporting, compensation issues, personal financing planning and pedagogical concerns.

Y. Joseph Ugras, Ph.D., is Assistant Professor of Accounting at La Salle University in Philadelphia, PA. His research interests include cost allocation, performance evaluation and ethics in business and financial reporting issues.

Mary Jeanne Welsh, Ph.D., CPA, is Associate Professor of Accounting at La Salle University in Philadelphia, PA. In addition to research on retirement health care issues, other research interests include financial reporting and pension reporting issues.

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C o n f e r e n c e

Professionalism and Internal Auditors:

A Profile

Lawrence P. Kalbers, *John Carroll University*
Timothy J. Fogarty, *Case Western Reserve University*

Abstract

The concept of professionalism of internal auditors is examined. A survey of a large sample of internal auditors revealed that internal auditors generally conform to a model of professionalism previously applied to other occupations. Especially notable, internal auditors strongly believe in the importance of internal auditing. The relationship between the dimensions of professionalism and levels of education, certification, and rank are also explored. Implications for professionalism in internal auditing are discussed.

Introduction

The claims of professional status by various groups have interested both practitioners and scholars for many years. The specialized expertise of identifiable occupations, or professions, has relevance for members of the group, those that they serve, and those with whom they compete. Organizations that use or employ members of such groups have an interest in the nature and consequences of such groups' claims to expertise and any special group privileges that may accrue. This article provides insight into the dimensions of professionalism by examining a specific group, internal auditors. However, the study of internal auditors provides a basis for a better understanding of the professional claims of other groups and their members that comprise business organizations.

It would be difficult to find an internal auditor that would disagree with the proposition that increased professionalism would benefit internal auditing. Since the foundation of the Institute of Internal Auditors (IIA) in 1941, professionalism has been advocated as an organizational, departmental, and personal goal by the Institute and its leaders. Many internal auditors have accepted the challenge of increasing their level of professionalism.

Unfortunately, these circumstances do not guarantee that a consensus exists on the meaning of professional-

ism. In fact, asking ten internal auditors to define that word might produce many answers. "Shopping lists" of what internal auditing professionalism means often include professional certification (Certified Internal Auditor), specialized training and/or knowledge, and a code of ethics.¹ Though many of these items can be applied to the individual practitioner, the focus of the discussion of professionalism has been primarily at the level of the "profession," rather than the "professional." However, if professionalism is to be a truly important force, *individual* internal auditors should share a meaningful concept about what it involves.

If professionalism is to be a truly important force, individual internal auditors should share a meaningful concept about what it involves.

This article reports results from a recent large scale study of internal auditors. A multidimensional definition of professionalism, adapted from prior research on other professions, was used to measure the attitudes and behaviors of internal auditors from thirteen organizations in the Great Lakes region of the U.S. The purposes of this research were to:

1. summarize the level of professional attitudes, beliefs, and activities among internal auditors;
2. examine professional certification and educational background, as it relates to professionalism in internal auditing; and
3. propose ways the profession can move toward higher levels of personal professionalism.

We are grateful for the financial support for this project from the Greater Cleveland/Akron Chapter of the Institute of Internal Auditors, Arthur Andersen & Co., and a John Carroll University Wasmer Summer Research Grant. We thank the two anonymous reviewers for their helpful comments.

Professionalism: Attitudes and Behaviors

Many people have debated what attributes must exist before an occupation can be a profession. Unfortunately, this debate has failed to produce a definitive set of characteristics. Most would agree, however, that the attitudes and behaviors of practitioners serve as a centerpiece. Before social recognition of a profession can occur, *practitioners* must exhibit professionalism. While these attitudes do not guarantee the privileges and immunities of a profession, they are a major step in the direction of such a status.

Before social recognition of a profession can occur, practitioners must exhibit professionalism.

Organizational behavior and sociology have produced a short list of central attributes of the practitioner with high professionalism. Such individuals (1) believe that their work is socially important, (2) are dedicated to their work, (3) demand autonomy in the performance of their work, (4) support self-regulation for practitioners, and (5) affiliate with other practitioners.² Each of these attributes is a part of the complex meaning of professionalism.

Each of the elements above can easily be translated to the realm of the internal auditor. Auditors may believe in the vital role internal auditing plays within the modern corporation and society. Dedication, or personal zeal, may be critical to the evaluation of controls and operations, where what needs to be investigated cannot always be specified in advance. The concept of autonomy, or independence, should be embraced by each internal audit professional.

The Institute of Internal Auditors (IIA) has issued standards for the practice of internal auditing. The self-regulation dimension of professionalism involves the degree to which the individual believes that these standards are meaningful and important. This element also includes the extent to which individuals believe that only those engaged in internal auditing can understand it sufficiently to evaluate how well it has been performed.

Internal auditors differ in their tendency to associate with their internal auditing colleagues. The intellectual and social engagement of internal auditors with their peers in various professional meetings and affairs of local chapters of the IIA serves as an acknowledgement of their professional priorities. Those who are committed to individual professionalism and to the standards and benefits of the professional organization, display and actualize such commitment through these activities.

In summary, this multidimensional definition implies that being an internal auditing professional involves a great deal more than is commonly believed. High levels of professionalism necessarily entails support for those changes that would help create broader recognition of the professional status of internal auditing. Clearly, certification and training is a necessary but not a sufficient condition for professionalism.

The Study

Surveys were distributed to 498 internal auditors in thirteen organizations. The sample was organized around organizations rather than IIA or other professional membership lists to ensure a sample of all internal auditors, not just those with professional certification or affiliation. The types of organizations represented included manufacturers (five), banks (three), utilities (two), oil, insurance, and government. The distribution of the surveys was coordinated through a contact person in each organization. Surveys were returned directly to the researchers using a self-addressed postpaid envelope.

The professionalism scale consisted of twenty questions for which subjects were asked to indicate responses on a seven-point scale that varied from "Strongly Agree" to "Strongly Disagree."³ Although these measures have been used for public accountants and those in other professions, the authors are not aware of any previous attempt to pose these questions to a sample of internal auditors. The survey instrument included other scales and requests for various demographic and occupational information, including certification and educational background.

Results

The endorsement of the local IIA chapter and cooperation by supervisory personnel in the employing organizations were instrumental in obtaining 455 useable responses, for a 91 percent response rate.

Table 1 reports descriptive statistics for all twenty professionalism questions, as well as subtotals for the five elements of professionalism.⁴ For these purposes, all averages have been computed so that *higher* averages indicate stronger levels of endorsement. Lower standard deviations indicate higher levels of agreement among the respondents.

The group of internal auditors in this sample tended to agree that the attributes of professionalism describe them and their work. Four of five dimensions produced a mean above the scale midpoint of 4.0. However, the respondents, as a group, did not report strong ties to the community of internal auditors. This dimension also showed the highest level of internal difference of opinion. Internal auditors agreed most frequently about the social importance of internal auditing. The mean responses aggregated

Table 1*
Summary of Responses
to Professionalism Items

	Average	Standard Deviation
Community Affiliation		
1. I subscribe to, and systematically read, internal auditing journals and other professional publications.	3.6	2.0
2. I regularly attend and participate in meetings of the local chapter of the Institute of Internal Auditors.	2.6	1.9
3. I often engage in the interchange of ideas with internal auditors from other organizations.	3.1	1.9
4. I believe that more internal auditors should support the Institute of Internal Auditors.	<u>4.8</u>	1.3
Group Average	3.5	
Importance to Society		
5. Internal auditing is essential to the welfare of society.	4.4	1.7
6. The importance of internal auditing is sometimes overstated. (REVERSE SCALE)	5.0	1.5
7. Not enough people realize how vital internal auditing is.	5.1	1.3
8. Any weakening of the role or independence of internal auditing would be harmful to the public.	<u>5.2</u>	1.4
Group Average	4.9	
Dedication to the Work		
9. I am gratified when I see the dedication of my fellow internal auditors	5.0	1.4
10. It is encouraging to see an internal auditor that is idealistic about his or her work.	5.0	1.4
11. It is difficult to be enthusiastic about the kind of work that I do. (REVERSE SCALE)	5.1	1.6
12. I would stay in internal auditing even if I had to take a slight pay cut in order to do so.	<u>2.6</u>	1.6
Group Average	4.4	
Belief in Self-Regulation		
13. Standards for the professional behavior of internal auditors are not equally applicable to all organizations. (REVERSE SCALE)	4.7	1.8
14. Internal auditors have no reliable way of judging each other's competence. (REVERSE SCALE)	5.2	1.5
15. The Institute of Internal Auditors should have the power to enforce standards of conduct for internal auditors.	4.2	1.7
16. One internal auditor is a better judge of another internal auditor than a noninternal auditor supervisor would be.	<u>5.0</u>	1.5
Group Average	4.8	
Autonomy Claims		
17. Internal auditors ought to be given the opportunity to make decisions about what is to be audited.	5.5	1.3
18. The judgment of an experienced internal auditor should not normally be second-guessed by his or her supervisor.	3.7	1.7
19. The conclusions made by internal auditors are rightly subject to detailed review by their supervisor. (REVERSE SCALE)	2.3	1.4
20. Internal audit staff should be allowed to make significant audit decisions without the intervention of those outside of the department.	<u>4.8</u>	1.7
Group Average	4.1	

* In the actual questionnaire, the professionalism items were not given in this order.

by dimension also indicated the absence of *strong* agreement or disagreement. Without exception, this large group of internal auditors reported aggregated mean levels within one point of the scale's midpoint. This indicates that internal auditors that feel passionately about professionalism are rather exceptional.

Table 1 also reveals interesting information about internal auditor responses to individual questionnaire items. Within the importance of internal auditing to society dimension, the sample strongly supported the idea that internal auditing is underappreciated and deserves additional support. They also tended to agree with the position that internal auditing is essential for society. The first three dedication to the work items revealed very little difference in their means or in their variation. On average, internal auditors tended to embrace dedication to internal auditing. However, strong disagreement was evident on the most extreme form of dedication. The internal auditors would not be willing to take less compensation to remain in internal auditing. This may reflect the perception by internal auditors that they are already undercompensated. Furthermore, professionals expect to be paid *more* money, rather than less money, to reflect the intrinsic value of their services. It may also be that those who view internal auditing as a training ground for passage to other management and accounting positions within the organization are less likely to be committed to the internal auditing profession, especially if more lucrative positions are on the horizon.

Internal auditors more readily accept the personal aspects of self-regulation than they do the social level implications of self-regulation. The sample agreed with the propriety of internal auditors judging internal audit work (items fourteen and sixteen). While the sample generally agreed with the broad applicability of the IIA standards, a less aggressive position was taken toward enforcement of those standards by that body. Internal auditors also tend to disagree more about the mechanics of the self-enforcement of standards.

A similar, but more extreme, split occurred within the autonomy claims dimension. Strong support for items seventeen and twenty indicates that internal auditors believe that internal auditing should have organizational independence. However, auditors did not support the autonomy of an individual auditor *within* internal auditing. Thus, most believe that personal professional autonomy is properly checked by close internal auditing supervision. This likely corresponds with the increased emphasis on quality reviews in internal auditing.

Educational Background and Certification

The elements of professionalism used in this study focused on individual attitudes and behaviors. However, the knowledge and training of professionals is often included in the definition of professionalism. In the

traditional professions, the educational background and licensing of individuals is well established. In medicine and law, the required schooling and licensing are rather invariant. In the case of the traditionally acknowledged "accounting profession," public accounting, accounting education and strict certification requirements exist for membership. In order to examine these important attributes for internal auditors, information about the educational background and certification of the sample was also collected in the survey.

Table 2 shows that internal auditors come from varied educational backgrounds. Although the majority of the sample have an undergraduate degree in accounting, a surprising 40 percent do not. A combined 18 percent have undergraduate degrees in finance or management, but a full 22 percent come from majors other than accounting, finance, or management. Over three-quarters of the sample do not have a graduate degree. The most common graduate degree is the MBA. The distribution of educational backgrounds suggests that numerous skills and career paths are associated with internal auditing. Internal auditors are not very homogeneous in their backgrounds.

Table 2
Education of Respondents

<i>Undergraduate Major</i>	<i>No.</i>	<i>Percent</i>
Accounting	264	60.0
Finance	58	13.2
Management	21	4.8
Other	97	22.0
Total	440	100.0

<i>Graduate Degree</i>	<i>No.</i>	<i>Percent</i>
Accounting	6	1.4
MBA	81	18.4
Other	19	4.3
None	334	75.9
Total	440	100.0

Note: Fifteen respondents did not indicate degree.

This lack of common background and focus of interest sets internal auditing apart from the traditional professions. However, such varied backgrounds are understandable for internal auditing. Internal auditing includes a broad set of tasks to be performed within and across organizations. Because every aspect of operational and financial effectiveness and efficiency in an organization is within the purvey of internal auditors, the nature and the complexity of tasks performed by internal auditors would likewise vary. In addition, the backgrounds of the

Table 3
Frequencies of Certification, Total Sample, and Rank

	<i>Total Sample</i>		<i>Staff</i>		<i>Middle</i>		<i>Top</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
No certifications	239	52.6	128	72.7	98	52.1	13	15.1
1 certification	182	40.1	45	25.6	76	40.4	58	67.4
2 certifications	27	5.9	3	1.7	11	5.8	12	14.0
3 certifications	5	1.1	0	0.0	2	1.1	3	3.5
4 or more certif.	1	.2	0	0.0	1	.6	0	0.0
Total	454	100.0	176	100.0	188	100.0	86	100.0

Total Sample Certification

CIA	35	(7.7%)
CPA	131	(28.8%)
CISA	44	(9.7%)
Other	45	(9.9%)
None	239	(52.6%)

Middle and Upper Rank CIA/CPA Certification

(274 respondents)

CIA	32	(11.7%)
CPA	91	(33.2%)
CIA and CPA	10	(3.6%)

Key: CIA = Certified Internal Auditor
CPA = Certified Public Accountant
CISA = Certified Information Systems Analyst

Note: Five respondents did not indicate their rank and one respondent did not indicate certification. Total sample certification does not add to 100% because of multiple certifications.

internal auditors suggest that internal auditors are more auditors than accountants. The common connection of auditors to accountants exists because the typical audit by external auditors is a financial statement audit. Therefore, the auditor must also be a master of accounting. That is, an auditor's technical background must be directly related to what is to be audited. In the case of internal auditors, the necessary technical background may not be accounting. Thus, by definition, those with many backgrounds can perform certain internal auditing tasks, but it is unlikely that any one type of training would be sufficient to execute all internal auditing tasks.⁵

Table 3 exhibits the professional designations held by the sample. The table divides the certifications in several ways. First, the number of certifications individual auditors have is indicated. Just over half of the sample have no certifications. A large number (40.1 percent) have one certification. One person in the sample held four certifications.

The respondents were asked to categorize their rank in the internal audit department as staff, middle, or top. Analysis by rank reveals that, not surprisingly, the

percentage of those certified increases with advance in rank. Only 15.1 percent of the individuals in top level positions have no certification.

Of those holding certification, the majority are CPAs (28.8 percent of the total sample, and 60.9 percent of those having one or more certifications). Surprisingly, the CISA (Certified Information Systems Analyst) is the second largest certification (9.7 percent). Only thirty-five auditors (7.7 percent) in the sample hold the CIA.

Finally, Table 3 shows the number of CIA and CPA certificate holders in the middle and top position ranks. The percentage of holders of the CIA is still quite low for these ranks (11.7 percent). However, about one-third (33.2 percent) of the top two ranks hold the CPA. The profile in Table 3 documents that the CPA continues to be the dominant professional designation in internal auditing. This is true of the overall sample and the upper ranks. Also, there seems to be no significant trend for the CPAs to also acquire the CIA designation. Of the ninety-one CPAs who have been promoted or recruited into the middle and top internal audit positions, only ten have the CIA.

Although the CIA credential is acclaimed as *the* professional designation for internal auditors, the survey results indicate a significant absence of it. The reason for this absence could involve several factors. Internal audit job vacancies often do not require it nor do all practitioners seem to actively pursue it (see Smith 1986; Rodriquez 1991). In scanning recent advertisements for internal auditing professionals in the *Wall Street Journal*, it was noted that the CIA was never the single certification required, and was not even included in all cases. The typical job advertisement designated the CPA *or* the CIA as being required or helpful, and in some cases the CPA *or* the CISA. It is likely that many, if not the vast major-

ity, of those internal auditors holding the CPA obtained it before entering internal auditing. Job skills and job mobility seem to provide little incentive for the CPA, or even those holding the CISA, to obtain the CIA. Also, some internal auditing departments serve as a management training ground for some internal auditors. Those who have a desire to move out of internal auditing would not be motivated to seek internal audit certification. Finally, because the IIA does not require certification for membership, those who are interested in the benefits of the professional organization need not worry about certification.⁶

Responses by Different Characteristics of Respondents

As discussed earlier, certification, educational background, and membership in the Institute of Internal Auditors are often considered indicators of professionalism. The data was also analyzed to compare responses between those who possess and do not possess certain characteristics. This was done to determine whether there are significant differences in professional attitudes and behaviors among these subgroups.

Table 4 presents a summary of the average responses by the characteristics of respondents. Gender differences and position (rank) were also considered. The educational backgrounds, certification, and position (rank) of the respondents are displayed in Tables 2 and 3. Responses also indicated that 40 percent of the respondents are members of the IIA and 36 percent are female.

There are few differences that appear to be significant across all of the dimensions of professionalism. Those who hold the CIA have higher averages for all five

Table 4
Summary of Average Responses by Characteristics of Respondents

Characteristics	All	CIA		CPA		CIA & CPA		Major		Grad. Degree		Position (Rank)			Gender		IIA Member	
		Y	N	Y	N	Y	N	Acctg.	Other	Y	N	Staff	Middle	Top	M	F	Y	N
Community Affiliation	3.5	4.5	3.4	3.7	3.4	3.8	3.3	3.6	3.4	3.7	3.5	3.1	3.5	4.3	3.5	3.6	4.2	3.0
Importance to Society	4.9	5.2	4.9	4.8	4.9	4.9	4.9	5.0	4.8	4.8	4.9	4.8	4.9	5.0	4.9	5.0	4.9	4.9
Dedication to the work	4.4	4.6	4.4	4.4	4.5	4.4	4.5	4.4	4.4	4.5	4.4	4.3	4.5	4.7	4.4	4.5	4.5	4.4
Belief in Self-Regulation	4.8	5.1	4.7	4.8	4.8	4.9	4.7	4.8	4.7	4.9	4.7	4.7	4.7	4.9	4.7	4.9	4.9	4.7
Autonomy Claims	4.1	4.3	4.1	4.1	4.1	4.1	4.1	4.0	4.2	4.1	4.3	4.0	4.2	4.1	4.0	4.2	4.1	4.1

dimensions of professionalism than others. However, since there are relatively few CIAs in the sample, this result should be interpreted with caution. Those who hold either the CIA, the CPA, or both, are much more likely to be involved in activities with other internal auditors (community affiliations). This may reflect more interest in interaction with peers and the interchange of new information on the part of those certified. Alternatively, most organized meetings and activities of the IIA and its local chapters grant continuing professional education (CPE) credit. Some practitioner journals provide self-tests for CPE credit. Typically, the CPE credits are acceptable for both CPA and CIA requirements. Therefore, maintaining certification provides a higher level of motivation for involvement with the professional community for these internal auditors.

Those who hold the CIA have higher averages for all five dimensions of professionalism than others.

Unlike the CIAs and the CPA/CIAs, those holding only the CPA certificate are not higher in their professional attitudes on the other dimensions. This may suggest that CPAs tend to identify with the broader professional claims of public accountants rather than those more specific to internal auditing. Their prior socialization and job role apparently reduce the likelihood of a strong commitment to a different professional orientation.

The position (rank) of respondents also had a rather significant impact on professional attitudes across most of the elements of professionalism. The general trend is an increase in professionalism with an increase in rank. This is most pronounced in community affiliation and to a lesser extent in dedication to the work. With regard to community affiliation, it appears that some time is required to become an active member of the professional community. Also, related to the higher participation of CIAs and CPAs noted earlier, it takes time to become certified, and those who already are certified may be hired at a higher rank. This suggests that perhaps for all but the very committed professionals, it is the continuing professional education benefits of community affiliation that stimulate involvement. Because over half of the internal auditors in the sample are not certified, it may explain the low group average and somewhat higher variance in the responses for this professional dimension. If maintenance of certification is a major motivation for community affiliation, it could also explain why the trend is less pronounced for the other areas of professionalism for higher ranks and for CIAs and CPAs.

Although there are some differences between those with particular educational backgrounds (undergraduate majors in accounting and graduate degrees) and those without those backgrounds, the differences are not all in the same direction. That is, accounting majors are slightly higher in some professional attitudes and lower in others. Likewise, graduate degree holders are not more likely to have more professional beliefs than those internal auditors with only an undergraduate education. However, both educational categories are more likely to be involved in the professional community.

There is little difference in the responses of males and females. Although females have a higher average on all five dimensions, the difference is never more than slight. Perhaps the most surprising results are the minor differences between those who are IIA members and those who are not. IIA members are substantially higher only on the community affiliation element. This is primarily a result of the measurement of that dimension, in that two of the four items mention attendance at, and support of, the IIA. The IIA members are slightly higher on two other professional elements. Still, this suggests that membership and involvement in the Institute does not translate automatically into a stronger belief in and adherence to the ideals of internal auditing. As noted earlier, some members, notably CPAs, may be more likely to join the IIA for continuing professional education opportunities. Also, because membership does not require the CIA or any other certification, a high commitment to the ideals of the profession cannot be assumed. Some internal auditors may even view organization membership with such minimum requirements as a way to improve their resume.

Discussion and Recommendations

The means used in this article to describe professionalism should remind internal auditors that becoming a profession requires comparison to other, more established, professions. Therefore, the dimensions that define professions like law and medicine should be considered to describe the degree of professionalism in internal auditing. For the most part, the large sample of internal auditors involved in this research scored modestly high on these scales. Internal auditors believe in the self-regulation of the profession, are dedicated to their work, and believe that internal auditing has broad social importance. However, there appears to be no uniformity in the involvement with the community of internal auditors. Possession of the CIA as a meaningful professional designation is also largely absent. More widespread participation in the IIA, its professional designation, and its many activities would strengthen professionalism. However, the comparative results indicate that those who actually obtain the CIA certificate have higher professional attitudes on other dimensions than those who are Institute members, but do not hold the CIA. Seemingly, pursuit and attainment of

the CIA demonstrates a much higher level of commitment to the profession of internal auditing.

The extent to which internal auditors have embraced the classic elements of professionalism is not overwhelming.

The magnitudes of the responses should indicate some cause for concern by those interested in internal auditor professionalism. The extent to which internal auditors have embraced the classic elements of professionalism is not overwhelming. While internal auditors believe in these attributes and these normative positions, they fail to agree *strongly*. An examination of the distribution of responses indicates that this tepid response is not due to the averaging of two very different groups. Rather than wide contradictions, there appears to be a lack of passion for professionalism among internal auditors across the board. Internal audit professionalism could be improved if more people convincingly communicated their strong feelings to others.

The autonomy aspect of the traditional model requires unique assessment for internal auditing. Historically, the internal auditing *function* has been more important than the *individual* internal auditor. Especially in the modern corporation, internal auditing requires the contributions of a large group of individuals working in complex and interrelated teams. The fact that the demand for individual autonomy is not a prominent feature of internal auditor professionalism is consistent with how internal audit work is organized. The proper autonomy for individual internal auditors must reflect their rank, expertise, and experience within their department. This means that the classic model of professionalism may not perfectly apply to internal auditing because of internal auditing's special heritage and its role within the modern organization.

If internal auditing is to further its gains in professional recognition and continue its progress in providing professional services to modern organizations, individual auditors must also increase their professionalism. Based on the findings of this study, the following recommendations can be made.

- Those auditors who already exhibit high levels of professionalism should become more active in promoting such activities in others. For example, those who are involved in the internal auditing community should make it a point to recruit others.
- Top internal auditors who do not yet have the CIA should pursue it. Though they may have little to gain personally by making this commitment, they should perhaps consider it a message to others. The message is this: The unique certification of my profession is important.

- Directors of internal audit and other top internal auditors should actively promote internal audit professionalism. Those who have the CIA should promote it in their staff and in their organization.
- Internal auditors should recognize and promote the varied educational backgrounds that exist among the members of the profession. The implication is that a wide variety of skills are needed to meet the varied nature and complexity of internal auditing responsibilities. At the same time, the commonality of internal auditing and the work of internal auditors should be better defined within this context of diversity. This might be done through broader support for the CIA certificate.
- Internal auditing departments should use pamphlets or brochures that describe the activities of the department to not only document professionalism, but to promote it. Such brochures can provide a vehicle for communicating professional standards, their importance to the organization and society, and the shared benefits of dedicated work. They could also explain the special nature of the CIA designation and promote it as an symbol of knowledge valuable to the organization. This brochure could be made available to auditees, top management, the audit committee, and internal audit staff.

Conclusion

Professionalism is the historical means by which Western society has organized the delivery of expertise. Groups such as internal auditors that desire a broader recognition of their talents need to understand professionalism. Professionalism goes beyond basic competence and rhetorical appeals. The results of this survey revealed an overall unenthusiastic response for the ideals and behaviors of professionalism among the internal auditing population. Therefore, advancement of internal auditing as a profession will likely require increased *individual* auditor commitment to professional beliefs and actions.

The internal auditing case explored in this research has implications for many other groups that provide specialized services to business but have not yet received broad-based professional recognition. Many specialists within management, especially those who possess expertise in the delivery and organization of information, can learn valuable lessons from the ongoing efforts of internal auditors to become recognized professionals. ■

Notes

1. Smith (1986), Rodriquez (1991), and Vessel (1991) provide and discuss characteristics of a profession as they relate to internal auditing.
2. This taxonomy of professionalism is based on Hall (1968).
3. The twenty items were adapted from Hall (1968).
4. The professionalism dimensions were examined and found to be appropriate using the statistical technique of Confirmatory Factor Analysis. This method provides a test of the statistical independence of the expected dimensions in a model.
5. Internal auditing's breadth of activities, differences in career goals, and "absence of a recognized center of interest" have been observed and discussed by Mautz, Tiessen, and Colson (1984).
6. Miller (1989) noted that only 5,000 of approximately 35,000 IIA members are CIAs. This comes to approximately 14 percent of the membership, somewhat higher than in our sample, but still quite low when compared to the typical certification of professionals.

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About the Authors

Lawrence P. Kalbers, Ph.D., CPA, is an Assistant Professor of Accountancy at John Carroll University.

Timothy J. Fogarty, Ph.D., CPA, J.D., is an Assistant Professor of Accountancy in the Weatherhead School of Management, Case Western Reserve University.

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C o n f e r e n c e

Do the Foxes Guard the Hen House?

A Note on Agency Costs

Richard J. Downen, *Northern Illinois University*
Thomas L. Mann, *Northern Illinois University*

Abstract

It is a fairly common practice for the CEOs of one corporation to serve on the Board of Directors of another corporation. The question addressed here is the effect that the presence of outside CEOs on the Board of Directors has on the compensation of the firm's CEO. There are two alternative views that emerge from the literature. One view is that CEOs are selected to serve as directors because they will back management, including proposals for increased compensation. The other possibility is that a CEO knows the techniques that another CEO may use to obtain increased compensation and will thus serve as a better watch dog than a non-CEO. Using a sample of the *Fortune* 1000, we find that for nonregulated firms there is a negative relationship between the proportion of outside CEOs serving on the board and three different measures of CEO compensation after controlling for firm performance in four different ways.

Introduction

Recently, the level of CEO compensation has become a matter of public concern. The tax deductibility of CEO pay above specified levels has been called into question. One area of public concern is that CEO compensation may have reached its current levels, in part, because of the common practice of having the CEOs of one firm serve as directors of other firms. The question addressed here is the effect that the presence of outside CEOs on the Board of Directors has on the compensation of the firm's CEO. One view is that CEOs are selected to serve as directors because they will back management initiatives, including initiatives for increased compensation. Another possibility is that a CEO is in a better position to monitor another CEO than someone without that background and experience. Using a sample of large firms drawn from the *Fortune* 1000 and regression analysis, we find that for non-regulated firms there is a negative relation between the proportion of outside CEOs serving on a board and three different measures of CEO compensation. In conducting our test, we control for the proportion of stock owned by insiders, market and accounting performance,

age, the proportion of outsiders on the board, and the debt asset ratio. We find a negative relation between CEO compensation and the proportion of CEOs serving on the board.

...CEO compensation may have reached its current levels, in part, because of the common practice of having the CEOs of one firm serve as directors of other firms.

Literature Review

The modern corporation clearly separates the owners of assets from the control of those assets. Berle and Means (1932) were among the first to express concern about the possible consequences of that separation. They felt that the separation could result in an inefficient utilization of resources that would sever the link between private property and public good. Jensen and Meckling (1976) formalized the study of these conflicts under the rubric, "agency costs."

Since Berle and Means, the nature of the conflict between owners and managers and methods of ameliorating that conflict have generated a great deal of research. As Morck, Shleifer, and Vishny (1988) point out: "Although it is the fiduciary duty of all directors to represent the interests of shareholders, outside directors in particular must oversee the performance of the firm's officers." Holding to this paradigm, two major questions arise: Who are these outside directors? and What roles do they play in directing the management of the firm? We contend that while all outside directors have the responsibility to insure CEO compensation is appropriate to the level of the firm's performance, CEOs from other firms are particularly good at performing this function. We reason that CEOs are fully aware of the possibility of overcompensation and the potential dangers to the firm's future. This suggests that CEOs have "reputation capital" to protect.

In determining who these outside directors are, Mace (1971) found them likely to be managers and often the CEOs of other firms. As to their roles, Herman (1981) concluded that boards usually play the role assigned to them by management and that these roles tended to be limited in scope. One such role is providing advice. Outside directors are sometimes chosen for their expertise in a particular area. Management will allow such directors to offer advice in that area. Of course, management is free to accept or reject the advice. A second role identified by Herman is building relations with outside constituencies. Directors may be chosen from key suppliers, major customers, or suppliers of capital such as banks or insurance companies. Such directors may serve to minimize or eliminate conflicts between the corporation and outside constituencies. The final function identified by Herman is providing an emergency facility that can make decisions in a crisis such as the unexpected death of the CEO.

This paper takes the view that monitoring of decisions, including the setting of appropriate rewards, is a major function of boards.

Distinct from the management literature, financial economists have focused on somewhat different roles for the board and for outside directors. Fama (1980) argued that outside directors serve as referees in the internal battles between top managers. Fama and Jensen (1983) see a definite role for the board in minimizing agency costs. In their view, the board serves to ratify and monitor managerial decisions. Ratification of decisions includes a reexamination of the information and premises used in reaching decisions. Monitoring includes measuring the performance of managers and the setting of appropriate rewards. Agarwal and Mandelker (1990) show that large shareholders are also effective monitors of management decisions. Weisbach (1988) concluded that boards dominated by outside directors are more likely to oust a poorly performing CEO than are boards dominated by inside directors. Brickley and James (1987) argued that independent boards are in fact substitutes for the corporate takeover market in controlling managerial behavior. They hypothesize, but are unable to show empirically, that there will be greater independence for boards where there is a less developed market for takeovers. Kini, Kracaw, and Mian (1993) find that for insider dominated boards of directors, CEO turnover subsequent to a takeover is inversely related to pretakeover market performance. They conclude that takeovers and outside directors are substitutes. Hermalin and Weisbach (1991) find that the presence of outside directors has no effect on corporate performance.

This paper takes the Fama and Jensen (1983) view that monitoring of decisions, including the setting of appropriate rewards, is a major function of boards. We examine the effectiveness of CEOs of other firms in fulfilling that function by considering the relationship between CEO compensation and the proportion of directors who are outside CEOs.

There are two possible outcomes of having outside CEOs serve as directors. One outcome, the less desirable from the shareholders' point of view, is that the outside CEOs will identify with the firm's CEO. Mace (1971) suggests that such identification is one of the reasons that CEOs like to have other CEOs on their boards. If so, then it may be expected that CEO compensation will be greater in relation to performance at firms with a higher proportion of outside CEOs serving as directors.

On the other hand, an outside CEO should have the expertise to see through attempts by management to advance their own interests at the expense of shareholders. These outside CEOs will have their own reputation capital to protect and that may be a sufficient motivation for them to act to protect the value of shareholder interests. Fama (1980) notes that for managers renting out their human capital to the firm makes the value of that human capital a function of the performance of that firm. Kaplan and Reishus (1990) show that reputation capital is important in determining whether a CEO receives additional outside directorships. Specifically, they show that executives of firms that reduce their dividends during a year are 50 percent less likely to receive additional directorships than executives of firms that do not reduce their dividends.

To summarize, the shareholders of a firm hire managers to act as their agents in the day-to-day running of the firm. In order to monitor the managers, outsiders are appointed to the board of directors. In practice, these outsiders are often chosen by the managers. That is, the managers get to choose the people who will, in Fama and Jensen's (1983) phrase "ratify and monitor" their decisions. Outside CEOs are often chosen for this role. The motivation for that choice may be that the outside CEOs are in the best position to "ratify and monitor" their fellow CEOs' decisions. Or, it may be that the outside CEOs are appointed because they are most likely to have sympathy with their fellow CEOs and will raise compensation levels above those justified by performance or the other conditions surrounding the business. The popular press has advanced the argument that one reason for high CEO compensation is precisely the presence of other CEOs on the boards as outside directors. That is the question which is addressed here.

The issue of CEO compensation has been studied extensively. Lewellen and Huntsman (1970) found that executive salary plus bonus serves as an excellent proxy for total executive compensation. Coughlan and Schmidt (1985) find that salary plus bonus is positively related to

market performance. Murphy (1985) finds that executive compensation is positively related to shareholder returns over time. Ciscel and Carroll (1988) find that salaries are positively correlated with asset size. Myers and Majluf (1984) argue that managers have a pecking order of preferred financing instruments. Jensen (1986) suggests that debt creates a strong incentive for management to perform. We use these findings to create the control variables for this study.

John and John (1993) develop a theoretical model relating top management compensation to capital structure and the type of projects that the firm will undertake. Perhaps their most important result is that there is a negative relation between the pay-performance sensitivity of management compensation and leverage. Managerial rewards for performance are often in the form of stock options. Because of limitations in data sources, we cannot directly test this theoretical result.

Gilson and Vetsuypens (1993) empirically examine the effects of financial distress on CEO compensation in 77

cases. They find that newly appointed CEOs with ties to the previous management are paid less than the individuals they replaced while new CEOs from the outside are paid more. Gilson and Vetsuypens (1993) used annual proxy statements and 10-K reports as a source of information on managerial compensation. They were able to use bankruptcy filings to develop detailed information about the stock option plans made available to management. Because the firms in this study were in good financial health, we were not able to gather the data on the stock option plans. We will discuss the effects of that limitation when we present our results. Our findings contribute to the overall literature, however by empirically examining 500 financially solvent firms.

Data and Methodology

To test our hypothesis that outside CEOs are particularly good at controlling CEO compensation, we sampled from the *Fortune* 1000. Using the August 1991 issue of

Table 1
Mean Values of Selected Characteristics of the Sample

	Sample (n=500)	Industrial, Retail, and Diversified Services (n=393)	Regulated Firms	
			Financials (n=72)	Utilities (n=35)
COMPEMP	89.58	83.43	141.41	52.14
COMPSALE	473.42	465.53	656.33	185.66
COMPASS	472.21	582.66	66.37	66.89
PROPINS	7.66%	8.52%	6.65%	.17%
MKBK	1.56	1.71	.90	1.24
ROE	14.83%	16.49%	8.02%	10.20%
ROA	4.48%	5.29%	.59%	3.31%
ROS	5.15%	4.68%	5.74%	9.23%
CEOAGE	57.14	57.32	56.28	56.74
OUTSIDE	77.95%	76.59%	82.71%	83.43%
PCEODIR	16.36%	16.66%	15.89%	13.94%
DEBTASS	.20	.22	.05	.35
NUMB	12.37	11.65	15.64	13.77
ASSETS	9,262.75	6,251.67	23,845.60	13,073.90

N = Number of firms in sample.

COMPEMP = Dollars of CEO compensation per 1,000 employees.

COMPSALE = Dollars of CEO compensation per \$1,000,000 in sales.

COMPASS = Dollars of CEO compensation per \$1,000,000 in assets.

PROPINS = Proportion of outstanding shares held by officers and directors.

MKBK = Ratio of market value of equity plus book value of long-term debt to the book value of common equity and long-term debt.

ROE = Ratio of net income to book value of common equity in percent.

ROA = Ratio of net income to book value of total assets in percent.

ROS = Ratio of net income to sales in percent.

CEOAGE = The age of the CEO.

OUTSIDE = Proportion of board seats held by outsiders.

PCEODIR = Percentage of the board seats held by outside CEOs.

DEBTASS = Long-term debt as a proportion of total assets.

NUMB = Number of directors on the board.

ASSETS = Total assets in billions of dollars.

the COMPACT DISCLOSURE database, we developed a listing of all officers, directors, CEOs, CEO compensation in the form of salary and cash bonuses, and CEO age. Detailed information on stock option plans is not available from these sources. The database provided at least partial data from the last available SEC filing or latest proxy statement for 892 firms of the *Fortune* 1000. A name match was then performed to find all the CEOs in the sample firms who also served as directors for other corporations in the sample. Directors were classified as insiders or outsiders based upon whether or not they also held a position with the corporation.

Additional accounting data was secured from the disclosure data base for the last full fiscal year ending before the relevant SEC filing. This data included the firm's assets, number of shares outstanding, book value of equity, etc. After screening for data availability, 500 firms remained in the sample. The firm's stock price as of December 31, 1990 was determined by DISCLOSURE, CRSP, or newspaper listing. The sample is profiled in Table 1. Of the 500 firms, 308 were industrial, 54 were bank holding companies, 12 were other financial, 6 were thrift institutions, 24 were retail, 43 were diversified service firms, 18 were in the transportation business, and 35 were public utilities. Recognizing the uniqueness of specific industries and impact of government regulation, we report empirical results for the following categories: the total sample, financial firms (bank holding companies, other financial and thrift institutions, 72), public utilities (35), and all other firms (industrials, retailers, and diversified service firms, 393).

We follow Lewellen and Huntsman in using cash salary plus bonus as the base measure of compensation, the dependent variable. Our decision to concentrate on salary and cash bonus is, in part, driven by data limitations. In terms of the John and John (1993) theoretical model, we are reducing our ability to measure the sensitivity of compensation to performance. Due to the Ciscel and Carroll finding we standardize the compensation by firm size. In order to show the robustness of our findings we use three different metrics. The first ratio is CEO compensation to total number of employees. This ratio is meant to be a proxy for a ratio of CEO compensation to total employee compensation. That number (total employee compensation) was unfortunately not available for any of the firms in the sample. The second ratio is that of CEO compensation to sales for 1990. The third ratio is CEO compensation to total assets as of 1990. CEO compensation, other than salary and bonus, is generally in the form of stock options, phantom stock, or some other performance participation plan and is less problematic from an agency perspective.

The CEO influence on the Boards of Directors is measured as the proportion of board seats held by outside CEOs. Because our measure may be a proxy for the proportion of outsiders on the board we also include that

measure in our study. The median proportion of outside CEOs is 14 percent.

It has been shown by Murphy (1985) that a chief executive will be compensated more if the firm is performing well over time than if the firm is performing poorly. To measure firm performance we follow Amit, Livnat, and Zarowin (1989) and Lehn, Netter, and Poulsen (1990) in using the ratio of the market value of equity plus book value of preferred stock and long-term debt to book value of assets as a proxy for Tobin's q . The median market-to-book ratio is the highest for the industrial, retail, and diversified service firms (1.30). It is the lowest for the financial institutions (.89). The use of Tobin's q as a measure of managerial performance was pioneered by Lang, Stulz, and Walkling (1989), Morck, Shleifer, and Vishny (1989), and McConnell and Servaes (1990). The market to book ratio serves as a control variable for managerial performance and is expected to have a positive sign. In order to show the robustness of the result, three measures of accounting performance are also employed: the return on equity, the return on assets, and the return on sales.

Kim, Lee, and Francis (1988) and Hudson, Jahera, and Lloyd (1992) found a positive relationship between inside ownership and market performance. However, Molz (1988), Chaganti, Mahagan, and Sharma (1985), and Wayne (1983) find no relation between the degree of managerial control and performance. We include the proportion of shares owned by officers and directors as a control variable, but because of the contradictory findings, we do not hypothesize a sign for this variable.

The age of the CEO may be a positive determinant of compensation. Since Keynes (1964), it has been recognized that nominal salaries are seldom lowered. Consequently, the greater the age the higher should be the nominal compensation. Age serves as another control variable with an expected positive sign.

John and John (1993) show that the sensitivity of managerial compensation to performance is, in their theoretical model, negatively related to leverage. In order to account for their finding, we control for the debt asset ratio. With our three measures of CEO compensation corrected for size, we expect the sign on the debt asset ratio to be negative.

Summarizing, our controls include four performance measures (market to book ratio, return on equity, return on assets, and return on sales), a financial/accounting-based measure (debt asset ratio), and three board/management measures (the proportion of shares owned by officers and directors, proportion of outsiders on the board, and CEO age).

Table 2 provides a characterization of the boards of directors by proportion of outside directors and proportion of outside CEOs. It compares the proportion of outside directors to Weisbach's (1988) results. We find a somewhat higher proportion of outside directors than he

Table 2
Profile of Sample Studied by Proportion of Outside Directors and
Proportion of Outside CEOs Serving on the Board

<i>Overall Sample</i>							
<i>Proportion of Outside Directors</i>	<i>This Study Number of Firms*</i>	<i>Proportion of Firms</i>	<i>Median Number of Directors</i>	<i>Median Market Value</i>	<i>Median Proportion Outside CEOs</i>	<i>Weisbach (1988)</i>	
						<i>Number</i>	<i>Proportion</i>
0-10	0	0	—	—	—	3	.0082
10-20	0	0	—	—	—	13	.0354
20-30	2	.0040	19	1045.99	.08	20	.0545
30-40	1	.0020	12	120.52	.08	57	.1553
40-50	12	.0240	10	891.52	.10	98	.2760
50-60	25	.0500	10	1435.21	.14	58	.1580
60-70	64	.1280	12	1900.85	.11	58	.1580
70-80	134	.2680	12	2412.19	.14	48	.1308
80-90	176	.3520	12	2293.88	.15	12	.0327
90-100	86	.1720	11	2358.89	.18	0	0
Total	500	1.0000				367	1.0000

*Ranges include upper bound

did. In general, we find that the proportion of outside CEOs on the board increases as the proportion of outsiders increases.

To see if outside CEOs should be trusted to guard the CEO compensation hen house, we test the following hypothesis for the sample and the industries in the sample:

H1,0: Standardized CEO compensation controlled for firm performance is not related to the proportion of directors who are outside CEOs.

Versus

H1,1: Standardized CEO compensation controlled for firm performance is negatively related to the proportion of directors who are outside CEOs.

Cross-sectional regression models are utilized for the overall sample, industrial, retail, and diversified firms, financial firms, and public utilities. The division of the sample allows for differences based on the firm's regulatory status. The model is specified as:

$$COMP_i = \tau_0 + \tau_1, PINSD_i + \tau_2, PERF_i + \tau_3, CEOAGE_i + \tau_4, OUTSIDE_i + \tau_5, PCEODIR_i + \tau_6, DEBTASS_i + E_i$$

Where: $COMP_i$ is the CEO salary and bonus standardized by number of employees, firm sales, or total assets.

$PINSD_i$ is the proportion of outstanding shares held by officers and directors.

$PERF_i$ is the performance of firm i as measured by market to book ratio, return on equity, return on assets, or return on sales.

$CEOAGE_i$ is the age of the CEO of firm i .

$OUTSIDE_i$ is the proportion of outside directors on the board of firm i .

$PCEODIR_i$ is the proportion of directors who are CEOs of other firms.

$DEBTASS_i$ is the long-term debt to total asset ratio of firm i .

$\tau_0, \tau_1, \tau_2, \tau_3, \tau_4, \tau_5, \tau_6$, are regression parameters. In the models, these parameters are also subscripted to denote the dependent variables: A for COMPASS, E for COMPEMP, and S for COMPSALE.

E_i is the error term.

While there is some correlation between the independent variables, it is not at a significant level. The null hypotheses, H1,0, will be rejected if τ_{5E} is negative and significant. That is, if the coefficient is negative and significant then CEOs may be considered to be the foxes that do guard the hen house.

Results

The Appendix furnishes the detailed regression results with Panel A providing the results for the overall sample of 500 firms and Panel B the results for the industrial, retail, and diversified service firms. Panels C and D present the detailed results for financial firms and public utilities respectively. Because of the different specifications of compensation and performance, twelve different submodels are estimated.

For the overall sample (Appendix, Panel A), the relation between the proportion of directors who are outside CEOs and standardized CEO compensation is negative and significant under all twelve specifications of the model. Therefore, for the overall sample the null hypothesis of no relation between standardized CEO compensation and the proportion of outside CEOs serving on the board is clearly rejected.

Similarly for industrial, retail, and diversified service firms (Appendix, Panel B), the hypothesized relationship is confirmed under all twelve specifications of the model. So, once again the null hypothesis is rejected.

The stories told by Panels C and D, financial firms and public utilities, is however different. The null hypothesis is rejected in only 5 of 24 possible cases.

An issue that arises with respect to financial firms; bank holding companies, thrifts and other financial institutions, is the magnitude and significance of the coefficients on the performance measures. For these firms, the coefficient is significant in twelve of twelve cases while for the industrial, retail, and diversified service firms, there is significance in only nine cases. Furthermore, the magnitude is much larger for the financial firms. John and John (1993) provide documentation that pay performance sensitivity in banks should be extremely low and that banks have less insider ownership and stock option plans. We interpret the results here to be due to the lack of option plan data in our sample. Since bank holding companies, 54 out of 72 financial firms, make less use of option plans, the performance incentives actually employed are more likely to be in the form of salary and bonus. On the other hand, the industrial, retail, and diversified service firms do use option plans. Therefore, the measures used here will be less likely to capture the impact of performance on compensation for these plans.

Yet another issue is the insignificant relation between performance and compensation for public utilities. In addition to the usual agency problems, these firms must also face regulatory boards. Often the regulation takes the form of maximum allowable rates of return. When performance is constrained in this way it is to be expected that the relation between compensation and performance will weaken.

Other results include the positive and significant relation between the proportion of insider holdings (PINS) and compensation. Other than for utilities, that

result is consistent across compensation measurement methods. We interpret this to mean that firms with a higher degree of insider holdings feel less need to maintain discipline on managerial compensation levels. CEO age is not a significant determinant of compensation. The proportion of outsiders on the Boards of Directors is a negative and significant determinant of compensation for financial firms. We believe that this is due to the great importance of customer relationships in the financial industry and the use of boards to build those relationships. The relationship of leverage to compensation has the hypothesized negative sign but is not significant.

Conclusion

The hypothesis that the foxes do guard the hen house cannot be rejected for the industrial, retail, and diversified service firms. CEOs as board members of these firms appear to closely and critically monitor CEO compensation. One reason for this may be that these individuals have their own economic interests to protect and that the best way to protect those interests is to act for the shareholders rather than for fellow CEOs. This note provides a partial answer to the issues raised by Hermlin and Weisbach. Outside directors who are CEOs reduce the agency costs of large corporations. The concern expressed in the popular and business press, in such publications as *Business Week* and *The Wall Street Journal*, as well as in Congress, over executive compensation is not being exacerbated by allowing outside CEOs to serve as directors. ■

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About the Authors

Richard Downen is Professor of Finance at Northern Illinois University. His research interests include corporate governance and fundamental analysis.

Thomas L. Mann is Assistant Professor in the Department of Operations Management and Information Systems. His major research interests are corporate governance and forecasting.

Appendix

Regression Results of Ratios of CEO Compensation to selected variables¹ for the Total Sample (Panel A), Industrial, Retail, and Diversified Service Firms (Panel B), Financial Firms (Panel C), and Public Utilities (Panel D).

PANEL A: OVERALL SAMPLE

DEP VAR	F	ADJ R ²	INTERCEPT	PINSD	MKBK	ROE	ROA	ROS	CEOAGE	OUTSIDE	PCEODIR	DEBTASS
COMPEMP	6.41***	.06	195.39*** (2.92)	150.41*** (3.69)	7.40 (1.51)				-.72 (-.89)	-64.96 (-1.43)	-193.38*** (-3.27)	-28.67 (-.75)
COMPSALE	10.36***	.10	802.94*** (2.62)	1,081.09*** (5.79)	43.22* (1.92)				-1.75 (-4.3)	-248.65 (-1.19)	-802.22*** (-2.99)	-275.67 (-1.58)
COMPASS	14.47***	.14	961.91*** (2.91)	1,096.07*** (5.45)	116.87*** (4.82)				-2.93 (-.67)	-690.00*** (-3.08)	-612.38** (-2.10)	248.51 (1.32)
COMPEMP	8.37***	.08	219.69*** (3.35)	151.65*** (3.76)		39.88*** (3.64)			-.76 (-.87)	-81.29* (-1.82)	-186.02*** (-3.19)	-51.62 (-1.39)
COMPSALE	9.77***	.10	897.51*** (2.95)	1,071.76*** (5.72)		36.01 (.71)			-1.51 (-4.08)	-297.27 (-1.43)	-761.75*** (-2.82)	-346.57* (-2.00)
COMPASS	10.70***	.10	1,217.52*** (3.65)	1,070.78*** (5.22)		96.79* (1.74)			-2.28 (-.51)	-821.35*** (-3.61)	-502.94* (-1.70)	56.16 (.30)
COMPEMP	7.39***	.07	198.94*** (3.01)	153.39*** (3.78)			257.83*** (2.78)		-.84 (-.95)	-61.25 (-1.36)	-198.32*** (-3.38)	-23.28 (-.62)
COMPSALE	10.53***	.10	849.23*** (2.80)	1,086.80*** (5.82)			914.97** (2.15)		-2.05 (-.50)	-251.21 (-1.21)	-804.04*** (-2.98)	-279.94 (-1.61)
COMPASS	17.83***	.17	1,068.77*** (3.32)	1,119.87*** (5.66)			287.67*** (6.41)		-4.03 (-.93)	-679.59*** (-3.09)	-636.66** (-2.22)	262.61 (1.42)
COMPEMP	14.86***	.14	211.31*** (3.34)	168.64*** (4.32)				577.33*** (7.04)	-1.25 (-1.47)	-78.12* (-1.81)	-197.57*** (-3.51)	2.09 (.06)
COMPSALE	20.84***	.19	894.90*** (3.11)	1,170.37*** (6.60)				2,883.84*** (7.74)	-4.38 (-1.13)	-320.20 (-1.63)	-817.37*** (-3.20)	-130.61 (-.79)
COMPASS	10.22***	.10	1,194.86*** (3.57)	1,072.90*** (5.20)				291.31 (.67)	-2.32 (-.52)	-801.54*** (-3.52)	-509.75* (-1.72)	107.73 (.56)

PANEL B: INDUSTRIAL, RETAIL AND DIVERSIFIED SERVICE FIRMS

DEP VAR	F	ADJ R ²	INTERCEPT	PINSD	MKBK	ROE	ROA	ROS	CEOAGE	OUTSIDE	PCEODIR	DEBTASS
COMPEMP	5.99**	.07	162.38** (2.46)	111.73*** (2.85)	15.59*** (3.21)				-1.35 (-1.52)	-43.19 (-.96)	-162.65*** (-2.71)	106.78*** (2.43)
COMPSALE	9.11***	.11	736.89** (2.43)	955.79*** (5.31)	67.49*** (3.03)				-4.02 (-.99)	-245.27 (-1.18)	-641.36** (-2.33)	270.08 (1.34)
COMPASS	8.59***	.10	1,144.88*** (2.97)	1,065.72** (2.55)	72.23** (2.55)				-3.79 (-.73)	-488.06* (-1.86)	-964.65*** (-2.75)	-114.25 (-1.44)
COMPEMP	6.14***	.08	201.74*** (3.10)	113.69*** (2.91)		38.09*** (3.74)			-1.32 (-1.49)	-57.29 (-1.27)	-149.83** (-2.51)	48.21 (1.16)
COMPSALE	7.44***	.09	872.60*** (2.87)	947.47*** (5.20)		19.97 (.42)			-3.56 (-.86)	-263.81 (-1.26)	-598.71** (-2.15)	69.30 (.36)
COMPASS	7.66***	.09	1,302.63*** (3.39)	1,062.88*** (4.61)		73.62 (1.22)			-3.41 (-.65)	-523.23** (-1.97)	-914.38*** (-2.59)	-348.29 (-1.42)
COMPEMP	9.17***	.11	170.01*** (2.65)	115.14*** (3.00)			483.49*** (5.32)		-1.54* (-1.77)	-44.40 (-1.01)	-166.98*** (-2.84)	131.80*** (3.07)
COMPSALE	10.08***	.12	792.54*** (2.65)	964.68*** (5.39)			1,609.13*** (3.79)		-4.52 (-1.11)	-252.22 (-1.23)	-646.35** (-2.36)	308.57 (1.54)
COMPASS	10.40***	.13	1,183.92*** (3.13)	1,080.56*** (4.78)			2,161.04*** (4.03)		-4.59 (-.90)	-493.94* (-1.90)	-982.50*** (-2.83)	-9.74 (-.04)
COMPEMP	8.12***	.10	184.07*** (2.86)	114.96*** (2.97)				472.67*** (4.73)	-1.62* (-1.85)	-47.20 (-1.00)	-169.33*** (-2.86)	116.65*** (2.73)
COMPSALE	10.60***	.13	833.19*** (2.80)	968.15*** (5.43)			1,912.67*** (4.15)		-5.08 (-1.25)	-262.29 (-1.28)	-665.74** (-2.44)	297.37 (1.51)
COMPASS	7.70	.09	1,270.87*** (3.31)	1,063.72*** (4.62)				780.90 (1.31)	-3.88 (-.74)	-503.40* (-1.90)	-947.54*** (-2.69)	-231.74 (-.36)

PANEL C: FINANCIAL FIRMS

DEP VAR	F	ADJ R ²	INTERCEPT	PINSD	MKBK	ROE	ROA	ROS	CEOAGE	OUTSIDE	PCEODIR	DEBTASS
COMPEMP	8.45***	.39	449.17* (1.73)	545.52*** (2.83)	194.08*** (3.23)				1.45 (.47)	-678.06*** (-3.74)	-188.56 (-1.02)	-212.22 (-.97)
COMPSALE	4.42***	.22	606.59 (.45)	1,725.38* (1.71)	1,082.05*** (3.43)				7.83 (.48)	-1,402.64 (-1.47)	-1,601.13 (-1.64)	-1,402.63 (-1.22)
COMPASS	11.20***	.46	38.64 (.58)	146.14*** (2.94)	85.29*** (5.50)				.53 (.68)	-74.69 (-1.59)	-168.98*** (-3.53)	-2.02 (-.04)
COMPEMP	7.47***	.35	725.17*** (2.76)	608.69*** (3.03)		422.20** (2.57)			.69 (.21)	-801.34*** (-4.27)	-147.52 (-.78)	-221.34 (-.98)
COMPSALE	3.15***	.15	2,072.66 (1.48)	2,002.71* (1.86)		2,030.27** (2.31)			4.53 (.26)	-2,035.73** (-2.03)	-1,357.60 (-1.34)	-1,407.57 (-1.16)
COMPASS	5.60***	.28	144.64* (1.89)	158.08*** (2.70)		117.46** (2.45)			.40 (.42)	-117.46** (-2.15)	-147.84*** (-2.68)	3.50 (.05)
COMPEMP	6.96***	.33	668.18** (2.53)	585.21*** (2.88)		5,783.15** (2.15)			-1.21 (-.37)	-767.77*** (-4.06)	-134.09 (-.70)	-252.29 (-1.09)
COMPSALE	3.45***	.17	1,856.95 (1.35)	2,005.17* (1.89)		3,715.00** (2.61)			5.92 (.35)	-1,931.53* (-1.96)	-1,301.91 (-1.30)	-1,695.05 (-1.40)
COMPASS	9.43***	.42	139.42** (2.05)	173.57*** (3.30)		3,308.39*** (4.75)			.32 (.39)	-119.04** (-2.44)	-145.81*** (-2.93)	-31.57 (-.53)
COMPEMP	30.58***	.71	673.21*** (3.89)	623.86*** (4.74)				1,316.06*** (9.85)	.10 (.05)	-761.65*** (-6.18)	-115.35 (-.92)	-134.38 (-.90)
COMPSALE	33.11***	.73	1,863.59*** (2.38)	2,183.56*** (3.65)				7,578.90*** (12.49)	-.04 (-.00)	-1,874.39*** (-3.35)	-11,190.56** (-2.08)	-962.93 (-1.42)
COMPASS	6.39***	.31	123.97 (1.67)	145.87** (2.59)				175.77*** (3.07)	.50 (.55)	-101.93* (-1.93)	-140.77** (-2.61)	23.67 (.37)

PANEL D: UTILITIES

DEP VAR	F	ADJ R ²	INTERCEPT	PINSD	MKBK	ROE	ROA	ROS	CEOAGE	OUTSIDE	PCEODIR	DEBTASS
COMPEMP	1.92	.14	98.38 (.73)	1,992.89 (.63)	-46.56 (-1.60)				-.34 (-.34)	43.82 (.61)	-107.46 (-1.44)	15.95 (.18)
COMPSALE	1.64	.10	138.14 (.33)	19,772.00* (1.99)	-80.44 (-.90)				1.46 (.48)	-53.04 (-.24)	-240.97 (-1.03)	54.73 (.20)
COMPASS	.43	-.11	79.11 (.47)	4,927.11 (1.23)	-7.22 (-.20)				.00 (.00)	19.19 (.21)	-39.76 (-.42)	-64.11 (-.58)
COMPEMP	1.41	.07	-78.36 (-.89)	2,854.53 (.87)		-22.90 (-.45)			.40 (.39)	91.62 (1.33)	-75.57 (-.99)	113.21* (1.75)
COMPSALE	1.47	.08	-154.62 (-.57)	21,770.00** (2.18)		3.10 (.02)			2.46 (.80)	129.36 (.62)	-191.21 (-.83)	234.31 (1.19)
COMPASS	.45	-.11	45.07 (.42)	4,793.07 (1.21)		-25.98 (-.43)			.26 (.22)	29.89 (.36)	-32.01 (-.35)	-55.10 (-.71)
COMPEMP	1.45	.07	-73.01 (-.84)	2,560.23 (.77)			-136.90 (-.66)		.43 (.44)	90.57 (1.32)	-77.67 (-1.03)	103.39 (1.53)
COMPSALE	1.48	.08	-157.12 (-.59)	21,094.00** (2.08)			-154.17 (-.24)		2.68 (.89)	132.41 (.63)	-189.97 (-1.03)	215.43 (1.05)
COMPASS	.50	-.10	51.01 (.49)	4,407.28 (1.10)			-167.84 (-.67)		.32 (.27)	28.91 (.35)	-34.32 (-.38)	-67.70 (-.83)
COMPEMP	1.37	.06	-74.22 (-.84)	2,290.62 (.91)				-16.70 (-.24)	.32 (.32)	89.44 (1.29)	-77.95 (-1.03)	117.19* (1.83)
COMPSALE	1.47	.08	-153.59 (-.58)	21,836.00** (2.19)				12.48 (.06)	2.42 (.80)	128.93 (.62)	-191.18 (-.83)	235.14 (1.21)
COMPASS	.57	-.08	40.89 (.39)	4,481.30 (1.15)				-75.68 (-.91)	.42 (.36)	31.42 (.38)	-33.08 (-.37)	-58.17 (-.77)

N = Number of firms in sample.

MKBK = Ratio of market value of equity plus book value of long-term debt to the book value of common equity and long-term debt.

ROE = Ratio of net income to book value of common equity in percent.

ROA = Ratio of net income to book value of total assets in percent.

ROS = Ratio of net income to sales in percent.

CEOAGE = The age of the CEO.

OUTSIDE = Proportion of board seats held by outsiders.

PCEODIR = Percentage of the board seats held by outside CEOs.

DEBTASS = Long-term debt as a proportion of total assets.

*Significant at .10. **Significant at .05. ***Significant at .01.

¹ COMPEMP = Dollars of CEO compensation per 1,000 employees.

COMPSALE = Dollars of CEO compensation per \$1,000,000 in sales.

COMPASS = Dollars of CEO compensation per \$1,000 in assets.

PINSD = Proportion of outstanding shares held by officers and directors.

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The Association Between U.S. and Canadian Prime Rate Changes

Reinhold P. Lamb, *University of North Carolina at Charlotte*
A. Qayyum Khan, *University of North Carolina at Charlotte*

Abstract

A change in the value of one variable often provides information about related variables. This study examines the degree to which changes in the prime interest rates in the United States and Canada are associated. Utilizing a sample of 321 prime rate changes in the two countries through the 197 months ending in May 1991, our analysis shows that nominal rates are generally higher in Canada, changes are more frequent in the U.S., and the average number of days between changes is longer in Canada. These observations suggest that Canadian prime rate changes are stickier than U.S. changes. Evidence of a long-run equilibrium relation is found indicating that U.S. and Canadian rates do not drift too far apart. However, the U.S. rate was found to adjust faster than the rate in Canada. Finally, prime rate decreases in Canada follow U.S. decreases within fifteen days. Canadian borrowers with rates tied to the prime could, therefore, consider short-term funds during the days immediately following a U.S. cut and then lock-in a lower longer-term rate once the Canadian prime rate falls.

Background

The Interest Rate Parity (IRP) theory states that in an efficient market with no transactions costs the interest rate differential between two countries should be equal to the forward premium.¹ Violation of this condition will lead to profitable arbitrage opportunities. The actions of arbitrageurs in the money market and the foreign exchange market will then bring about parity. The theory of IRP has been widely tested and the results are generally supportive of its postulates (Thornton 1989; Levich 1983). Since rates in the Euromarket are viewed as reasonable representations of a free float regime, studies that examine IRP generally use Euromarket data.

The IRP theory is generally not tested using domestic interest rates since these rates may be effected by other factors besides market forces.² However, the predictability of interest rates and changes in domestic interest rates have long been among the most widely studied subjects in finance and economics. The focus of most of these studies has been on the determination of interest rates at

the national level, with the close link between domestic and Euromarket rates being clearly recognized. While there are a number of popular policy statements regarding the linkage of interest rates between the United States and other industrial countries, very few studies have empirically investigated the linkages.

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Given the premise of IRP, a change in the domestic interest rate of a country will prompt an adjustment in either (a) the forward premium, (b) the interest rate of the other country, or (c) both. In efficient foreign exchange and money markets changes in one interest rate should not have any predictive ability of changes in other interest rates.

This study does not consider the relationship between interest rate changes and corresponding forward premium adjustments and is, thus, not a test of IRP. Instead, our objective is to examine the association between two of the variables related to IRP in order to determine if the simple observation of a change in one of the variables provides information about future changes in the other variable. That is, our study measures the degree to which changes in the prime interest rates in the United States and Canada are associated. Analysis of daily prime rate data from January 1, 1975 to May 31, 1991 shows that the nominal rates in Canada are generally higher than those experienced in the U.S. Prime rate changes are more frequent in the U.S., and the average number of days between prime rate changes is greater in Canada. This suggests that Canadian prime rate changes are stickier than the U.S. counterpart. Several statistical tests are applied to expose any direct association between the rates, and the findings indicate that a pattern of prime

rate changes emerges between the two countries. First, there is a long-run equilibrium relationship between U.S. and Canadian prime rates. Second, short-run dynamics reveal that prime rate decreases in Canada follow U.S. prime rate decreases within fifteen days. Canadian prime rate changes during the examination period are, therefore, sticky-down relative to U.S. decreases. We were unable to find a significant association within thirty days between Canadian and U.S. prime rate increases. A possible application of this observation is for Canadian borrowers with rates tied to the prime to consider short-term financing (or refinancing) during the days following a U.S. prime rate cut and then to lock-in a lower longer-term rate once the Canadian rate falls.

...there is a long-run equilibrium relationship between U.S. and Canadian prime rates.

The remainder of the paper is organized in the following manner: Section II summarizes the previous research on international interest rate linkages. Section III describes the data and methodology. Section IV presents the results of the association between the U.S. and Canadian prime rate changes. Section V offers conclusions and practical applications of the findings.

Relevant Literature

A great deal of effort has been directed at the examination of interest rate linkages across different countries. In integrated foreign and money markets, a change in U.S. interest rates may stimulate interest rate changes in other countries. Kirchgassner and Wolters (1987) consider U.S. and European interest rates and find a strong linkage during 1979-1984. Cumby and Mishkin (1986) test the Fisher Effect for the U.S., Canada, and the six major western European countries. While their results find a significant positive correlation in the movement of real rates, they reject the hypothesis of equality of these rates across eight countries in their sample. Although real rates among the six European countries appear to be more closely related than the U.S. and Canadian rates, they find a strong relationship between the U.S. and Canadian real rates.³ Their results do not, however, suggest any systematic pattern in the direction of causation of real rate movements. In a related study, Glick (1987) finds that the relationship between changes in real rates in the U.S. and major Pacific Basin countries is similar to that of the U.S. and the major European countries. On the other hand, Kool and Tatum (1988) investigate the term structure of domestic interest rates and find that the short-

term rates of the U.S., U.K., and Canada are closely related. The results also show that short-term rates in Germany and Japan are closely related. Their findings do not find, however, any significant contemporaneous correlation in the movement of short-term rates.

Pesando and Plourde (1988) attempt to forecast changes in Canadian interest rates on the basis of changes in U.S. monetary policy and find that such changes do not effect Canadian rates in any significant manner. Furthermore, they conclude that changes in Canadian interest rates do not follow any systematic pattern. Goldberg (1984) examines the sensitivity of the prime rate to changes in money market rates and finds that the relationship changes over time. Some periods exhibit a stable relationship between the rates, while other periods show a variation in rate sensitivities. It is unclear why the rates behave differently during certain periods of time. Forbes and Mayne (1989) examine the tendency of the prime rate to remain unchanged despite increases or decreases in other related interest rates. They identify only eighty-three changes during their decade of study and develop a friction model whose basis is the lack of variability in the prime rate. They conclude that the prime rate exhibits a lagged response to changes in other rates (sticky). Finally, Nabor, Park, and Saunders (1993) examine U.S. bank stock price reactions to prime rate changes and find that prime rate increases are interpreted as bad news by the market. Prime rate decreases, however, are accompanied by little or no positive effect on the stock price of the initiating bank. These results indicate that the reaction by the stock market to a prime rate change announcement is dependent on the direction of the change.

In summary, the results of the extant literature indicate that while there is a relationship in the movement of interest rates among the major industrialized countries, the strength of the relationship varies from country to country. While the above studies suggest a linkage between U.S. and Canadian interest rates, no systematic pattern has been exposed to suggest any direction of causation. Furthermore, the prime exhibits a tendency to be sticky in responding to changes in related interest rate conditions. This study continues to examine the interrelationships in domestic interest rates by focusing on nominal prime rate changes in the U.S. and Canada. Analyzing the degree of linkage in the prime rates allows for the investigation of an explicit nominal rate which is observable and is not subject to any assumptions or conjectures about unobservable variables such as the real rate of interest.

Methodology

Description of the Data

This study investigates daily prime rate changes in the U.S. and Canada between January 1, 1975 and May 31,

1991. This period comprises 4,267 business days and is characterized by one major recession and one major economic expansion in both countries. Accordingly, the sample represents different economic climates and provides an excellent environment for examining the association between interest rate changes. The daily prime rate data were obtained from *Citicorp Data Services* (Citibase). Four different attributes are examined:

1. Prime Rate Levels. The levels of prime rates in the U.S. and Canada provide information about the relative cost of funds in those countries. Wallich and Haas (1982) contend that if national authorities respond to foreign interest rate changes by policy actions designed to stabilize the exchange rate, then a tight linkage between rates can exist. Analyzing the level of prime rates may indicate if one country displays a consistently higher or lower nominal rate than the other. Consistent changes in rate levels may then be anticipated by money and exchange market participants.

2. Prime Rate Stability. Linkage in prime rates between the two countries is investigated by examining the stability of the rates, which is measured by the number of changes in the prime rate. While prime rate changes may share a strong association in one direction, they may have only a weak (or no) association in the opposite direction. One country may have fewer (or more) changes as rates rise (or fall) and more (or fewer) changes as rates fall (or rise). If one country exhibits much more activity than the other country, then it would imply that the rates have a weak (or no) association overall. In order to consider directional linkages this paper examines the stability of rate changes in both up and down markets.

3. Magnitude of Prime Rate Changes. The magnitude of changes may also provide insight into the linkage and the adjustment process of prime rates. An association would be exhibited if the magnitude of changes in prime rates is similar in both countries. It may, however, be possible that the rates in one country change frequently and in small amounts, while the rates in the other country demonstrate less frequent but larger changes. This type of behavior would imply that the association is such that a response is not immediate or that a minimum level of change is necessary before observing any change in the prime rate of the other country. The amount of change, therefore, provides information about the degree of association and the pattern of response between rates.

4. Duration Between Prime Rate Changes. The average number of days between changes represents how long the prime rate remains fixed. The longer the amount of time between changes the less sensitive to change the prime rate appears to be. This measure may, however, be related to the number of changes in the rate and the average amount of change. A longer period between changes may be explained by fewer changes but larger magnitudes of changes. That is, the prime rate may be

sticky (longer period between changes), but when a change does occur, the response is a large one because it encompasses more time and information. This study examines the amount of time between changes to determine the association between the size and timing of prime rate responses.

This study examines the amount of time between changes to determine the association between the size and timing of prime rate responses.

Examination of the Long-Run Relationship between U.S. and Canadian Prime Rate Changes

Recent advances in time series modelling allow for the study of the long-run equilibrium relationship between a set of variables by employing cointegration tests (Engle and Granger 1987; Johansen and Juselius 1990). An advantage of the cointegration procedure over other time series models (such as ARIMA) is in the treatment of non-stationary data. Specifically, cointegration uses the levels of the series of data, whereas the ARIMA technique requires differencing of the data. The advantage of using levels is that it enables us to retain all the information contained in the data. It is possible to induce stationarity in the data through first-order differencing and test the transformed data using traditional time series methods, however a ramification of the differencing process is the loss of information contained in the data. The results would, therefore, be based on incomplete information and any conclusions generated from the tests would be weakened (Engle and Granger 1987; Baillie and Bollerslev 1989). The Johansen and Juselius (1990) maximum likelihood method for estimating cointegrating vectors is used in this study to provide insight into the existence of a long-run equilibrium relationship between U.S. and Canadian prime rates.

Examination of the Short-Run Dynamics of U.S. and Canadian Prime Rate Linkages

Since the prime rate in a country may remain unchanged for extended periods of time (thereby reducing the variability in the data), the application of econometric models that rely on sufficient variation within the independent variables would be inappropriate for testing short-run dynamics.⁴ In such situations, non-parametric procedures lend themselves well because (1) they make no assumptions regarding the distribution of the underlying data while allowing for meaningful statistical inference, (2) the power of these tests compares well with the t-test, and (3) the asymptotic properties are better than

that of the t-test (Dezhbakhsh 1994). The association between the size and timing measures of the prime rates is thus investigated by using the two-sample Sign test, the Wilcoxon Signed-Ranks test, and the Kolmogorov-Smirnov test.⁵

Results

Descriptive Statistics of Prime Rate Changes

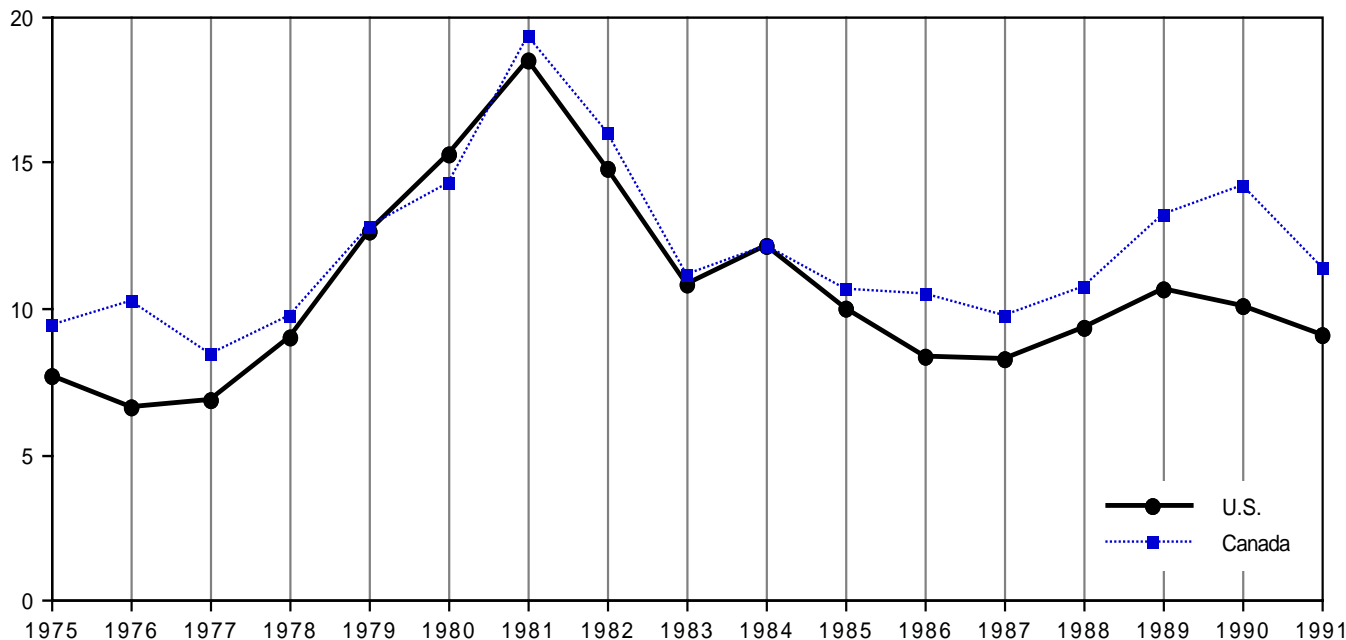
U.S. Prime Rate Changes. Panel A in the Appendix presents the descriptive statistics for changes in the U.S. prime rate between January 1, 1975 and May 31, 1991. The 189 rate changes observed during this period are composed of ninety-three increases and ninety-six decreases. The average prime rate in the U.S. was 10.17 percent, and the average number of days between changes was 22.54. The period 1977-1980 is characterized by an upward trend in interest rates as fifty-eight out of seventy-six changes (76%) were increases. The prime rate ranged from 6.25 percent in 1977 to 21.50 percent in 1980. The average number of days between changes during this period of increasing interest rates was 17.89 days, and the average change was .20 percent. The period 1981-1986 exhibited a general downward trend in rates with forty-five out of sixty-one changes (74%) being decreases. The prime ranged from 20.50 percent in 1981

to 7.50 percent in 1986. The average number of days between changes during this period of decreasing rates was 36.28 days, which is significantly different at the 5 percent level from that observed during 1977-1980.⁶ The average change during this subperiod was -.23 percent. These results indicate that, during the investigation period, U.S. prime rates were slower in moving down than in rising (sticky down).

Canadian Prime Rate Changes

Panel B in the Appendix summarizes the descriptive statistics for changes in the Canadian prime rate between January 1, 1975 and May 31, 1991. During this period 132 rate changes were observed; sixty-two changes were increases and seventy were decreases. The average rate in Canada was 11.98 percent, and the average number of days between changes was 32.27. The period 1978-1981a is characterized by a general trend of rising interest rates as twenty-seven out of forty changes (68%) were increases.⁷ The prime rate ranged from 8.25 percent in 1977 to 22.75 percent in 1981a. The average number of days between changes during this period of increasing interest rates was 19.23 days, and the average change was .26 percent. The period 1981b-1986 exhibited a general downward trend in rates with forty out of sixty-five changes (62%) being decreases. The prime rate ranged from 22.75 percent in 1981b to 9.75 percent in 1986. The

Figure 1
Weighted Average Prime Rates in U.S. and Canada between January 1, 1975 and May 31, 1991



average number of days between changes during this period of decreasing rates was 24.08 days, and the average change was -.17 percent. The difference in the average number of days between the subperiods is significant at the 5 percent level, and indicates that like U.S. rates, Canadian prime rates may be slower in moving down than in rising (sticky down).⁸ The behavior of both U.S. and Canadian prime rates is shown in Figure 1 by comparing the weighted average rates from January 1, 1975 to May 31, 1991.

Table 1 consolidates the U.S. and Canadian prime rate characteristics and provides the results of the t-test and Wilcoxon test performed to expose any significant behavioral differences in rates between the countries. The results indicate that Canada generally exhibits a higher average prime rate level than that experienced in the U.S. The 11.98 percent average level in Canada is significantly greater at the 5 percent level than the 10.17 percent average rate in the U.S.⁹ Canada also has significantly fewer prime rate changes (10% level) than the U.S. (132 vs. 189), suggesting that Canadian banks may be less active (or more deliberate) in changing rates. The 32.27 days average between changes in Canada is significantly longer at the 5 percent level than the 22.54

Table 1
Relationships between U.S.
and Canadian Prime Rate Changes
January 1, 1975 - May 31, 1991

Prime Rate Characteristic	Country		t-test (p-value)	Wilcoxon Test (p-value)
	US	Canada		
Average Level	10.17	11.98	4.491 (.011)	3.294 (.001)
# of Changes	189	132	1.958 (.066)	1.706 (.088)
Average Amount of Change	0.426%	0.536%	0.540 (.596)	1.079 (.281)
Average # Days between Changes	22.54	32.27	2.120 (.047)	2.017 (.055)

Average Level = weighted-average prime rate (weighted by number of days at each level)

Number of Changes = total number of prime rate changes during sample period

Average Amount of Change = arithmetic average change in prime rate

Average Number of Days Between Changes = arithmetic average of number of days between changes in prime rate level

days average evidenced in the U.S. The two countries, however, do not exhibit any significant difference in the average amount of change.

Table 2
Augmented Dickey-Fuller (ADF) Test Results
for Unit Roots
 $\Delta X_t = \gamma X_t + \gamma \Delta X_{t-k}$

Variable	Without Trend	With Trend
U.S. Prime Rate	-0.7489 (-2.8630)	-0.4224 (-3.4139)
Canadian Prime Rate	-1.0045 (-2.8630)	-0.7990 (-3.4139)

95% confidence level in parentheses.

A lag of 1 was selected for k in the ADF tests.

The Long-Run Relationship Between U.S. and Canadian Prime Rate Changes

The first step in the cointegration process is to test for the presence of unit roots in the data series. The augmented Dickey-Fuller (ADF) statistics with and without trend are used to test for unit roots, and the results of the test are provided in Table 2. Both Canadian and U.S. prime rates have test statistics that are above the critical values (in parentheses). The null hypotheses of a unit root with trend and without trend cannot be rejected, and thus indicates that each series is nonstationary (ie. possesses a stochastic trend).

Given that the data series possesses unit roots we can test for cointegration. A finding of cointegration indicates a long-term equilibrium relationship, and suggests that changes in the prime rate in one country effect the prime rate in the other country. Table 3 presents the results of the Johansen maximum likelihood procedure for estimating cointegrating vectors. Panel A provides the results of the likelihood ratio test based on maximal eigenvalue. The λ_{\max} statistic is significant at the 95 percent confidence level. Panel B presents the results of the test based on trace. The trace statistic is also significant at the 95 percent confidence level. Both tests support the existence of a cointegrating vector and, therefore, indicate that a long-run equilibrium relationship is present between U.S. and Canadian prime rates.¹⁰

Insight into the characteristics of the relationship between the prime rates is obtained in Table 4 by decomposing the estimation results into the weight and the cointegration vector. The weight coefficient represents the average speed with which the U.S. and Canadian

Table 3
Johansen's Tests for Cointegration:
U.S. and Canadian Prime Rates

<i>Panel A</i>			
Cointegration Likelihood Ratio Test Based on Maximal Eigenvalue ^a			
$H_0 : r = 0$			
$H_1 : r = 1$			
λ_{\max}	95%	90%	
23.5668	14.90000	12.9120	

<i>Panel B</i>			
Cointegration Likelihood Ratio Test Based on Traces ^a			
$H_0 : r = 0$			
$H_1 : r \geq 1$			
Trace	95%	90%	
27.8799	17.9530	15.6630	

^a The number of lags in the reported results is 8.

r = number of cointegrating vectors

The critical values are under the percentage headings, which are the confidence levels.

prime rates adjust to the equilibrium space. A more rapid speed of adjustment is reflected in a higher value. The larger weight value for the U.S. indicates that the U.S. prime rate adjusts faster than the Canadian counterpart. This is consistent with the results presented above indicating a shorter number of days between changes for U.S. rates. The cointegration vector represents the size (effect) of the adjustment. Table 4 indicates that U.S. prime rate changes are approximately 82 percent the size of corresponding Canadian changes, which is similar to the finding above of a smaller average U.S. prime rate level.

It must be noted that these results describe the existence of a long-run equilibrium relationship between U.S. and Canadian prime rates. The primary focus of this study, however, is to decompose the long-run patterns and examine the short-run dynamics of the rates. A weakness of the cointegration analysis is that it does not allow us to quantify in terms of days the time that each respective rate takes to adjust to a shock in the other market. For example, the cointegration results do not measure the number of days that U.S. rates adjust in advance of Canadian rates. Nor do the cointegration tests expose differences in directional patterns during short-

term periods. The results above indicate only that in the long-term the U.S. and Canadian prime rates cannot drift too far apart because they have a long-run equilibrium relationship. To determine the short-run dynamics, non-parametric tests are employed.

Table 4
Johansen's Estimation Results

	<i>Weight</i>	<i>Cointegration Vector</i>
U.S. Prime Rate	0.0121	0.8194
Canadian Prime Rate	0.0070	1.0000

Weight represents the speed of adjustment.

Cointegration Vector represents the size of adjustment.

The Short-Run Dynamics Between U.S. and Canadian Prime Rate Changes

Prime rate changes in each country are classified by year, type of rate change, and number of days a rate change in one country leads the corresponding change response in the other country.¹¹ If a prime rate change is preceded by thirty days of no change, then such a change is viewed as an initial change. The initial change, regardless of the country, then becomes the signal, and the first change by the other country becomes the response. A thirty-day inactivity period is selected arbitrarily because changes in shorter periods led to confounding effects. Response periods beginning within five days of the initial prime rate change and increasing in five-day increments to thirty days are constructed to isolate consistent and predictable associations.

Table 5 presents the cumulative frequency of corresponding U.S. and Canadian prime rate decreases. The U-/C- columns indicate the number of times a U.S. prime rate decrease occurred in advance of a Canadian decrease within the prescribed number of days. The C-/U- columns show how many times a Canadian prime rate decrease led a U.S. decrease within the change window. For each window of change, U.S.-led decreases outnumbered Canadian-led decreases by a substantial amount. For example, twenty-seven times during the sample period Canadian prime rates were decreased within five days following a U.S. cut. The U.S. rate, however, was slashed only five times within five days following a Canadian prime rate decrease. This association is consistent for all windows examined through thirty days after the initial cut.¹²

Table 5
Cummulative Frequency of U.S. Prime Rate Decreases followed by Canadian Prime Rate Decreases
and Canadian Prime Rate Decreases followed by U.S. Prime Rate Decreases
between January 1, 1975 and May 31, 1991

Year	5 dyas		10 days		15 days		20 days		25 days		30 days	
	U-/C-	C-/U-	U-/C-	C-/U-	U-/C-	C-/U-	U-/C-	C-/U-	U-/C-	C-/U-	U-/C-	C-/C-
1975	3	0	5	0	6	0	6	0	6	0	6	0
1976	0	0	1	0	1	0	2	0	2	0	3	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	6	0	9	1	10	1	11	1	12	1	12	1
1981	7	3	10	3	11	3	12	3	13	3	14	3
1982	6	1	8	2	8	2	9	2	9	2	9	2
1983	0	1	0	2	0	2	0	2	0	2	1	2
1984	1	0	2	0	4	0	6	0	6	0	6	0
1985	1	0	1	0	1	0	1	0	1	0	1	0
1986	2	0	3	2	3	2	3	2	3	2	3	2
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>3</u>	<u>1</u>
	27	5	40	11	47	11	53	11	55	11	58	11

U-/C- = # of Canadian prime rate decreases that followed U.S. decreases within the prescribed number of days

C-/U- = # of U.S. prime rate decreases that followed Canadian decreases within the prescribed number of days

Table 6 summarizes the statistical test results of the short-run association between U.S.-led decreases and the corresponding Canadian prime rate cuts. All three tests indicate that a Canadian response to a U.S. prime rate decrease occurred within fifteen days of the initial U.S. announcement.¹³ This observation is significant at the 5 percent level. Only the Kolmogorov-Smirnov test finds no significant association during the five-day and ten-day windows. These results provide strong evidence that U.S. prime rate decreases and Canadian decreases are associated in the short-run. In fact, the results indicate that a Canadian prime rate decrease can be anticipated within fifteen days following a U.S. prime rate cut, which implies that Canadian rates are sticky-down relative U.S. prime rate decreases.

Table 6
Cummulative Frequency of U.S. Prime Rate Decreases
followed by Canadian Prime Rate Decreases*
January 1, 1975 - May 31, 1991

	<i>p-value for Number of Days between Initial U.S. Decrease and Canadian Decrease Response</i>					
	5 days	10 days	15 days	20 days	25 days	30 days
Sign	.039	.038	.021	.021	.021	.021
Wilcoxon	.017	.032	.019	.016	.016	.009
K-S	.112	.309	.030	.030	.030	.006

K-S = Kolmogorov-Smirnov

*Within 5 Days to 30 Days of the Initial Change

Conclusions

The purpose of this paper has been to further examine the linkages between U.S. and Canadian prime rate changes. Daily prime rates between January 1, 1975 and May 31, 1991 were classified in terms of increases, decreases, U.S.-led changes, and Canadian-led changes. Several interesting observations were found at the domestic levels. The general level of nominal interest rates is lower in the U.S. In addition, the U.S. prime rate appears to be more active than the Canadian counterpart and the average number of days between changes is significantly lower in the U.S. This implies that Canadian rates are stickier than U.S. rates. No significant difference between the average amount of change, however, was found across the two countries.

Evidence of a long-run equilibrium relationship is exposed which indicates that U.S. and Canadian prime rates do not drift too far apart. However, the U.S. rate is found to adjust faster than the rate in Canada. Canadian rates are also found to be sticky-down relative to U.S. rates. That is, a Canadian prime rate decrease can be expected within fifteen days of a U.S. decrease. This observation suggests that a U.S. prime rate decrease signals a corresponding Canadian decrease within the next fifteen days. A Canadian borrower (small business) with a loan tied to the level of the prime rate should, therefore, consider temporarily financing (or refinancing) with very short-term funds (fifteen days to thirty days) after observing a U.S. prime rate decrease, and then locking-in a lower longer-term rate once the Canadian prime falls. Perhaps this observation is the result of Canadian banks being aggressive in exploiting market imperfections. Specifically, the search and administrative costs of identifying and establishing a relationship with a different lender may prevent Canadian borrowers from switching to a bank with a lower prime rate (U.S. counterpart). Furthermore, given the small number of Canadian banks compared to those in the U.S., the competitive pressure to reduce lending rates in Canada is likely to be much less, thereby providing each Canadian bank with more market power. The finding that Canadian banks are slower than U.S. banks to cut the prime rate could possibly be traced to differences in the banking market structure in the two countries. ■

Notes

1. $(1+r_H)/(1+r_F) = f_1/e_0$ where r_H is the home interest rate, r_F is the foreign interest rate, f_1 is the forward rate, and e_0 is the current spot rate.
2. Such factors include ceilings on lending rates, floors on deposit rates, government intervention through regulatory policies, etc.
3. The correlation coefficient for the level of prime rates between the U.S. and Canada during our sample period is .913. The correlation coefficient for real rates

of interest between the U.S. and Canada obtained by Cumby and Mishkin is .912.

4. The lack of variability in a explanatory variable induces the variance of the parameter estimates of econometric models to be very high, thus causing the parameter to be an inefficient estimate. Econometric texts (Greene 1993), therefore, recommend the use of variables that display a high variance.
5. Non-parametric statistics are often used in event studies in financial research and may be more effective than parametric tests (Zivney and Thompson 1989; Corrado 1989; Corrado and Zivney 1992; Dezhbakhsh 1994). The Sign Test considers the number of positive and negative differences in prime rate levels; the Wilcoxon Test looks at the sum of the ranked differences; and the Kolmogorov-Smirnov Test measures the discrepancy between cumulative distribution functions.
6. The t-statistic was 2.136 and the p-value was 0.035.
7. The first half of 1981 is designated "a" to distinguish it from the second half of the year "b" where the direction of rates changed.
8. The t-statistic was 2.127 and the p-value was 0.047.
9. This study focuses on the linkage between prime rate characteristics in the U.S. and Canada. The costs associated with this comparison are limited to the nominal interest rates in the respective countries. Changes in currency exchange rates are likely to occur, however, and could impact on the net cost of the transaction. Future research could explore the timing and magnitude of any currency adjustments around prime rate changes.
10. The results for cointegration were robust to different lag specifications.
11. The one-sample Kolmogorov-Smirnov test for normality reveals that prime rates in the U.S. and Canada are not normally distributed. The p-value is 0.219 for the U.S. and 0.247 for Canada.
12. Other combinations of prime rate responses were examined (U.S. decrease followed by Canadian increase; Canadian increase followed by U.S. decrease; U.S. increase followed by Canadian increase) but no significant associations were observed. The results were, thus, not reported. In addition, the same tests were performed on the data involving only 1980-1991. The results were not materially different from the entire examination period.
13. The tests were repeated while holding out the data from 1980-1982 to see if the results are driven by this active three-year period. In spite of these three years, the significant association between U.S. and Canadian prime rate decreases still persists, although the significance is now observed within twenty days of the initial U.S. rate decrease. Due to this similarity, the results from the hold-out sample are not provided here, but they are available upon request.

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About the Authors

Reinhold Lamb is currently Assistant Professor of Finance at the University of North Carolina at Charlotte. His research interests include information theory, corporate restructuring, and institutional trading.

A. Qayyum Khan is currently Assistant Professor of Finance at the University of North Carolina at Charlotte. His research interests include corporate divestitures, currency futures, and international finance.

Appendix

Panel A. Prime Rate Behavior in the U.S. between January 1, 1975 and May 31, 1991

Year	# of Changes	# of Increases	# of Decreases ^d	Average # Days Between Changes	Annual Amount of Change	Avg. Amount Per Change	Weighted Average Rate	Range Low - High
1975	20	4	16	13	-1.50	-0.15	7.67	06.75 - 10.25
1976	12	4	8	22	-1.00	-0.08	6.58	06.25 - 07.25
1977	6	6	0	43	1.50	0.25	6.83	06.25 - 07.75
1978	13	13	0	20	4.00	0.31	9.03	07.75 - 11.75
1979	17	12	5	15	3.25	0.18	12.62	11.50 - 15.75
1980	40	27	13	7	6.50	0.16	15.33	11.00 - 21.50
1981	27	8	19	10	-5.75	-0.21	18.55	15.75 - 20.50
1982	14	3	11	19	-4.25	-0.30	14.78	11.50 - 17.00
1983	3	1	2	87	-0.50	-0.17	10.80	10.50 - 11.50
1984	10	4	6	26	-0.25	-0.03	12.11	10.75 - 13.00
1985	3	0	3	87	-1.25	-0.42	9.97	09.50 - 10.75
1986	4	0	4	65	-2.00	-0.50	8.37	07.50 - 09.50
1987	7	5	2	37	1.25	0.18	8.23	07.50 - 09.25
1988	5	4	1	52	1.75	0.35	9.35	08.50 - 10.50
1989	4	2	2	65	0.00	0.00	10.87	10.50 - 11.50
1990	1	0	1	260	-0.50	-0.50	10.05	10.00 - 10.50
1991	<u>3</u>	<u>0</u>	<u>3</u>	<u>33</u>	<u>-1.50</u>	<u>-0.50</u>	<u>9.06</u>	<u>08.50 - 10.00</u>
	189	93	96	22.54	-0.01	0.43	10.17	06.25 - 21.50

Annual Amount of Change is the difference between the beginning and end of year prime rate value.

Weighted Average Rate is the average prime rate weighted by the number of days at each level.

Panel B. Prime Rate Behavior in Canada between January 1, 1975 and May 31, 1991

Year	# of Changes	# of Increases	# of Decreases ^d	Average # Days Between Changes	Annual Amount of Change	Avg. Amount Per Change	Weighted Average Rate	Range Low - High
1975	4	1	3	65	-1.25	-0.31	9.39	09.00 - 11.00
1976	3	1	2	87	-0.50	-0.17	10.21	09.25 - 10.25
1977	2	0	2	130	-1.50	-0.75	8.46	08.25 - 09.25
1978	6	6	0	43	3.00	0.50	9.76	08.25 - 11.25
1979	9	7	2	29	3.50	0.39	12.80	11.25 - 14.75
1980	25	14	11	10	4.00	0.16	14.32	12.25 - 18.25
1981	17	8	9	15	-1.00	-0.06	19.33	17.25 - 22.75
1982	14	3	11	19	-4.75	-0.34	16.02	12.50 - 18.25
1983	5	1	4	52	-1.50	-0.50	11.17	11.00 - 12.00
1984	9	5	4	29	0.25	0.14	12.15	11.00 - 13.00
1985	7	2	5	37	-1.00	-0.14	10.70	10.25 - 11.75
1986	13	6	7	20	-0.50	-0.04	10.52	09.75 - 13.25
1987	0	0	0	0	0.00	0.00	9.75	09.75 - 09.75
1988	5	4	1	52	2.50	0.50	10.73	09.75 - 12.25
1989	2	2	0	130	1.25	0.63	13.22	12.25 - 13.50
1990	6	2	4	43	-0.75	-0.13	14.25	12.75 - 14.75
1991	<u>5</u>	<u>0</u>	<u>5</u>	<u>20</u>	<u>-2.50</u>	<u>-0.50</u>	<u>11.42</u>	<u>10.25 - 12.75</u>
	132	62	70	32.27	-0.04	0.54	11.98	08.25 - 22.75

Annual Amount of Change is the difference between the beginning and end of year prime rate value.

Weighted Average Rate is the average prime rate weighted by the number of days at each level.

Determinants of Bank Profitability

Mukesh Chaudhry, *Elizabeth City State University*
Arjun Chatrath, *Lake Erie College*
Ravindra Kamath, *Cleveland State University*

Abstract

This study investigates the determinants of profitability of U.S. commercial banks in the 1970s and 1980s. It is established that banks, depending on their size, may need to exercise greater control over a defined set of variables in order to maximize profits and/or minimize costs. Further, the study provides some indirect evidence of economies of scale/scope in certain aspects of the banks' loan and investment portfolios.

Introduction

The past three decades have witnessed a great deal of literature pertaining to the relationships among size of banking institutions, their organizational structures, and the efficiency of the intermediation process. Some of the pioneering studies, such as those of Benston (1965a, 1965b) and Bell and Murphy (1968), focus much of their debate on the definition of bank output while estimating banking cost-functions using Cobb-Douglas methods. Their results generally indicate continuous economies of scale for most categories of bank output.¹ These authors also indicate that the estimates are more reliable when they are based on data disaggregated by class size.

However, there are serious concerns over the application of Cobb-Douglas methodologies in gauging bank performance. The methodologies assume monotonically increasing functions, and thus preclude the possibility of U-shaped average cost curves. While authors such as Clark (1984) continue to maintain that the assumption of Cobb-Douglas functions is appropriate for the banking industry, several authors including Benston, Hanweck, and Humphrey (1982), Kolari and Frazer (1984), and Noulas, Ray, and Miller (1990) and Lawrence (1989) have indicated a preference for more generalized functional forms to specify bank output.²

Benston, Hanweck, and Humphrey (1982) estimate a translog function with a composite output index, and document a significantly U-shaped average cost curve. Their findings support the notion that economies of scale are quickly exhausted and that an upsurge in bank costs occurs at a constant, or even at an increasing rate. Kolari and Frazer (1984) indicate that banks with

\$25-\$100 million in total assets are able to maintain relatively high levels of profitability via reasonable degrees of diversification of credit risk. More recently, Noulas, Ray, and Miller (1990) reject the hypotheses of short-run and long-run constant returns to scale. The authors report that banks with assets between \$1-\$3 billion exhibit scale economies. However diseconomies are found to set in for banks with assets between \$3-\$6 billion. One of the general conclusions is that average costs are lower for at least the small-medium, medium, and medium-large banks.³

...the impact of variables influencing [banks'] profitability and costs tend to change as they progress from one size category to the next.

The primary objective of this paper is to investigate the determinants of profitability of size-classified U.S. commercial banks. As the industry polarizes, banks need to become sensitive to the possibility that the impact of variables influencing their profitability and costs tend to change as they progress from one size category to the next. Also of interest is the issue of stability of the relationships between bank profitability and these variables over interest cycles. Prior studies have not incorporated a proxy for general interest rates when they investigate the determinants of bank profitability. In this study we attempt to identify those variables which significantly influence the net income level of banks over two aggregated intervals thought to represent a distinct interest-rate cycle. The results from a multivariate regression procedure indicate that banks, depending on their size and the general interest rate environment, may need to exercise greater control over a defined set of variables in order to maximize profits and/or minimize costs. Moreover, there is some evidence that suggests economies of scale/scope, consistent with the findings of, among others, Benston (1965a, 1965b), Bell and Murphy (1968) and Clark (1984).

The remainder of this paper is organized as follows. Section 2 presents the model, data and methodology employed. Section 3 reports and analyses the empirical results. The concluding section summarizes the findings of the study.

Data and Methodology

The data base for this study is provided by the Federal Deposit Insurance Corporation's (FDIC) computerized tape series for the interval 1977 through 1985, which contains financial statement information on all U.S. banks. The banks are categorized on the value of their total assets. Prior to 1980, the FDIC tapes categorize banks into two classes: those with total assets (TA) valued at less than \$100 million, and those with TA valued at greater than \$100 million. Since 1980 however, banks are classified in terms of TA with a value less than \$100 million, between \$100 and \$300 million, and greater than \$300 million.

The following variables are isolated from the FDIC tapes on the basis of a similar study by Brewer, Garcia, and Reichert (1989):⁴

1. Residential Real Estate Loans/Total Assets
2. Commercial Real Estate Loans/Total Assets
3. Consumer Loans/Total Assets
4. Commercial and Industrial Loans/Total Assets
5. Other Loans/Total Assets
6. U.S. Government Securities & Obligations/Total Assets
7. Securities of States and Subdivisions/Total Assets
8. Federal Funds Sold/Total assets
9. Investment in Subsidiaries/Total Assets
10. Fixed Assets/Total Assets
11. Provision for Loan Losses/Total Assets⁵
12. Total Time Deposits/Total Assets.
13. Total Demand Deposits/Total assets
14. Net Worth/Total Assets
15. Net Income/Total Assets.⁶

Due to the unbalanced nature of the data sets in question (for instance, for 1985 there are 11,638 observations in the less than \$100 million category, 2053 observations in \$100-\$300 million category, and 797 observations in the more than \$300 million category), a disproportionate stratified sampling approach is employed. The final sample ranges from 172 in the large bank category (in 1977), to 12,809 for the small bank category (in 1980).

The data for the above variables is aggregated for two intervals: 1977 through 1980, and 1981 through 1985. These two intervals are thought to have spanned a complete interest cycle. During the first interval, the treasury bill rate rose from less than 5 percent (in 1977) to over 11 percent (in 1980). In the second interval, this rate fell sharply from over 12 percent (in 1981) to less than 8 percent in 1985. There is another important motivation for using aggregated data as is the case in this investigation. Humphrey (1987) cautions against almost all previous studies of investigating economies of scale that base their estimates based on any single year's cross-section data. The author indicates that annual estimates may not generalize to other years. Averaging data has the potential to alleviate the measurement problems encountered when banks report unusual financial data for any one year.

Equation (1) provides the proxy for bank profitability,

$$NI/TA = F_n (R/TA - C/TA) \quad (1)$$

where NI, R, C, and TA represent the banks' net income, total revenues, total costs, and total assets respectively. Since the objective of this study is to identify the important determinants of profitability for each size class, a simple multivariate regression model (rather than Cobb-Douglas or translog functional form models) is employed.

After tests for multicollinearity establish the exogenous variables not to be significantly correlated,⁷ the following regression equation is estimated for each size based data base for both the intervals under investigation:

$$\ln \pi_i = \alpha_i + \beta_i \ln X_i + \epsilon_i \quad (2)$$

where π_i represents NI/TA, X_i is a vector of TA-standardized profitability determinants, and ϵ_i is error term assumed to be independent and normally distributed with mean zero and constant variance. Since the regressor variables are standardized by a proxy for bank size, the nature of the coefficients across size-classified categories may allow us to make some inferences on economies of scale/scope.⁸

Empirical Results

Table 1 reports the summary statistics of the fourteen exogenous variables and one endogenous variable for 1980 and 1985. As expected, there are considerably greater number of small banks (TA < \$100 million). Also conspicuous is the rise in medium sized banks (TA=\$100-300 million) from 1,164 in 1980 to 2,040 in 1985, indicating the general polarization activity among smaller banks during the period. For banks of all sizes, demand and time deposits constitute a large chunk of liabilities (comprising between 85 and 90% of total assets for small and intermediate sized banks, and between 75 and 80% for the larger banks). Also noteworthy is the greater role of U.S. government securities bought, federal

Table 1
Descriptive Statistics (1980 and 1985)

Variable	Year	TA ^a < \$100 ^b		TA: \$100-300		TA > \$300	
		μ^c	σ	μ	σ	μ	σ
Net Income/TA	1980	0.011	0.007	0.009	0.004	0.007	0.004
	1985	0.009	0.010	0.011	0.031	0.010	0.021
Residential Real Estate/TA	1980	0.110	0.088	0.117	0.077	0.092	0.064
	1985	0.110	0.091	0.137	0.112	0.120	0.121
Commercial Real Estate/TA	1980	0.039	0.036	0.066	0.038	0.050	0.034
	1985	0.044	0.046	0.069	0.060	0.061	0.047
Consumer Loans/TA	1980	0.140	0.083	0.139	0.073	0.106	0.081
	1985	0.118	0.080	0.123	0.069	0.106	0.070
Commercial Loans/TA	1980	0.110	0.084	0.163	0.108	0.194	0.101
	1985	0.141	0.770	0.171	0.148	0.178	0.135
Other Loans/TA	1980	0.009	0.024	0.010	0.021	0.021	0.290
	1985	0.012	0.216	0.008	0.019	0.014	0.023
US Government Securities/TA	1980	0.109	0.088	0.085	0.056	0.062	0.061
	1985	0.016	0.048	0.011	0.032	0.009	0.023
State Securities/TA	1980	0.098	0.067	0.127	0.065	0.092	0.061
	1985	0.069	0.068	0.091	0.061	0.072	0.052
Federal Funds Sold/TA	1980	0.068	0.072	0.062	0.063	0.047	0.057
	1985	0.074	0.089	0.052	0.069	0.046	0.081
Investments in Subsidiaries/TA	1980	0.001	0.001	0.001	0.001	0.001	0.001
	1985	0.001	0.002	0.001	0.003	0.001	0.006
Fixed Assets/TA	1980	0.020	0.017	0.020	0.010	0.016	0.009
	1985	0.020	0.031	0.018	0.010	0.015	0.008
Provisions For Loan Losses/TA	1980	0.003	0.004	0.002	0.004	0.003	0.002
	1985	0.006	0.010	0.007	0.017	0.007	0.017
Time Deposits/TA	1980	0.617	0.114	0.579	0.130	0.479	0.153
	1985	0.729	0.151	0.723	0.105	0.637	0.171
Demand Deposits/TA	1980	0.265	0.096	0.265	0.092	0.273	0.110
	1985	0.142	0.075	0.149	0.080	0.152	0.103
Net Worth/TA	1980	0.092	0.042	0.074	0.017	0.063	0.017
	1985	0.111	0.052	0.099	0.202	0.097	0.154
Number of Observations	1980	12,809		1,164		784	
	1985	11,991		2,040		1,007	

a: TA represents value of total assets (TA)

b: in millions of dollars.

c: μ and σ represent mean and standard deviation respectively.

funds sold, and fixed assets for banks with total assets less than \$100 million. The greater role of government securities in these smaller banks may arise from their attempt to maintain stable liquidity structures given their relatively weaker access to liability markets as compared to larger banks. On the other hand, commercial and

industrial loans are more significant for larger banks, where as consumer loans seem to play a relatively more important role in small and intermediate sized banks. Provisions for loan losses are found to be highly significant and generally proportional in all the three categories.⁹

The results from the multivariate regressions are presented in Table 2. The significant F-values and generally high R-Square statistics reported for each regression indicate that the model is well specified. However, only a few of the regressor variables are found to consistently and significantly impact the profitability of banks. The coefficients for residential real estate loans/TA are significantly negative for the small and medium-size categories for both periods investigated. The trend of falling interest rates (during the 1981-1985 interval) does not seem to have helped the cause of the residential-loan portfolios. Consumer loans seem to have performed most favorably for banks in the TA>\$100 million category for the 1977-1980 interval, and for banks in the TA=\$100-300 million category for the 1981-1985 interval. The ratio of State Securities to TA has a significantly positive coefficient for all the regressions undertaken. The coefficient for the ratios of fixed assets to TA and provisions for loan losses to TA are found to be significantly negative for all but the TA>\$300 million category for both intervals. Intuitively, the increase of loan loss provisions would decrease liquidity and thus undermine the avenues for revenue generation.

The significance of other variables, including the ratio federal funds sold to TA, and time deposits to TA, are found to change dramatically with both bank size and interest rate cycle. The coefficients for federal funds sold/TA are significantly negative for banks in the TA<\$100 million

categories in both the 1977-1980 and 1981-1985 intervals, and insignificant for all other regressions. On the other hand, the sign of the coefficients of time deposit/ TA are found to change from significantly positive in the 1977-1980 interval, to significantly negative in the 1981-1985 interval for

Table 2
Determinants of Bank Profitability: Regression Results^a

Variables	1977-1980		1981-1985		
	TA ^b <\$100 ^c	TA>\$100	TA<\$100	TA:\$100-\$300	TA>\$300
Residential Real Estate/TA	-0.006*** (-2.997)	0.002 (0.038)	-0.013*** (-2.873)	-0.016*** (-2.760)	-0.005 (-0.897)
Commercial Real Estate/TA	0.006 (1.020)	0.006 (1.113)	-0.006 (-1.543)	0.023*** (3.009)	-0.031 (-1.112)
Consumer Loans/TA	0.002 (1.231)	0.007* (1.774)	-0.003 (-0.228)	0.017** (2.133)	0.011 (1.097)
Commercial Loans/TA	-0.003 (-0.443)	0.005** (2.212)	-0.014*** (-2.776)	-0.001 (-1.004)	-0.015** (-2.013)
Other Loans/TA	-0.009 (-0.334)	0.004 (0.595)	-0.033* (-1.980)	0.005 (0.100)	0.016 (0.133)
US Government Securities/TA	-0.002 (-1.270)	-0.001 (-0.996)	0.001 (1.012)	0.025* (1.778)	0.008 (0.098)
State Securities/TA	0.020*** (3.397)	0.021*** (2.891)	0.038*** (2.665)	0.018** (1.997)	0.033** (2.043)
Federal Funds Sold/TA	-0.016*** (-2.983)	0.004 (0.114)	-0.029*** (-3.213)	-0.010 (-0.933)	-0.009 (-0.121)
Investments in Subsidiaries/TA	-0.233** (-2.008)	0.143* (1.775)	-0.142 (-1.298)	0.224* (1.774)	0.719 (1.024)
Fixed Assets/TA	-0.085*** (-4.897)	-0.027 (-1.634)	-0.206*** (-4.992)	-0.101** (-2.271)	-0.071 (-1.632)
Provisions for Loan Losses/TA	-0.977*** (-2.794)	-0.358* (-1.689)	-0.907*** (-3.330)	-0.651*** (-2.894)	-0.101 (-1.445)
Time Deposits/TA	0.035*** (2.828)	0.006 (1.243)	-0.013* (-1.722)	-0.009 (-1.455)	0.002 (0.481)
Demand Deposits/T	0.046*** (3.119)	0.010** (2.004)	0.027** (2.035)	-0.014 (-1.300)	0.001 (0.813)
Net Worth/TA	-0.023*** (-2.883)	0.071*** (2.971)	-0.041 (-1.279)	0.114*** (3.972)	0.073** (3.298)
F-Value	71.51***	10.95***	170.72***	33.89***	2.88**
R-Square	0.45	0.58	0.69	0.82	0.55

a: The estimates are from the following regression: $\ln \pi_i = \alpha_i + \beta_i \ln X_i + \epsilon_i$

b: TA represents value of Total Assets

c: in millions of dollars.

*, **, *** indicate significance levels of 10, 5, and 1% respectively.

the TA < \$100 million category. This finding is consistent with the notion that long term interest bearing liabilities depress bank profitability during prolonged down-trends in general interest rates.

It is notable that the coefficients for some of the variables suggest certain economies of scale/scope. For instance, the coefficient for the ratio of provisions for loan losses to TA is found to be significantly negative for the small and medium sized banks, but insignificant for the large banks.¹⁰ The larger banks also seem to have borne the brunt of residential real estate loan losses relatively better than small banks. The coefficients for federal funds sold/TA and residential real estate/TA are significantly negative for small banks but insignificant for larger banks in both intervals. The coefficients for investments in subsidiaries/TA switch from significantly negative for small banks, to significantly positive for large and medium sized banks. Since there are no systematic differences in the means of these variables (for instance investments in subsidiaries/TA are identical across all size-classifications - see Table 1), these differences in regression coefficients suggest certain economies of scale/scope.

In summary, the stability/predictability of the determinants of bank profitability are found to depend not just on bank size but also on general interest rate trends. Important variables that negatively impact profitability are provisions for loan losses and residential real estate loans. However, the negative impact of these variables was felt most by the small banks. Of the important variables that positively impact profitability, only investments in state securities is found to be consistently significant. The impact of the other variables considered seems to be contingent on the state of general interest rates.

Summary and Conclusion

This study examines the impact of fourteen variables upon the profitability objective of U.S. commercial banks. It is established that banks, depending on their size, may need to exercise greater control over a defined set of variables in order to maximize profits and/or minimize costs. The study finds some evidence of economies of scale/scope in certain aspects of the banks' loan and investment portfolios.

While this study preferred a simple approach to analyzing the determinants of bank profitability, future research in the area may benefit from making some adjustments/extensions to data and methodology. For instance, to allow for nonlinear relationships, a translog cost functional form might be more appropriate (Lawrence 1989). It may also be beneficial to break down the banking industry on the basis of other categories (such as unit banks, branch banks, or affiliates of multi-bank holding companies).

Notes

1. For instance, Benston (1965b) estimates the average value of scale economies to be around 0.92. In other words, for every 10 percent increase in bank output, costs were found to rise by 9.2 percent.
2. Also see Longbrake (1974), Longbrake and Haslem (1975) and Mullineaux (1975) who suggest refinements to the methodology in Benston and Bell and Murphy (1968).
3. Greenbaum (1967) provides further evidence that the larger banks display diseconomies of scale.
4. The authors used a logit approach to analyze the accounting profits of S&Ls with the purpose to study the causes of S&L failure. Also see Thompson (1991) on the selection of variables based on capital adequacy, asset quality, management risk, earnings, and liquidity (CAMEL rating).
5. While this proxy for credit risk has been widely employed (see Jahankhani and Lynge 1980; Whalen and Thompson 1988), other proxies including the ratios of net loan and lease charge-offs to TA, and loan loss reserves to total loans have also been suggested (Whalen and Thompson 1988).
6. The proxy for profitability is identical to that in Brewer and Lee (1988) and Whalen and Thompson (1988). The return on equity (ROE) could have been employed with similar purpose.
7. The highest condition number attached to the eigen values for the three TA categories in the 1981-1985 interval is only 14.86, well within the critical value of 30.
8. Two qualifying comments regarding the ability of the model to disclose possible economies are offered. First, it is possible that the differences in significance or even sign of the coefficients across categories may arise due to the differences in proportion (importance) of the variable in the banks' portfolios. In this case, these differences may not be an indication of economies/diseconomies at all. Second, this study does not differentiate between economies of scale and economies of scope. Evidence on economies of scale would require demonstrating size-based cost savings for specific products in the bank portfolio. However, large banks are able to achieve economies from their ability to expand into several innovative off-balance sheet products that are not reflected in the portfolios of smaller banks. These activities not only generate fee-income, but also help banks hedge interest rate risk. In addition, large banks possess the expertise and facilities to expand internationally, and

may capture substantial wealth transfers resulting from regulatory changes (Allen and Wilhelm 1988; Cornett and Tehranian 1990).

9. The time period under consideration caught the banking industry in major loan loss situations attributed to the heavy loan loss provisions on, among other categories, third world debt.
10. It may be pertinent to note that the loan loss provision figures for large banks may be understated since these institutions did not report exposure in less developed countries until 1983. Furthermore, no regulatory action was taken against these institutions to force them to write down loans. ■

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About the Author

Mukesh Chaudhry is Assistant Professor at Elizabeth City State University in Elizabeth City, North Carolina. His research interest include banking and investments.

Arjun Chatrath is Assistant Professor at Lake Erie College in Painesville, Ohio. His research interest include corporate finance and investments.

Ravindra Kamath is a Professor of Finance at the Cleveland State University, Cleveland, Ohio. He conducts research in investments and corporate finance.

Sexual Harassment in the Eye of the Beholder:

But What Focuses that Eye?

Thomas C. Head, *Tennessee State University*
Peter F. Sorensen, Jr., *Illinois Benedictine College*
Laura B. Pincus, *DePaul University*

Abstract

A major difficulty in controlling sexual harassment is that it is actually a perceptual phenomenon. A survey was created to determine what effects a perpetrator's gender and management status and evaluator's education have on whether fifteen behaviors are perceived as sexual harassment. Responses indicated a strong negative bias towards male superiors, while a positive bias appeared for female peers. Graduate degree subjects perceived more of the behaviors as harassing, but were much less biased than subjects with only undergraduate degrees.

Sexual harassment is a critical concern for today's managers. Although believed to be grossly underreported, the number of harassment complaints filed with the Equal Employment Opportunity Commission (EEOC) increased 71 percent during 1991 alone, and this trend is expected to continue (Kleiman 1992). In fact, where the Civil Rights Act of 1964, which prohibits discrimination and harassment on the basis of gender, allowed relief only in the form of specific performance (such as reinstatement), the Civil Rights Act of 1991 allows for compensatory and punitive damages (Patterson 1993). The effect of this modification is to greatly increase the financial liability of employer wrongdoers for harassment. The issue's depth is staggering in that 42.5 percent of all U.S. working women and 12.5 percent of the working men feel they have been sexually harassed on the job (Bradshaw 1987; Niven 1992). While sexual harassment is not actually perpetrated by the organization, the EEOC holds the employer responsible for its prevention, and courts consequently hold the employer liable for its occurrence where the employer knew, or should have known, about the harassment (*Ellison v. Brady* 1991).

Why All The Concern?

An employer becomes liable for sexual harassment when it knows, or should have known, that harassment was occurring among its employees, yet takes no action. Employers may also be liable for the actions of customers, clients, and other non-employees who come into contact with its employees at the work place (*EEOC v.*

Sage Realty Corp 1981; *Alberts and Seidman* 1993). With such a broad interpretation of liability, it is not enough for employers to simply forbid sexual harassment; definite steps must be taken in order to prevent it from occurring (Groeber and Wang 1983).

It is not enough for employers to simply forbid sexual harassment; definite steps must be taken in order to prevent it from occurring.

The costs of sexual harassment are substantial enough to demand management's strict attention. These costs range from reduced employee morale to significant litigation expenses (AP Wire 1988; *Charlotte Observer* 1988). The impact on morale could in turn lead to declines in productivity and higher rates of absenteeism and turnover as well as job apathy and an increase in employee sickness (Peterson and Massengill 1982). The direct costs of sexual harassment to the organization in terms of litigation can be staggering. Aside from the legal fees which the employer incurs for its defense and employee time loss (depositions, testimonies, etc.), there may also be punitive and compensatory damages awarded to the victimized employee. In 1986 the average settlement for sexual harassment was \$75,000, exclusive of legal fees (Brophy and Levine 1986).

What Is Sexual Harassment?

While not specifically addressed in Title VII of the Civil Rights Act of 1964, the U.S. Supreme Court has ruled that sexual harassment is a form of gender discrimination and therefore constitutes an illegal violation of employee rights pursuant to the act. The EEOC guidelines interpreting Title VII state that:

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a

sexual nature constitutes sexual harassment when (1) submission to such is made either explicitly or implicitly a term or condition of an individual's employment, (2) submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individual, or (3) such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile, or offensive working environment (EEOC 1978).

The third criterion, interpreted as any behavior which makes the individual severely uncomfortable (due to its sexual nature) on the job, is at the core of management's problem in controlling sexual harassment. This criteria drives sexual harassment from the realm of objective reality to being predominately a subjective concept. That, of a sexual nature, which creates a hostile environment, and therefore constitutes sexual harassment is a perceptual phenomenon, quite literally it is in the eye of the beholder. One can no longer create meaningful rules regarding harassment with only behavioral definitions. Specific "Do not do the following" policies are fine for behaviors in the first two criteria. But when it comes to preventing a hostile environment, policies starting with "In most cases you should not..." or "When doing ... proceed with caution" simply do not provide enough realistic guidance to employees or managers. But before more detailed policies can be written, it is essential for employers to understand what effects the employees' perceptions regarding sexual harassment, or in other words, what focuses the eye of the beholder.

The United States Supreme Court has upheld the EEOC guidelines involving sexual harassment (*Meritor Savings Bank vs. Vinson* 1986). In *Meritor v. Vinson*, the court ruled that both "quid pro quo" sexual harassment (when sexual favors are used as conditions of employment) and "hostile environment" sexual harassment (actions which create an abusive working environment, such as unwelcome advances or contact) are forms of sexual discrimination and, as such, are prohibited by the Civil Rights Act. Unfortunately the court did not address in any detail which behaviors are considered unwelcome and/or sexually oriented. This omission reinforces the definitional ambiguity, which in turn confuses the issue for organizations attempting to comply with the federal regulations as well as for individuals who wish to act appropriately.

The Ninth Circuit Court, in *Ellison v. Brady*, attempted to clarify the question of welcomeness for managers by explaining that a harassment claim by a woman should be evaluated according to how a "reasonable woman" would react under similar circumstances. In the past, courts were directed to ascertain the reactions of a "reasonable person" in this situation, a standard which is difficult to

apply depending on the facts involved. For instance, a reasonable man may not be startled in the park if a stranger touches his arm and asks for the time. On the other hand, a reasonable woman may react differently under the same circumstances. The court in *Ellison* directed that the judgment of "reasonableness" therefore be made from a reasonable woman's perspective.

...the Supreme Court this past year made the distinction between acceptable and unacceptable behaviors even more vague.

However, notwithstanding the Ninth Circuit's efforts at making harassment claims more clear, the Supreme Court this past year made this distinction between acceptable and unacceptable behaviors even more vague. Recently the Court decided the case of *Harris v. Forklift Systems, Inc.* (1994) which involved the alleged sexual harassment of a female manager at Forklift Systems. In that case, the Supreme Court reviewed the requirement of "severity" for sexual harassment claims and concluded that "Title VII comes into play before the harassing conduct leads to a nervous breakdown. A discriminatorily abusive work environment, even one that does not seriously affect employees' psychological well-being, can and often will detract from employees' job performance, discourage employees from remaining on the job, or keep them from advancing in their careers." Consequently, an employer is left with direction from the court that "severity" is no longer clearly defined or perhaps even necessary, again confusing the issue.

Determining which behaviors actually constitute sexual harassment is perhaps the most complex and controversial aspect of the issue for management. Cooper (1985) identified six levels of behaviors ranging from nonharassing to definite harassment. The first level is made up of behaviors that are totally innocent, such as polite greetings and handshakes. But then the behaviors take on the appearance of becoming more aggressive and make up a gray area of possible harassment. This gray area begins with active mental groping like "undressing with your eyes." The next level is direct verbal harassment, such as telling obscene jokes, followed by the last of the borderline harassment categories, that of "foreplay" harassment, where there is some form of physical contact such as hand brushing, pinching, and/or holding. The fifth level, termed sexual abuse by Cooper, is where the "gray" area ends and the behaviors should be automatically considered harassment. These are undesired behaviors which range from requests for sexual relations not linked to employment to physical contact of an obviously sexual nature. The final level of behaviors is where sexual relations are made a direct condition of continued

employment, also known as quid pro quo harassment. A review of sexual harassment complaints found that the more serious an offense the greater the probability of a ruling in favor of the plaintiff (Terpstra and Baker 1988; 1992).

While the obvious cases of sexual harassment may be more likely to be punished, there is strong evidence to support management's attention to the gray areas as well. Terpstra (1989) examined two years of Illinois harassment cases and found that the majority of the complaints filed involved the "less serious," or gray area, offenses.

Determining whether a behavior in the gray area actually constitutes sexual harassment is quite problematic. Within groups, even women, there does not appear to be agreement as to what constitutes sexual harassment. A study by Powell (1983) found that 69 percent of women consider touching, grabbing, or brushing to be sexually harassing. Eighty-one percent of women considered sexual propositioning as harassment, but only about half the women surveyed believed that sexual remarks and suggestive gesturing (51 and 49 percent, respectively) constituted sexual harassment. While women do not agree among themselves what constitutes sexual harassment, the picture becomes even hazier when one considers that men are also victims of harassment and their perceptions must be taken into consideration. Another difficulty is that sexual harassment in these gray areas is very situational. A specific behavior in one context may not be considered harassing, while in a different instance it might be.

When it comes to creating a hostile environment exactly which behaviors would subject an organization to liability for sexual harassment appears to be a matter of individual perception. There is a limited body of research which has attempted to discover factors that affect perceptions of sexual harassment. Unfortunately, the results are inconclusive. Powell found no relationship between definitions of sexual harassment and respondents' education levels, occupational position, salary, and years employed. Terpstra found that college educated persons accounted for 56 percent of the complaints filed. Results of a study conducted by the Merit Systems Protection Board (1981) supported Terpstra by finding a positive relationship between educational level and reported sexual harassment among working women. However it is unclear whether this relationship between education and reported sexual harassment is a matter of perception or reception. Better educated women may simply be less tolerant of sexually harassing behavior and more likely to be insulted by it (Terpstra and Cook 1988; Gutek 1983). This offers support to the argument for perception. On the other hand, Farley (1978) suggests that educated women may actually be harassed more because they constitute a greater threat to men. This implies that the relationship between education and harassment may be a matter of reception.

Another potential factor for differing perceptions is the hierarchical status of the perpetrator. It has been suggested that the perceived seriousness of the behavior increases with the power of the person making the advances. The same behaviors are seen as more threatening from a supervisor than a coworker (Collins and Blodgett 1981). It should be noted that contradictory evidence has also been reported. Terpstra and Baker (1988; 1992) analyzed federal court cases and concluded that whether the perpetrator was a supervisor or a peer did not effect court judgements. One might conclude that a gray area behavior performed by a manager is more likely to be perceived as harassment by the target, resulting in a complaint. But once a complaint is made, the courts tend to ignore such differences in rank and position when deciding a case.

... the EEOC does not treat sexual harassment as an exclusively female victim phenomenon.

It is interesting to note that the perpetrator's gender has not been considered for potential impact upon perception of sexual harassment. Almost all of the research which has been conducted has either used female respondents only or have made the perpetrator male. However, the EEOC does not treat sexual harassment as an exclusively female victim phenomenon. Males can be, and are, sexually harassed at the work place. One study (Brophy and Levine 1986) has estimated that at least 10 percent of sexual harassment cases involve a female supervisor harassing male subordinates. This figure does not include the harassment which might occur between a female peer to a male peer, or a homosexual male to another male. The Collins and Blodgett survey indicated that men and women agree, in theory, as to the inappropriateness of sexual harassment in the work place, but there is much disagreement on how often it occurs. This lack of research of the impact of gender on perceptions of sexual harassment is a major deficiency in the area.

This study provides an examination of what impact the gender and management status of the perpetrator, as well as the education of the evaluator, might have on establishing which behaviors are perceived as sexually harassing. Specifically, this study is designed to assess which of fifteen different "gray area" behaviors will be perceived to be sexually harassing, dependent upon respondent education, and which of the four following conditions the respondent is given to assess:

1. Male superior behaves towards female subordinate
2. Female superior behaves towards male subordinate
3. Male peer behaves towards female peer
4. Female peer behaves towards male peer

Methodology

Overview

To test the research questions, four different forms of a survey were created and distributed to full-time employed individuals in undergraduate and graduate classes. All respondents reported at least one year of full time employment. The surveys contained descriptions of fifteen behaviors which fall into the gray area as potentially harassing. The context of each behavior was described differently for each form by altering the gender and organization hierarchical level of the potential perpetrator. The respondents were asked to state whether or not each behavior constituted sexual harassment.

Four surveys were created by randomly assigning the various behavioral scenarios. The only stipulation was that no single survey could contain more than one scenario of the same behavior. Therefore each survey contained a single scenario of all fifteen gray area behaviors. Each survey's directions were identical. First, sexual harassment was defined using the EEOC's description verbatim. Then, the respondents were instructed to circle a yes or no following each behavior dependent upon whether or not they believed the behavior to be an example of sexual harassment.

Subjects

Surveys were randomly distributed to 152 undergraduate juniors and seniors attending management classes at a large southwestern university. Subjects were required to be currently employed full-time (greater than 36 hours per week) for at least the one year prior to survey administration. Twenty-four surveys were discarded because the students were not currently employed, resulting in a return rate of 84 percent. The mean full-time work experience was 2.1 years. There were fifty-three females and seventy-five males who completed the surveys. The graduate sample consisted of 120 MBA students from two small private colleges. One hundred and six surveys were usable, for an 88 percent return rate. In this group there were fifty-four females and fifty-two males. The mean full-time work experience was 10.33 years.

Figure 1
15 Gray Area Sexual Harassing Behaviors

1. P eyes T up and down.
2. P asks T out to dinner.
3. P touches T while giving instructions.
4. P makes a sexual remark, insists it is just an innocent comment.
5. P asks T out for dates after T rejects offer.
6. P tells a dirty joke in a group while looking at T.
7. P allows or has sexually oriented material at the work place where T can see it.
8. P pinches T.
9. P winks and smiles at T.
10. P tells T going out with him/her will advance T's career.
11. P stands close to T while giving instructions.
12. In a meeting P continuously glances at T.
13. P sends T on errands in order for others to gaze and stare at T.
14. P makes comments on sexual activity.
15. P kisses T on the cheek in the morning.

P: Perpetrator
T: Target

Survey Development

Kellogg (1984) identified fifteen behaviors which have been classified by various courts as potentially sexual harassing. These fifteen behaviors are listed in Figure 1. Four different scenarios were written for each behavior. In the first scenario the perpetrator was a male superior and the victim was a female subordinate. Male peer behaving towards a female peer was the second condition, while the third consisted of a female superior acting towards a male subordinate. The final scenario involved a female peer behaving towards a male peer.

Results

Before looking at the study's questions, tests were performed to establish if there was a difference in responses based upon the respondents' gender. Ideally this test would be conducted through a subgroup analysis on the individual behaviors. Unfortunately, given the four different surveys, the total sample size was too small for such an analysis. Therefore t-tests were conducted on the average number of behaviors which were identified by each respondent as being harassing. The undergraduate females had a mean of 6.55 ($s = 2.27$) and the undergraduate males averaged 6.311 ($s = 2.45$). The T-test proved non significant ($t = .365$). A similar trend appeared with the graduate students. Male responses (mean = 7.54, $s = 3.17$) were not significantly different ($t = 1.41$) from the graduate females (mean = 7.78, $s = 2.7$). Therefore it appears that the respondent's gender does not cause a perceptual bias regarding defining sexual harassment.

A second such analysis was conducted on the differences between the undergraduate and graduate samples to establish whether respondent education level had an impact upon perception of harassment. The test supported the proposition that there would be a difference between the two groups. The graduate sample had a significantly ($t = 8.33$, $p = .001$) higher mean of behaviors identified as harassing (7.66) than did the undergraduates (6.41). While

Table 1
Total Sample Results

		Male Peer	Female Peer	Male Superior	Female Superior	Chi-Square p value
Eyes up and down	Yes	37 (31)	17 (29)	36 (31)	32 (31)	14.4
	No	23 (29)	39 (27)	25 (30)	28 (29)	.005
Asks out to dinner	Yes	1 (3)	2 (3)	8 (3)	2 (3)	
	No	60 (57)	57 (56)	48 (53)	58 (57)	ns
Touches while instructing	Yes	11 (15)	9 (16)	27 (16)	16 (16)	15.9
	No	45 (41)	49 (42)	34 (45)	43 (43)	.005
Morning sex remark	Yes	56 (45)	31 (43)	51 (45)	38 (43)	28.6
	No	5 (16)	27 (15)	9 (15)	20 (15)	.001
Ask date after rejection	Yes	25 (31)	30 (33)	36 (30)	37 (31)	7.6
	No	34 (29)	31 (28)	20 (26)	23 (29)	.1
Dirty joke	Yes	39 (25)	15 (27)	38 (25)	14 (27)	45.5
	No	18 (31)	45 (33)	18 (31)	46 (33)	.001
Sex material at work	Yes	49 (38)	15 (37)	46 (39)	42 (38)	50.6
	No	11 (22)	42 (20)	15 (22)	17 (21)	.001
Pinches	Yes	43 (48)	45 (50)	47 (42)	51 (46)	
	No	15 (10)	15 (10)	4 (9)	5 (10)	ns
Winks and smiles	Yes	17 (12)	6 (13)	11 (12)	11 (12)	7.6
	No	43 (48)	55 (48)	46 (45)	48 (47)	.1
Date advances career	Yes	48 (49)	55 (57)	60 (57)	54 (54)	
	No	3 (2)	5 (3)	0 (3)	2 (2)	ns
Stands close	Yes	11 (10)	5 (10)	13 (10)	12 (10)	5.0
	No	48 (49)	56 (51)	44 (47)	47 (49)	ns
Glances In meeting	Yes	10 (9)	5 (8)	11 (9)	9 (9)	2.0
	No	50 (51)	52 (49)	49 (51)	50 (50)	ns
Sends to be gazed at	Yes	42 (39)	33 (37)	47 (39)	31 (38)	10.5
	No	18 (21)	24 (20)	12 (20)	27 (20)	.025
Sex activity comments	Yes	39 (33)	32 (36)	43 (37)	27 (35)	11.6
	No	16 (22)	28 (24)	18 (24)	32 (24)	.025
Kisses on cheek	Yes	7 (24)	14 (24)	30 (23)	34 (24)	20.9
	No	42 (35)	47 (37)	26 (33)	25 (33)	.001

n out of () is frequency observed. n in () is frequency expected.

Table 2
Bias Directions For Combined Sample

	Number of Behaviors Demonstrating		
	No Bias	Positive Bias	Negative Bias
Male Peer	1	2	7
Female Peer	0	10	0
Male Superior	1	0	9
Female Superior	4	3	3

this supports the belief that education effects perceptions of harassment, confirmation concerning the direction of the difference must come from the chi-square tests.

It was suggested that whether a behavior was perceived to be sexually harassing or not would be a function of the gender and organizational hierarchical position of the perpetrator. The impact of both gender and hierarchy will be evaluated via the use of the chi-square statistic. This is a non-parametric statistic which tests for a significant difference between an observed frequency and the expected frequency (which is mathematically established based upon the assumption of equal probability across groups and conditions). A bias will be said to exist when the observed frequencies are significantly different from the expected "equal" probability. The results of the chi-square tests for the combined sample are in Tables 1 and 2. In general, the results do indicate some biases. With the combined sample, the chi-square test indicated significant biases for ten of the fifteen behaviors. Two behaviors had no significant trends (stands close while giving instructions, glances at in meetings), while the remaining three (asks out to dinner, pinches, suggesting that a date will advance career) were impossible to compute due to their possessing cells with frequencies less than five. Most notable of the trends is that in all ten behaviors there appeared a positive bias for the female peer. This group's behaviors always were perceived to be less likely to be harassing than expected. A second bias occurred in nine of the ten behaviors (except for winks and smiles) for the male superior. For this group the behaviors were perceived as harassing more frequently than expected. The male peer presented an interesting set of results. There was a negative bias with seven behaviors, but a positive bias in two. These results indicate that in general there does appear to be a gender and gender/rank interaction bias in the perceptions of sexual harassment, most notably against male superiors and in favor of female peers.

To further examine the effect of perceiver's education, the chi-square tests were performed separately for the two samples. The graduate sample's results are in Tables 3 and 4 and the undergraduate's can be found in Tables 5 and 6. There does appear to be a difference between the two groups. Only four behaviors (tells a dirty joke, stands close, sex activity comments, sexual remarks in the morning) showed a significant bias in the graduate sample, while seven (touches while instructing, morning sex remarks, persistent date requests after rejection, dirty jokes, having sexual material, sends on errands in order to be gazed at, kisses on the cheek) appeared for the undergraduates (this analysis involved reducing the required cell size to 2).

Both samples showed a negative bias toward male superiors and positive bias towards female peers. However for the graduates these were the only recurring biases. The undergraduates showed a much greater diversity of

Table 3
Graduate Student Sample Results

		<i>Male Peer</i>	<i>Female Peer</i>	<i>Male Superior</i>	<i>Female Superior</i>	<i>Chi-Square p value</i>
Eyes up and down	Yes	18 (15)	8 (13)	17 (16)	8 (13)	5.8
	No	9 (12)	16 (11)	11 (12)	11 (12)	ns
Asks out to dinner	Yes	1 (2)	2 (2)	4 (2)	0 (2)	
	No	20 (22)	27 (25)	27 (26)	24 (22)	ns
Touches while instructing	Yes	8 (9)	8 (10)	12 (11)	12 (10)	1.61
	No	16 (15)	19 (17)	16 (17)	15 (17)	ns
Morning sex remark	Yes	26 (22)	16 (21)	23 (22)	20 (20)	5.95
	No	2 (6)	10 (5)	4 (5)	5 (5)	.07
Ask date after rejection	Yes	16 (17)	16 (18)	18 (15)	17 (17)	2.37
	No	11 (11)	12 (10)	6 (9)	10 (10)	ns
Dirty joke	Yes	13 (12)	5 (13)	18 (11)	12 (13)	18.0
	No	12 (13)	22 (14)	6 (13)	15 (14)	.005
Sex material at work	Yes	19 (18)	13 (16)	18 (18)	20 (18)	2.52
	No	8 (9)	11 (8)	10 (10)	7 (9)	ns
Pinches	Yes	18 (22)	20 (22)	25 (23)	24 (20)	
	No	8 (4)	7 (5)	3 (5)	0 (4)	ns
Winks and smiles	Yes	10 (6)	5 (7)	5 (6)	5 (6)	4.63
	No	17 (21)	23 (21)	19 (18)	23 (21)	ns
Date advances career	Yes	27 (27)	26 (26)	27 (26)	24 (23)	
	No	1 (1)	1 (1)	0 (1)	0 (1)	ns
Stands close	Yes	5 (6)	2 (6)	9 (5)	6 (6)	7.66
	No	21 (20)	26 (22)	15 (19)	21 (21)	.1
Glances in meeting	Yes	4 (3)	2 (3)	4 (3)	3 (3)	1.13
	No	24 (25)	22 (21)	23 (24)	24 (24)	ns
Sends to be gazed at	Yes	21 (18)	12 (16)	19 (18)	17 (17)	4.67
	No	6 (9)	12 (8)	8 (9)	9 (9)	ns
Sex activity comments	Yes	15 (13)	11 (15)	21 (15)	11 (15)	11.06
	No	8 (10)	16 (12)	7 (13)	16 (12)	.025
Kisses on cheek	Yes	11 (14)	10 (14)	16 (14)	17 (14)	6.53
	No	15 (13)	18 (14)	8 (12)	10 (13)	ns

n out of () is frequency observed, n in () is frequency expected

Table 4
Bias Direction For Graduate Sample

	<i>Number of Behaviors Demonstrating</i>		
	<i>No Bias</i>	<i>Positive Bias</i>	<i>Negative Bias</i>
Male Peer	3	0	1
Female Peer	0	4	0
Male Superior	1	0	3
Female Superior	4	0	0

Table 5
Undergraduate Student Sample Results

		<i>Male Peer</i>	<i>Female Peer</i>	<i>Male Superior</i>	<i>Female Superior</i>	<i>Chi-Square p value</i>
Eyes up and down	Yes	19 (16)	9 (15)	19 (16)	16 (16)	6.93
	No	14 (17)	23 (17)	14 (11)	17 (17)	ns
Asks out to dinner	Yes	0 (2)	0 (2)	4 (1)	2 (2)	
	No	33 (31)	33 (31)	28 (31)	31 (31)	ns
Touches while instructing	Yes	3 (6)	2 (6)	15 (6)	4 (6)	24.33
	No	29 (26)	29 (25)	18 (27)	28 (26)	.001
Morning sex remark	Yes	30 (25)	15 (24)	28 (25)	22 (24)	19.78
	No	3 (8)	17 (8)	5 (8)	10 (8)	.001
Ask date after rejection	Yes	9 (15)	14 (15)	18 (15)	20 (15)	8.82
	No	23 (17)	19 (18)	14 (17)	13 (18)	.05
Dirty joke	Yes	20 (15)	10 (16)	20 (15)	12 (16)	12.58
	No	12 (17)	23 (17)	12 (17)	21 (17)	.01
Sex material at work	Yes	30 (24)	14 (24)	28 (24)	22 (23)	29.9
	No	3 (7)	19 (7)	5 (7)	10 (9)	.001
Pinches	Yes	25 (27)	25 (28)	32 (28)	27 (27)	
	No	7 (5)	8 (5)	1 (5)	5 (5)	ns
Winks and smiles	Yes	7 (5)	1 (5)	6 (5)	6 (5)	
	No	26 (28)	32 (28)	27 (28)	26 (27)	ns
Date advances career	Yes	31 (31)	29 (31)	33 (31)	30 (30)	
	No	2 (2)	4 (2)	0 (2)	2 (2)	ns
Stands close	Yes	6 (5)	3 (5)	4 (5)	6 (5)	1.85
	No	27 (28)	30 (28)	29 (28)	26 (27)	ns
Glances in meeting	Yes	2 (3)	0 (3)	7 (3)	2 (3)	
	No	31 (30)	33 (30)	26 (30)	30 (29)	ns
Sends to be gazed at	Yes	21 (21)	21 (21)	28 (21)	14 (21)	16.44
	No	12 (12)	12 (12)	4 (9)	18 (4)	.005
Sex activity comments	Yes	4 (20)	21 (21)	22 (21)	16 (20)	4.3
	No	8 (12)	12 (12)	11 (12)	16 (12)	ns
Kisses on cheek	Yes	6 (10)	4 (10)	14 (10)	17 (10)	16.92
	No	27 (23)	29 (23)	18 (22)	15 (22)	.005

n out of () is frequency observed, n in () is frequency expected.

Table 6
Bias Direction For Undergraduate Sample

	<i>Number of Behaviors Demonstrating</i>		
	<i>No Bias</i>	<i>Positive Bias</i>	<i>Negative Bias</i>
Male Peer	2	2	3
Female Peer	2	5	0
Male Superior	0	0	7
Female Superior	3	2	2

biases. The negative bias towards male superiors occurred in all seven behaviors and the positive female peer bias was seen in five behaviors. The male peers and female superiors showed bias, but no consistent trends. In some behaviors there were no biases, while in others there appeared both positive and negative trends.

Discussion

With the dramatic increase in sexual harassment charges being filed, organizations must develop legitimate and effective preventative and reactive policies. Central to this task, of course, is the belief that sexual harassing behaviors can be identified. Sexual assault and demands linked to employment threats are obviously harassing. However, the majority of complaints are not so blatant and fall into a gray area of “they might be,” dependent upon whether or not they create a hostile environment. With these behaviors sexual harassment becomes a perceptual phenomenon.

With the question of which behaviors constitute sexual harassment relying on the eye of the beholder, it is essential for managers to be aware of what “focuses” or directs that eye. As predicted, the perceiver’s education level plays a role in defining harassment. This study found that graduate educated respondents perceived significantly more gray area behaviors as harassing, while they showed much less bias, relative to undergraduates, based upon the perpetrator’s rank and sex.

While there was no universal trend for all fifteen behaviors, when looking specifically at those which showed perceptual differences, two patterns emerged. The first trend involves the male superior. This is the only perpetrator for which the behavior was perceived to be harassing more than expected in all the significant differences. The second trend is that the same behaviors from a female peer were consistently perceived not to be harassing.

Managerial Implications

There are at least three managerial responsibilities for which the behavioral biases concerning sexual harassment should be taken into consideration. Formulating effective policies is the first area. Sexual harassment is much broader than simply immoral demands made by a supervisor. Any behavior (by anyone) which, due to its sexual nature, creates an uncomfortable, abusive, or hostile work environment is considered sexual harassment. This can include some behaviors which are seemingly innocent and/or accepted by many in the work force, such as permitting “racy” jokes. It is also important to remember that the more educated the employees are, the less tolerant they become. A company’s policies regarding sexual harassment must take this behavioral ambiguity into consideration when formulating policy. It is impracti-

cal to define all unacceptable behaviors, especially since many are highly situational. For example, an organization can have policies prohibiting pinching and propositioning, but at what point does a glance turn into “undressing with his eyes” or a wink become offensive? Can an employer realistically prohibit winks and employees looking at each other? Therefore, the organization should place its emphasis on defining and preventing the “hostile environment” for employees. One possible method is to have a task force completely describe various hostile environments, as well as prototypical ways in which these environments may develop. The organization could incorporate these descriptions into a policy statement that requires managers to prevent such environments from developing. By focusing on the results of gray area sexual

The manager should concentrate upon preventing the complaint by taking proactive, corrective actions.

harassment the employer does not have to worry about perceptual differences regarding specific behaviors in formulating policy. At the same time managers have a clear idea of what to avoid as well as a great deal of discretionary power regarding how to do this. This “results oriented” approach also has the advantage of focusing the policies towards prevention instead of merely punishment.

Many organizations are incorporating sexual harassment issues into their management development/training programs. It is simply not enough for these programs to focus on what a manager should do when an employee makes a complaint. The manager should also concentrate upon preventing the complaint by taking proactive, corrective actions. Educating managers of the gray area behaviors, and issues such as gender, position, and education, is essential. This is especially important for male managers, because it may be that they run the greatest risk of having their behaviors being perceived as sexual harassing.

The final management issue that these perceptual biases impact upon is that of punishing transgressors. Employers must be careful to avoid illegally discriminating actions when punishing the perpetrator. If one class of employees (males, for example) tend to be punished for behaving in a certain manner, while other classes (such as females) receive no reprimands for identical behavior, the organization would be in a poor position to defend itself against illegal discrimination charges. No employer should allow actual sexual harassment to occur; however its definition and punishment policies must apply univer-

sally. This implies liberal judgement when establishing which behaviors can be considered as harassment. By focusing attention upon the results of an action (i.e., Was a hostile environment created?), an organization reduces the potential discrimination problem. A behavior, in the gray area, is punished when it results in significant employee discomfort, but is tolerated when no negative consequences are experienced. Of course the punishment must be similar for similar levels of discomfort created by any behavior. Strict adherence to EEOC guidelines must be observed when administering any punishment to avoid illegally discriminating against the transgressor. For example, women may be made uncomfortable and complain when a superior of a different race does something, but not when a similar race superior does the same behavior. An organization could end up punishing one class much more than another, creating a situation of adverse impact.

Given the significant direct and indirect costs surrounding sexual harassment, it becomes obvious that prevention is preferable to correction. By establishing policies which focus upon the results, rather than categorizing behaviors, incorporating these into the management training, and establishing strict but fair, punishment practices, an employer will place itself into this prevention mode. Potential misunderstanding will be eliminated, as "This is what I perceived" is acknowledged to be the issue, rather than "This is what I intended." Finally, no one will have to suffer the indignity and powerlessness of feeling that they are being harassed but, because it is not obvious, there is nothing that will/can be done by the employer. The employer has now empowered not only its management, from an educational perspective, but also the victim. ■

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About the Authors

Thomas C. Head is Associate Professor of Management at Tennessee State University. He sits on the Board of Directors of the Organization Development Institute, and is currently the editor of the *Organization Development Journal*.

Peter F. Sorensen, Jr., is Director of the Graduate Program in Management and Organizational Behavior at Illinois Benedictine College. He has been published in *Group and Organizational Studies*, *Organization Development Journal*, and *Training and Development Journal*.

Laura B. Pincus, J.D., is Assistant Professor of Legal Studies and Ethics at DePaul University's College of Commerce and Director of DePaul's Institute for Business Ethics. She is Co-Founder and Co-Chair of the Employment and Labor Law Section of the Academy of Legal Studies in Business. Pincus has done extensive research on the subject of employee rights and employer responsibilities and has published in *Training and Development Journal* and *Hofstra Law Review*.

The Charon Response:

A Needed Act in Dying Organizations

V. V. Miller, *University of Dayton*
Daniel F. Jennings, *Baylor University*

Abstract

The Charon Response looks at how business firms should deal with the human and emotional consequences of a major work force reduction. Such reductions are a regular feature of the corporate landscape and can be handled in a caring manner if management so chooses. Due to the intense emotions evoked from job loss, the authors argue that the Charon Response is an appropriate and humane act by management. However, it will not be implemented unless management is willing to confront the emotional aspects of this issue. To understand the centrality of emotions, selected lines of poetry have been included in the text.

Introduction

For the ancient Greeks, the souls of their deceased citizens were ferried across the infernal river Styx by the boatman Charon. He was a terrifying figure for a gruesome job. Mythologically, his parents were Erebus (darkness) and Nyx (night). He performed his duty promptly for those whose burials had been properly undertaken. A proper burial entailed the placing of a small coin in the mouth of the deceased. This small coin paid Charon his fare and entitled the deceased's soul passage from this world to the next. If the coin had not been placed in the corpse's mouth, then Charon refused to transport the soul for a hundred years. A soul denied passage to Hades, thus, remained among the living, who were then haunted by this spirit from an improperly buried body. At the end of the hundred years, Charon ferried the wandering and haunting souls to Hades at no charge.

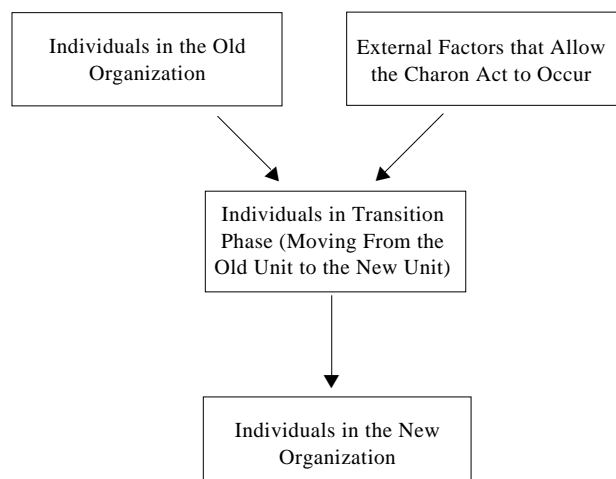
We have chosen this myth of the Charon Response to death as the analogy for our discussion of organizational death. The myth highlights some of the critical elements that impact the organizational death issue, an issue that is becoming even more important in the face of a reality that involves increasing international competition, rapid technological change, and shifting market conditions. (Department of Labor 1986; Meredith 1987; Naisbitt 1982.)

Changing reality, as noted above, makes organizational death relevant to both practitioners and academics. In

light of its relevance and urgency (Cappelli 1992; Cascio 1993), our discussion of organizational death (in this paper only death, i.e. plant or business closings, will be considered) is centered around the following propositions:

1. It is an actuality that should be contemplated and prepared for by all businesses and institutions.
2. The soul of an organization, and all organizations, resides in its employees, its people. Their spirits comprise an organization's soul.
3. An organization's death is a highly traumatic experience for the employees who will have to make a major transition in their lives.
4. A Charon Response (see Figure 1) is necessary for helping employees make the transition from a dying organization to a living one.
5. Funds must be expended if the transition is to succeed with minimal pain to the employees and to other organizations.

Figure 1
The Charon Response Toward Individuals



Before beginning our discussion of the Charon Response, we feel obliged to say a few words about our decision to use a mythological figure as the unifying theme in this article. Some readers may think an old Greek figure has nothing to offer us. Perhaps, they are right, but maybe not. Remember that other old Greek figure named Plato. He got to the essence of his concern in the Republic by using a story about being in a cave with light entering through a passage and shadows appearing on the wall and then leaving the cave to bask in the true light. The story was not real; it was simply a vehicle for stimulating thought. Stimulating thought is also our desire. Therefore, we chose this myth as the integrative theme because we wish the readers to think about the organizational death issue in a manner that recognizes its confounding perplexity and that respects the humanity of those who must face it.

...think about the organizational death issue in a manner that recognizes its confounding perplexity and that respects the humanity of those who must face it.

Regarding the confounding perplexity of organizational death, everyone recognizes its increasing occurrence as firms throughout the developed world restructure in order to achieve more efficiency. But this efficiency, measured as return on assets or labor productivity, requires the elimination of jobs. Our concern is when jobs are eliminated by closing complete facilities, which is termed organizational death. Its confounding perplexity can be seen in recent articles (*Wall Street Journal*, 25 October 93; *WSJ* 1 October 93; *WSJ* 21 September 93; *WSJ* 14 September 93; *WSJ* 3 September 93; *WSJ* 18 June 93; *WSJ* 16 June 93; *WSJ* 5 May 93; *WSJ* 19 April 93) whose authors are at a loss when trying to cope with both the emotional trauma and the economic uncertainty arising from the demise of an organization and its jobs.

The economic uncertainty issue clearly seemed more pressing in November 1993, as organized labor pushed vehemently to defeat the North American Free Trade Agreement. Their fight, which they perceived as a battle to keep their plants alive in the United States, centered around organizational death. They refused to accept it. We, however, are convinced that it is an unavoidable outcome that needs to be anticipated and planned for with a Charon Response. The discussion that follows is couched primarily in human terms with the economic issues mentioned briefly in the concluding section. The subordination of economic matters is being done for two reasons. First, it is in keeping with the person-centered

approach taken by other scholars studying the same phenomena (Brockner, Grover, Reed, and Dewitt 1992). Second, it is based on our belief that being convinced of the necessity of a Charon Response must precede a discussion of how to fund it. Funding is not a critical issue (immense sums are not required) once a society believes a humane response is needed.

Organizational Death Is An Actuality

Organizations die. Most new business ventures cease to exist after several years. The composition of the Fortune 500 changes each year and changes dramatically from decade to decade. Only a handful of the Global 500 companies have roots that go deeper than the 19th century (Stopford 1983). Researchers have indicated that organizations die frequently, even during good economic times. As an example, one study has shown that out of a sample of 12,449 American manufacturing plants that existed in 1969, 30 percent were closed by 1976. Another study revealed that 90 percent of Federal agencies disappear within 20 years of birth—suggesting that organizational death is also common in the public sector (Sutton 1985). In fact, one can argue that organizational death is almost a certainty. In the state of Texas during 1986, this was definitely true (Texas Comptroller of Public Accounts 1987). Why organizations die is beyond the scope of this essay, but perhaps it can be understood partially from how an organization is defined.

If we think of an organization (the term organization is being used broadly in this paper; it can be a plant, a business, or a corporation) as a coordinated coming together of people to achieve a purpose, then we can begin to see that there are numerous possible causes of an organization's death. It can be due to a lack of coordination, to no people willing to come together, to a weak achievement motivation, or to a misdirected purpose or strategy. The roots of these causes are not always internal to the organization. They can stem from events in the macroenvironment or the industry, e.g. a change in governmental regulation. Either one or several of these causes will result in an organization's demise. Whatever the cause, organizations do and will cease to exist.

Though they know they are dying, they still resist it. That is, the humans within the organizations resist and protest the death of their organizations. Perhaps they should resist. After all, a vital part of them is ending forever. As the poet Dylan Thomas wrote:

*Do not go gentle into that good night,
Old age should burn and rave at close of day;
Rage, rage against the dying of the light.
Though wise men at their end know dark is right,
Because their words had forked no lightning they
Do not go gentle into that good night.*

It is this resistance to death, either human or organizational, that has perhaps blocked our vision along with our organizational research and studies to the certain reality of organizational death. However, it is the logical extension to the venerated product or organizational life cycle that has been accepted and examined thoroughly in terms of introduction, growth, and maturity but only occasionally in terms of decline and death. One could argue that the biological analogy from which the organizational life cycle emanates does not apply to organizations across the entire cycle. Granted, organizations are not biological creatures. However, such an argument would need to demonstrate that organizations have biological characteristics in their earlier phases and non-biological features in their later phases. No one has made such an argument (accountants generally assume an on-going entity), and as international business competition becomes more and more intense, there is less likelihood that the argument could be made. Increasing competition on a global scale has raised the specter of organizational death even higher, and one can expect more, not fewer, plant closings and corporate bankruptcies. Thus, logical consistency and recent events dictate that we overcome our resistance to organizational death and learn to deal with it as an actuality of organizational life.

People Are The Soul Of An Organization

An organization is not a biological creature, yet it has a 'life.' But it only has a life metaphorically speaking (Haire 1959; Weick 1979; Chakrovarthy 1982). In reality, an organization is more like its business synonym, i.e., a corporation. The latter is a legal entity; its root word is *corpus* meaning body. The organization takes on life, becomes an animated body when people enter it, and begin to accomplish tasks. People—human employees—are the spirits that give life to the organizational corpus. They provide it with life; their spirits give it a soul. Therefore, the life and death of an organization really revolves around what happens to the people who inhabit it. When they enter it, it lives; when they all leave it, it dies. If only some leave, then its soul is changed due to a reconfiguration of the spirits within the organization. But this living and dying is attributed to the organization by the people who work there. They provide the organizational corpus with a life and a death through their experiences with it. By attributing human-like characteristics to a legal entity, the corporation takes on a special significance to those who work there.

This special significance is attested by the fact that people do attribute human qualities, i.e., life and death, to an organization. Employees act as if their corporation did, in fact, exist. They attribute life to it, and this attributed life makes the organization alive and special in their thoughts and feelings. Organizational life and death then are not real in a biological sense, but they are real in an

intellectual and emotional sense. They are real in the minds of the people who work in the organization because, by being there, they have made it real and significant; and they treat it and think of it as such.

Having people in an organization provides it with life. Removing them from it terminates its life. People are an organization's life. The organization is not their life. Remove the people, and the organization dies. Its soul terminates. Remove the organization, and the people continue to live. Therefore, the people are the undying spirits in an organization. They give it life. Though it dies when they leave, they go on living. The people then are the entities that must be attended to when the organization ceases to exist. They are the spirits which require ferrying from one organizational world to another one.

Organizational Death Is A Traumatic Experience

The idea that a dying organization's spirit—its employees—must be ferried to another organization stands in sharp contrast with traditional capitalism. The latter has contended that each individual owned, hence was responsible for, his or her labor. The individual was to take care of and to maximize his or her labor efforts. This was not to be a societal concern or a stockholder responsibility. However, we contend that displaced employees are a societal and organizational concern, especially when an organization is only closing down one of its sub-organizations, e.g., a plant. This point will be elaborated upon later. For now, we want to present a case for the Charon Response to organizational death that is based simply on the desire to act humanely toward people who are experiencing a traumatic event.

When an organization dies involuntarily, i.e. a plant closing, the people in that organization suffer. Being a member of a dying organization is a traumatic experience. In fact, the trauma is similar to the trauma faced when a loved one dies (Stolte 1969; Ingrassia 1982). Kubler-Ross (1969) has noted that people go through five stages as they confront the death of a loved one. The stages are denial and isolation, anger, bargaining, depression, and acceptance. These stages are also experienced and passed through at different rates by members of a dying organization. That similarity evokes the use of the term organizational death for describing the termination of a business or an agency. Organizational death hurts just as a human death hurts. The survivors are pained, shocked, angered, and confused (Harris 1987). A significant part of life has ended. Besides this suffering, there is the fear that arises from the unknown. There is uncertainty about how the basic needs, i.e., physiological, security, social, esteem, and self-actualization, will be satisfied (Maslow 1954).

A dying organization renders some of its employees helpless, at least temporarily. During this period of helplessness, people can do things that, at the time, seem

'sensible' to them but which over the long-run are harmful. The extreme reaction is suicide. Another extreme reaction is physical abuse of one's family. Less extreme but still destructive to the people involved in a dying organization are the depression and guilt that result in physical ailments, and finally there can be acted out anger toward the company. All these reactions are the signs of people who have been traumatized. Dying organizations cause suffering and necessitate transitions that must be handled appropriately to avoid the extreme reactions manifested in most plant closings.

In a recent article for management practitioners, (Bridges 1986) has discussed how organizational leaders can handle what he calls organizational transitions (organizational death is one aspect of a transition though it is not the main focus of Bridges' discussion). A transition is a dramatic and traumatic happening that entails a three-part psychological process for those affected by it. The three phases are:

1. letting go of the old situation and (what is more difficult) of the old identity that went with it
2. going through the 'neutral zone' between the old reality and the new reality that can only be dimly perceived
3. making a new beginning, a new life that is much more than a simple change; it is more like a rebirth

Bridges argues that organizational leaders overlook and do not plan for transitions, and hence, their organizations fare poorly in the face of transitions. We contend that organizational death is a transition that must be undertaken correctly in order to reduce human suffering also.

The act of alleviating human suffering is a moral imperative, not an economic one. Managers are faced with maintaining a balance between economic performance and meeting the organization's social responsibilities. Managers must be concerned with public expectations and requirements affecting the functioning of their organizations. Unless companies develop a positive public image, the degree of freedom corporations have come to enjoy may prove to be a fleeting phase in the history of American commerce. The actions of an ethical manager, who takes a Charon Response to organizational death, reduce human suffering because those acts assist employees in transitioning from a dying organization to a living one. The Charon Response does not allow the spirit (the employees) of an organization to wander aimlessly outside of an organizational body. To permit this threatens the existence of employees in the short-run and society in the long-run. The moral and ethical imperative is to help both employees and society.

As just stated, society expects socially responsible performance from business corporations and other organizations in return for the right to exist. These expectations are not fixed, however, and increasing

demands are being made upon all organizations, especially business corporations. The plant closing law that went into effect in 1988 is now being evaluated and may be made more stringent in light of its shortcomings (WSJ 14 Sep 93). While some socially desirable activities are profitable, many are costly to the corporation. Profits are essential if a corporation is to invest substantial amounts in programs for the public good. Nevertheless, within the limits of their financial resources, corporations can choose to do little or much (Pringle, Jennings, and Longnecker 1988).

...transitioning of employees from a dying organization to a new beginning is an important aspect in the organizational death process.

In essence, we argue that the transitioning of employees from a dying organization to a new beginning is an important aspect in the organizational death process. The successful implementation of this transitioning, the Charon Response, has been a missing link in responses to organizational death. If the link is in place when an organization dies, then the employees can be much better assisted through the vulnerable 'neutral zone.'

The Charon Response Explained

Before describing the Charon Response in detail, we want to reveal how our research and thinking has evolved as it did. In November of 1985, General Tire, the largest manufacturing employer in Waco, Texas, announced that it would close its plant the following July. This meant that more than 1400 employees would be without employment within seven months. The initial shock and surprise soon gave way to a plant closing effort that some individuals (both at the state and federal levels) have described as a textbook example of how to close a plant. Being university researchers, we became involved in the closing effort as observers only, i.e., retrospective interviews were conducted with all the major participants in the effort. Our qualitative research methods have been influenced very much by Mintzberg (1979) and Glaser and Strauss (1967). Our initial interest was piqued by the paucity of research literature about the topic and by the apparent contrast between the positive results from the Waco plant closing and the lackluster results from a much earlier Michigan plant closing reported by Taber, Walsh and Cooke (1979). Both closings can be described as community-based programs. Yet they had quite different outcomes.

Toward the end of our year of interviews, we became acquainted with Hansen's work (1984 and 1986) regarding a highly successful closing of a Ford plant in California. His findings were corroborated by Yoder and Staudehar (1985). Many of the things we observed in the successful General Tire plant closing were also present in the very successful Ford plant closing. None of the people we interviewed ever mentioned the Ford closing though it is possible that some of them may have known about it. Such knowledge would not invalidate our results. The finding of so many similarities between the two studies, which were conducted completely independent of each other (in research terms this is akin to multiple raters using multiple methods), has reinforced our thinking about the Charon Response as the appropriate reaction to an organizational death.

Prior to the announced closing of the General Tire plant, there had been little reason to suspect that the plant would be closed. It was an old plant making bias-ply tires, but the company and the union had signed a new labor agreement earlier in 1985 that had stipulated certain concessions by the employees. There was hope that these concessions, along with improved manufacturing practices in the plant, would allow the Waco operation to remain competitive against both domestic and imported tires.

Foreign-produced tires were viewed as the major culprit in the plant closing. However, until the closing announcement came, there had been scant attention paid to the 'foreign' threat. [To call foreign-produced tires a threat is somewhat ironical since General Tire itself had opened twelve of its sixteen new foreign plants during the 1946-75 period in developing countries (West 1985).]

Placing blame on imported tires made the closing process happen more smoothly. Imported tires became the scapegoat; thus, no one who would be involved in the closing could be singled out and blamed for what had happened. If any of the involved parties had been chided for the closing, then that party would probably not have been inclined to participate in the strenuous and difficult task of closing the plant.

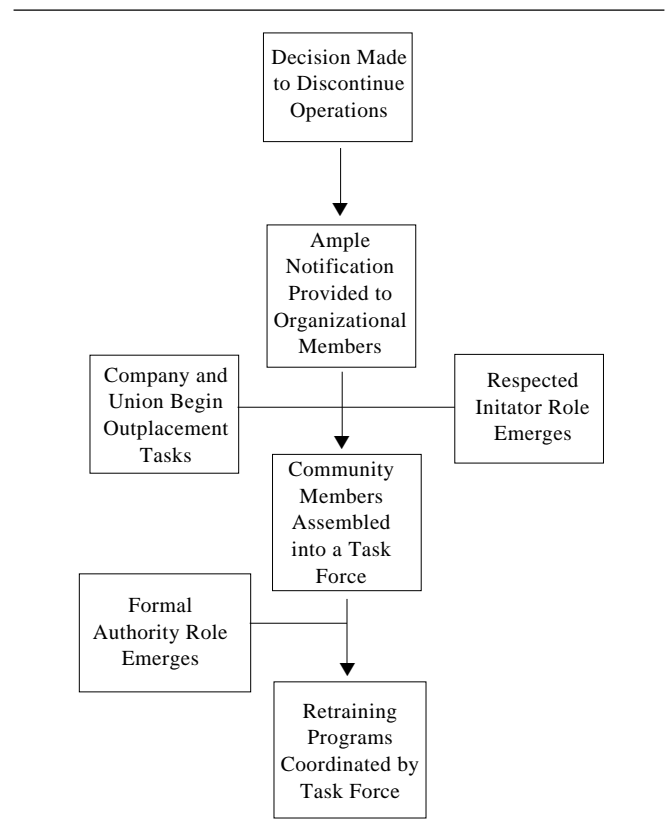
Several days after the closing announcement on 5 November 1985, a group of city officials and leaders flew to Akron, Ohio, headquarters of the parent company, as a symbolic gesture. No one seems to have felt that the effort could dissuade the company from closing the plant, but the effort was made anyway. Why was this futile effort undertaken? There are two possible explanations. The first involves the politician's obligation to take care of constituents. Political leaders must show concern if they intend to remain in power. The second comes from the already mentioned natural resistance to death—in the face of death most mortals seek a reprieve, even a miraculous one.

With no reprieve forthcoming, the company, the union, and the community were compelled to undertake the plant

closing. Within three months, a multi-faceted program was designed and implemented that involved the following major participants:

1. the workers and their union
2. the plant and its managers
3. the corporation in Akron (its involvement was through financial support)
4. the local city government
5. the chamber of commerce
6. two local educational institutions
7. the state education agency
8. the state employment agency
9. a special coordinating team from the governor's office (this team had representatives from five state agencies on it)
10. the federal government in the form of regulated funds available through the Job Training Partnership Act and the Trade Adjustment Act
11. a regional unit of government within the state.

Figure 2
The Charon Response



With so many involved participants, the program became a ‘bureaucratic nightmare’ as it was described by one participant. The numerous agencies had multiple agendas which often conflicted. In order to work through this ‘nightmare,’ a community task force was given the onerous task of coordinating the outplacement effort for the soon-to-die plant. Even with the task force, it became necessary for a formal leader, a manager from state government, to emerge and give orders from time to time. The task force and its outplacement effort are at the heart of the Charon Response as depicted in Figure 2, which will be discussed more fully in a moment.

Initially, the Charon Response that assisted the employees in their transition from General Tire to new organizations was undertaken by the company and the union. Their efforts are listed in Table 1. As noted there, 96 percent of the employees used some of the assistance provided by the program.

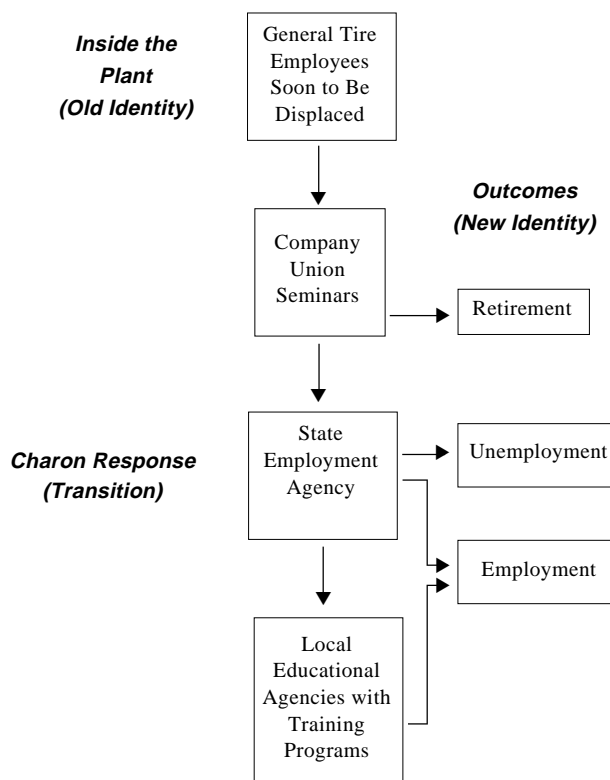
Of the actions cited in Table 1, A–E are company/ union-sponsored actions with some outside assistance brought in for implementing the seminars. These actions emanate from the old organization which constitutes the individual’s old identity. However, in terms of the transition described by Bridges, they are telling the individual that he or she must let go and move into the neutral zone. This is what action “f” of the employment agency represents. The state employment agency comes from outside the old organization, though temporarily placed inside it, and assists people through the neutral zone and into a new identity, i.e., another organization for those seeking employment.

Table 1
Preparatory Steps for the Charon Response

- A. Surveys mailed to all employees (the purpose of the surveys was to identify employee needs and interests)
- B. The survey results were the given to the employees and programs were designed for them in light of those results (96% of the employees used one or more services).
- C. A communication program was begun with mailings, newsletters, a company paper, bulletin boards, and meetings.
- D. A job search assistance program was started. It included help in writing resumes, practice interviews, a special place in the plant offices where employees could obtain information about jobs in other communities, letters sent to employers within the area, advertisements in regional newspapers, and two WATS lines for employees to use in looking for jobs in other cities.
- E. Numerous seminars that primarily focused on new careers and training, stress (both individual and family), financial matters, and company matters (e.g. benefits) were designed and provided.
- F. There was a satellite office of the state employment agency established in the plant prior to the first layoffs.

The satellite office provides the needed link between the employees inside the plant and the jobs and programs (leading to jobs) outside the plant. This link is necessary if the Charon Response is to be an effective one. This is due to the resources and information controlled by the state employment agency. This agency has the computer network that shows where there are jobs in the state, administers and interprets the aptitude test required for all retraining programs, oversees the expenditure of most retraining funds, and handles claims. The criticalness of the agency upon the process can be visualized in Figure 3.

Figure 3
The Criticalness of the State Employment Agency



A final note about where the retraining should take place is needed. In the General Tire plant closing, it has not taken place in the plant. Two local institutions approximately ten miles from the plant were used as the sites for retraining. In the Ford plant closing described by Hansen, the plant and a nearby location were used. Because that closing seems to have been more successful, i.e., there was less suffering, and due to Bridges’ contention that employees were more vulnerable in the neutral

zone, we believe that an in-plant retraining effort is preferable. However, we recognize that such an effort is more costly and offsite training is better than no retraining. No retraining is equivalent to providing no coin for Charon, and that is totally unacceptable if the desire is to act morally toward the displaced worker.

Charon's Fare Is Necessary

To summarize, the Charon Response to an organizational death is a dedicated effort by the company, the union (if there is no union, then a group representing the employees is needed), and the community (including local, state, and federal agencies) to alleviate the trauma experienced by displaced employees. To reduce that suffering, the entities involved in the response need to be committed to helping the employees go through the transition from the old organization and identity to a new organization and identity. As matters now stand in the United States, a Charon Response is only possible if numerous agencies work together as a task force to assist the employees of the dying organization. The Ford plant closing in California is an exception to the task force requirement because of the 1982 agreement between Ford and the United Auto Workers. That agreement served as the formal authority in the shutdown by requiring a joint company-union effort and by obligating Ford to establish a special fund for plant closings and worker retraining. Only in special cases such as this one can the broad-based task force be streamlined into a single entity similar to the mythical Charon.

Funding requirements then are one reason for the task force. Without a coin, Charon did not ferry the souls to the next world, and without special funds the Charon Response cannot be made on behalf of the organization's members. A task force, if sufficiently committed, can obtain the monies that will pay for helping displaced workers through the transition of an organizational death. But conditions as they now exist make its onerous job even more difficult.

It seems to us that funding could be made more readily available through a special Charon tax. In the United States, employers now pay taxes for other unwanted eventualities, e.g., unemployment and workmen's compensation. If we could accept the actuality of organizational death, then perhaps we would be more willing to put money aside to care for ourselves when the unwanted does indeed happen. However, this caring must not be so overwhelming that it creates disincentives to finding future employment. If one is opposed to another tax, then companies or unions (if there is one) should consider establishing a Charon fund. The Ford-UAW example illustrates the soundness of this approach. Ford contributed \$.05 per hour per employee to its fund. The amount needed for the effort is not that much. Either approach

appears more efficient than the status quo, which requires scratching for funds from multiple sources with myriad conditions.

The exact amount spent by General Tire in Waco is not clear. The company officials tended to inflate the amount of their contributions. Our best estimate, and it is a guess, is that less than \$5 million was spent overall.

Making a Charon Response to an organizational death is the humane thing to do. It assists the displaced worker through a difficult transition. In addition, we believe that the response will also benefit society and the parent corporation in the case of a plant closing. If our society is indeed a society of organizations as Scott and Hart (1979) contend, then we wonder what kind of souls those organizations will have in the future if the employees—the real spirits of an organization—are ill-treated when their current organization dies. Is it not possible, after thousands of organizational deaths during the next twenty years, that there may only be millions of distraught spirits remaining in the organizations which constitute our society? Such a possibility, supported by recent survey data (*WSJ* 3 Sept. 93), should be avoided at any cost.

In terms of parent corporations with multiple operations, their future tasks, which require societal legitimacy, could be made easier if they would respond appropriately to today's cutbacks. Thelen (1987) has shown that codetermination in the German steel industry has made the necessary reductions in capacity go more smoothly, not less smoothly. The Charon Response, which involves the employees in the last, vital act of a business, should have a positive impact on the remaining personnel and the community. In studying downsizing in the automobile industry, Cameron, Freeman, and Mishra (1991) found that the best practice included Charon-like responses and did yield positive benefits to the remaining parts of the organization.

By implementing the Charon Response, we can say as Rilke said to the spirit in *Requiem*—

Come into the candlelight. I'm not afraid to look the dead in the face. When they return, they have a right as much as other things do, to pause and refresh themselves within our vision.

Not to implement the Charon Response means we must say as Lawrence exclaimed in *The Ship Of Death*—

*Oh build your ship of death. Oh build it!
For you will need it.
For the voyage of oblivion awaits you. ■*

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About the Authors

Van Miller is an Assistant Professor in the Department of Management and Marketing at the University of Dayton. His current research interest focuses on the *notion* of spirituality in business.

Daniel F. Jennings is the W.A. Mays Professor of Entrepreneurship and Strategic Management in the Management Department at Baylor University. His research interests are corporate entrepreneurship, organizational adaptation, and group dynamics in ethical decision making.

Should Employment Application Fraud Affect Discrimination and Wrongful Discharge Lawsuits?

Robert J. Walter, *St. Cloud State University*

Abstract

Several U.S. Courts of Appeals have recently decided cases involving the impact of employment application fraud on discrimination and wrongful discharge suits. These cases are initiated by a terminated employee who sues his former employer claiming the termination was discriminatory or in some other way wrongful. What if it is discovered that the employee, during the employment application process, lied about his work or education history? Should this fraud impact the employee's discrimination or wrongful discharge suit? Terminated employees have argued that they should still be compensated while employers have countered that the employee, because of his fraud, was never rightfully employed and is owed nothing. The U.S. Courts of Appeals, which are one rung below the Supreme Court, have produced conflicting decisions. This paper examines those conflicting decisions and makes recommendations as to how employers can reduce their potential liability from these suits.

Introduction

Discharged employees sometimes sue their former employers claiming illegal discrimination or that their firing was wrongful because of other improper reasons. In the course of preparing a defense to these lawsuits, employers will sometimes discover that the employee lied in the job application process. When an employee fraudulently obtains employment should he still be able to recover compensation for the employer's illegal discrimination or wrongful discharge? This dilemma has recently confronted several courts and the resulting decisions have produced a serious conflict in employment law.

Typically, these cases involve an employee who, in the job application process, has overstated work experience or educational attainment. Later, perhaps years later, the employee is fired for what the employer states are legitimate, work performance reasons but for what the employee claims is illegal—age, race, or sex discrimination, or wrongful discharge for other improper reasons such as whistleblowing for company violations of environmental laws. The discovery of fraud in the job

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application process usually occurs when the employer investigates its former employee's work history. Such an investigation is intended to document the employee's work performance shortcomings and thereby bolster the employer's contention that its firing decision was legitimate. When, in this way, employers have discovered resumé fraud they have argued that any illegal discrimination or wrongful discharge claims should be dismissed. They have argued that if the employee lied in the job application process then the employment relationship was never properly formed. The employee who perpetrates resumé fraud and then is later fired loses nothing because he/she was never rightfully employed. Had the employer known the true situation the employee would never have been hired. If the employer had learned the true situation later, but while the employee still worked for the firm, the employee would have been fired. Employers have argued that where the hiring process has been contaminated by employee fraud, subsequent illegal discrimination or wrongful discharge simply should not matter.

Employees, on the other hand, have focused on the termination decision and have argued that effective enforcement of anti-discrimination laws is of such great importance that earlier resumé fraud should not provide the employer with an escape from responsibility for illegal discrimination. Others have advocated an intermediate position that would permit a defrauding employee a recovery for illegal discrimination or wrongful discharge but would reduce the amount of recovery to reflect the employee's wrongdoing.

This paper examines the current court conflict over whether later discovered employment application fraud should affect discrimination and wrongful discharge lawsuits. Recommendations are provided for employers seeking to limit their liability.

Conflicting Court Cases

In 1992, the U.S. Court of Appeals, 6th Circuit, decided the case of *Johnson v. Honeywell Information Systems, Inc.* The case concerned a woman who had been employed by Honeywell for eight years as a field relations manager. Following her firing, for what Honeywell claimed was unsatisfactory work performance, the woman filed suit for wrongful discharge and violation of state anti-discrimination laws. Honeywell later learned that the woman employee had lied in her employment application. She had claimed to have a college degree while she had actually completed only a few college courses and she had also exaggerated her prior work experience. The advertised job requirements for her position included a college degree and at least 4-6 years employee relations experience.

In its decision the Court of Appeals set out several requirements for using later discovered employment application fraud as a defense to discrimination and wrongful discharge suits. First, the false information must be significant, (2) it must relate directly to measuring the candidate for employment, and (3) the employer must rely on the false information in making its hiring decision. Each of these elements was found in the *Johnson* (1992) case. The Honeywell employee who hired the woman testified that he relied on the truth of her application and that had he known she did not have a college degree, she would not have been interviewed for the position much less hired. To strengthen its decision in favor of Honeywell, the court pointed out that the company's employment application forms warned applicants that "misrepresentations may constitute just cause for termination of employment..." (*Johnson v. Honeywell Information Systems, Inc.* 1992, 414).

As to the woman's claim under state anti-discrimination laws, the federal court determined that she should receive no compensation even if she could prove that she was the victim of illegal racial discrimination. In its decision the court relied on the reasoning of a 1988 case, *Summers v. State Farm Mut. Auto Ins. Co.* Although that case did not involve employment application fraud it was similar in other respects. A State Farm claims representative had been fired, the company said, because of poor attitude and inability to get along with others. Following his firing, the employee filed suit for illegal age and religious discrimination. Nearly four years later, State Farm discovered numerous company records that the employee had falsified. The U.S. Court of Appeals, 10th Circuit, compared the employee's situation to that of a company doctor fired because of his age, race, religion, or sex; and the company, in the course of defending a discrimination suit, discovering that its former employee was not a doctor. The court said, "the masquerading doctor would be entitled to no relief, and ... (State Farm's employee) is in no better position" (*Summers v. State Farm Mut. Auto, Inc. Co.* 1988, 708).

An example of a case that follows the Johnson approach can be found in *Mulligan-Jensen v. Michigan Technological Univ.* (1992). A university security officer, who had omitted a prior driving under the influence conviction on her employment application, sued for sex discrimination after she was fired by the university. The security officer's deception wasn't discovered by the university until after her firing. At the trial, it was determined that if the security officer's fraud had been discovered during her employment she would have been fired. Therefore, it was "irrelevant" whether she was discriminated against because "she suffered no legal damage by being fired" (*Milligan-Jensen v. Michigan Technological Univ.* 1992, 302).

The U.S. Court of Appeals, 7th Circuit, has taken a quite different view of employment application fraud's affect on discrimination and wrongful discharge lawsuits. In a 1993 case (*Kristufek v. Hussmann Foodservice Co.*), a personnel manager who had been fired brought an age discrimination suit against his former employer. The personnel manager had been terminated for opposing the discriminatory firing of an older employee. A year after the firing, the employer discovered that its former personnel manager had lied in his initial employment interview by stating that he had a college degree while having completed only about one year of college courses. Rather than focusing on the hiring decision fraud, the court stated, "A discriminatory firing must be decided solely with respect to the known circumstances leading to the discharge" (*Kristufek v. Hussmann Foodservice Co.* 1993, 369). The only question that matters then is the legality of the termination decision and its legality is dependent on what was known then not what was discovered later.

Also, the court responded to the *Summers* (1988) case hypothetical of a doctor fired for a discriminatory reason. What if it later became known that the individual wasn't a doctor? The court distinguished its case by stating that a college degree in business administration (what the personnel manager had claimed to possess) would not be as critical a job requirement. After all, the court pointed out, the terminated personnel manager had, without the degree, performed satisfactorily for the five years he worked for the company.

The court also addressed the company's policy that employees were subject to discharge for falsifying job qualifications. That policy was weaker than one requiring discharge and so was not enough to refocus the issue from the termination decision to the hiring decision.

Last, the court considered the personnel manager's monetary damages. While the court would not let the employment application fraud prevent employer liability, it was willing to limit the damages recoverable. It ordered the trial court to reduce the personnel manager's jury award of back pay and attorney's fees, over \$200,000, to end with the discovery of the personnel manager's fraud.

Another U.S. Court of Appeals, the 11th Circuit, recently faced the question of how employment application fraud should affect discrimination suits (*Wallace v. Dunn Const. Co., Inc.* 1992). In the *Wallace* case a discharged, construction company worker sued her former employer for sexual harassment. While preparing for trial, the employer discovered that its former employee had lied in her employment application by concealing a prior drug possession conviction. The court criticized the *Summers* (1988) case reasoning, advocated by the employer, by saying that it permits unlawful discrimination to go unremedied. It pointed out that absent *Summers'* age and religion, he would have remained employed for at least some time period after his firing. Even so, the court in the *Summers* case denied any monetary recovery. *Summers* approach, the court feared, gives an employer "the option to escape all liability by rummaging through an unlawfully discharged employee's background for flaws and then manufacturing a 'legitimate' reason for the discharge that fits the flaws in the employee's background" (*Wallace v. Dunn Const. Co., Inc.* 1992, 1180).

On the other hand, the 11th Circuit Court of Appeals believed that later discovered employment application fraud should affect the discharged employee's monetary recovery. Both the 7th and 11th Circuits have adopted a case-by-case approach for determining a discharged employee's monetary recovery. In its case-by-case assessment, a court may consider the magnitude of employee fraud and where great may provide only a nominal monetary payment. Also, the seriousness of the employer's discrimination or other wrongdoing can be considered in determining a payment amount that both compensates the employee and appropriately punishes the wrongdoing employer (Brown 1993). For example, the 7th Circuit Court of Appeals in *Kristufek* made its determination of damages after concluding that lying about having a business administration degree for a position as personnel manager was "not so critical as to cancel out the statutory penalty for a discriminatory firing" (*Kristufek v. Hussmann Foodservice Co.* 1993, 370).

A search for reported state court cases examining how employment application fraud affects discrimination and wrongful discharge lawsuits produced almost no cases. Because most discrimination suits are based on claims that federal laws were violated, and the federal courts are open to hear such suits, the conflict over employment application fraud's effect has appeared almost exclusively in the federal courts. However, in the future this conflict may spill over into the state courts through cases claiming violations of state anti-discrimination laws or wrongful discharge. In a 1992 case (*Lavat v. Fruin Colnon Corp.*), an Illinois appeals court decided a wrongful discharge suit brought by a former employee claiming his firing was motivated by earlier whistleblowing efforts to the Nuclear Regulatory Commission. The employer responded by

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saying that the employee was fired because he had lied on his resumé. The employee's deception was apparently discovered during a routine audit of many employees' qualifications. Unlike the federal cases examined earlier, the resumé fraud was discovered before the employee was fired. The state appeals court determined that the employee's firing was because of the resumé fraud and not as retaliation for whistleblowing and dismissed the employee's suit. Had the resumé fraud been discovered after the employee's firing the Illinois state court could have been presented with the question of what affect such later discovered fraud should have on a wrongful discharge suit.

Recommendations For Employers

1. Employment applications should warn of mandatory discharge for false information. "May be" or "subject to" discharge is not strong enough language. When employment application fraud is detected the applicant should not be hired and, if already hired, should be terminated. This policy should be consistently applied in order to avoid discrimination charges or claims that the policy has been waived by different treatment of others.
2. Information in applications should be verified before hiring. In particular, an applicant's periods of employment with specific firms, description of former jobs' work duties, reasons the applicant left former jobs, and criminal and education records should be checked for accuracy.
3. Firms that require employees to update employment application data, such as education or criminal records, should verify the accuracy of the information provided. Schools should be contacted for verification of educational achievement and public criminal records checked to ensure that the employee has not omitted recent criminal convictions.
4. Termination decisions should be well documented and based on legitimate, non-discriminatory grounds. Firing for whistleblowing, as retaliation for cooperation with law enforcement agencies or for filing of workers' compensation claims or discrimination claims should be avoided. Even if

the employment application fraud is not accepted as a defense, the employer can still avoid liability by proving that it hasn't engaged in illegal discrimination or wrongfully discharged the employee.

Conclusion

The 6th Circuit Court of Appeals has, in effect, decided that serious employment application fraud will preclude the success of later discrimination and wrongful discharge suits. However, the 7th and 11th Circuit Courts of Appeals have decided that employment application fraud will not prevent the success of later discrimination and wrongful discharge suits but will only affect the monetary amount awarded a discharged employee.

Critics of the 7th and 11th Circuit Courts of Appeals' position have argued that courts are condoning dishonesty by permitting employees who fraudulently obtain their jobs the opportunity to sue following their discharge (Mesritz 1992). Those advocating the 7th and 11th Circuits' position respond that it alone furthers the goals of elimination of workplace discrimination and the compensation of discriminated against employees (Brown 1993). The public policy of prohibition of workplace discrimination, those supporters say, is of greater importance than the interest of employers in avoiding suits brought by former employees who fraudulently obtained their jobs (Mesritz 1992).

The choice between the Appeals Courts' different positions as to employment application fraud's affect on discrimination and wrongful discharge lawsuits is a difficult one. However, only the 6th Circuit's position protects the integrity of the employment application process. Should the 6th Circuit's position be adopted more widely, it is unlikely that employers will be tempted to practice discrimination or other wrongful discharge on the chance that they can avoid liability by detecting earlier employment application fraud. Federal and state anti-discrimination laws are sufficiently comprehensive and potent to deter most employers from actions risking discrimination charges. The 7th and 11th Circuit Courts of Appeals are sending the wrong message to employees. It is a message that encourages employment application fraud by minimizing the adverse consequences of that fraud. For these reasons, should the U.S. Supreme Court consider the question of employment application fraud's affect on discrimination and wrongful discharge suits, it is hoped that the Court will adopt the 6th Circuit position. ■

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About the Author

Robert J. Walter is Professor of Business Law at St. Cloud State University, St. Cloud, Minnesota. He is the author of numerous articles which center on employment and corporate law issues.

Industrial Trade Shows: A Review of What We Know

Paul Herbig, *Texas A&M International University*
Brad O' Hara, *Southeastern Louisiana University*
Frederick Palumbo, *Yeshiva University*

Abstract

Industrial trade shows are the second most widely used promotional tool in the marketing mix for industrial firms, ranking after personal selling but well ahead of advertising and direct mail. Use of this medium continues to grow in number of shows, number of companies exhibiting, and dollars spent by vendors. Yet, with few exceptions, little research has been performed on trade shows. This paper reports results of a study, discusses the value of trade shows to an industrial firm's performance, and offers recommendations.

Industrial Trade Shows

Trade shows, expositions, scientific/technical conferences, conventions—the name may vary but their basic function represents a major industry marketing event. They are “events that bring together, in a single location, a group of suppliers who set up physical exhibits of their products and services from a given industry or discipline” (Black 1986). In 1988, in the United States, over 100,000 firms exhibited at some 11,000 business trade shows and spent over \$9 billion. This can be compared to 91,000 firms in 1982 that exhibited at 8,000 trade shows at cost of \$7 billion. During the period 1980-1990, the number of trade shows climbed from 4,500 to 10,000. The recession of 1991-1993 slowed but did not stop the growth of this medium. Growth of exhibit space averaged nearly 15 percent annually during the seventies, slowing to a smaller but sustainable 7-8 percent during the eighties. However, the 1991-1993 recession cut growth to 3 to 4 percent.

Show visitation has reached fifty million and the available fifty-three million square feet of space is used several times over every year. More than half of all industrial shows sell out all available exhibit space—in 1990, two million square feet could not be accommodated. Demand for space has been predicted to more than double over the next decade. *Comdex 1990* with 118,000 attendees from over 100 countries, 1,850 companies, 2.2 million square feet of exhibit space and over 1,900 accredited press from throughout the world in attendance may look

massive but pales in comparison to Germany's *Hanover Fair* with its over 400,000 attendees and nearly 5,000 companies. Despite the large numbers in the U.S., the trade show medium plays a much larger role in Europe and other foreign countries. For example, European exposition expenditures, as a percent of a company's total media budget, are around 22 percent compared to 5 percent in the U.S. Average attendance at the top 100 events in Europe approaches 77,000 visitors versus about 22,000 in the U.S. (*Trade Show Bureau Newsletter* June 1992).

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Trade shows accounted for over 20 percent of the U.S. business market promotional budget, second only to personal selling activity and ahead of print advertising and direct mail. United States businesses annually spend approximately \$9 billion for exhibitors' travel and labor costs and \$12 billion for exhibit costs (1984 U.S. numbers only). The Trade Show Bureau estimates the industry itself generates \$50 billion a year. This figure grew by almost \$1 billion a year during the late eighties. The number of firms exhibiting at the 200 largest trade shows grew 7.7 percent between 1986 and 1987. During the seventies the number of new exhibitors increased at an average annual increase of 3-4 percent, while in the eighties it has exceeded 7 percent annually (Mee 1988). Attendance at the major shows increased an average of 3 percent per year during the seventies, rising to more than 6 percent during the eighties. Even through the recession of the nineties, growth continues, although at a much slower, reasonable, maintainable rate.

During the same time, the annual budget allocation for trade shows by an industrial firm increased from \$73,000 in 1978 to \$212,000 by 1987. Trade shows rank second only to on-site selling in influencing buying decisions of industrial purchases (Parasuraman 1981; O'Hara 1993). Nearly 44 percent of trade show visitors travel more than

400 miles to shows and spend more than \$300 per person in transportation costs alone to attend the show. The average trade show attendee spends nearly \$1000 per visit.

Methodology

Data was collected by mail survey of American businesses. A cover letter with university letterhead was utilized to provide legitimacy. A large media corporation with a high level of trade show participation provided 2,500 labels containing names selected at random from their data base of U.S. domestic trade show users/interested parties. After expunging duplicates and multiple listings, 2,000 surveys were mailed. As the company desired to be anonymous, no sponsorship was mentioned. Surveys were individually addressed. The comprehensive survey comprised four parts: domestic trade show questions (users with no trade show activity within the last two years were asked to fill out part three on non-usage), international trade show items, part three on non-exhibitors, and organizational characteristics. Measures for the questions (effectiveness, objectives, reasons, etc.) were obtained from those used in previous studies, the authors' own experience, and comments from pretest users. The list of choices was comprehensive.

Of the 240 returned surveys, 204 were usable, resulting in a response rate of over 10 percent. As the survey was eight-pages including a cover letter and an organizational characteristics page, considerable time was involved. This could have contributed to the low response rate. The actual number was deemed adequate and no follow-up mailing was made. Organizational respondent profiles can be viewed in Table 1.

Respondents were classified into three categories. Those who had not exhibited during 1991-92 and had no plans to do so in 1993 completed the "Non-exhibiting" section (these filled out the non-exhibitor section and the organizational demographics section). A second group termed "Domestic," who only exhibited at domestic shows during the same timeframe and did not plan to do any international exhibiting during 1993, completed the general section as well as the organizational demographics section. The third group was "International" exhibitors who had exhibited internationally during 1991-92 or planned to do so during 1993. This paper only reports and analyzes the information received from those exhibiting at trade shows, the second and third groups; non-exhibitor responses, were excluded. Table 1 indicates the number of respondents in each group. Respondents were primarily manufacturers, industrial-oriented firms, with a domestic/North American bias.

Although 204 respondents were received, forty-two were non-exhibitors. Since this study was concerned with reporting and evaluating trade show criteria, the number of relevant respondents was 162. All percentages and results were derived from this sample.

Table 1
Organizational Demographics of Respondents

	#	%
a. Trade Show Usage		
Not exhibiting	42	20
Domestic only	85	42
International Exhibitions	77	37
		204
b. Type of Business		
Manufacturing	157	
Services	46	
c. Customer Type		
Industrial	115	
Consumer	71	
d. Area of Operation		
Domestic US	125	
Worldwide	68	
e. Size of Entity		
Small (under \$10M)	72	
Medium (\$10-250M)	56	
Large (over \$250M)	55	
f. Years in Business		
New (1-10)	38	
Young (11-20)	49	
Mid (21-50)	72	
Mature (50+)	44	
g. Affiliation		
US-Public	63	
US-Private	109	
Foreign	31	
h. # Product Lines		
Few (1-5)	74	
Some (6-10)	62	
Many (>10)	67	
i. # Customers		
Few (1-99)	41	
Lots (100-500)	60	
Many (>500)	112	

Results

Who Exhibits at Industrial Trade Shows?

Exhibitors' characteristics, the importance of trade shows to their overall marketing programs, and how many shows they attend each year were reviewed by Faria and Dickinson (1986). Attendees were primarily manufacturers of industrial products (70 percent) with industrial users (49 percent) or intermediaries (25 percent) as their principle customers. Smaller and larger companies were more avid users than medium size companies (\$25 to 99 million). Larger companies (over \$100 million) were most likely to rate trade shows as very important. Those companies with several products (2 to 9) but not over 25 were those most likely to exhibit.

More than 90 percent of the responding companies in the above study indicated that trade shows were very important or relatively important elements in their marketing programs. More than 50 percent attend five or more trade shows a year with nearly a tenth attending twenty-five or more shows yearly. The larger the company, the more trade shows attended. The greater the number of company products the more the company exhibits at trade shows. There is a direct relationship between market share and trade show participation: firms with greater than 20 percent market share average nearly twice as many shows per year (10) than those with less than 5 percent market share (5-6).

The results suggest that the larger the company (larger revenues, number of employees, and number of branches), the greater the tendency to exhibit ($t=4.4$, $p<.001$); and the greater the international involvement, the greater the tendency to exhibit ($t=6.4$, $p<.001$). No relationship was noted in the number of products a company markets and its exhibiting; companies that utilize more channels of distribution tend to exhibit (3 versus 2, $t= 2.5$, $p<.015$); the more customers, the greater the tendency to exhibit ($t=5.6$, $p<.001$); the more technically complex a product, the greater the tendency to exhibit ($t=4.5$, $p<.01$); the greater the degree of customization required for a company's product, the greater the tendency to exhibit ($t=2.4$, $p<.02$); and the greater the price of the average product, the greater the tendency to exhibit ($t=2.2$, $p<.02$). No relationship was found between frequency of purchase and exhibiting. Generally, findings of this study were consistent with the Faria and Dickinson study.

As Table 2 indicates, the marketing mix (the allocation of marketing expenditures to the various marketing functions) today versus that of five years ago, on-site selling and trade media advertising have increased their share while the share expended on mass media advertising and telemarketing have fallen. Trade shows appeared to have held their own over the last five years.

As the results of this study indicate the average mix of personnel exhibiting at an average show was 16 percent technical, 64 percent marketing and sales; and 19 percent executive, which is consistent with previous studies. How

Table 2
Marketing Mix Today versus Five Years Ago

	<i>Current % of Mktg. Mix*</i>	<i>More</i>	<i>Same</i>	<i>Less</i>
On site selling	32	49	39	12
Trade show	22	38	35	27
Telemarketing	3	24	60	16
Direct mail	8	36	52	12
Catalog	15	44	38	18
Trade media advertising	14	45	32	23
Mass media advertising	4	25	44	21

* Does not add up to 100% as these represent mean scores

effective are trade shows versus using other marketing tools? Table 3 compares effectiveness of trade shows with other elements of the marketing mix. On average, trade shows rated higher than all other marketing tactics except on-site selling. This confirms known usage factors as well as previous studies.

Table 3
Effectiveness of Trade Shows

<i>Trade Shows Compared to:</i>	<i>Percentage of Respondents</i>		
	<i>Greater</i>	<i>Same</i>	<i>Less</i>
On site selling	13	27	60
Telemarketing	53	13	34
Direct mail	50	30	20
Catalogs	53	24	23
Trade media	36	36	28
Mass media	43	37	20

Type of Shows

Proliferation of trade shows not only in terms of size and number but in terms of specialization and regionalization, seems to be occurring (Murphy 1990). This is primarily due to the ever increasing diversification of technology coupled with the medium's apparent cost effectiveness. Two factors are behind the trend away from national to regional trade shows: escalating travel costs and the discovery that most attendees to national or regional shows are basically regional in nature.

In addition, companies must decide whether to exhibit at vertical or horizontal trade events. Often the vertical shows are too narrowly focused on specific products which can have an effect on the quality/quantity ratio of the event's attendees. Buyers generally have broad purchasing authority and often shy away from attending very specialized shows. Horizontal events occasionally suffer from a hypermarket environment and can take on a carnival atmosphere. Their sheer size precludes buyers from having sufficient time to visit and shop all the alternatives for their company's needs. Tradeoffs exist for each type and the challenge is to determine which shows will be most beneficial to their corporate objectives. This study indicates the typical trade show audience of our respondents is extremely industry specific.

Table 4 shows the number of shows, percentage of expenditures spent, and preferences for international, national, regional, and state/local trade shows. The majority of the trade shows are regional or local although the majority of the expenditures go toward international or national shows. This would seem to imply that many smaller shows are attended but with very little effort expended. The few national or international trade shows receive 75 to 80 percent of the trade show expenditures, thus the fancy booths and vast manpower. The respondents also felt more effort needs to be made to exhibit at international trade shows.

Table 4
Trade Show Participation

	<i># Exhibited*</i>	<i>% \$ Spent *</i>	<i>Too Many</i>	<i>Ok</i>	<i>Not Enough</i>
International	1.5	33%	3	45	52
National	8	46%	14	61	25
Regional	8.5	13%	14	43	43
State or Local	8.5	10%	13	53	34

*Mean Values, May not add up to 100%

Objectives

The need to set objectives is important. Cavanaugh (1976) determined that objectives for a firm to attend a trade show could include: 1) fulfilling the company's mission; 2) going where the prime prospect or target audience can be reached; 3) obtaining an efficiency/effectiveness balance; 4) meeting budget and cost ratio per sales lead obtained; and 5) being where the competition is. In a Trade Show Bureau survey (1988b), objectives given for a firm to attend a trade show included; 1) new product introduction and evaluation (60%), 2) leads/new contacts (83%), 3) sales goals/orders, 4) sales training, 5) new reps or intermediaries, and 6) image building. Although sixty percent of companies have defined exhibit guidelines, only 36% say they set formal objectives (Donath 1980). Another estimate is only 56% of exhibiting firms set objectives and only 22 percent have pre-show promotions (Mee 1988).

Table 5 lists trade show objectives. As only 162 exhibiting firms responded, clearly many displayed multiple objectives. Finding prime prospects, meeting target audience, and seeking new leads/contacts (all sales directed) dominated. The second tier of important objectives included competitive information, new product introduction, and image building. These numbers confirm Cavanaugh's findings, although the number setting objectives appear to far exceed the 36 percent found by Donath and even the 56 percent of Mee.

Table 5
Trade Show Objectives

	<i>Times Checked</i>	<i>Rated #1</i>	<i>Rated#2</i>	<i>#Top3</i>
Fulfilling company's mission	57	9	3	20
Finding prime prospects	123	27	41	97
Meeting target audience	124	14	33	73
Obtaining competitive information	104	1	38	55
New product introduction/evaluation	108	12	26	62
Garnering leads/new contacts	137	60	36	110
Receiving sales orders	39	8	6	16
Sales training	24	1	20	
Recruiting new reps/intermediaries	27	1	2	6
Image building	118	18	2	50

Effectiveness measures

Faria and Dickinson (1985) rated thirty-four trade show selection criteria on a nine-point scale. The results indicated the firms that exhibited were concerned primarily with audience quality, audience quantity, display location, and logistical aspects in that order. Five of the fifteen attributes relate to the quality of the trade show audience: proportion of decision-makers in the audience, proportion of visitors in the company's target market, limitations imposed on type of exhibitors, new contacts made, and the screening of show visitors. Audience quality factors included total visitors to the booth the past year, total show attendance in previous years, and extent of promotion by show organizers. Also important in show selection were: booth position/location on floor, ability to specify/negotiate booth size and location, aisle traffic density, easy registration/preregistration, security, easily available moving in/moving out assistance, and move in/move out facilities. Among the least important factors are show amenities such as exhibitors' lounge, eating facilities, visitor parking, show scheduling, and timing factors.

The five dominant effectiveness measures included: leads generated (with 52 firsts), number of sales resulting (28 firsts), product interest (21 firsts), how many visitors came to booth, and buying plans. All these are sales related effectiveness measures. These measures tend to confirm the studies noted above. Note, though, that cost related effectiveness measures were virtually ignored with cost per lead, cost per visitor, and meeting budget combined being checked by less than one-quarter of exhibiting respondents (and only one rated any of these three as being first). Non-sales measures also fared poorly as rated by the respondents.

Table 6
Reasons a Firm Exhibits

	<i># Times Checked</i>	<i>Rated # 1</i>
Identifying prospects	125	69
Servicing current customers	94	10
Introducing new or modified products	133	18
Enhancing corporate image, goodwill	117	4
Testing new products/services	45	0
Improving/maintaining corporate morale	29	0
Gathering competitor information	106	0
Selling at show itself	68	9
Gaining access to key decision makers	99	14
Disseminating facts about products, services	101	3
Identify suppliers	55	0
Because competition is there	112	0
Industry update	48	0
Free company publicity is gained	67	0
Physical display of non-portable products	35	0
Determine potential customer requirements	44	0
Determine new applications for existing products	56	0
Recruit new sales personnel	61	1
Maintain seniority in selecting space	78	0
Support sponsoring association	38	1

Table 7
Pre-Show Promotions Used

	No. Checked	No. Rated 1	No. Rated 2	Total Top Three
Personally delivered invitations	75	10	21	49
Drop-line in regular ads	75	11	12	43
Stuffer or sticker in mail	74	16	13	40
Personal invitations by mail	129	46	33	100
Special ads at show	52	5	10	29
Dramatic mail to key prospects	38	7	8	24
Promise of special gift to those who stop by	23	3	1	13
Radio or TV message in convention city	7		1	1
Outdoor advertising in convention city	8	0	0	0
Local newspaper in convention city	1		1	1
Ads in special show editions of industry journals	85	28	14	57
VIP (free) show tickets	89	19	26	59

Functions of trade shows: Why do they exhibit?

The functions of a trade show go well beyond the selling role into non-selling functions. Both selling and non-selling (Kerin and Cron 1987) were shown to have distinct factor loadings. Table 6 shows the functions surveyed, a superset of the Kerin and Cron functions. The two major reasons given were to identify prospects (69 firsts) and new product introduction (with 18 firsts). The selling/non-selling dichotomy of Kerin and Cron were confirmed with this survey. Interestingly, although the objectives and effectiveness measures were predominantly selling based, two non-selling criteria received high marks as reasons for exhibiting: image and competition (both competitive information and following competition).

Pre-, During-, and Post-Show Activities

In another Trade Show Bureau survey (Donath 1988), 83 percent of all companies did pre-show promotion; the most favorite tactic being personal invitation to key accounts (60%) followed by a drop-line in regular ads (32%) and stuffer or direct mail (26%). By complementing show exhibition by advertising, promotion and publicity, a company can encourage those attending to stop and talk at its booth. This is especially true at larger shows; the critical size is usually a show with 200 exhibitors or more, when the exhibiting company is making an intensive effort to attract its share of visitors (Greif 1979).

Table 7 identifies the pre-show promotions reported by the respondents. Invitations dominated the pre-show activities but personally addressed mailed invitations (46 firsts) were the vehicle of choice over personally delivered invitations. Ads in special show issues (28 firsts) and free tickets were also used by half the exhibitor respondents. Mass media (radio, television, outdoor advertising)

was almost nonexistent as was specialty advertising. It does appear that complementary activities were being performed by exhibitors but with direct mail and special ads as the preferred means.

Table 8 lists show activities reported by the respondents. The range of alternatives were limited as were the responses. Dinner with special customers (76 firsts), hospitality suite (16 firsts), and co-located conference or seminar (15 firsts) were the overwhelming choices. This narrow view could indicate that opportunities exist for firms to attempt more creative, more visible, and more stimulating show activities that would set the firm apart from its rivals and leave a long-term trace in the buyer's mind rather than attempting to the same thing as one's rivals.

Table 8
Show Activities a Firm Uses

	Total # Times Checked	#1 Rated	Top Three
Cocktail party	53	6	41
Dinner with special customers	126	76	113
Hospitality suite	58	16	48
Golf outings (or other sporting events)	21	1	8
Suite for private viewing of new products	29	5	21
Conference or seminar program co-located	49	15	38

Table 9 shows the post-sales activities reported by the respondents. Direct mail/literature mailing and direct sales contact dominated. It is worth commenting that telemarketing/inside sales contact were minimal. This could indicate that either the technique is not well known or it has not proven to be efficient. The authors are inclined to believe in the former proposition: it has not been as widely tried as it could or should be.

The study indicates few companies regularly engage regularly in international trade shows, although most see the need for either extending their efforts or pursuing efforts overseas. Trade shows can be invaluable in establishing trade relations in new countries. This is supported by evidence that some international companies generate as much as 70 percent of their annual sales at

Table 9
Post-Show Activities

	# Times Checked	# Rated 1
Follow-up direct mail	115	57
Literature mailed if requested	141	59
Sales person directly follow-up	137	35
Inside salesperson follow-up	79	23

international trade fairs. For minimal costs, the trade show can provide the foundation to many fruitful business relationships abroad. It is estimated that an American business person can get his/her "foot-in-the-door" with a modest \$2,500 investment for travel, a week's accommodations, entrance fees and incidentals. These costs seem trivial, in light of the valuable cultural, economic, and business/regulatory insights to be gained. ■

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About the Authors

Paul Herbig is a visiting professor at Texas A&M International University of Laredo, Texas. His research interests include reputation and market signalling, industrial trade shows, futuristics, cross-cultural influences on innovation, and Japanese marketing practices.

Brad O'Hara is Assistant Professor of Marketing at Southeastern Louisiana University. His research interests include sales management, trade shows, and purchasing/procurement.

Fred Palumbo is Assistant Professor of Marketing at Yeshiva University, New York City, New York. He has been a consultant and trade media specialist. His research interests include trade shows, international marketing, and international trade issues.